

DEPARTMENT OF THE INTERIOR

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BULLETIN

OF THE

UNITED STATES

GEOLOGICAL SURVEY

No. 102

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A CATALOGUE AND BIBLIOGRAPHY OF NORTH AMERICAN  
MESOZOIC INVERTEBRATA

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WASHINGTON  
GOVERNMENT PRINTING OFFICE  
1893



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Series title.	<p><b>United States.</b> <i>Department of the interior. (U. S. geological survey).</i>  Department of the interior   —   Bulletin   of the   United  States   geological survey   no. 102   [Seal of the department]    Washington   government printing office   1893</p> <p><i>Second title:</i> United States geological survey   J. W. Powell,  director   —   A   catalogue and bibliography   of   North Amer-  ican Mesozoic invertebrata   by   Cornelius Breckinridge Boyle    [Vignette]    Washington   government printing office   1893  8°. 315 pp.</p>
Author title.	<p><b>Boyle (Cornelius Breckinridge).</b>  United States geological survey   J. W. Powell, director   —    A   catalogue and bibliography   of   North American Mesozoic  invertebrata   by   Cornelius Breckinridge Boyle   [Vignette]    Washington   government printing office   1893  8°. 315 pp.  [UNITED STATES. <i>Department of the interior. (U. S. geological survey).</i>  Bulletin 102].</p>
Title for subject entry.	<p>United States geological survey   J. W. Powell, director   —    A   catalogue and bibliography   of   North American Mesozoic  invertebrata   by   Cornelius Breckinridge Boyle   [Vignette]    Washington   government printing office   1893  8°. 315 pp.  [UNITED STATES. <i>Department of the interior. (U. S. geological survey).</i>  Bulletin 102].</p>





## ADVERTISEMENT.

[Bulletin No. 102.]

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## VI

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WASHINGTON, D. C.

WASHINGTON, D. C., *January, 1894.*

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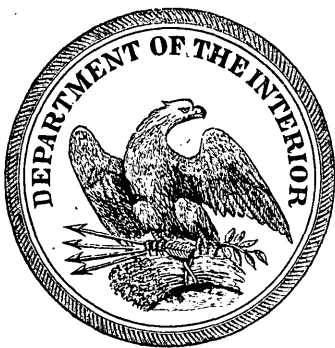
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WASHINGTON  
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UNITED STATES GEOLOGICAL SURVEY

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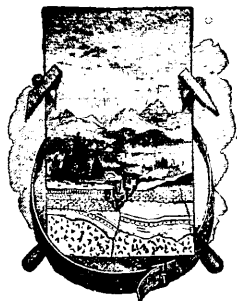
CATALOGUE AND BIBLIOGRAPHY

OF

NORTH AMERICAN MESOZOIC INVERTEBRATA

BY

CORNELIUS BRECKINRIDGE BOYLE



WASHINGTON

GOVERNMENT PRINTING OFFICE

1893



## LETTERS OF TRANSMITTAL.

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DEPARTMENT OF THE INTERIOR,  
UNITED STATES GEOLOGICAL SURVEY,  
WASHINGTON, D. C., *June 15, 1892.*

SIR: I have the honor to transmit herewith the manuscript of a Catalogue and Bibliography of North American Mesozoic Invertebrates, which has been prepared by Dr. C. B. Boyle, of this division, in accordance with the plan approved by you at the time it was undertaken.

Very respectfully,

C. A. WHITE,  
*Geologist in Charge.*

Hon. J. W. POWELL,  
*Director U. S. Geological Survey.*

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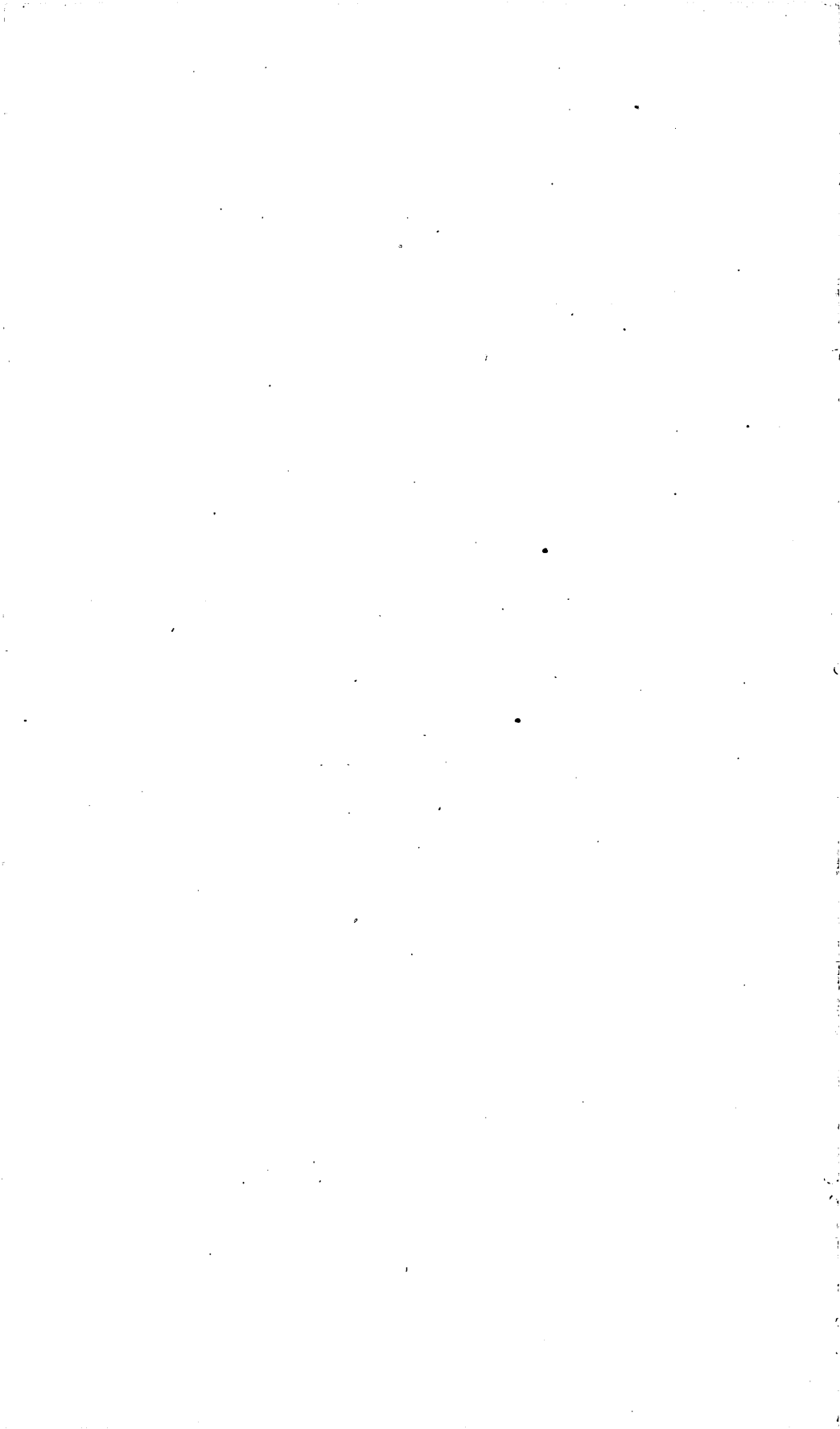
U. S. GEOLOGICAL SURVEY,  
DIVISION OF MESOZOIC INVERTEBRATE PALEONTOLOGY,  
WASHINGTON, D. C., *June 15, 1892.*

SIR: I herewith transmit to you the MS. of a bibliography and catalogue of the known North American Mesozoic invertebrates, upon the preparation of which I have been engaged, together with other pressing work, for the past several years. I have encountered the usual difficulties that attend a work of this kind, and am quite prepared for the discovery of errors by those who are familiar with the subject and who shall examine this work. Mr. T. W. Stanton, of the Survey, has been of the greatest assistance to me, especially as regards foreign publications, and to you, sir, I am largely indebted for whatever of value the work may possess.

Very respectfully,

C. B. BOYLE.

Dr. C. A. WHITE,  
*Chief of Division.*



## PREFACE.

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This work is divided into two parts, Part I being devoted to bibliography and Part II to a catalogue of species and genera.

Part I is intended to embrace a notice of every work, wherever published, that contains the systematic publication of any invertebrate species which has by any author been referred to the Mesozoic. All works containing only lists or mere mention of species by name are omitted, but those containing names accompanied by figures, even if without descriptions, are included.

In the case of serial publications both the title page date and the date of actual issue are given if the latter is known. In other cases the title page date is given as the true date of issue, even though within the compiler's personal knowledge it is wrong.

Some difficulty has arisen from the fact that in some of the earlier publications of species authors have referred certain formations to the Tertiary that are now assigned to the Cretaceous; and it is possible that some of these publications have been omitted from the list, but the republication of the same species as Cretaceous will appear in the proper place.

Part II consists of a catalogue of all the names that have been applied to the genera and species of invertebrates obtained from North American rocks and referred by any author to the Mesozoic. The arrangement is alphabetical and chronological. The entries contain the generic and specific names as they have been used by authors, no attempt having been made to correct erroneous spelling.

The specific name is repeated in each entry which is required by every separate publication of the species, but a separate entry for the generic and subgeneric name is not repeated. Names of groups higher than genera are omitted.

The localities mentioned are in all cases those given by the respective authors. Because of subsequent changes in state and territorial boundaries the reader may find difficulty in recognizing them. In such cases he is referred to Bulletin 13 of the U. S. Geological Survey, in which the successive changes of those boundaries are recorded.

In referring species to their respective formations the subdivisions mentioned by certain authors are not given. This omission is thought to be necessary because of the great number of local names that have been applied at different times, many of which have become obsolete. This is especially the case with the Cretaceous formations. In some cases the reference of species by authors to the Cretaceous is changed to Tertiary and in others from Tertiary to Cretaceous. In doing this the author has followed to a great extent the correlation of Dr. C. A. White, as published in Bulletin U. S. Geological Survey, No. 82, Washington, 1891. As in that work, the Laramie is provisionally included in the Cretaceous, together with certain other formations that are regarded as transitional.

# PART I.

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- Descriptions of new Cretaceous invertebrate fossils from Kansas and Texas.

Smithson. Misc. Coll., vol. 19, part 2. Proc. U. S. Nat. Mus. for 1879, vol. 2, pp. 292-298, pls. 2-6. Wash., 1880.

- Descriptions of new Cretaceous invertebrate fossils from Kansas and Texas.

Proc. U. S. Nat. Mus., vol. 2, for 1879, pp. 292-298, pls. 2-6. Wash., 1880.

- Description of a new Cretaceous Pinna from New Mexico.

Proc. U. S. Nat. Mus., vol. 3, for 1880, pp. 47, 48. Wash., 1881.

- Description of a new Cretaceous Pinna from New Mexico.

Smithson. Misc. Coll., vol. 22, pp. 47-48. Wash., 1882. (Proc. U. S. Nat. Mus., vol. 3, for 1880. Wash., 1881.)

**White, C. A.—Continued.**

- Description of a very large fossil gasteropod from the state of Pueblo, Mexico.

Smithson. Misc. Coll., vol. 22, pp. 140-142, pls. 2. Wash., 1882. (Proc. U. S. Nat. Mus., vol. 3, for 1880. Wash., 1881.)

- Descriptions of new invertebrate fossils from the Mesozoic and Cenozoic rocks of Arkansas, Wyoming, Colorado, and Utah.

Proc. U. S. Nat. Mus., vol. 3, for 1880, pp. 157-165. Wash., 1881.

- Descriptions of new invertebrate fossils from the Mesozoic and Cenozoic rocks of Arkansas, Wyoming, Colorado, and Utah.

Smithson. Misc. Coll., vol. 22, pp. 157-162. Wash., 1882. = Proc. U. S. Nat. Mus., vol. 3, for 1880. Wash., 1881.

- Contributions to Invertebrate Paleontology No. 4. Fossils of the Laramie group.

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., Hayden, for 1878, part 1, pp. 49-103, pls. 20-30. Wash., 1883.

- Contributions to Invertebrate Paleontology No. 7. Jurassic fossils from the western territories.

Twelfth Ann. Rep. U. S. Geol. Sur. Terr., Hayden, for 1878, part 1, pp. 143-153, pls. 37 and 38. Wash., 1883.

- On certain Cretaceous fossils from Arkansas and Colorado.

Proc. U. S. Nat. Mus., vol. 4, for 1881, pp. 136-139, 1 plate. Wash., 1882.

- On certain Cretaceous fossils from Arkansas and Colorado.

Smithson. Misc. Coll., vol. 22, pp. 136-139, pl. 1. Wash., 1882. = Proc. U. S. Nat. Mus., vol. 4, for 1881. Wash., 1882.

- New molluscan forms from the Laramie and Green river groups, with discussion of some associated forms heretofore known.

Proc. U. S. Nat. Mus., vol. 5, for 1882, pp. 94-99, pls. 3 and 4. Wash., 1883.

- Contributions to Invertebrate Paleontology No. 2. Cretaceous fossils of the western states and territories.

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., Hayden, for 1878, part 1, pp. 5-39, pls. 11-18. Wash., 1883. (Pl. 18, illustrations of some of the species described by Dr. B. F. Shumard in Trans. St. Louis Acad. Sci., vol. 1, pp. 590-610.)

- Contributions to Invertebrate Paleontology No. 5. Triassic fossils of southeastern Idaho.

**White, C. A.—Continued.**

Twelfth Ann. Rep. U. S. Geol. Sur. Terr., Hayden, for 1878, part 1, pp. 105-118, pls. 31 and 32. Wash., 1883.

- A review of the non-marine fossil mollusca of North America.

Third Ann. Rep. U. S. Geol. Sur., pp. 403-550, pls. 1-32. Wash., 1883.

- Descripcion de un gran fosil gasteropodo del Estado de Pueblo, Mexico.

La Naturaleza, tomo 6, pp. 219-221. Mexico, 1884.

- A review of the fossil ostreida of North America, and a comparison of the fossil with the living forms. With appendices by Prof. Angelo Heilprin and Mr. John A. Ryder.

Fourth Ann. Rep. U. S. Geol. Sur., pp. 273-430, pls. 34-82. Wash., 1884.

- On Mesozoic fossils.

Bull. U. S. Geol. Sur. No. 4, pp. 1-36 (89-124), pls. 1-9. Wash., 1884.

Part 1. Description of certain aberrant forms of the Chamidæ from the Cretaceous rocks of Texas.

Part 2. On a small collection of Mesozoic fossils collected in Alaska by Mr. W. H. Dall, of the United States Coast Survey.

Part 3. On the Nautiloid genus *Enclimaceras* Hyatt, and a description of the type species.

- On new Cretaceous fossils from California.

Bull. U. S. Geol. Sur., vol. 3, No. 22, pp. 1-25 (348-373) pls. 1-5. Wash., 1885.

- Remarks upon certain California fossils which have been identified with eastern species.

Bull. U. S. Geol. Sur. No. 15, pp. 27-31. Wash., 1885.

- On the fresh water invertebrates of the North American Jurassic.

Bull. U. S. Geol. Sur., vol. 4, No. 29, pp. 1-41 (689-725) [9] pls. 1-4. Wash., 1885.

- On new generic forms of Cretaceous mollusca and their relation to other forms.

Proc. Acad. Nat. Sci., Phila., vol. [39], pp. 32-37, pls. 2. Phila., 1887.

- On invertebrate fossils from the Pacific coast.

Bull. U. S. Geol. Sur. No. 51, pp. 1-102 (432-532), pls. 1-14. Wash., 1889.

Part 1. New fossil mollusca from the Chico-Tejon series of California, pp. 11-27.

Part 2. Equivalents of the Chico-Tejon series in Oregon and Washington, pp. 28-32.

Part 3. Cretaceous fossils from Vancouver island region, pp. 35-48.

Part 4. Molluscan fauna of the Puget group, pp. 49-63.

Part 5. Mesozoic mollusca from the southern coast of the Alaskan peninsula, pp. 64-70.

**White, C. A.—Continued.**

- Remarks on the genus *Aucella*, with especial reference to its occurrence in California.

Mon. U. S. Geol. Sur. No. 13, appendix to chap. 5, pp. 226-232, pls. 3 and 4. Wash., 1889.

- Whiteaves, J. F.** Notes on the Cretaceous fossils collected by Mr. James Richardson at Vancouver and the adjacent islands.

Geol. Sur. Canada Rep. Prog. for 1873-74, pp. 260-268, pl. 1. Montreal, 1874.

- On some invertebrates from the coal-bearing rocks of the Queen Charlotte island, collected by Mr. James Richardson, in 1872.

Geol. Sur. Canada, Mesozoic fossils, vol. 1, pt. 1, pp. 1-92, pls. 1-10. Montreal, 1876.

- Notes on some of the fossils collected during the expedition.

Geol. Sur. Canada, Rep. Prog. for 1875-76, appendix 2, pp. 96-106. Montreal, 1877.

- On some Jurassic fossils from the coast ranges of British Columbia.

Canadian Nat. and Geol., vol. 16 (8, 2d ser.) No. 7, pp. 400-410. Montreal, 1878.

- Notes on some Jurassic fossils collected by Mr. G. M. Dawson in the coast ranges of British Columbia.

Geol. Surv. Canada, Rep. Prog. 1876-77, pp. 150-159. Montreal, 1878.

- On the fossils of the Cretaceous rocks of Vancouver and adjacent islands in the Strait of Georgia.

Geol. Sur. Canada. Mesozoic fossils, vol. 1, pt. 2, pp. 93-190, pls. 11-20. Montreal, 1879.

- On the lower Cretaceous rocks of British Columbia.

Proc. and Trans. Roy. Soc., Canada, vol. 1, for 1882 and 1883, section 4, pp. 81-86 (3 wood cuts). Montreal, 1883.

- On the fossils of the coal-bearing deposits of the Queen Charlotte islands, collected by Dr. G. M. Dawson in 1878.

Geol. and Nat. Hist. Sur. of Canada. Mesozoic fossils, vol. 1, pt. 3, pp. 191-262, pls. 21-32. Montreal, 1884.

- Description of a new species of *Ammonite* from the Cretaceous rocks of Fort St. John, on Peace river.

Proc. and Trans. Roy. Soc., Canada, vol. 2, section 4, pp. 239, 240. Montreal, 1885.

**Whiteaves, J. F.—Continued.**

- Note on a *Scapod* crustacean from the upper Cretaceous of Highwood river, Alberta.

Proc. and Trans. Roy. Soc., Canada, vol. 2, section 4, pp. 237-238. Montreal, 1885.

- Report on the invertebrata of the Laramie and Cretaceous rocks of the vicinity of the Bow and Belly rivers and adjacent localities in the northwest territory.

Geol. and Nat. Hist. Sur., Canada. Contributions to Canadian paleontology, vol. 1, pt. 1, pp. 1-89, pls. 1-11. Montreal, 1885.

- Notes on some Mesozoic fossils from various localities on the coast of British Columbia, for the most part collected by Dr. G. M. Dawson in the summer of 1885.

Geol. and Nat. Hist. Sur., of Canada, vol. 11, (new series). Ann. Report for 1886, pp. 108-114 B. App. I to Dr. G. M. Dawson's report on a geological examination of the northern part of Vancouver island and adjacent coasts.

- The fossils of the Triassic rocks of British Columbia.

- On some Cretaceous fossils from British Columbia, the northwest territory, and Manitoba.

Cont. to Canadian Paleont., Nos. 3, 4. Vol. 1, pt. 2, pp. 91-196, pls. 12-26. Montreal, 1889.

- Whitfield, R. P.** Descriptions of new fossils.

Rep. Rec. Black hills of Dakota, Ludlow, pp. 103-104, pl. 1. Washington, 1876.

- Descriptions of new species of fossils.

Rep. Rec. Carroll, Montana Terr., on the upper Missouri, to the Yellowstone National Park, and return, made in the summer of 1876, by William Ludlow, pp. 141-145, pls. 1-2. Wash., 1876.

- Preliminary report on the paleontology of the Black hills.

U. S. Geogr. and Geol. Sur. Rocky Mt. region. J. W. Powell, pp. 49. Wash., 1877.

- Paleontology of the Black hills of Dakota.

Report on the geology and resources of the Black hills of Dakota.

U. S. Geogr. and Geol. Survey Rocky Mt. region. J. W. Powell, pp. 325-468, pls. 1-16. Wash., 1880.

- Brachiopoda and lamellibranchiata of the Raritan clays and greensand marls of New Jersey.

Mon. U. S. Geol. Sur., vol. 9, pp. 1-20, and 1-264, pls. 1-35. Wash., 1885.



# PART II.

## LIST OF FOSSILS.

### Acar (sub. gen. Gray) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 78. Wash., 1876. F. B. Meek.

### Acella (sub. gen. Hald.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 533. Wash., 1876. F. B. Meek.

### — (Haldeman) White. (1878.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, p. 714. Wash., 1878. C. A. White.

### — haldemani n. s. White. (1878.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, p. 714. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Valley of Bear river, near its confluence with Sulphur creek, Wyoming.

### — haldemani White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 243. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near Mollis station, Wyoming.

### — haldemani White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 84, pl. 30, figs. 9a, b. Wash., 1883. C. A. White.

Formation: Cretaceous.

### — sp. undet. Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can.; Cont. Can. Paleont., vol. 1, pt. 1, p. 13. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: North or second branch of the Milk river, Canada.

### Acerviclausa n. g. G. & H. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d. ser., 1858-1860, p. 403. Phila., 1858-1860. Gabb & Horn.

### — vermicularis n. s. G. & H. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d. ser., 1858-1860, p. 403, pl. 69, figs. 42-44. Phila., 1858-1860. Gabb & Horn.

Formation: Cretaceous.

Location: Near Mullica hill, New Jersey.

### Acila (sub. gen. H. & A. Ad.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 98. Wash., 1876. F. B. Meek.

### Acmæa (Esch.) Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2. Phila., 1869. W. M. Gabb.

### Acmæa—Continued.

#### — occidentalis (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 295-296, pl. 18, figs. 3a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Cheyenne river, near the Black hills.

#### — ? papillata (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 296-297, pl. 31, figs. 4a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Fox hills, Dakota.

#### — ? parva (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 296, pl. 18, figs. 1a-c, and fig. 2. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: On either the Yellowstone or the Cheyenne river.

#### — ? tejonensis n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, pp. 172-173, pl. 28, fig. 56. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Tejon, Cal.

#### — sp. undet. Whiteaves. (1879.)

Geol. Sur. Can.; Mes. Foss. vol. 1, pt. 2, pp. 130-131, pl. 16, figs. 6, 6a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, two miles and a quarter up, Vancouver island.

### Acrochordiceras n. g. Hyatt. (1877.)

Rep. Geol. Expl. 40th Parallel, vol. 4, pt. 1, p. 124. Wash., 1877. Alpheus Hyatt.

#### — (?) carlottense n. s. Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can.; Cont. Can. Paleont., vol. 1, pt. 2, pp. 141-142, pl. 19, fig. 1. Montreal, 1889. J. F. Whiteaves.

Formation: Triassic.

Location: Houston Stewart channel, Q. C. I.

#### — hyatti n. s. Meek. (1877.)

Rep. Geol. Expl. 40th Parallel, vol. 4, pt. 1, pp. 124-126, pl. 11, figs. 5, 5a. Wash., 1877. F. B. Meek.

Formation: Triassic.

Location: New Pass, Desatoya mountains, Nevada.

### Acroloxus (Beck) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 543. Wash., 1876. F. B. Meek.

**Acroloxus—Continued.**

- **minutus** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 543-544,  
pl. 40, fig. 10. Wash., 1876. F. B. Meek.  
Formation: Probably lower Eocene (Cretaceous).  
Location: Three miles below Fort Union.

- **minutus** (M. & H.) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 83. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near Fort Union, in the upper Mis-  
souri river region.

- **minutus** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 45, pl. 24,  
fig. 27. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near Fort Union.

- **minutus** (M. & H.) Whiteaves.  
(1885.)  
Geol. and Nat. Hist. Sur. Can.; Cont. Can.  
Paleont., vol. 1, pt. 1, p. 17. Montreal, 1885.  
J. F. Whiteaves.  
Formation: Cretaceous.  
Location: North or Second branch of the Milk  
river; Gooseberry canyon, St. Mary river, and  
Old Man river, two miles above Rye Grass flat;  
Pincher creek, Canada.

- **radiatus** n. s. Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can.; Cont. Can. Pa-  
leont., vol. 1, pt. 1, p. 17, pl. 3, figs. 1, 1a. Mon-  
treal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Mouth of Blind Man river, township  
39, range 27, west of 4th principal meridian,  
Canada.

- Acrosmilina** (sub. gen. d'Orb.) Gabb.  
(1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 207. Phila.,  
1864. W. M. Gabb.

- Actæon** (Mont.) Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser.,  
1858-1860, p. 207. Phila., 1858-1860. T. A.  
Conrad.

- **attenuatus** (M. & H.) Meek.  
(1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 281-282,  
pl. 19, figs. 17, a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Yellowstone river, 150 miles from its  
mouth.

- **attenuatus** (M. & H.) Whiteaves.  
(1885.)  
Geol. and Nat. Hist. Sur., Can.; Cont. Can. Pa-  
leont., vol. 1, pt. 1, p. 46. Montreal, 1885. J. F.  
Whiteaves.  
Formation: Cretaceous.  
Location: Old Wives creek, township 10, range  
11 west of 3d principal meridian, Canada.

- **concinus** n. s. H. & M. (1854.)  
Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 390,  
pl. 3, figs. 4a-d. Cambridge and Boston, 1855.  
Hall & Meek.  
Formation: Cretaceous.  
Location: Sage creek; Great Bend of the Missouri.

**Actæon—Continued.**

- **cretacea** n. s. Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, pp. 318-319.  
Phila., 1862. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Crosswicks, New Jersey.

- **impressus** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 142-143, pl.  
21, fig. 106. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: North fork of Cottonwood creek, Cal.

- **inornatus** n. s. White. (1889.)  
Bull. U. S. Geol. Sur. No. 51, pp. 15-16, pl. 4,  
figs. 16-18. Wash., 1889. C. A. White.  
Formation: Cretaceous.  
Location: Near Pence's ranch, Butte county, Cal.

- **intercalaris** n. s. Meek. (1876.)  
Rep. Expl. Exped. Santa Fé, New Mexico, to  
junction of Grand and Green rivers, Macomb,  
p. 129, pl. 2, figs. 4a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Rio de la Plata.

- **modicellus** n. s. Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser.,  
1858-1860, p. 287. Phila., 1858-1860. T. A.  
Conrad.  
Formation: Cretaceous.  
Location: Tippah county, Miss.

- **ovoidea** n. s. Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila. for 1861, p. 319.  
Phila., 1862. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Crosswicks, New Jersey.

- **subellipticus** n. s. M. & H. (1876.)  
Proc. Acad. Nat. Sci., Phila. for 1856, pp. 63-64.  
Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Crow creek, near Black Hills, Nebraska.

- **subellipticus** (M. & H.) Meek.  
(1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 280-281,  
pl. 19, fig. 16. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Crow creek, near the Black hills,  
Dakota.

- **woosteri** n. s. White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 184. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of Saint Vrain creek, Colorado.

- **woosteri** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 225. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Near White river Indian Agency,  
Colorado.

- **woosteri** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 304, pl. 7, figs. 9a, c. Wash., 1879.  
C. A. White.  
Formation: Cretaceous.  
Location: Near the confluence of the Saint Vrain  
and South Platte rivers, northern Colorado.  
Also, from Rio San Juan, southwestern Colorado.

# Actæon—Continued.

- *sp. undet. Whiteaves.* (1876.)  
Geol. Sur. Can.; Mes. Foss. vol. 1, pt. 1, p. 53.  
Montreal, 1876. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Queen Charlotte island.

- Actæonella** (d'Orb.) Gabb. (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, p. 173. Phila., 1869. W. M. Gabb.

- **dolium n. s. Roemer.** (1849.)  
Texas, p. 411. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Texas.

- **dolium Roemer.** (1852.)  
Die Kreide von Texas, p. 43, Taf. 4, fig. 4. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Texas.

- **oviformis n. s. Gabb.** (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, p. 173, pl. 28, fig. 58. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Cottonwood creek, Shasta county, Cal.

- Actæonina** (D'Orb.) Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d. ser., 1858-1860, p. 299. Phila., 1858-1860. Wm. M. Gabb.

- **biplicata (M. & H. sp.) Gabb.** (1860.)  
Proc. Acad. Nat. Sci., Phila. for 1860, p. 93, pl. 2, fig. 13. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Burlington county, New Jersey.  
(= Actæon biplicata M. & H.)

- **californica n. s. Gabb.** (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, p. 114, pl. 19, fig. 68. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Northeast of Martinez; two miles north of Benicia; eight miles north of Yreka, Cal.

- **naticoides n. s. Gabb.** (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 299, pl. 48, fig. 2. Phila., 1858-1860. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Burlington county, and Mullica Hill, New Jersey.

- **prosocheila n. s. White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 184. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of Saint Vrain creek, Colorado.

- **prosocheila White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 305, pl. 7, figs. 10a, b. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Confluence of the Saint Vrain and South Platte rivers, northern Colorado.

- **? pupoides n. s. Gabb.** 1864.  
Geol. Sur. Cal., Paleont., vol. 1, pp. 113-114, pl. 19, fig. 67. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: North fork of Cottonwood creek, Shasta county, Cal.

# Actæonina—Continued.

- **pupoides Gabb.** (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, p. 173, pl. 28, fig. 57. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Cottonwood creek, Cal.

- **(?) sp. undet. Whiteaves.** (1874.)  
Geol. Sur. Canada; Rep. Prog. for 1873-74, p. 262. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Nanaimo river, Vancouver island, two and one-half and two and one-fourth miles up.

- **sp. undet.** (1876.)  
Geol. Surv. Can.; Mes. Foss. vol. 1, pt. 1, p. 53. Montreal, 1876. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Queen Charlotte islands.

# Acteon (Solidula) attenuata n. s. M. & H. (1858.)

- Proc. Acad. Nat. Sci., Phila. for 1858, p. 54. Phila., 1859. Meek & Hayden.  
Formation: Cretaceous.  
Location: Yellowstone river

# Actinoceramus n. sub. gen. Meek. (1864.)

- Check list Invert. Foss. N. Am. Cret. and Jur. Smithsonian. Misc. Coll., vol. 7, No. 177, p. 32. Wash., 1864. F. B. Meek.

# Actinophorus n. sub. gen. Meek. (1864.)

- Am. Jour. Sci., 2d. ser., vol. 37, p. 218. New Haven, 1864. F. B. Meek.

# Admete (Möller) White. (1875.)

- Rep. Geogr. and Geol. Expl. and Sur. west of 100th meridian, vol. 4, pt. 1, p. 198. Wash., 1875. C. A. White.

- **? gregaria n. s. Meek.** (1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 501-502. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Coalville, Utah.

- **? rhomboides n. s. Meek.** (1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 501. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Coalville, Utah.

- **? subfusiformis n. s. Meek.** (1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 502. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Coalville, Utah.

# (Admetopsis) gregaria (Meek) White. (1875.)

- Rep. Geogr. and Geol. Expl. and Sur. west of 100th meridian, vol. 4, pt. 1, pp. 198-199, pl. 18, figs. 5a, b. Wash., 1875. C. A. White.  
Formation: Cretaceous.  
Location: North fork of Virgin river, Utah.

# Admetopsis (sub. gen. Meek) White. (1875.)

- Rep. Geogr. and Geol. Expl. and Sur. west of 100th meridian, vol. 4, pt. 1, p. 198. Wash., 1875. C. A. White.

**Admetopsis**—Continued.

- **gregaria** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 238. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

- **rhomboides** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 238. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

- **rhomboides** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 317-318, pl. 9, figs. 6a, b. Wash.,  
1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

- **subfusiformis** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 238. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

- **subfusiformis** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 319-318, pl. 9, fig. 7a. Wash., 1879.  
C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

- Ænona** n. g. Conrad. (1870.)  
Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p.  
74. Phila., 1871. T. A. Conrad.

- **eufalensis** Conrad. (1870.)  
Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p.  
74. Phila., 1871. T. A. Conrad.  
Formation: Cretaceous.

- **eufalensis** (Con.) Whitfield. (1884.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 168-169, pl. 23,  
figs. 2, 3. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

- **papyria** n. s. Conrad. (1870.)  
Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p.  
74. Phila., 1870. T. A. Conrad.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

- **papyria** (Con.) Whitfield. (1884.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 169-170, pl. 23,  
fig. 4. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

- Æora** n. g. Conrad. (1870.)  
Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p.  
72. Phila., 1871. T. A. Conrad.

- **cretacea** n. s. Conrad. (1870.)  
Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p.  
72, pl. 3, fig. 8. Phila., 1871. T. A. Conrad.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

- **cretacea** (Con.) Whitfield. (1884.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 167-168, pl. 23,  
figs. 16, 17. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

**Æora**—Continued.

- **n. g.** Conrad. (1870.)  
Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p. 72.  
Phila., 1872. T. A. Conrad.

- Afer** n. sub. gen. Conrad. (1858.)  
Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-  
1858, p. 332. Phila., 1855-1858. T. A. Conrad.

- Aguieria** n. g. White. (1887.)  
Proc. Acad. Nat. Sci., Phila., pt. 1, for 1887, pp.  
35-37. Phila., 1887. C. A. White.

- **cumminsi** n. s. White. (1887.)  
Proc. Acad. Nat. Sci., Phila., pt. 1, for 1887, p. 37,  
pl. 2, figs. 1-3. Phila., 1887. C. A. White.  
Formation: Cretaceous.  
Location: Four miles south of Lewisville, Texas.

- Akera** (Muller) Whitfield. (1877.)  
U. S. Geogr. and Geol. Sur. Rocky Mt. region.  
Prelim. Rep. Paleont., Black hills, p. 38. Wash.,  
1877. R. P. Whitfield.

- **glans-oryza** n. s. Whitfield. (1877.)  
U. S. Geogr. and Geol. Sur. Rocky Mt. region.  
Prelim. Rep. Paleont. Black hills, pp. 38, 39.  
Wash., 1877. R. P. Whitfield.  
Formation: Cretaceous.  
Location: On the Cheyenne river, near French  
creek, Black hills, Dakota.

- **glans-oryza** Whitfield. (1880.)  
Rep. Geol. Black hills of Dakota, pp. 437-438, pl.  
12, fig. 25. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: On the Cheyenne river, near French  
creek, Black hills, Dakota.

- Alaba** (sub. gen. H. & A. Ad.) Meek.  
(1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 335.  
Wash., 1876. F. B. Meek.

- Alasmodonta** (sub. gen. Say) Meek.  
(1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 113. Wash.,  
1876. F. B. Meek.

- Alcyonium** ? Morton. (1829.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser. 1827-  
1831, p. 125. Phila., 1827-1831. S. G. Morton.  
Form: Cretaceous.  
Location: Big Timber creek, Gloucester county,  
New Jersey.

- ? Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 81. Phila.,  
1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Alabama.

- Alecto** G. & H. (1862.)  
Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, p. 172. Phila., 1862, 1863. Gabb & Horn.

- **regularis** n. s. G. & H. (1862.)  
Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, p. 172, [pl. 21], fig. 63. Phila., 1862, 1863.  
Gabb & Horn.  
Formation: Cretaceous.  
Location: New Jersey.



**Alectryonia** (sub. gen. Fischer) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 11. Wash.  
1876. F. B. Meek.

**Alipes** (sub. gen. Conrad) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 320. Wash.,  
1876. F. B. Meek.

**Alveolites** (Lam.) Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 18, p. 246. New  
Haven, 1830. S. G. Morton.

**— cepularis** n. s. Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 80. Phila.,  
1834. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**— sp. undet.** Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 18, p. 245. New  
Haven, 1830. S. G. Morton.

Formation: Ferruginous sand (Cretaceous).

Location: United States.

**Amauropsis** (Mörch) Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 109. Phila.,  
1864. W. M. Gabb.

**— alveata** (Con.) Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 110, pl. 19, fig.  
59, plate 21, fig. 111. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: San Diego; Martinez; Clayton; Cañada  
de los Alizos, near Fort Tejon; Curry's, south  
of Mount Diablo, Cal.

**— oviformis** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, pp. 109-110, pl.  
19, fig. 63. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan Springs, Tehama county, Cal.

**— paludinæformis** (H. & M. sp.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 318-319,  
pl. 19, figs. 15a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Sage creek and Cheyenne river, Dakota.

**— paludinæformis** (H. & M. sp.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 296.  
Phila., 1876. Wm. M. Gabb.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**— paludinæformis** (H. & M. sp.) Whitfield. (1880.)

Rep. Geol. Black hills of Dakota, pp. 431-432,  
pl. 12, fig. 16. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Box-  
elder creek, Black hills.

**— suciensis** n. s. Whiteaves. (1879.)

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 2, pp. 123,  
124, pl. 16, fig. 1. Montreal, 1879. J. F. White-  
aves.

Formation: Cretaceous.

Location: Nansimo river, two and a half miles  
up, Vancouver island, Sucia islands.

**Amauropsis—Continued.****— tenuistriata** n. s. Whiteaves. (1876.)

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 1, pp. 48,  
49, pl. 9, figs. 4, 4a. Montreal, 1876. J. F.  
Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**— tenuistriata** Whiteaves. (1884.)

Geol. and Nat. His. Sur. Can.; Mes. Foss., vol. 1,  
pt. 3, p. 216, pl. 28, fig. 3. Montreal, 1884.  
J. F. Whiteaves.

Formation: Cretaceous.

Location: Shingle bay, on Moresby island; bay  
east of Alliford bay; South island; all in Skide-  
gate inlet.

**Ambonicardia** n. g. Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 24, 25. Wash.,  
1885. R. P. Whitfield.

**— cookii** n. s. Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 25, pl. 2, figs.  
11-14. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Clays at Sayre and Fisher's banks near  
Sayreville, N. J., and at clay banks of R. N. &  
H. Valentine, near Woodbridge, and at East  
Brunswick, New Jersey.

**Ammonceratites** [Lam. ?] Morton. (1841.)

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser., 1839-  
1842, p. 212. Phila., 1839-1842. S. G. Morton

**— conradi** n. s. Morton. (1841.)

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser., 1839-  
1842, pp. 212, 213, pl. 10, fig. 1. Phila., 1839-  
1842. S. G. Morton.

Formation: Cretaceous.

Location: Near Arnetown, New Jersey.

**— conradi** Morton. (1841.)

Proc. Acad. Nat. Sci., Phila., vol. 1, 1841-1843,  
p. 109. Phila., 1843. S. G. Morton.

Formation: Cretaceous.

Location: Marl pit near Arnetown, New Jersey.

**Ammonites abyssinus** n. s. Morton. (1841.)

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser.,  
1839-1842, p. 209, pl. 10, fig. 4. Phila., 1839-  
1842. S. G. Morton.

Formation: Cretaceous.

Location: Great Bend of the Missouri river  
(Lat. 43° 46' N.)

**— abyssinus** Morton. (1841.)

Proc. Acad. Nat. Sci., Phila., vol. 1, 1841-1843  
p. 107. Phila., 1843. S. G. Morton.

Formation: Cretaceous.

Location: Upper Missouri.

**— acuto-carinatus** n. s. Shumard. (1853.)

Expl. Red river, Louisiana, by R. B. Marcy, pp. 209,  
210, pl. 3, fig. 1. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Cross Timbers, Texas.

**Ammonites—Continued.****—astierianus (d'Orb.) Eichwald. (1871.)**

Geog. Paleont., Bemerk. Halb. Mang. Aleutischen Inseln., pp. 143-145, Taf. 8, fig. 3; Taf. 9, figs. 1, 2. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Chasik island, Tukusitmo bay, Alaska.

**—ausse[e]anus (Hauer) Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 25, pl. 3, figs. 16, 17. Phila., 1864. W. M. Gabb.

Formation: Triassic.

**—barnstoni n. s. Meek. (1859.)**

N. W. Terr.; Rep. Prog. Assin. and Saskat. Expl. Exped. H. Y. Hind, p. 184, pl. 1, figs. 1-3. Toronto, 1859. F. B. Meek.

Formation: Cretaceous.

Location: Valley of Mackenzie river, Canada.

**—batesii n. s. Trask (1855.)**

Proc. Cal. Acad. Nat. Sci., vol. 1, 1st ser., p. 40. San Francisco, 1854-1856. J. B. Trask.

Formation: Secondary [Cretaceous].

Location: Arbuckle's diggings, Shasta county, Cal.

**—batesii (Trask) Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 67-68, pl. 13, figs. 16, 16a, b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Arbuckle's diggings, Shasta county, Cal.; North fork of Cottonwood creek, Shasta county; Bald hills, Shasta county; Benicia, and at Curry's, south of Mount Diablo, Cal.

**—batesii (Trask). Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 132, pl. 20, figs. 9, a, pl. 21, figs. 10, a, b. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**—belknapii n. s. Marcou. (1858.)**

Geol. N. Am., p. 34, pl. 2, figs. 1, a, b. Zurich, 1858. Jules Marcou.

Formation: Cretaceous.

Location: Near Preston, Texas, in the bed of a little creek flowing into Red river.

**—billingsi n. s. Meek. (1859.)**

N. W. Terr.; Rep. Prog. Assin. and Saskat. Expl. Exped. H. Y. Hind, pp. 184-185, pl. 2, figs. 4-6. Toronto, 1859. F. B. Meek.

Formation: Cretaceous.

Location: Valley of Mackenzie's river, Canada.

**—billingsianus n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 26-37, pl. 6, fig. 20. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: E. Range, Humboldt, Nevada.

**—billingsianus Gabb. (1889.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, pp. 8-9, pl. 6, fig. 3. Phila., 1870. Wm. M. Gabb.

**Ammonites—Continued.****—biplex ? (Sow.) Grewingk. (1850.)**

Verhand. der Russisch. Kaiser. Mineral. Gesells.; Jahrg. 1848-1849, pp. 346-347, pl. 4, figs. 2, a, d. St. Petersburg, 1850. C. Grewingk.

Formation: Jurassic.

Location: Katmai bay, south coast of Alaska peninsula.

**—blakei n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 24-25, pl. 4, figs. 14, 15. Phila., 1864. W. M. Gabb.

Formation: Triassic.

**—borealis n. s. Morton. (1841.)**

Proc. Acad. Nat. Sci., Phila., vol. 1, 1841-1843, p. 107. Phila., 1843. S. G. Morton.

Formation: Cretaceous.

Location: Upper Missouri.

**—brazoensis n. s. Shumard. (1859.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 591. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Shovel creek, near Austin; Grayson and Fannin counties; McLennan county, Texas; and from the vicinity of Fort Washita.

**—brewerii n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 62, pl. 10, fig. 7. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, Shasta county (Div. A).

**—brewerii Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 130-131, pl. 20, fig. 5; pl. 19, figs. 5a, b, 6, a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Cal.

**—brewerii (Gabb) Whiteaves. (1876.)**

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 1, pp. 21-24, pl. 1, figs. 2, 2a, 3, 3a. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte island.

**—carlottensis n. s. Whiteaves. (1876.)**

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 1, pp. 38-39, pl. 6, fig. 5, p. 38. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**—carteroni (d'Orb.) Eichwald. (1871.)**

Geog. Paleont., Bemerk. Halb. Mang. aleutischen Inseln. pp. 149-150, Taf. 7, fig. 5; Taf. 10, figs. 1, 2. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: On an island in Kenai bay, Alaska.

**—cheyennensis n. s. Owen. (1852.)**

Rep. Geol. Sur. Wis., Iowa, Minn., pp. 578-579, pl. 7, fig. 2. Phila., 1852. D. D. Owen.

Formation: Cretaceous.

Location: Fox Hills, Nebraska.

**Ammonites—Continued.****—chicoensis n. s. Trask. (1856.)**

Proc. Cal. Acad. Nat. Sci., vol. 1, 1st. ed., p. 85, pl. 2, figs. 1 and 1a. San Francisco, 1854-1857. J. B. Trask.

Formation: Upper Eocene [Cretaceous].

Location: Chico creek, Cal.

**—chicoensis (Trask) Gabb. (1864.)**

Geol. Sur. Cal., *Paleont.*, vol. 1, pp. 68-69, pl. 13, figs. 17, 17a, b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Chico creek, Pence's and Kelly's ranches, twelve miles north of Oroville, Butte county, Siskiyou mountains, Siskiyou county; Rancho de San Luis Gonzaga, Pacheco's pass, Merced county, Cal.

**—colfaxii n. s. Gabb. (1869.)**

Am. Jour. Conch.; vol. 5, Phila., 1869-1870, pp. 7-8, pl. 4, fig. 2 [and vol. 4, pl. 16.] Phila., 1870. Wm. M. Gabb.

Formation: Jurassic.

Location: Cut of the Pacific railroad, station 2777, Sec. 53, one mile west of the town of Colfax; Robinson's ferry, on the Stanislaus river, Nevada.

**—complexus n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s. pp. 394, 395, pl. 4, figs. 1a-f. Cambridge and Boston, 1885. Hall & Meek.

Formation: Cretaceous.

Location: Great Bend of the Missouri.

**—complexus ? (H. & M.) Gabb. (1864.)**

Geol. Sur. Cal., *Paleont.*, vol. 1, p. 69. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Folsom, Cal.

**—complexus (H. & M.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr.; vol. 9, pp. 447-448, pl. 24, figs. 1a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great Bend of the Missouri, below Fort Pierre.

**—complexus var. suciænsis n. var. Meek. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 317. Phila., 1862. F. B. Meek.

Formation: Cretaceous.

Location: Sucia island, and at Komooks on Vancouver island.

**—complexus ? var. suciænsis Meek. (1876.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, pp. 369-370, pl. 5, figs. 2, 2a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Komooks on Vancouver island, and Sucia island.

**—complexus var. suciænsis (Meek) Whiteaves. (1879.)**

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 2, pp. 106-108. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands; Northwest bay, Vancouver island; Trent river, Vancouver island.

**Ammonites—Continued.****—conradi n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., pp. 39-40, pl. 16, figs. 1-3: pl. 19, fig. 4. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Prairie Bluff, Alabama.

**—conradi Morton. (1841.)**

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser., 1839-1842, p. 210. Phila., 1839-1842. S. G. Morton.

Formation: Cretaceous.

Location: Great Bend of the Missouri river, Lat. 43° 40' N.

**—? cooperii n. s. Gabb. (1864.)**

Geol. Sur. Cal., *Paleont.*, vol. 1, pp. 69-70, pl. 44, figs. 23, 23a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Shaft west side of Point Loma, opposite La Playa, San Diego, Cal.

**—cordiformis n. s. M. & H. (1858.)**

Proc. Acad. Nat. Sci., Phila., for 1858, p. 57. Phila., 1859. Meek & Hayden.

Formation: Cretaceous.

Location: Southwest base of Black hills.

**—cordiformis M. & H. (1865.)**

*Paleont. upper Missouri*, *Smithson. Cont. Knowl.*, vol. 14, No. 172, pp. 122-123, pl. 5, figs. 2a-e. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of the Black hills.

**—cordiformis (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dakota, pp. 378-380, pl. 6, figs. 20-24. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Redwater valley; also, on the tops of the highest hills two miles south of the Belle Fourche river, near Bear Lodge butte, Black hills.

**—cordiformis var. distans. Whitfield. (1880.)**

Rep. Geol. Black hills of Dakota, pp. 380-381, pl. 6, fig. 25. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Two miles south of the Belle Fourche river, near Bear Lodge butte, Black hills.

**—crenocostatus n. s. ? Whiteaves. (1876.)**

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 1, pp. 45-47, pl. 9, figs. 2, 2a. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

(Whiteaves calls this a provisional name.)

**—delawareensis n. s. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 18, p. 244, pl. 2, fig. 4. New Haven, 1830. S. G. Morton.

Formation: Ferruginous sand [Cretaceous.]

Location: Chesapeake and Delaware canal.

**—delawareensis Morton. (1830.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 194. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Deep Cut of the Chesapeake and Delaware canal.

**Ammonites—Continued.****—delawarensis Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., pp. 37-38, pl. 2, fig. 5. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Delaware and Chesapeake canal, Alabama.

**—dentato-carinatus n. s. Roemer. (1849.)**

Texas, pp. 417-418. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

**—dentato-carinatus Roemer. (1852.)**

Die Kreidebildungen von Texas, pp. 33-34, Taf. 1, figs. 2a-c. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe below New Braunfels, Tex.

**—doroschini n. s. Eichwald. (1871.)**

Geog. Paleont., Bemerk. Halb. Mang. aleutischen Inseln, pp. 138-142, Taf. 7, fig. 6; Taf. 8, figs. 1, 2. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Chasik island, Tukusitun bay, Alaska.

**—dutempleanus (d'Orb.) Eichwald. (1871.)**

Geog. Paleont., Bemerk. Halb. Mang. aleutischen Inseln, pp. 142-143, Taf. 7, figs. 3, 4. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Kenai bay, Alaska.

**—flicinctus n. s. Whiteaves. (1876.)**

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 1, pp. 43-45, pl. 2, figs. 2a-c and 3. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**—flaccidicosta n. s. Roemer. (1852.)**

Kreide von Texas, p. 33, Taf. 1, figs. 1, a, b, Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe below New Braunfels, Tex.

**—fraternus n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 137-138, pl. 23, figs. 15, a, b. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Benicia, Cal.

**—galpini n. s. E. & S. (1857.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 42. St. Louis, 1856-1860. Evans & Shumard.

Formation: Cretaceous.

Location: On the Cheyenne river, 100 miles above its mouth.

**—gardeni (Baily) Whiteaves. (1879.)**

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 2, p. 102. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Bradley creek; bank of the Trent river; ten miles up the Nanaimo river, Vancouver island.

**Ammonites—Continued.****—geniculatus n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 159, pl. 15, figs. 2a, b. Wash., 1859. T. A. Conrad.

Formation: Cretaceous.

Location: Bed of Rio San Pedro and Leon Springs.

**—gibbonianus (Lea) Marcou. (1858.)**

Geol. N. Am., p. 35, pl. 2, figs. 2a, b. Zurich, 1858. Jules Marcou.

Formation: Cretaceous.

Location: Bed of the Elm fork, one of the affluents of Trinity river, Texas.

**—graysonensis n. s. Shumard. (1859.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 593-594. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Fannin county, near Lowell's bluff, and Grayson county, four miles north of Sherman, Texas.

**—graysonensis (Shumard) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., part 1, p. 39, pl. 18, figs. 9a, b. Wash., 1883. C. A. White.

**—guadalupe n. s. Roemer. (1849.)**

Texas, pp. 416-417. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

**—guadalupe Roemer. (1852.)**

Kreide von Texas, p. 32, figs. 1, a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe below New Braunfels, Tex.

**—guadalupe (Roem.) Gabb. (1872.)**

Proc. Acad. Nat. Sci., Phila., for 1872, p. 264, pl. 9, fig. 1, pl. 10, figs. 1, 1a. Phila., 1872. Wm. M. Gabb.

Formation: Cretaceous.

Location: Nugal, near the center of the state of Chihuahua, Mexico.

**—halli n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, pp. 70-71. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above the mouth and one hundred and fifty miles above Milk river, Nebraska.

**—haydeni n. s. Gabb. (1864.)**

Geol. Surv. Cal., Paleont., vol. 1, pp. 62-63, pl. 10, figs. 8, 8a, b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, Shasta county, Cal. (Div. A.)

**—henryi n. s. M. & H. (1858.)**

Proc. Acad. Nat. Sci., Phila., for 1858, pp. 57-58. Phila., 1859. Meek & Hayden.

Formation: Cretaceous.

Location: Southwest part of Black hills.

**Ammonites—Continued.**— **henryi** M. & H. (1865.)

Paleont. upper Missouri. Smithsonian. Cont. Knowl., vol. 14, No. 172, pp. 123-124, pl. 5, figs. 9a-c. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of the Black hills.

— **hippocrepis** n. s. DeKay. (1827.)

Ann. New York Lyceum Nat. Hist., vol. 2, pp. 273-277, pl. 5, fig. 2 [5]. New York, 1828. J. E. DeKay.

Formation: Cretaceous.

Location: Delaware and Chesapeake canal.

— **hippocrepis** (DeKay) Morton. (1828.)

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 88-89, pl. 5, fig. 4. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

— **hippocrepis** (DeKay) Morton.

Am. Jour. Sci., 1st ser., vol. 17, p. 280. New Haven, 1830. S. G. Morton.

Formation: Ferruginous sand. [Cretaceous].

Location: Deep cut of the Chesapeake and Delaware Canal.

— **hoffmannii** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 65, pl. 11, figs. 13, 13a, pl. 12, 13b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Horsetown, Shasta county, Cal. (Div. A.)

— **hoffmannii** Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, pp. 131, 132, pl. 20, figs. 8, a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Cal.

— **homfrayii** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 26, pl. 4, figs. 18, 19. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: E. Range, Humboldt, Nevada.

— **inæquiplicatus** n. s. Shumard. (1859.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 591. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Garnet's Bluff, on Red river, Fannin county, Texas.

— **indra** (Forbes) Whiteaves. (1879.)

Geol. Sur. Can.; Mes. Foss., vol. 1, part 2, pp. 105, 106, pl. 13, figs. 2, 2a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornsby island.

— **inflatus** (Sow.) Ramirez. (1880.)

An. Min. Fomento Rep. Mex., tomo 3, p. 657, lám. 1, fig. 6. Mexico, 1880. S. Ramirez.

Formation: Cretaceous.

Location: Sierra Mojada, Mexico.

**Ammonites—Continued.**— **ishmæ** (Keys.) Eichwald. (1871.)

Geog. Paleont. Bemerk. Halb. Mang. aleutischen Inseln., pp. 146-149, Taf. 8, figs. 4, 5, Taf. 9, fig. 5, Taf. 10, figs. 3-7. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaskan peninsula.

— **james-danæ** Barcena. (1878.)

An. Museo Nac. Mex., tomo 1, pp. 285-286, figs. 27-30. Mexico, 1877-1879. M. Barcena.

Formation: Jurassic.

Location: Acaxochitlan, Ferreria de la Trinidad, and abra de Huilacapistla, state of Pueblo, Mexico. Published in 1874 under the name Amn. danæ "Datos para el estudio de los rocos mesozoicas de Mexico." Not seen.

— **jugalis** n. s. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, pp. 133-134, pl. 22, figs. 12, a, b, 13a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez and Benicia coal mines, near Clayton, Cal.

— **jukesii**? (Sharpe) Whiteaves. (1879.)

Geol. Sur. Can.; Mes. Foss. vol. 1, part 1, pp. 111, 112, pl. 13, figs. 3, 3a, b. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Norris Rock, a small island about a mile S. 60° E. from Norman point, which is the most southerly part of Hornby island.

— **laperousianus** n. s. Whiteaves. (1876.)

Geol. Sur. Can.; Mes. Foss., vol. 1, part 1, pp. 39-41, pl. 3, fig. 3. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

— **lenticularis** n. s. Owen. (1852.)

Rep. Geol. Sur. Wis., Iowa, Minn., p. 579, pl. 8, fig. 5. Phila., 1852. D. D. Owen.

Formation: Cretaceous.

Location: Fox hills, Nebraska.

— **leonensis** n. s. Conrad. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, part 2, p. 160, pl. 16, figs. 2a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Texas.

— **? lineatus** n. s. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, pp. 139-140, pl. 23, figs. 18a-c. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, near Folsom, from Rocky corral, Cal.

— **lœvianus** n. s. White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur. west of 100th meridian, vol. 4, part 1, pp. 201-202, pl. 19, figs. 1a, b. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Ojo de los Cuervas, New Mexico.

**Ammonites—Continued.****—loganianus n. s. Whiteaves. (1876.)**

Geol. Sur. Can.; Mes. Foss. vol. 1, pt. 1, pp. 27-29, pl. 8, fig. 2, fig. 3, p. 28. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**—loganianus (?) form A. Whiteaves. (1876.)**

Geol. Sur. Can.; Mes. Foss. vol. 1, pt. 1, pp. 29, 30, pl. 4, figs. 2, 2a. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**—loganianus (?) form B. Whiteaves. (1876.)**

Geol. Sur. Can.; Mes. Foss. vol. 1, part 1, pp. 30-32, pl. 8, figs. 1, 1a. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**—maclurei n. s. White. (1889.)**

Bull. U. S. Geol. Sur. No. 51, p. 48, pl. 7, figs. 2, 3. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Socia island.

**—mandanensis n. s. Morton. (1841.)**

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser., 1839-1842, p. 208, pl. 10, fig. 2. Phila., 1839-1842. S. G. Morton.

Formation: Cretaceous.

Location: Great Bend of the Missouri river (Lat. 43° 40' N.).

**—mandanensis Morton. (1841.)**

Proc. Acad. Nat. Sci., Phila., vol. 1, 1841-1843, p. 107. Phila., 1843. S. G. Morton.

Formation: Cretaceous.

Location: Upper Missouri.

**—marciana n. s. Shumard. (1853.)**

Expl. Red river, Louisiana, by R. B. Marcy, p. 209, pl. 4, fig. 5. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Cross Timbers, Texas.

**—mcclintocki n. s. Haughton. (1856.)**

Jour. Roy. Dublin Soc., vol. 1, No. 4, pp. 244-245, pl. 9, figs. 2-4. Dublin, 1858. S. Haughton.

Formation: Jurassic.

Location: Point Wilkie, Prince Patrick's land.

**—mcclintocki. Haughton. (1859.)**

The voyage of the *Fox* in the Arctic Seas, p. 392. McClintock, London, 1859. App. B., S. Haughton.

Formation: Lias [Jurassic.]

Location: Wilkie point, Prince Patrick's land (Lat. 76° 20' N.; long. 117° 20' W.).

**—meekianus n. s. Shumard. (1859.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 592, 593. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Near Post Oak creek, Grayson county, Texas.

**Ammonites—Continued.****—milletianus (d'Orb.) Eichwald. (1871.)**

Geog. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln., pp. 145-146, Taf. 9, figs. 3, 4. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaskan peninsula.

**—moreauensis n. s. Owen. (1852.)**

Rep. Geol. Sur. Wis., Iowa, Minn., p. 579, pl. 8, fig. 7. Phila., 1852. D. D. Owen.

Formation: Cretaceous.

Location: Fox hills of Nebraska.

**—mullanus n. s. M. & H. (1862.)**

Proc. Acad. Nat. Sci., Phila., for 1862, pp. 23-25. Phila., 1863. Meek & Hayden.

Formation: Cretaceous.

Location: Chippewa point, near Fort Benton, on the upper Missouri.

**—? mullanus (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 607-609, pl. 8, figs. 1a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Chippewa point, near Fort Benton, on the upper Missouri.

**—nebrascensis n. s. Owen. (1852.)**

Rep. Geol. Sur. Wis., Iowa, Minn., pp. 577-578, pl. 8, figs. 3, 3a, pl. 8a, fig. 2. Phila., 1852. D. D. Owen.

Formation: Cretaceous.

Location: Fox hills, Nebraska.

**—nebrascensis ? Owen. (1852.)**

Rep. Geol. Sur. Wis., Iowa, Minn., p. 578, pl. 8, fig. 2. Phila., 1852. D. D. Owen.

Formation: Cretaceous.

Location: Fox hills, Nebraska.

**—nebrascensis (Owen) Marcou. (1853.)**

Geol. map of the U. S. and Brit. Prov. of N. A., p. 46, pl. 7, fig. 4. Boston, 1853. Jules Marcou.

Formation: Cretaceous.

Location: A little north of Fort Pierre, Nebraska.

**—nevadanus n. s. Gabb. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, pp. 6, 7, pl. 3, figs. 1, 1a [and vol. 4, pl. 16]. Phila., 1870. Wm. M. Gabb.

Formation: Jurassic.

Location: Volcano, about thirty miles southeast of Walker's lake, Nevada.

**—nevadensis (Gabb) Meek. (1870.)**

Proc. Am. Philos. Soc., vol. xi, 1869, 1870, p. 428. Phila., 1871. F. B. Meek.

Formation: Jurassic.

Location: Between Sacramento and Summit station, Cal.

**—newberryanus n. s. Meek. (1858.)**

Trans. Albany Inst., vol. 4, pp. 47-48. Albany, 1858-1864. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

**Ammonites—Continued.****—newberryanus (Meek) Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 61-62, pl. 10, figs. 5, 6, 6a, b, pl. 27, fig. 199a-c. Phila.; 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Comax ("Koomooks" of Meek), Vancouver island; north fork of Cottonwood creek, Shasta county; Martinez and Clayton, and south of Mount Diablo, Contra Costa county, Cal., Vancouver island.

**—newberryanus Meek. (1876.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, pp. 367-368, pl. 4, figs. 3, 3a, 3b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Sucia island.

**—newberryanus (Meek) Whiteaves. (1879.)**

Geol. Sur. Can.; Mes. Foss. vol. 1, pt. 2, pp. 109-111, pl. 14, figs. 1, 1a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island; Browns river; lower part of the Trent river; southwest side of Denman island; Northwest bay, V. I.; Sucia islands.

**—newberryanus (Meek) White. (1889.)**

Bull. U. S. Geol. Sur. No. 51, p. 48. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Sucia island.

**—nicolletii n. s. Morton. (1841.)**

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser. 1839-1842, p. 209, pl. 10, fig. 3. Phila., 1839-1842. S. G. Morton.

Formation: Cretaceous.

Location: Great Bend of the Missouri river (Lat. 43° 40' N.).

**—novi-mexicani n. s. Marcou. (1858.)**

Geol. N. Am., pp. 35-36, pl. 1, figs. 2, 2a. Zurich, 1858. Jules Marcou.

Formation: Cretaceous.

Location: Not far from Albuquerque, and also Las Lunas, New Mexico.

**—opalus n. s. Owen. (1852.)**

Rep. Geol. Sur. Wis., Iowa, Minn., p. 579, pl. 8, fig. 6. Phila., 1852. D. D. Owen.

Formation: Cretaceous.

Location: Great Bend of the Missouri.

**—pedernalis (v. Buch) Roemer. (1849.)**

Texas, p. 418. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Texas.

**—pedernalis (v. Buch) Roemer. (1852.)**

Kreide von Texas, p. 34, Taf. 1, figs. 3a-c. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Texas.

**Ammonites—Continued.****—pedernalis (v. Buch) Gabb. (1869.)**

Geol. Surv. Cal., Paleont., vol. 2, pp. 258-259, pl. 35, figs. 1, 1a. Phila., 1869. Wm. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

**—percarinatus n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 376, pl. 4, figs. 2a-c. Cambridge and Boston, 1854. Hall & Meek.

Formation: Cretaceous.

Location: Missouri river, five miles below the mouth of the Vermilion.

**—percarinatus (H. & M.) Newberry. (1861.)**

Rep. Colorado river of the West. Part 3, pp. 117, 118, Wash., 1861. J. S. Newberry.

Formation: Cretaceous.

**—percostatus Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 138-139, pl. 24, fig. 19. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**—perezianus n. s. Whiteaves. (1876.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 19-21, pl. 2, figs. 1, 1a. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**—peruvianus (de Buch) Marcou. (1858.)**

Geol. N. Am., pp. 34-35, pl. 5, figs. 1, 1a, b. Zurich, 1858. Jules Marcou.

Formation: Cretaceous.

Location: Bed of Elm Form river, an affluent of Trinity river, Texas.

**—peruvianus (de Buch?) Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 63, pl. 10, fig. 9. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan Springs, Tehama county, Cal.

**—pierdenalis n. s. von Buch. (1848.)**

Abhandl. Akad. der Wissenschaften, p. 30a, pl. 6, figs. 8, 9, 10, 1848, Berlin, 1850.

Formation: Cretaceous.

Location: Pedernales river, Texas.

**—placenta n. s. DeKay. (1827.)**

Ann. New York Lyceum Nat. Hist., vol. 2, p. 278, pl. 5, fig. 3[2]. New York, 1828. J. E. DeKay.

Formation: Cretaceous.

Location: Delaware and Chesapeake canal.

**—placenta (DeKay) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, pp. 279-280. New Haven, 1830. S. G. Morton.

Formation: Ferruginous sand [Cretaceous].

Location: Deep cut of the Chesapeake and Delaware canal.

**—placenta (DeKay) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 18, pl. 2, figs. 1-3, New Haven, 1830. S. G. Morton.

**Ammonites—Continued.**

- **placenta** (DeKay) Morton. (1830.)  
 Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 195-196, pl. 5, fig. 4. Phila., 1827-1831. S. G. Morton.  
 Formation: Cretaceous.

- **placenta** (DeKay) Morton. (1834.)  
 Synop. Org. Rem. Cret. Gr. U. S., pp. 36-37, pl. 2, figs. 1, 2. Phila., 1834. S. G. Morton.  
 Formation: Cretaceous.  
 Location: Deep cut of the Chesapeake and Delaware canal, New Jersey; southern bend of the Tennessee river.

- **placenta** (De Kay) Morton. (1841.)  
 Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser., 1839-1842, p. 210. Phila., 1839-1842. S. G. Morton.  
 Formation: Cretaceous.  
 Location: Great Bend of the Missouri. (Lat. 43° 40' N.)

- **placenta** (De Kay) Meek. (1859.)  
 N. W. Terr.; Rep. Prog. Assin. and Saskat. Expl. Exped., H. Y. Hind, p. 184, Toronto, 1859. F. B. Meek.  
 Formation: Cretaceous.  
 Location: South branch of the Saskatchewan, Canada.

- **placenta** (De Kay) Meek. (1870.)  
 Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 429. Phila., 1871. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Fountain creek, Colorado city, Colorado.

- **placenta** (De Kay) Gabb. (1876.)  
 Proc. Acad. Nat. Sci., Phila., for 1876, p. 278. Phila., 1876. Wm. M. Gabb.  
 Formation: Cretaceous.  
 Location: Pataula creek, Georgia.

- **placenta var. intercalaris**, n. var. M. & H. (1860.)  
 Proc. Acad. Nat. Sci., Phila., for 1860, p. 177. Phila., 1861. Meek & Hayden.  
 Formation: Cretaceous.  
 Location: Cheyenne river, Nebraska.

- **planicosta** (Sow.) Ramirez. (1880.)  
 An. Min. Fomento Rep. Mex., tomo 3, p. 657. Jan. 1, fig. 7. Mexico, 1880. S. Ramirez.  
 Formation: Cretaceous[?]  
 Location: Sierra Mojada, Mexico.

- **pleurisepta** n. s. Conrad. (1854.)  
 Rep. U. S. & Mex. Bound. Sur., vol. 1, pt. 2, p. 159, pl. 15, figs. 1a-c. Wash., 1857. T. A. Conrad.  
 Formation: Cretaceous.  
 Location: Jacin, 3 miles below Laredo.

[This region is now known to be occupied by Eocene rocks, therefore the locality as above given by Mr. Conrad is evidently a mistake].

- **ramosus** (Meek) Gabb. (1864.)  
 Geol. Sur. Cal., Paleont., vol. 1, p. 65, pl. 11, figs. 12, 12a, pl. 12, fig. 12b. Phila., 1864. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Cottonwood creek, Shasta county, Cal.

**Ammonites—Continued.**

- **ramsaueri** (Quenst.) Gabb. (1864.)  
 Geol. Sur. Cal., Paleont., vol. 1, p. 27, pl. 3, figs. 21, 21a. Phila., 1864. W. M. Gabb.  
 Formation: Triassic.  
 Location: Gifford's ranch, Plumas county, Cal.

- **rémondii** n. s. Gabb. (1864.)  
 Geol. Sur. Cal., Paleont., vol. 1, pp. 66-67, pl. 12, figs. 14, 14a, 15. Phila., 1864. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: North fork of Cottonwood creek, Shasta county, Cal. (Div. A).

- **richardsonii** n. s. Whiteaves. (1876.)  
 Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 32, 33, pl. 5. Montreal, 1876. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Queen Charlotte island.

- **riorii** n. s. N. & G. (1840.)  
 Bull. Roy. Acad. Sci., Bruxelles, tome 7, pt. 2, pp. 217-218, fig. 8. Bruxelles, 1840. Nyst & Galeotti.  
 Formation: Jurassic.  
 Location: Tehuacan, Mexico.

- **selwynianus** n. s. Whiteaves. (1879.)  
 Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 104-105, pl. 13, figs. 1, 1a. Montreal, 1879. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Sucia islands.

- **serrato-carinatus** n. s. Meek. (1870.)  
 Proc. Am. Philos. Soc., vol. 11, 1869, 1870, pp. 429-430. Phila., 1871. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Medicine Bow river.

- **shumardi** n. s. Marcou. (1858.)  
 Geol. N. Am., pp. 33-34, pl. 1, figs. 1, 1a. Zurich, 1858. Jules Marcou.  
 Formation: Cretaceous.  
 Location: Borders of Red river, near Preston, Texas.

- **skidegatensis** n. s. Whiteaves. (1876.)  
 Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 34-37, pl. 7, pl. 9, fig. 1, fig. 4, p. 34. Montreal, 1876. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Queen Charlotte island.

- **stoliczkanus** n. s. Gabb. (1869.)  
 Geol. Sur. Cal., Paleont., vol. 2, pp. 135, 136, pl. 23, figs. 16, a. Phila., 1869. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Cottonwood creek, Shasta county, Cal.

- **stoliczkanus var. spiniferus** n. var. Whiteaves. (1876.)  
 Geol. Sur. Can., Mes. Foss., [vol. 1, pt. 1, pp. 24, 27, pl. 3, fig. 3; pl. 4, figs. 1, 2, p. 24. Montreal, 1876. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Queen Charlotte island.



**Ammonites—Continued.****— subtricarinatus (d'Orb.) Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 60-61, pl. 10, figs. 4, 4a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Vicinity of Battle creek, Tehama county, Cal.

**— suciaensis (Meek) Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 133. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Near Monte Diablo, Cal.

**— swallowii n. s. Shumard. (1859.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 591-592. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Grayson county, four and a half miles north of Sherman, and bluffs of Red river, in Fannin and Lamar counties, Texas.

**— swallowii (Shumard) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 39, pl. 18, fig. 1a. Wash., 1883. C. A. White.

**— syrtalis n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 40, pl. 14 [16], fig. 4. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Greene county, Alabama.

**— tehamaensis n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 132, 133. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**— telifer n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 290. New Haven, 1833. S. G. Morton.

Formation: Ferruginous sand [Cretaceous].

Location: Delaware.

**— telifer Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 38, pl. 2, fig. 7. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

**— texanus n. s. Roemer. (1849.)**

Texas, p. 417. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels and Austin, Tex.

**— texanus Roemer. (1852.)**

Kreide. von Texas, pp. 31-32, Taf. 3, figs. 1, a-e. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Austin and at waterfall of the Guadalupe below New Braunfels, Texas.

**— texanus n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, pp. 159-160, pl. 16, figs. 1a-d. Wash., 1859. T. A. Conrad.

Formation: Cretaceous.

Location: Near Puercos river.

**Ammonites—Continued.****— timotheanus (Mayor) Whiteaves. (1876.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 41, 42, pl. 3, figs. 2, 2a. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**— traskii n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 63-64, pl. 11, fig. 11, pl. 12, fig. 11. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Arbuckle's diggings, Shasta county, Cal. (Div. A).

**— traskii Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 131, pl. 19, figs. 7a, b. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Cal.

**— trinitensis n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 278. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Texas.

**— turneri n. s. White. (1889.)**

Bull. U. S. Geol. Sur. No. 51, pp. 26-27, pl. 5, figs. 1 and 2. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Curry's Cañada, south of Mount Diablo, Cal.

**— vancouverensis n. s. Meek. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, pp. 317, 318. Phila., 1862. F. B. Meek.

Formation: Cretaceous.

Location: Komooks, eastern shore of Vancouver island.

**— vancouverensis (Meek) Whiteaves. (1879.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 103. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands.

**— vanuxemi n. s. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 18, p. 244, pl. 3, figs. 3, 4. New Haven, 1830. S. G. Morton.

Formation: Ferruginous sand [Cretaceous.]

Location: Chesapeake and Delaware canal.

**— vanuxemi Morton. (1830.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 194, 195. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Chesapeake and Delaware canal.

**— vanuxemi Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 38, pl. 2, figs. 3, 4. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Chesapeake and Delaware canal.

**Ammonites—Continued.****— valledæ (Michelin) Whiteaves. (1879.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 103, 104. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands.

**— vermilionensis n. s. M. & H. (1860).**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 177. Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Vermilion river, Nebraska.

**— vespertinus n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., pp. 40-41, pl. 17, fig. 2. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Plains of Kiamesha, Arkansas.

**— vespertinus (Mort.) Shumard. (1853.)**

Expl. Red river, Louisiana, by R. B. Marcy, p. 209. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Near Fort Washita, Indian Territory.

**— walcotti n. s. Hill. (1888.)**

Ann. Rep. Geol. Sur. Arkansas, for 1888, vol. 2, pp. 128-129, pl. 1, figs. 1, 1a, 1b. Little Rock, 1888. R. T. Hill.

Formation: Cretaceous (?).

Location: Mouth of Caney creek, branch of Prairie creek, near Murfreesboro, Pike county, Arkansas.

**— whitneyi n. s. Gabb. (1869.)**

Geol. Surv. Cal., Paleont., vol. 2, pp. 134-135, pl. 22, figs. 14a, b. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Shasta county, Cal.

**— wosnessenskii n. s. Grewingk. (1850.)**

Verhand. der Russisch-Kaiserlichen Mineral Gesells., pp. 344-346, pl. 4, fig. 1a-d. St. Petersburg, 1850. C. Grewingk.

Formation: Jurassic.

Location: Katmai bay, south coast of Alaska peninsula.

**— (Amaltheus) Whiteavesii n. s. White. (1889.)**

Bull. U. S. Geol. Sur. No. 51, pp. 69-90, pl. 13, figs. 1-5. Wash., 1889. C. A. White.

Formation: Jurassic.

Location: Kialagvic bay, Alaska.

**— (Lillia) howelli n. s. White. (1889.)**

Bull. U. S. Geol. Sur. No. 51, pp. 68-69, pl. 12, figs. 1 and 2, pl. 14, figs. 1-3. Wash., 1889. C. A. White.

Formation: Jurassic.

Location: Kialagvic bay, Alaska.

**— (Lillia) kialagvikensis n. s. White. (1889.)**

Bull. U. S. Geol. Sur. No. 51, p. 69, pl. 13, fig. 7. Wash., 1889. C. A. White.

Formation: Jurassic.

Location: Shores of Kialagvic bay, Alaska.

**Ammonites—Continued.****— (Scaphites ?) ramosus n. s. Meek. (1858.)**

Trans. Albany Inst., vol. 4, pp. 45-47. Albany, 1858-1864. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

**— sp. A. Whiteaves. (1874.)**

Geol. Sur. Can. Rep. Prog. for 1873-1874, p. 261. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest bay, Vancouver island.

**— sp. B. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog. for 1873, 1874, p. 261. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest bay, Vancouver island.

**— sp. C. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog. for 1873, 1874, p. 261. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest bay, Vancouver island.

**— (Brug.) Say. (1820.)**

Am. Jour. Sci., 1st ser., vol. 2, p. 44. New Haven, 1820. Thomas Say.

Formation: Alluvium [Cretaceous].

Location: New Jersey.

**— ? DeKay. (1827.)**

Ann. New York Lyceum Nat. His., vol. 2, p. 278, pl. 5, figs. 4 and 5 [3 and 4]. New York, 1828. J. E. DeKay.

Formation: Cretaceous.

Location: Delaware and Chesapeake canal.

**— sp. undet. Roemer. (1849.)**

Texas, p. 418. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Texas.

**— sp. undet. Shumard. (1853.)**

Expl. Red river, Louisiana, by R. B. Marcy, p. 210, pl. 6, fig. 4. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Cross Timbers, Texas.

**— sp. undet. Meek. (1859.)**

N. W. Terr., Rep. Prog. Assin. and Saskat., Expl. Exped. H. Y. Hind, p. 184. Toronto, 1859. F. B. Meek.

Formation: Cretaceous.

Location: Two Creeks, Canada.

**— sp. undet. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869-1870, p. 429. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Fountain creek, Colorado city, Colo.

**— sp. undet. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869-1870, p. 429. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Mission station, N. P. R. R.

# Ammonites—Continued.

- **sp. undet. Toulia.** (1874.)  
Die Zweite Deutsche Nordpolarfahrt, Zweiter Band, p. 500. Leipzig, 1874. Franz Toulia.  
Formation: Jurassic. [Cretaceous?].  
Location: Kuhn Island, east coast of Greenland.

- **sp. undet. Whiteaves.** (1874.)  
Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 262. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Nanaimo river, Vancouver island, 10 miles up.

- **sp. undet. Whiteaves.** (1874.)  
Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 264, Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Below Dodd Narrows.

- **sp. undet. Whiteaves.** (1876.)  
Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, p. 47, pl. 3, figs. 4, 4a. Montreal, 1876. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Queen Charlotte islands.

- **sp. undet. Hill.** (1889.)  
Geol. Sur. Texas, Bull. No. 4, p. 22. Austin, 1889. R. T. Hill.  
Formation: Cretaceous.  
Location: Cow creek beds, near Travis Peak, Texas.

- **Schiel.** (1854.)  
Rep. Expl. and Sur. R. R. R. Mississippi river to Pacific ocean, vol. 2; Rep. Expl. 41st parallel, N. Lat., p. 109, pl. 3, fig. 13. Wash., 1855. James Schiel.  
Formation: Cretaceous.  
Location: Grand river.

- **White.** (1878.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 186. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Little Thompson creek, Colorado.

- Ampullina** ( ? ) Gabb. (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, p. 161. Phila., 1869. W. M. Gabb.

- **striata n. s. Gabb.** (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, pp. 161-162, pl. 27, fig. 40. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez, Cal.

- Amusium conradin n. s. Whitfield.** (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 52-53, pl. 7, figs. 8-10. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield, New Jersey.

- **lenticulare nom. prov. Whiteaves.** (1884.)  
Geol. & Nat. Hist. Sur. Can.; Mes. Foss., vol. 1, pt. 3, pp. 242-243, pl. 32, fig. 5. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: North shore of Cumshewa inlet.

# Amusium—Continued.

- **simplicum** (Cou.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 51-52, pl. 7, figs. 11, 12. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Monmouth county, New Jersey.

- Amussium** (Klein). Meek. (1865.)  
Geol. Sur. Cal., Geology, vol. 1, p. 478. Phila., 1865. F. B. Meek.

- **aurarium n. s. Meek.** (1865.)  
Geol. Sur. Cal., Geology, vol. 1, pp. 478-479, pl. 1, figs. 6, 6a. Phila., 1865. F. B. Meek.  
Formation: Jurassic [Cretaceous?]  
Location: Mariposa estate, California.

- Anadema sub. gen.** ( H. & A. Adams )  
**White.** (1889.)  
Bull. U. S. Geol. Sur. No. 51, p. 17. Wash., 1889. C. A. White.

- Ananchytes** (Lam.) Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, p. 245. New Haven, 1830. S. G. Morton.

- **cinctus Morton.** (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, pl. 3, fig. 7. New Haven, 1830. S. G. Morton.

- **cinctus Morton.** (1830.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 200. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.

- **cinctus Morton.** (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 78. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.

- **cruciferus n. s. Morton.** (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, p. 245, pl. 3, fig. 8. New Haven, 1830. S. G. Morton.  
Formation: Ferruginous sand [Cretaceous].  
Location: New Jersey.

- **cruciferus Morton.** (1830.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 201. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.

- **fimbriatus n. s. Morton.** (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, pp. 245-246, pl. 3, fig. 9. New Haven, 1830. S. G. Morton.  
Formation: Ferruginous sand [Cretaceous].  
Location: New Jersey.

- **fimbriatus Morton.** (1830.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 200-211. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.

- **fimbriatus Morton.** (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., pp. 78-79, pl. 3, fig. 20. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.

**Ananchytes—Continued.**— *sp. undet.* Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 237. New Haven, 1830. S. G. Morton.  
Formation: Ferruginous sand [Cretaceous].  
Location: United States.

**Anatimya n. sub gen. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 276. Phila., 1858-1860. T. A. Conrad.

**Anatina (Lam.) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 324. Phila., 1862. Wm. M. Gabb.

— *elegans n. s.* Eichwald. (1871.)

Geog. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln., pp. 119-121. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Kadiak and Unalaska islands, Alaska.

— *elliptica n. s.* Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila. for 1862, p. 224, Phila., 1862. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Mullica hill, New Jersey.

— *inequilateralis n. s.* Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 151, pl. 29, fig. 241. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.

Location: North side of Siskiyou mountains, Oregon, near the stage road.

— *? lata n. s.* Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 151, pl. 22, fig. 126. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.

Location: Pence's Ranch, Butte county, Cal.

— *quadrata n. s.* Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 177, pl. 29, fig. 64. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: North shore of Departure bay, Nanaimo, Vancouver island.

— *sulcatina n. s.* Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861-1862, pp. 204, 205. Boston, 1862. B. F. Shumard.  
Formation: Cretaceous.

Location: Chatfield point, Navarro county, Texas.

— *sulcatina* (Shumard) Whiteaves. (1879.)

Geol. Sur. Can., Mes. Foss. vol. 1, pt. 2, pp. 139, 140, pl. 17, figs. 5, 5a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Socia islands.

— *sulcatina* (Shumard?) White. (1889.)

Bull. U. S. Geol. Sur., No. 51, pp. 43-44, pl. 6, fig. 1. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Socia island.

— *tryoniana n. s.* Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, pp. 150-151, pl. 29, fig. 240. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

**Anatina—Continued.**— *tryoniana* (?) (Gabb) Whiteaves. (1874.)

Geol. Sur. Can.; Rep. Prog. for 1873-1874, p. 265. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Gabriola island.

— *tryoniana* (Gabb) Whiteaves. (1879.)

Geol. Sur. Can., Mes. Foss. vol. 1, pt. 2, p. 140. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Gabriola island.

— *? sp. undet.* Whiteaves. (1874.)

Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 263. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, Vancouver island, two and one-fourth and two and one-half miles up.

**Anchistoma parvulum n. s.** Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 19-20, pl. 3, figs. 2, 2a, b. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Old Man river, two miles above Ryegrassflat, Canada.

**Anchura n. g.** Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 284. Phila., 1858-1860. T. A. Conrad.

## — (Conrad typical.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 324. Wash., 1876. F. B. Meek.

— *abrupta n. s.* Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 284-285, pl. 47, fig. 1. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Mississippi.

— *abrupta* (Conrad) Gabb. (1868.)

Am. Jour. Conch., vol. 4, p. 145, pl. 14, fig. 13. Phila., 1868. Wm. M. Gabb.

Formation: Cretaceous.

— *americana* (E. & S. sp.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 185. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Little Thompson creek, Colorado.

— *americana* (E. & S. sp.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 48-49. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South branch of the Saskatchewan; Ross creek, near Irvine station, on the Canadian Pacific railway; Old Wives creek, township 10, range 11, west of 3rd principal meridian; North Woody mountain, on a branch of Old Wives creek, in township 6, range 4, west of the same meridian, Canada.

**Anchura—Continued.****arenarum** (Morton sp.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 298.  
Phila., 1876. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Pataula creek, Georgia.

**bella n. s.** Conrad. (1874.)

Seventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 455. Wash., 1874. T. A. Conrad.  
Formation: Cretaceous.  
Location: [Near Denver and in the South Park,  
Colorado.]

**? carinifera n. s.** Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 166, pl. 28,  
fig. 46. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez, Cal.

**exilis** (Gabb) Whiteaves. (1879.)

Geol. Sur. Can., Mes. Foss., vol. 1, part 2, p. 123.  
Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Sucia islands.

**falciformis** Gabb. (1868.)

Am. Jour. Conch., vol. 4, p. 145, pl. 14, fig. 14.  
Phila., 1868. Wm. M. Gabb.  
Formation: Cretaceous.

**falciformis.** Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 165. Phila.,  
1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Chico creek, Cal.

**? fusiformis** (Meek MSS.) White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur. west of  
100th meridian, vol. 4, part 1, pp. 190-191, pl.  
18, fig. 4a. Wash., 1875. C. A. White.  
Formation: Cretaceous.  
Location: East bank of Rio Puerco, six miles  
below Casa Salazan; six miles west of Seboetto;  
and Cerro Rotunda, New Mexico.

**? fusiformis n. s.** Meek. (1877.)

Rep. Geol. Expl. 40th parallel, vol. 4, part 1, pp.  
160-161, pl. 15, figs. 2, 2a. Wash., 1877. F.  
B. Meek.  
Formation: Cretaceous.  
Location: Water tank two miles from Coalville,  
Utah, and on Chalk creek above Coalville.

**fusiformis** (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 238. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

**haydeni n. s.** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 185. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Fossil ridge, Colorado.

**Anchura—Continued.****haydeni** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 311, 312, pl. 7, fig. 1a. Wash., 1879.  
C. A. White.  
Formation: Cretaceous.  
Location: Fifteen miles west of Greeley, Colo.,  
and about six miles south of Fort Collins.

**monilifera n. s.** Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 262, pl. 35,  
fig. 7. Phila., 1869. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Sierra de los Conchas, near Arivechi,  
Sonora, Mexico.

**? newberryi n. s.** Meek. (1876.)

Rep. Expl. Exped. Santa Fe, New Mexico, to  
junction of Grand and Green rivers, pp. 129-  
130, pl. 2, fig. 5. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Rio de la Plata.

**nuptialis n. s.** White. (1874.)

Prolim. Rep. Invert. Foss.; Geogr. and Geol.  
Expl. and Sur. west of 100th Meridian, p. 24.  
Wash., 1874. C. A. White.  
Formation: Jurassic? Cretaceous.  
Location: Fifty miles north of Camp Apache,  
and five miles west of Mineral Spring, Arizona.

**? parva** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 328, pl. 19,  
figs. 4a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Yellowstone river, one hundred and  
fifty miles from its mouth.

**prolabiata n. s.** White. (1876.)

Rep. Geol. Uinta Mts., pp. 121-122. Wash., 1876.  
C. A. White.  
Formation: Cretaceous.  
Location: Upper Kanab and Sink Spring, Utah.

**rostrata** (Mort.) Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh,  
1875. W. C. Kerr. App. A, p. 12, pl. 2, fig. 28.  
T. A. Conrad.  
Formation: Cretaceous.  
Location: Snow Hill, Greene county, North Car-  
olina.  
Inadvertently called *A. rostrata*. Should be *A.*  
*pennata*. See Proc. Acad. Nat. Sci., Phila., for  
1876, p. 275. Phila., 1876.

**ruida n. s.** White. (1876.)

Rep. Geol. Uinta Mts., pp. 120-121. Wash., 1876.  
C. A. White.  
Formation: Cretaceous.  
Location: Upper Kanab, Utah.

**stenoptera** (Goldf. sp.) Whiteaves. (1879.)

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 2, p. 123, pl.  
15, figs. 11, 11a. Montreal, 1879. J. F. White-  
aves.  
Formation: Cretaceous.  
Location: Nanaimo river, two miles and a quar-  
ter up, Vancouver island.

**Anchura—Continued.**— ? *sublevis*. (M. & H.) Meek (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 327-328, pl. 19, figs. 3a, b. Wash., 1876. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Yellowstone river, one hundred and fifty miles from its mouth.

— ? *sublevis* (M. & H.) Whitfield. (1880.)

Rep. Geol. Black hills of Dakota, p. 428. Wash., 1880. R. P. Whitfield.  
 Formation: Cretaceous.  
 Location: Near Box-elder creek, Black hills, Dakota.

— *texana* (Roem. sp.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 298, 299. Phila., 1876. Wm. M. Gabb.  
 Formation: Cretaceous.

— *transversa* n. s. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 165, pl. 27, fig. 45. Phila., 1869. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Martinez, Cal.

— (*Drepanocheilus*) *americana* Meek. (1864.)

Check List Invert. Foss. N. Am. Cret. and Jur. Smithsonian. Misc. Coll., vol. 7, No. 177, pp. 35-36. Wash., 1864. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Idaho.

— (*Drepanocheilus*) *americana*. (E. & S. sp.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 325-326, pl. 32, figs. 8a, b. Wash., 1876. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Moreau river, Long lake, and other localities; Yellowstone river.

— (*Drepanocheilus*) *mudgeana* n. s. White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 312-313, pl. 7, figs. 3a, b. Wash., 1879. C. A. White.  
 Formation: Cretaceous.  
 Location: Denison, Texas.

— (*Drepanocheilus*) *nebrascensis*. (E. & S. sp.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 326-327, pl. 19, figs. 5a-c. Wash., 1876. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Crow creek, near Black hills; also on Sage creek, near the Bad Lands of White river.

— (*Drepanocheilus*) *nebrascensis* (E. & S.) Whitfield. (1880.)

Rep. Geol. Black hills of Dakota, p. 429, pl. 12, figs. 2, 3. Wash., 1880. R. P. Whitfield.  
 Formation: Cretaceous.  
 Location: On the east fork of Beaver creek, three miles west of Camp Jenney, Black hills.

— (*Drepanocheilus*) *prolabiata* White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 313-314, pl. 7, fig. 2a. Wash., 1879. C. A. White.  
 Formation: Cretaceous.  
 Location: Upper Kanab and Sink Spring, Utah.

**Anchura—Continued.**— (*Drepanocheilus*) *ruida* White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 312, pl. 7, figs. 4, a, b. Wash., 1879. C. A. White.  
 Formation: Cretaceous.  
 Location: Upper Kanab, southern Utah.

## — sp. undet. Meek. (1870.)

Proc. Am. Philos. Soc., vol. XI, 1869, 1870, p. 430. Phila., 1871. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Dodson's ranch.

## — ? White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 229-230. Wash., 1879. C. A. White.  
 Formation: Cretaceous.  
 Location: Dodd's ranch on Ashley's fork, Utah

**Ancillaria** (Lam.) Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 100. Phila., 1864. W. M. Gabb.

— *elongata* n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 100, pl. 18, fig. 54. Phila., 1864. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Near San Diego, east of Mount Diablo, and Clayton, Cal.

**Ancyloceras** (d'Orb.) Conrad. (1855.)

Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 266. Phila., 1856. T. A. Conrad.

— *approximans* n. s. Conrad. (1855.)

Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 266. Phila., 1856. T. A. Conrad.  
 Formation: Cretaceous.  
 Location: Arkansas.

— *annulatum* (Shumard) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., Part 1, p. 39, pl. 18, figs. 10a, b. Wash., 1883. C. A. White.

— *annulatus* n. s. Shumard. (1859.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 595. St. Louis, 1856-1860. B. F. Shumard.  
 Formation: Cretaceous.  
 Location: Shawnee creek, Grayson county, Texas.

— ? *cheyennensis* n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, pp. 71, 72. Phila., 1857. Meek & Hayden.  
 Formation: Cretaceous.  
 Location: Mouth Cheyenne river, Nebraska.

— *jenneyi* n. s. Whitfield. (1877.)

U. S. Geogr. and Geol. Sur. Rocky mountain region: Prelim. Rep., Paleont., Black hills, pp. 42-43. Wash., 1877. R. P. Whitfield.  
 Formation: Cretaceous.  
 Location: On the east fork of Beaver creek, three miles west of Camp Jenney, Black hills.

**Ancylloceras—Continued.****—jenneyi (Whitfield) Whitfield. (1880.)**

Rep. Geol. Black hills of Dakota, pp. 452-454, pl. 16, figs. 7-9. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the east fork of Beaver creek, three miles west of Camp Jenney, Black hills.

**—jenneyi (Whitfield?) Stanton. (1887.)**

Proc. Colorado Sci. Soc., vol. 2, pt. 3, for 1887, p. 187. [Denver, 1888.] T. W. Stanton.

Formation: Cretaceous.

Location: About five miles north of the town of Boulder, Colorado.

**—mortoni (H. & M. sp.) H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, p. 411. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

**—? nebrascensis n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 71. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Iguor creek, north fork, Cheyenne, Nebraska.

**—? nicolletii n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., pp. 397-398, pl. 4, fig. 4. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: Great Bend of the Missouri.

**—percostatus Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 138-139, pl. 24, fig. 19. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**—percostatus (Gabb) Whiteaves. (1882.)**

Proc. and Trans. Roy. Soc. Canada, vol. 1, sec. 4, p. 82. Montreal, 1883. J. F. Whiteaves.

Formation: Cretaceous.

Location: North slope of Jackass mountain, Canada.

**—rémondi Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 138, pl. 23, fig. 17. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**—rémondi (Gabb) Whiteaves. (1882.)**

Proc. and Trans. Roy. Soc. Canada, vol. 1, sec. 4, pp. 82, 83. Montreal, 1883. J. F. Whiteaves.

Formation: Cretaceous.

Location: West side of Fraser river, below Lytton and opposite Boston bar, north slope of Jackass mountain, Canada.

**—rémondi (Gabb) Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 212, pl. 28, figs. 2, 2a. Montreal,

Formation: Cretaceous.

Location: North Shore of Cumshura inlet.

**Ancylloceras—Continued.****—tricostatus n. s. Whitfield. (1877.)**

U. S. Geogr. and Geol. Sur. Rocky Mt. region: Prelim. Rep. Paleont., Black hills, pp. 43-44, Wash., 1877. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne, near French creek, Black hills, Dakota.

**—tricostatus (Whitfield) Whitfield. (1880.)**

Rep. Geol. Black hills of Dakota, pp. 454-455, pl. 15, figs. 7, 8. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne, near French creek, Black Hills.

**—? uncum (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 409-410, pl. 21, figs. 1a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: South fork of Cheyenne river, near the Black hills.

**—(Hamites) uncus n. s. M. & H. (1858.)**

Proc. Acad. Nat. Sci., Phila., for 1858, pp. 56-57. Phila., 1859. Meek & Hayden.

Formation: Cretaceous.

Location: South fork of Cheyenne river, near the base of Black hills.

**—sp. undet. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 78-79, pl. 15, figs. 30, 30a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Arbuckle's diggings, Cal.

**Angaria (Bolt.) Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 121. Phila., 1864. W. M. Gabb.

**—cingulata n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 264, pl. 35, fig. 9. Phila., 1869. Wm. M. Gabb.

Formation: Cretaceous.

Location: Sierra de los Conchas, near Arivechi, Sonora, Mexico.

**—ornatissima n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 121, pl. 20, fig. 78. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas Flat, Placer county, Tuscan Springs, Cal.

**Angulus (sub. gen. Schumacher) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 193. Wash., 1876. F. B. Meek.

**Anisomyon n. g. M. & H. (1859.)**

Am. Jour. Sci., 2d ser., vol. 29, pp. 33-35. New Haven, 1860. Meek & Hayden.

**—alveolus (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 293, pl. 18, figs. 4, a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above its mouth.

**Anisomyon—Continued.****—alveolus (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black hills of Dakota, pp. 433-434, pl. 12, fig. 20. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.

Location: On Old Woman fork of the Cheyenne river, Black hills.

**—alveolus (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can. Cont. Can., Paleont., vol. 1, pt. 1, p. 47. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: White Mud river (or Frenchman's creek) near the 49th parallel and south of Woody mountain, Canada.

**—borealis (Mort. sp.) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of 100th meridian, vol. 4, pt. 1, pp. 193-194, pl. 18, figs. 9a, b. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Gallinas creek, New Mexico.

**—borealis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 288-289, pl. 18, figs. 9, a-e. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri below Fort Pierre.

**—borealis (Mort.) Whitfield. (1880.)**

Rep. Geol. Black hills of Dakota, p. 436, pl. 12, figs. 21-23. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: Cheyenne river, Black hills.

**—borealis (Morton) Stanton. (1887.)**

Proc. Colorado Sci. Soc., vol. 2, pt. 3, for 1887, p. 185, [Denver, 1888]. T. W. Stanton.

Formation: Cretaceous.

Location: About five miles north of the town of Boulder, Colorado.

**—centrale n. s. Meek. (1871.)**

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 312. Wash., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Box-elder and Colorado city, Colorado.

**—centrale (Meek) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of 100th meridian, vol. 4, pt. 1, pp. 194-195, pl. 18, figs. 8a, b. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Gallinas creek, New Mexico.

**—centrale (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 225. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near White river Indian agency, Colorado.

**—centrale (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 206. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Sage creek, Colorado.

**Anisomyon—Continued.****—centrale (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 303-304, pl. 9, figs. 1a-d. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Box-elder and Colorado city, Colorado.

**—centrale (Meek) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can. Cont. Can., Paleont., vol. 1, pt. 1, pp. 47-48, pl. 7, figs. 1, 1a, 2, 2a. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Old Wives creek, township 10, range 11, west of 3d principal meridian, Canada.

**—haydeni n. s. Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 198. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Chatfield point, Navarro county, Texas.

**—meekii n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 142, pl. 21, fig. 105. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, Cal.

**—meekii (Gabb?) var. Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 129-130. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Banks of Trent river, above the falls, Vancouver island.

**—patelliformis n. s. (M. & H.) (1859.)**

Am. Jour. Sci., 2d ser., vol. 29, pp. 33-35, pl. 1, figs. 1-3. New Haven, 1860. Meek & Hayden.

Formation: Cretaceous.

Location: Nebraska.

**—patelliformis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 290-291, pl. 18, figs. 5a-c, and e?. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above its mouth.

**—patelliformis (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black hills of Dakota, p. 435, pl. 12, figs. 17, 18. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On Old Woman fork, Black hills.

**—sexsulcatus (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 293, pl. 18 figs. 8a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and sixty miles from its mouth.

**—sexsulcatus (M. & H.?) Meek. (1877.)**

Rep. Geol. Expl. 40th parallel, vol. 4, pt. 1, p. 162 figs. 4, 5. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: Outer sandstone ridge, southeast of La Porte, Colorado.



**Anisomyon—Continued.**— **shumardi** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 289-290, pl. 18, figs. 7a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.

Location: Great bend of the Missouri, below Fort Pierre.

— **subovatus** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 291-292, pl. 18, figs. 5d and 6. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above its mouth.

— **subovatus** (M. & H.) Whitfield. (1880.)

Rep. Geol. Black hills of Dakota, pp. 434-435, pl. 12, fig. 19. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On Old Woman fork.

— **sp. undet.** Meek. (1870.)

Proc. Am. Philos. Soc., vol. 11, 1869-1870, p. 429. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Valley of Fountain creek, Colorado.

— **sp. undet.** Hill. (1889.)

Geol. Sur. Texas, Bull. No. 4, p. 20. Austin, 1889. R. T. Hill.

Formation: Cretaceous.

Location: San Antonio, Texas.

**Anisorhynchus** (sub. gen. Con.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 241. Wash., 1876. F. B. Meek.

**Anisus** (sub. gen. Fitzinger.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 536. Wash., 1876. F. B. Meek.

**Anodonta** (Cuvier) White. (1878.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, p. 709. Wash., 1878. C. A. White.

— **corpulentoides** n. s. Lea. (1868.)

Proc. Acad. Nat. Sci., Phila., for 1868, p. 164. Phila., 1868. Isaac Lea.

Formation: Cretaceous.

Location: About six miles northeast of Camden, New Jersey.

— **corpulentoides** (Lea.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 252, pl. 35, fig. 1. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Fish house, Camden county, New Jersey.

— **grandioides** n. s. Lea. (1868.)

Proc. Acad. Nat. Sci., Phila., for 1868, p. 164. Phila., 1868. Isaac Lea.

Formation: Cretaceous.

Location: About six miles northeast of Camden, New Jersey.

**Anodonta—Continued.**— **grandioides** (Lea) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 8, pp. 251-252, pl. 35, figs. 2, 3. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Fish house, Camden county, New Jersey.

— **parallela** n. s. White. (1878.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, p. 709. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Valley of Crow creek, northern Colorado, about ten miles above the confluence of the creek with South Platte river.

— **parallela** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 168. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow creek valley, Colorado.

— **parallela** White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 62, pl. 24, fig. 3a. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of Crow creek, northern Colorado.

— **parallela** White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 23, pl. 19, fig. 5. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of Crow creek, northern Colorado.

— **parallela?** (White) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can. Cont. Can. Paleont. vol. 1, pt. 1, p. 64. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South Saskatchewan, one mile below the mouth of Bow river, Canada.

— **propatoris** n. s. White. (1877.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 3, No. 3, p. 691. Wash., 1877. C. A. White.

Formation: Cretaceous.

Location: Dog creek, and also upon the north side of the Missouri river, near Birch creek, Montana.

— **propatoris** White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 23, pl. 19, figs. 6-9. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— **propatoris** White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 61-62, pl. 24, figs. 2a-d. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Dog creek, and also upon the north side of the upper Missouri river, near Birch creek, Montana.

**Anodonta—Continued.****— propatoris? (White) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can. Cont. Can. Paleont., vol. 1, pt. 1, pp. 58-59, pl. 9, figs. 2, 2a. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Forty-ninth parallel, six miles west of the first or south branch of the Milk river; Big Island bend, on the Belly river; Milk River ridge; South Saskatchewan, eight miles above the mouth of the Red Deer river; Red Deer river, township 21, range 12, west of 4th principal meridian; near Bull's Head, Canada.

**Anomia (Linn.) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 284. New Haven, 1830. S. G. Morton.

**— andersonii n. s. M. & V. (1878.)**

Proc. Acad. Nat. Sci., Phila., pt. 2, for 1878, p. 272, figs. 1 and 2. Phila., 1878. Mazyck & Vogdes.

Formation: Cretaceous.

Location: Artesian well on the Citadel Green, Charleston, S. C., between 1,880 and 1,930 feet below the surface.

**— argentaria n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 293, pl. 5, fig. 10. New Haven, 1833. S. G. Morton.

Formation: Ferruginous sand. [Cretaceous.]

Location: New Jersey.

**— argentaria Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 61, pl. 5, fig. 10. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: St. Georges, Delaware.

**— argentaria (Morton) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., 1876, pp. 319, 320. Phila., 1876. Wm. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Georgia.

**— argentaria (Mort.) Whitfield. (1884.)**

Mon. U. S. Geol. Sur., vol. 9, p. 42, pl. 4, figs. 9-11. Wash., 1885. F. P. Whitfield.

Location: Freehold, N. J.

**— concentrica n. s. Meek. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, pp. 311-312. Phila., 1861. F. B. Meek.

Formation: Cretaceous.

Location: Near Bear river, on Sulphur creek, lat. 41° 12', long. 110° 50'.

**— concentrica Meek. (1876.)**

Rep. Expl. Great Basin Terr. Utah, p. 359, pl. 4, fig. 3. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Bear river, near the mouth of Sulphur creek, Wyoming.

**— ephippium ? (Lam.) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, pp. 284, 285. New Haven, 1830. S. G. Morton.

Formation: Ferruginous sand. [Cretaceous.]

Location: St. Georges, Del., and other places in the vicinity. Near Arneytown, N. J.

**Anomia—Continued.****— flemingi n. s. Meek. (1859.)**

N. W. Terr. Rep. Prog. Assin. and Saskat. Expl. Exped., H. Y. Hind, p. 183, pl. 1, figs. 2, 3. Toronto, 1859. F. B. Meek.

Formation: Cretaceous.

Location: Little Souris river, Canada.

**— ? gryphorhynchus n. s. Meek. (1872.)**

Fifth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 375-376. Wash., 1872. F. B. Meek.

Formation: Cretaceous.

Location: Point of Rocks, Wyoming.

**— gryphorhynchus (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 166-167. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow creek valley, Colorado.

**— gryphorhynchus (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 208. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Yampa valley, near Cañon park, Colorado.

**— gryphorhynchus (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 215. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bitter creek valley, two miles west of Point of Rocks station, Wyoming.

**— gryphorhynchus (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 217. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Two miles below Point of Rocks; Crow creek; Black buttes, Wyoming; Yampa valley; near Cañon park, Colorado.

**— gryphorhynchus (Meek) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 57, pl. 25, figs. 1a-c. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Two miles below Point of Rocks, Wyoming.

**— gryphorhynchus (Meek) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 16, pl. 12, figs. 12-15. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Colorado and Wyoming.

**— lineata n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 203-204, pl. 28, fig. 193. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas flat, Pence's ranch, Chico creek, etc., California.

**Anomia—Continued.**

- **linifera** n. s. Conrad. (1875.)  
Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh,  
1875. W. C. Kerr. App. A, p. 2, pl. 1, fig. 1.  
T. A. Conrad.  
Formation: Cretaceous.  
Location: Snow Hill, Greene county, North Carolina.
- **lintea** n. s. Conrad. (1875.)  
Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh,  
1875. W. C. Kerr. App. A, p. 2. T. A. Conrad.  
Formation: Cretaceous.  
Location: The Barn, Cape Fear river, North Carolina.
- **micronema** n. s. Meek. (1875.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 1,  
No. 1, 2d ser. p. 43. Wash., 1875. F. B. Meek.  
Formation: Cretaceous.  
Location: Two hundred miles east of Denver,  
Colorado.
- **micronema** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 165-166. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Crow creek valley, Colorado.
- **micronema** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 190. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Bijou creek, Colorado.
- **micronema** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 208. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Yampa valley, near Cañon park,  
Colorado.
- **micronema** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 211. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Danforth hills, Colorado.
- **micronema** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 215. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Rock Springs, Wyoming.
- **micronema** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 217. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Black buttes and Rock Springs,  
Wyoming.
- **micronema** (Meek) White (under  
valve.) (1882.)  
Proc. U. S. Nat. Mus., vol. 5, pp. 97-98, pl. 3,  
fig. 3. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Northeastern Colorado.

**Anomia—Continued.**

- **micronema** (Meek) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 57-58, pl. 25, figs. 2a-d. Wash.,  
1883. C. A. White.  
Formation: Cretaceous.  
Location: From a shaft sunk on the Kansas  
Pacific railroad, two hundred miles east of Den-  
ver, Colo., 45 feet below the surface.
- **micronema** (Meek) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 16, pl. 12, figs.  
6-11. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Northeastern Colorado.
- **micronema** (Meek) Whiteaves.  
(1885.)  
Geol. and Nat. Hist. Sur., Can. Cont. Can.  
Paleont., vol. 1, pt. 1, p. 64. Montreal, 1885.  
J. F. Whiteaves.  
Formation: Cretaceous.  
Location: South Saskatchewan, half a mile below  
the forks of the Bow and Belly rivers, Canada.
- **nitida** n. s. Meek. (1876.)  
Rep. Expl. Exped., Santa Fé, New Mexico, to  
junction of Grand and Green rivers, p. 125, pl.  
1, figs. 4a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Pope's Well.
- **obliqua** n. s. (M. & H.) (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 181.  
Phila., 1861. Meek & Hayden.  
Formation: Cretaceous.  
Location: Near mouth of Niobrara river, Ne-  
braska.
- **? obliqua** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 22, pl. 9,  
fig. 2. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Near the mouth of the Niobrara  
river, on the Missouri.
- **obliqua** (M. & H.) Whiteaves.  
(1889.)  
Geol. and Nat. Hist. Sur., Can. Cont. Can.  
Paleont., vol. 1, pt. 2, p. 187. Montreal, 1889.  
J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Vermillion river, township 24, range  
20 w.; and Ochre river, township 22, range 17  
w. Manitoba.
- **perstrigosa** n. s. Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur., Can.; Cont. Can.  
Paleont., vol. 1, pt. 1, pp. 4-5, pl. 1, fig. 2. Mon-  
treal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Upper Belly river, 23 miles above the  
mouth of the Waterton. St. Mary's river series,  
Canada.
- **propatoris** n. s. White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 14-15, pl. 12, figs. 15a, b. Wash.,  
1883. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

**Anomia—Continued.****—propatoris White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 16, pl. 5, figs. 6, 7. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

**—raetiformis n. s. Meek. (1877.)**

Rep. Geol. Expl. 40th parallel, vol. 4, pt. 1, p. 141, fig. 1. Wash., 1877. F. B. Meek.  
Formation: Cretaceous.  
Location: Ridge southeast of Laporte, Colorado territory.

**—sellæformis n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser. 1855-1858, p. 330, pl. 34, fig. 6. Phila., 1855-1858. T. A. Conrad.  
Formation: Cretaceous.  
Location: Owl creek, three miles north of the town of Ripley, Miss.

**—semiglobosa (Gein.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges. Band 22, pp. 231-232. Berlin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: Woodbury and Haddonfield, New Jersey.

**—subtrigonalis n. s. M. & H. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 181. Phila., 1861. Meek & Hayden.  
Formation: Cretaceous.  
Location: Bijou hill, Nebraska.

**—?subtrigonalis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 22-23, pl. 16, figs. 4a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Bijou hill, on the Missouri.

**—tellinoides n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 294, pl. 5, fig. 11. New Haven, 1833. S. G. Morton.  
Formation: Ferruginous sand (Cretaceous).  
Location: New Jersey.

**—tellinoides Morton. (1834.)**

Synop. Org. Rem. Cret. Gr., U. S. p. 61, pl. 5, fig. 11, Phil., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey, etc.

**—tellinoides (Mort.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, p. 43, pl. 4, figs. 12, 13. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Holmdel and Freehold, New Jersey.

**—truncata (Gein.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges. Band 22, p. 232. Berlin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: Woodbury and Haddonfield, New Jersey.

**—vancouverensis n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 202, pl. 33, fig. 102. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Departure bay, near Nanaimo, Vancouver island.

**Anomia—Continued.****—vancouverensis (Gabb) Whiteaves. (1879.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 175-177, pl. 20, figs. 5, 5a-d. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Banks of the Trent river, Vancouver island, above the falls.

**—vancouverensis (Gabb) White. (1889.)**

Bull. U. S. Geol. Sur. No. 51, p. 36. Wash., 1889. C. A. White.  
Formation: Cretaceous.  
Location: Waldron island.

**—(Placunopsis ?) gryphorhynchus Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 509-511. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Two miles below Point of Rocks, Wyoming.

**—? White. (1878.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 234. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

**—sp. undet. Hill. (1888.)**

Ann. Rep. Geol. Sur. Arkansas for 1888, vol. 2, p. 135. Little Rock, 1888. R. T. Hill.  
Formation: Cretaceous?  
Location: Arkansas.

**—Anthonya n. g. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 181-182. Phila., 1864. W. M. Gabb.

**—cultriformis n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 182, pl. 30, figs. 236, 236a. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Martinez, Cal.

**—Anthophyllum (Schweigg.) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 288. New Haven, 1830. S. G. Morton.

**—atlanticum n. s. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 288. New Haven, 1830. S. G. Morton.  
Formation: Ferruginous sand (Cretaceous).  
Location: Gloucester county, New Jersey.

**—atlanticum Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 18, pl. 1, figs. 9, 10. New Haven, 1830. S. G. Morton.

**—atlanticum Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 80, pl. 1, figs. 9, 10. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Gloucester county, New Jersey.

**—Morton. (1830.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 123-124. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.

**Aphrodina n. g. Conrad. (1868.)**

- Am. Jour. Conch. vol. 4, p. 246. Phila., 1868. Wm. M. Gabb.

— (sub. gen. Conrad.) **Meek. (1876.)**

- Rep. U. S. Geol. Sur. Terr., vol. 9, p. 179. Wash., 1876. F. B. Meek.

— **regia n. s. Conrad. (1875.)**

- Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr. App. A, pp. 7-8, pl. 2, fig. 7. T. A. Conrad.

Formation: Cretaceous.

Location: Snow hill, Greene county, North Carolina.

— **tippiana (Conrad sp.) Conrad. (1868.)**

- Am. Jour. Conch. vol. 4, p. 246, pl. 18, fig. 5. Phila., 1868. T. A. Conrad.

Formation: Cretaceous.

— **tippiana (Con.) Whitfield. (1885.)**

- Mon. U. S. Geol. Sur., vol. 9, pp. 154-155, pl. 22, figs. 6, 7. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Deep cut of the Holmdel and Keyport turnpike, Monmouth county, and at Rev. G. C. Schanck's pits, Marlborough, and from Cream ridge, New Jersey.

**Aporrhais (Petiver) Conrad. (1858.)**

- Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 330. Phila., 1855-1858. T. A. Conrad.

— (Dillw.) **Gabb. (1876.)**

- Proc. Acad. Nat. Sci., Phila., for 1876, p. 299. Phila., 1876. Wm. M. Gabb.

— (Dillwyn typical) **Meek. (1876.)**

- Rep. U. S. Geol. Sur. Terr., vol. 9, p. 320. Wash., 1876. F. B. Meek.

— (Dillwyn) **Meek. (1876.)**

- Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 320-322. Wash., 1876. F. B. Meek.

— **angulata n. s. Gabb. (1864.)**

- Geol. Sur. Cal., Paleont., vol. 1, p. 128, pl. 20, fig. 84. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Bull's Head point, near Martinez, Cal.

— **biangulata (M. & H.) Meek. (1876.)**

- Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 322-323, pl. 19, figs. 6a-c, fig. 37, p. 322. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles from its mouth.

— **? bicarinata n. s. Gabb. (1876.)**

- Proc. Acad. Nat. Sci. Phila., for 1876, pp. 299-300. Phila., 1877. Wm. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Georgia.

— **californica n. s. Gabb. (1864.)**

- Geol. Sur. Cal., Paleont., vol. 1, pp. 128-129, pl. 29, figs. 230a, b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Orestimba cañon; Martinez; Puerto cañon, Stanislaus county; Siskiyou mountain, California.

**Aporrhais—Continued.**— **decemlirata n. s. Conrad. (1858.)**

- Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, pp. 330-331, pl. 35, fig. 11. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **exilis n. s. Gabb. (1864.)**

- Geol. Sur. Cal., Paleont., vol. 1, p. 129, pl. 29, fig. 231. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

— **falciformis n. s. Gabb. (1864.)**

- Geol. Sur. Cal., Paleont., vol. 1. pp. 127-128, pl. 20, fig. 83. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs; Chico creek; Pence's ranch, Butte county; Texas Flat, Placer county, California.

— **meeki n. s. Whitfield. (1877.)**

- U. S. Geogr. and Geol. Sur. Rocky Mt. region; Prelim. Rep. Paleont. Black hills, p. 37. Wash., 1877. R. P. Whitfield.

Form: Cretaceous.

Location: On the Cheyenne river near Rapid creek, Black hills, Dakota.

— **meeki Whitfield. (1880.)**

- Rep. Geol. Black hills of Dakota, p. 426, pl. 12, fig. 5. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river near Rapid creek, Black hills.

— **newberryi (Meek.) Whitfield. (1880.)**

- Rep. Geol. Black hills of Dakota, pp. 425-426, pl. 12, fig. 4. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Rio de la Plata.

— **parva n. s. (M. & H.) (1860.)**

- Proc. Acad. Nat. Sci., Phila., for 1860, p. 178. Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above the mouth, Nebraska.

— **sublevis n. s. M. & H. (1860.)**

- Proc. Acad. Nat. Sci., Phila., for 1860, p. 178. Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, Nebraska.

— **(Goniocheila) castorensis n. s. Whitfield. (1877.)**

- U. S. Geogr. and Geol. Sur. Rocky Mt. region; Prelim. Rep. Paleont. Black hills, p. 38. Wash., 1877. R. P. Whitfield.

Formation: Cretaceous.

Location: On the east fork of Beaver creek, Black hills.

— **(Goniocheila) castorensis Whitfield. (1880.)**

- Rep. Geol. Black hills of Dakota, p. 427, pl. 12, fig. 1. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: East fork of Beaver creek, Black hills.

**Aporrhais**—Continued.

- *sp. undet.* Whiteaves. (1874.)  
 Geol. Sur. Can. Rep. Prog. for 1873-1874, p. 263.  
 Montreal, 1874. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Nanaimo river, Vancouver island, two  
 and one-fourth and two and one-half miles up.

**Aptychus** (Meyer) Barcena. (1877.)

An. Museo. Nac. Mex., tomo, 1, pp. 89, 90.  
 Mexico, 1877-1879. M. Barcena.

— *arenasii* Barcena. (1877.)

An. Museo. Nac. Mex. tomo 1, pp. 90, 91, figs.  
 4-6. Mexico, 1877-1879. M. Barcena.

Formation: Mesozoic.

Location: Peñon Blanco mountains, San Luis  
 Potosi, Mexico.

**Arbacia** *sp. undet.* Roemer. (1849.)

Texas, p. 392. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: New Braunfels, Texas.

**Arca** [Linn.] Say. (1820.)

Am. Jour. Sci., 1st ser., vol. 2, p. 45. New Haven,  
 1820. Thomas Say.

Formation: Alluvium (Cretaceous).

Location: New Jersey.

— *altirostris* n. s. Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 325.  
 Phila., 1862. Wm. M. Gabb.

Formation: Cretaceous.

Location: Crosswicks, New Jersey.

— *altirostris* (Gabb) Whitfield. (1885.)

Mong. U. S. Geol. Survey, vol. 9, pp. 82-83, pl. 12,  
 figs. 22, 23. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Crosswicks? New Jersey.

— *breweriana* n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, pp. 193-194,  
 pl. 25, fig. 181. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Shasta county;  
 Tuscan Springs, Tehama county, Cal.

— ? *coalvillensis* n. s. White. (1876.)

Rep. Geol. Uinta Mts., pp. 115-116. Wash., 1876.  
 C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— *decurtata* n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 195, pl. 31,  
 figs. 265, 265a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Rag Cañon, Napa county, California.

— *equilateralis* n. s. Meek. (1858.)

Trans. Albany Inst., vol. 4, pp. 39, 40. Albany,  
 1858-1864. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

— ? *equilateralis* (Meek *sp.*) Meek.  
(1876.)

Bull. U. S. Geol. and Geog. Sur. Terr., vol. 2,  
 No. 4, p. 357, pl. 2, figs. 6, 6a. Wash., 1876.  
 F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo?, Vancouver island.

**Arca**—Continued.— *exaltata* (Nils.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges. Band., 22, p. 233.  
 Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: New Jersey.

— *glabra* (Sow.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges. Band. 22, p. 233.  
 Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Tinton Falls and Blockwoodtown, New  
 Jersey.

— *gratiota* n. s. Hill. (1888.)

Ann. Rep. Geol. Sur. Ark., for 1888, vol. 2,  
 p. 133, pl. 4, figs. 2, 2a. Little Rock, 1888.  
 R. T. Hill.

Formation: Cretaceous(?).

Location: Upper part of gypsum bluffs of the  
 Little Missouri river, Arkansas.

— *gravida* n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, pp. 194-195  
 pl. 30, fig. 264. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Rag Cañon, Napa county, San Luis  
 Gonzaga ranch, Pacheco's pass, Cal.

— *hornii* n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 194, pl. 30, fig.  
 263. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon, California.

— *ligeriensis* (d'Orb.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, pp. 233-234.  
 Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Tinton Falls, Eatontown, Blackwood-  
 town, New Jersey.

— ? *parallela* n. s. Meek. (1871.)

Fourth Ann. Rep. U. S. Geol. and Geog. Sur.  
 Terr., pp. 303-304. Wash., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles south west of Salina, Saline  
 county, Kansas.

— *proutiana* n. s. Shumard. (1859.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp.  
 601-602. St. Louis, 1856-1860. B. F. Shumard,

Formation: Cretaceous.

Location: Comanche peak and Parker county, near  
 the Brazos river, Texas.

— *quindecimradiata* n. s. Gabb.  
(1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 95, pl. 2,  
 fig. 1. Phila., 1861. Wm. M. Gabb.

Formation: Cretaceous.

Location: Northerly portions of New Jersey.

— *quindecimradiata* (Gabb) Whitfield.  
(1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 208, pl. 27, figs.  
 10-13. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Near New Egypt, New Jersey.

**Arca—Continued.**

- **rostellata** n. s. Morton. (1834.)  
 Synop. Org. Rem. Cret. Gr. U. S., p. 64, pl. 3, fig. 11. Phila., 1834. S. G. Morton.  
 Formation: Cretaceous.  
 Location: Alabama.
- **saffordii** n. s. Gabb. (1860.)  
 Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 397, pl. 68, fig. 37. Phila., 1858-1860. Wm. M. Gabb.  
 Formation: Cretaceous.  
 Location: Hardeman county, Tennessee.
- **subelongata** n. s. Conrad. (1857.)  
 Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 148, pl. 6, figs. 3a, b. Wash., 1857. T. A. Conrad.  
 Formation: Cretaceous.  
 Location: Between El Paso and Frontera.
- **sulcatina** n. s. E. & S. (1857.)  
 Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 39. St. Louis, 1856-1860. Evans & Shumard.  
 Formation: Cretaceous.  
 Location: Woods fork, three miles from Grand river.
- **trapezoidea** (Gein.) Credner. (1870.)  
 Zeitsch. Deutsch. Geol. Ges., Band. 22, p. 234. Berlin, 1870. H. Credner.  
 Formation: Cretaceous.  
 Location: Brownville, New Jersey.
- **uniopsis** n. s. Conrad. (1853.)  
 Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 275, pl. 24, fig. 17. Phila., 1850-1854. T. A. Conrad.  
 Formation: Cretaceous.  
 Location: Burlington county, New Jersey.
- **vancouverensis** n. s. Meek. (1858.)  
 Trans. Albany Inst., vol. 4, p. 40. Albany, 1858-1864. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Nanaimo, Vancouver Island.
- (**Barbatia**) **parva-missouriensis** n. s. Hill. (1888.)  
 Ann. Rep. Geol. Sur. Arkansas for 1888, vol. 2, p. 133, pl. 4, figs. 5, 4a, 4b, pl. 2, fig. 22. Little Rock, 1888. R. T. Hill.  
 Formation: Cretaceous (?).  
 Location: Arkansas.
- (**Cucullæa**) **cordata** n. s. M. & H. (1856.)  
 Proc. Acad. Nat. Sci., Phila., for 1856, p. 86. Phila., 1857. Meek & Hayden.  
 Formation: Cretaceous.  
 Location: Moreau trading post, Nebraska.
- (**Cucullæa**) **inornata** n. s. M. & H. (1858.)  
 Proc. Acad. Nat. Sci., Phila., for 1858, p. 51. Phila., 1859. Meek & Hayden.  
 Formation: Jurassic.  
 Location: Southwestern base of Black hills; also, around Bear butte, on east side of Black hills.
- (**Cucullæa**) **shumardi** n. s. M. & H. (1856.)  
 Proc. Acad. Nat. Sci., Phila., for 1856, p. 86. Phila., 1857. Meek & Hayden.  
 Formation: Cretaceous.  
 Location: Moreau trading post, Nebraska.

**Arca—Continued.**

- (**Macrodon**) **eufalensis** n. s. Gabb. (1860.)  
 Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 398, pl. 68, fig. 38. Phila. 1858-1860. Wm. M. Gabb.  
 Formation: Cretaceous.  
 Location: Eufaula, Alabama.
- **sp. undet.** Roemer. (1849.)  
 Texas, p. 404. Bonn, 1849. F. Roemer.  
 Formation: Cretaceous.  
 Location: Fredericksburg, Texas.
- **sp. undet.** Roemer. (1849.)  
 Texas, p. 404. Bonn, 1849. F. Roemer.  
 Formation: Cretaceous.  
 Location: Ford, near New Braunfels, Texas.
- **sp. undet.** Roemer. (1852.)  
 Kreide. von Texas, p. 53. Bonn, 1851. F. Roemer.  
 Formation: Cretaceous.  
 Location: Fredericksburg, Tex.
- **sp. undet.** Roemer. (1852.)  
 Kreide. von Texas, p. 53. Bonn, 1852. F. Roemer.  
 Formation: Cretaceous.  
 Location: Ford of the Guadalupe, New Braunfels, Texas.
- **Whiteaves.** (1882.)  
 Proc. and Trans. Roy. Soc., Canada, vol. 1, sec. 4, p. 85. Montreal, 1883. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: North slope of Jackass mountain, Canada.
- Arcestes** (Suess) Hyatt. (1877.)  
 Rep. Geol. Expl. 40th parallel, vol. 4, pt. 1, pp. 119-120. Wash., 1877. Alpheus Hyatt.
- ? **cirratu**s n. s. White. (1880.)  
 Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 6, pp. 116-117. Wash., 1880. C. A. White.  
 Formation: Jura-Trias. [Triassic.]  
 Location: Locality No. 1, southeastern Idaho.
- **cirratu**s White. (1883.)  
 Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 116-117. Wash., 1883. C. A. White.  
 Formation: Triassic.  
 Location: Locality No. 1. Within the limits of Idaho, about sixty-five miles north of the boundary line between that territory and Utah, about eighteen miles west of the boundary line between Idaho and Wyoming, and about five miles west of Gray's lake.
- **gabb**i n. s. Meek. (1877.)  
 Rep. Geol. Expl. 40th parallel, vol. 4, pt. 1, pp. 121-123, pl. 10, figs. 6a, b. Wash., 1877. F. B. Meek.  
 Formation: Triassic.  
 Location: West Humboldt range, near Cottonwood canyon, Nevada.
- **gabb**i (Meek) Whiteaves. (1887.)  
 Geol. and Nat. Hist. Sur. Can., vol. 2, n. ser., 1886. App. 1, p. 110 B. Montreal, 1887. J. F. Whiteaves.  
 Formation: Triassic.  
 Location: Bay five and one-half miles west of Cape Commerell, north end of Vancouver island.

**Arcestes—Continued.**

- **gabbii** (Meek) Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can.;  
Paleont., vol. 1, pt. 2, p. 141. Montreal, 1889.  
J. F. Whiteaves.  
Formation: Triassic.  
Location: Bay five and one-half miles west of Cape  
Commerell, north end of Vancouver island.

- **? perplanus** n. s. Meek. (1877.)  
Rep. Geol. Expl. 40th parallel, vol. 4, pt. 1, pp.  
120-221, pl. 11, figs. 7, 7a. Wash., 1877. F. B.  
Meek.  
Formation: Triassic.  
Location: Buena Vista canyon, south fork, West  
Humboldt range.

- **? White.** (1880.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5,  
No. 1, p. 117. Wash., 1880. C. A. White.  
Formation: Jura-Trias. (Triassic.)  
Location: Locality No. 1, southeastern Idaho.

- **? White.** (1880.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5,  
No. 1, p. 117. Wash., 1880. C. A. White.  
Formation: Jura-Trias. (Triassic.)  
Location: Locality No. 1, southeastern Idaho.

- **? White.** (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 117-118. Wash., 1883. C. A.  
White.  
Formation: Triassic.  
Location: Locality No. 1. Within the limits of  
Idaho, about sixty-five miles north of the  
boundary line between that territory and Utah,  
about eighteen miles west of the boundary line  
between Idaho and Wyoming, and about five  
miles west of Gray's lake.

- Archæoplax** n. g. Stimpson. (1863.)  
Bost. Jour. Nat. Hist., vol. 7, 1859-1863, p. 584.  
Boston, 1863. William Stimpson.

- **signifera** n. s. Stimpson. (1863.)  
Bost. Jour. Nat. Hist., vol. 7, 1859-1863, pp. 584-  
589, pl. 12, figs. 1-4. Boston, 1863. William  
Stimpson.  
Formation: Cretaceous.  
Location: Gay head, the southwestern extremity  
of Marthas Vineyard.

- Architectonica** (Bolt.) Gabb. (1861.)  
Proc. Acad. Nat. Sci. Phila., for 1861, p. 321.  
Phila., 1862. Wm. M. Gabb.

- **abbottii** n. s. Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, pp. 321-322.  
Phila., 1862. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Mullica hill and Timber creek, New  
Jersey; Prairie Bluff, Alabama.

- **cognata** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, p. 117, pl. 20, fig.  
72, 72a-e. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Seven miles south of Martinez, near  
Clayton; Bull's Head point, near Martinez, Cal.

**Architectonica—Continued.**

- **hornii** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, pp. 117-118, pl. 23,  
figs. 224, 224a, b. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Fort Tejon, Cal.

- **inornata** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, p. 118, pl. 20, fig.  
73. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Southwest of Martinez; Tuscan Springs,  
Tehama county, Cal.

- **veatchii** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, pp. 116-117, pl. 19,  
fig. 71. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Tuscan springs, Tehama county, Cal.

- Arcomya** (Ag.) Gabb. (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, p. 179. Phila.,  
1869. W. M. Gabb.

- **crassissima** n. s. Eichwald. (1871.)  
Geog.-Paleont. Bemerk. Halb. Mang. Aleut.  
Inseln., p. 127. St. Petersburg, 1871. E. Eich-  
wald.  
Formation: Cretaceous.  
Location: Alaska.

- **undulata** n. s. Gabb. (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, p. 179, pl. 29, fig.  
67. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Indian creek, Butte county, Cal.

- Arcopagella** n. g. Meek. (1871.)  
Fourth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 308-309. Wash., 1871. F. B. Meek.

- **? macrodonta** n. s. Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 202-203, pl.  
1, fig. 2. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Big Sioux river, three miles above its  
mouth.

- **mactroides** n. s. Meek. (1871.)  
Fourth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 309-310, figs. A. & B. text. Wash.,  
1871. F. B. Meek.  
Formation: Cretaceous.  
Location: Twelve miles southwest of Salina, Saline  
county, Kansas.

- **mactroides** (Meek) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 202, pl. 2, figs.  
4a-d. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Twelve miles southwest of Salina, Saline  
county, Kansas.

- Arcopagia** (Leach) Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p.  
149. Wash., 1857. T. A. Conrad.

- **concentrica** (d'Orb.) Eichwald.  
Geog.-Paleont. Bemerk. Halb. Mang. Aleutischen  
Inseln., p. 171, Taf. 16, figs. 17, 18. St. Peters-  
burg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaska.



**Arcopegia—Continued.****— numismalis (d'Orb.) Eichwald. (1871.)**

Geol. Palcont. Bermerk. Halb. Mang., Aleutischen Inseln., pp. 122-123. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Kadiak island, Alaska.

**— texana n. s. Roemer. (1852.)**

Kreide. von Texas, pp. 46-47, Taf. 6, figs. 8a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Texas.

**— texana (Roem.) Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 149, pl. 4, figs. 3a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Leon springs, Texas.

**Arcopterna n. g. Conrad. (1875.)**

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, p. 5. T. A. Conrad.

**— carolinensis n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, p. 5, pl. 1, fig. 6. T. A. Conrad.

Formation: Cretaceous.

Location: Snow hill, Greene county, North Carolina.

**Arene n. g. Conrad. (1875.)**

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, p. 6. T. A. Conrad.

**— carolinensis n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, pp. 6-7, pl. 2, fig. 19. T. A. Conrad.

Formation: Cretaceous.

Location: Snow hill, Greene county, North Carolina.

**Arnioceras n. g. Hyatt. (1889.)**

Mem. Mus. Comp. Zool., vol. 16, pp. 161-162. Cambridge, 1889. A. Hyatt.

**— humboldti n. s. Hyatt. (1889.)**

Mem. Mus. Comp. Zool., vol. 16, pp. 173-174, figs. 31-33. Cambridge, 1879. A. Hyatt.

Formation: Jurassic.

Location: Humboldt county, Nevada.

**— ? nevadanum (Gabb sp.) Hyatt. (1889.)**

Mem. Mus. Comp. Zool., vol. 16, pp. 172-173. Cambridge, 1889. A. Hyatt.

Formation: Lower Lias? [Jurassic?]

Location: Near Volcano, in Nevada.

**Arniotites n. g. ms. (Hyatt) Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 144-145. Montreal, 1889.

**— vancouverensis Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 146, pl. 19, fig. 2. Montreal, 1889. J. F. Whiteaves.

Formation: Triassic.

Location: Three localities in the Queen Charlotte islands; at five on or near the north or north-west coast of Vancouver island; at Hernandez island in the Strait of Georgia.

**Arrhoges (sub. gen. Gabb) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 321 Wash., 1876. F. B. Meek.

**Artemis (Poli) Conrad. (1853.)**

Proc. Acad. Nat. Sci., Phila., vol. 6, 1852-1853, p. 320. Phila., 1854. T. A. Conrad.

**— excavata (Mort. sp.) Conrad. (1853.)**

Proc. Acad. Nat. Sci., Phila., vol. 6, 1852-1853, p. 320. Phila., 1854. T. A. Conrad.

Formation: Cretaceous.

Location: Arnetown, New Jersey.

**Asaphis (Modere) Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 154. Phila. 1864. W. M. Gabb.

**— multicostata n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 131, pl. 29, fig. 70. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Crooked creek of the Des Chutes river, Central Oregon, east of the Cascade mountains.

**— undulata n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 154, pl. 22, fig. 129. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas Flat, Placer county, Cal.

**Aspidospira saxipara n. s. Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 38. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**Astacus (Lam.) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 287. New Haven, 1830. S. G. Morton.

**— sp. undet. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 287. New Haven, 1830. S. G. Morton.

Formation: Ferruginous sand [Cretaceous].

Location: Chesapeake and Delaware canal.

**— sp. undet. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 74. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Delaware.

**Astarte (Sow.) Conrad. (1853.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 276. Phila., 1850-1854. T. A. Conrad.

**— annosa n. s. Conrad. (1868.)**

Am. Jour. Conch., vol. 4, p. 279, pl. 20, fig. 5. Phila., 1868. T. A. Conrad.

Formation: Triassic. [Cretaceous.]

Location: South river, New Jersey.

**— appressa n. s. Gabb. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869-1870, pp. 12-13, pl. 5, fig. 10. Phila., 1870. Wm. M. Gabb.

Formation: Jurassic.

Location: Volcano, about thirty miles southeast of Walker's lake, Nevada.

**Astarte—Continued.**

- ? *arenosa* n. s. H. & W. (1877.)  
Rep. Geol. Expl. 40th parallel, vol. 4, pt. 2, pp. 297-298, pl. 7, figs. 20, 21. Wash., 1877. Hall & Whitfield.  
Formation: Jurassic?  
Location: North head of Chalk creek, Utah.  
Picked up in the débris, and of no stratigraphical importance.
- *caelata* (Müll.) Credner. (1870.)  
Zeitsch. Deutsch. Geol. Ges., Band 22, p. 236. Berlin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: Woodbury, New Jersey.
- *cardinioides* n. s. Whiteaves. (1874.)  
Geol. Sur. Canada Rep. Prog. for 1873-1874, p. 267, pl. (?) fig. 3. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest bay, Vancouver island.
- *cardinioides* Whiteaves. (1874.)  
Geol. Sur. Canada Rep. Prog. for 1873-1874, p. 262. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest bay, Vancouver island.
- *carlottensis* n. s. Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Canada, Cont. Can. Paleont., vol. 1, pt. 2, pp. 154-155. Montreal, 1889. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: East side of Alliford bay, Moresby island, Q. C. I., south side of Alliford bay; east end of Mand island, in Skidegate channel, Q. C. I.
- *carlottensis* Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Canada, Cont. Can. Paleont., vol. 1, pt. 2, p. 168. Montreal, 1889. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Rocky mountains, three miles north of the east end of Devil's lake, Northwest territory.
- *conradiana* n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, p. 178, pl. 24, fig. 161. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Texas Flat, Placer county, Cal.
- *conradiana* (Gabb) Whiteaves. (1879.)  
Geol. Sur. Canada Mes. Foss., vol. 1, pt. 2, p. 160, pl. 18, fig. 5, 5a. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Sucia islands.
- *conradiana* var. *tuscanica* (Gabb.) Whiteaves. (1879.)  
Geol. Sur. Canada, Mes. Foss., vol. 1, pt. 2, pp. 160-161, pl. 18, fig. 6. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest bay, Vancouver island; Sucia islands.

**Astarte—Continued.**

- *corbicula* n. s. Conrad. (1867.)  
Amer. Jour. Conch., vol. 3, p. 12. Phila., 1867. T. A. Conrad.  
Formation: Cretaceous.  
Location: Haddonfield, New Jersey.
- *crenalirata* n. s. Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 282-283, pl. 46, fig. 25. Phila., 1858-1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Eufaula, Alabama.
- *evansi* (H. & M.) Whitfield. (1880.)  
Rep. Geol. Black hills of Dakota, p. 413, pl. 11, fig. 13. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: On the Cheyenne river, near Rapid creek, Black hills.
- *fragilis* n. s. M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 183. Phila., 1861. Meek & Hayden.  
Formation: Jurassic.  
Location: Southwest base of the Black hills, Nebraska.
- *fragilis* M. & H. (1865.)  
Paleont. upper Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, p. 94, pl. 4, fig. 7. Wash., 1865. Meek & Hayden.  
Formation: Jurassic.  
Location: Southwest base of the Black hills.
- *fragilis* (M. & H.) Whiteaves. (1878.)  
Canadian Naturalist, vol. 8, n. ser., No. 7, pp. 405-406. Montreal, 1878. J. F. Whiteaves.  
Formation: Jurassic.  
Location: Ilitsyoucou river.
- *fragilis* (M. & H.) Whiteaves. (1878.)  
Geol. Sur. Canada, Rep. Prog. for 1876-1877, p. 155. Montreal, 1878. J. F. Whiteaves.  
Formation: Jurassic.  
Location: Ilitsyoucou river, British Columbia.
- ? *fragilis* (M. & H.) Whitfield. (1880.)  
Rep. Geol. Black hills of Dakota, pp. 363-364, pl. 5, figs. 32, 33. Wash., 1880. R. P. Whitfield.  
Formation: Jurassic.  
Location: Redwater valley, Black hills.
- *germani* (Pict. et Camp.) Eichwald. (1871.)  
Geog.-Paleont. Bemerk. Halb. Mang. Aleutischen Inseln, p. 177, Taf. 15, fig. 13. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: South shore of Tukusitun bay and west shore of Kenai bay, Alaska.
- *gregaria* n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 84. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Yellowstone river, Nebraska.

**Astarte—Continued.****— inornata n. s. M. & H. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 183.  
Phila., 1861. Meek & Hayden.

Formation : Jurassic.

Location : Southwest base of Black hills, Nebraska.

**— inornata M. & H. (1865.)**

Paleont., upper Missouri; Smithson. Cont. Knowl., vol. 14, No. 172, p. 94, pl. 3, figs. 12, a, b. Wash., 1865. Meek & Hayden.

Formation : Jurassic.

Location : Southwest base of the Black hills.

**— lævis n. s. Eichwald. (1871.)**

Geog.-Paleont. Bemerk. Halb. Mang. Aleutischen Inseln, p. 178, Taf. 16, fig. 27. St. Petersburg, 1871. E. Eichwald.

Formation : Cretaceous.

Location : Alaska.

**— lineolata n. s. Roemer. (1849.)**

Texas, p. 404. Bonn, 1849. Roemer.

Formation : Cretaceous.

Location : Ford near New Braunfels, Tex.

**— lineolata Roemer. (1852.)**

Kreide. von Texas, p. 51, Taf. 7, figs. 8a-c. Bonn, 1852. F. Roemer.

Formation : Cretaceous.

Location : Ford of the Guadalupe, New Braunfels, Texas.

**— mathewsonii n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 179, pl. 30, fig. 258. Phila., 1864. W. M. Gabb.

Formation : Cretaceous.

Location : Near Martinez, California.

**— octolirata n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser. 1858-1860, pp. 394-395, pl. 63, fig. 27. Phila., 1858-1860. Wm. M. Gabb.

Formation : Cretaceous.

Location : Eufaula, Alabama.

**— packardi n. s. White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 149, pl. 37, figs. 6a, b. Wash., 1883. C. A. White.

Formation : Jurassic.

Location : Near Como station, Wyoming.

**— packardi (White) Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 229-230, pl. 30, figs. 6, 6a, b. Montreal, 1884. J. F. Whiteaves.

Formation : Cretaceous.

Location : East side of Alliford bay; south side of Alliford bay; east end of Maud island.

**— packardi (White) Whiteaves. (1887.)**

Geol. and Nat. Hist. Sur. Can., vol. 2, n. ser. 1886. App. I, p. 112 B. Montreal, 1887. J. F. Whiteaves.

Formation : Cretaceous.

Location : East side of Winter harbor, Forward inlet.

**Astarte—Continued.****— parilis n. s. Conrad. (1853.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 276, pl. 24, fig. 16. Phila., 1850-1854. T. A. Conrad.

Formation : Cretaceous.

Location : Monmouth county, New Jersey.

**— paulina n. s. Eichwald. (1871.)**

Geog. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln, p. 133. St. Petersburg, 1871. E. Eichwald.

Formation : Cretaceous.

Location : St. Paul island, Alaska.

**— ? staminea n. s. Conrad. (1870.)**

Am. Jour. Conch., vol. 6. Phila., 1870-1871, p. 73. Phila., 1871. T. A. Conrad.

Formation : Cretaceous.

Location : Ripley Co., Miss. [Ripley, Tippah Co., Miss.]

**— texana n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 152, pl. 5, fig. 9. Wash., 1857. T. A. Conrad.

Formation : Cretaceous.

Location : Western Texas.

**— thomasii n. s. Conrad. (1855.)**

Proc. Acad. Nat. Sci., Phila., for 1854-1855, p. 267. Phila., 1856. T. A. Conrad.

Formation : Miocene [Cretaceous?].

Location : Near Mullica hill, New Jersey.

**— tuscana n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 179, pl. 30, fig. 257. Phila., 1864. W. M. Gabb.

Formation : Cretaceous.

Location : Tuscan Springs; Pence's ranch, Butte county, California.

**— vancouverensis n. s. Whiteaves. (1874.)**

Geol. Sur. Canada, Rep. Prog. for 1873-1874, pp. 267-268, pl. [not numbered], fig. 4. Montreal 1874. J. F. Whiteaves.

Formation : Cretaceous.

Location : Northwest bay, Vancouver island; coast a little west of Northwest bay.

**— vancouverensis Whiteaves. (1874.)**

Geol. Sur. Canada, Rep. Prog. for 1873-1874, p. 262. Montreal, 1874. J. F. Whiteaves.

Formation : Cretaceous.

Location : Northwest bay, Vancouver island.

**— ventricosa n. s. Meek. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 50, pl. 8, figs. 5-5a. Phila., 1864. F. B. Meek.

Formation : Jurassic.

Location : Genessee valley, Plumas county, Cal.

**— ventricosa (Meek) Whiteaves. (1878.)**

Geol. Sur. Canada, Rep. Prog. for 1876-1877, p. 155. Montreal, 1878. J. F. Whiteaves.

Formation : Jurassic.

Location : Ilitsyouco river, British Columbia.

**— ventricosa (Meek) Whiteaves. (1878.)**

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 405. Montreal, 1878. J. F. Whiteaves.

Formation : Jurassic.

Location : Ilitsyouco river.

**Astarte—Continued.****—veta n. s. Conrad. (1868.)**

Am. Jour. Conch., vol. 4, p. 279, pl. 20, fig. 4. Phila., 1868. T. A. Conrad.

Formation: Triassic [Cretaceous].

Location: South River, New Jersey.

**—veta (Con.) Whitfield. (1884.)**

Mon. U. S. Geol. Sur., vol. 5, pp. 23-24, pl. 2, fig. 1. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Near Washington, Middlesex county, New Jersey.

**—washitensis n. s. Shumard. (1853.)**

Expl. Red river, Louisiana, by R. B. Marcy, pp. 206-207, pl. 3, fig. 3. Wash., 1864. B. F. Shumard.

Formation: Cretaceous.

Location: Camp No. 4, Cross Timbers, Texas.

**—sp. undet. Urquiza. (1882.)**

An. Min. Fomento Rep. Mex., tomo 7, p. 224, fig. 14. Mexico, 1882. M. Urquiza.

Formation: Cretaceous.

Location: Dolores mine, Coalcoman district, state of Michoacan, Mexico.

(=A. minima in list).

**—? Lyell. (1847.)**

Quart. Jour. Geol. Soc., Lond., vol. 3, p. 275, fig. 6b. London, 1847. C. Lyell.

Formation: Jurassic? (Triassic?)

Location: Near Blackheath, Virginia.

**Asterias [Linn.] Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 74. Phila., 1834. S. G. Morton.

**—? dubium n. s. Whitfield. (1877.)**

U. S. Geogr. and Geol. Sur. Rocky Mt. region, Prel. Rep. Paleont. Black hills, p. 15. Wash., 1877. R. P. Whitfield.

Formation: Jurassic.

Location: Park sands seventy feet above the red beds, on the east side of Spearfish creek, near its junction with the Redwater, northeast of Crow peak, Black hills, Dakota.

**—? dubium Whitfield. (1880.)**

Rep. Geol. Black hills of Dakota, pp. 344-345, pl. 3, fig. 3. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: On the east of Spearfish creek, near its junction with the Redwater, Black hills, Dakota.

**—sp. undet. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 74. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: South Carolina.

**Astrea cretacea n. s. Bölsche. (1870.)**

Zeitsch. Deutsch. Geol. Ges., Band 22, pp. 216-217. Berlin, 1870. Wih. Bölsche.

Formation: Cretaceous.

Location: Woodbury and Haddonfield, New Jersey.

**Astroccenia (E. & H.) Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 208. Phila., 1864. W. M. Gabb.

**Astroccenia—Continued.****—guadalupæ n. s. Roemer. (1849.)**

Texas, pp. 391-392. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Hill north of New Braunfels, Texas.

**—guadalupæ Roemer. (1852.)**

Kreide von Texas, p. 87, Taf. 10, figs. 8, a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Left bank of Comal creek, near New Braunfels, Texas.

**—irregularis n. s. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 246, pl. 33, fig. 1. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Maud island, Skidegate channel, west of Alliford bay.

**—? petrosa n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 208, pl. 31, figs. 274. 274a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: One mile west of Martinez, California.

**Ataphrus n. g. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 171. Phila., 1869. W. M. Gabb.

**—compactus Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 303. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: North Carolina.

**—crassus n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 171, pl. 28, fig. 54. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, California.

**—kerri n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 303-304, pl. 17, fig. 10. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: North Carolina.

**Athleta n. sub. gen. Conrad. (1860.)'**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser. 1858-1860, p. 292. Phila., 1858-1860. T. A. Conrad.

**Atresius n. g. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 168-169. Phila., 1869. W. M. Gabb.

**—liratus n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 169, pl. 28, fig. 50. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Colusa county, southeast of the Hot Sulphur Springs, California.

**Aturia (Bronn) Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 59. Phila., 1864. W. M. Gabb.

**—mathewsonii n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 59-60, pl. 17, fig. 31. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez and Clayton (Div. A), and Cañada de las Uvas (Div. B Cal.)

**Asturia—Continued.****— mathewsonii (Gabb) Conrad. (1867.)**

Am. Jour. Conch. vol. 3, p. 6, Phila., 1867. T. A. Conrad.

Formation: Cretaceous.

Location: California.

**Aucella (Keyserling) Meek. (1865.)**

Geol. Sur. Cal., Geology, vol. 1, p. 479. Phila., 1865. F. B. Meek.

**— concentrica (Fisch.) Eichwald. (1871.)**

Geog. Paleont., Bemerk. Halb. Mang. Aleutischen Inseln, pp. 186-187, Taf. 17, figs. 1, 2. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Kenai bay, Alaska.

**— concentrica (Keyserling) Toulou. (1874.)**

Die Zweite Deutsche Nordpolarfahrt. Zweiter Band, p. 503. Leipzig, 1874. Franz Toulou.

Formation: Jurassic [Cretaceous?].

Location: Kuhn island, east coast of Greenland.

**— concentrica Fischer. (1875.)**

Voyages a la cote Nord-Ouest de l'Amérique, pp. 34-35, pl. a, figs. 4-6, par. Alph. L. Pinart, Paris, 1875. P. Fischer.

Formation: Jurassic [Cretaceous?].

Location: Alaska.

**— concentrica White. (1888.)**

Mon. U. S. Geol. Sur. vol. 13, pp. 226-232, pl. 4, figs. 11-15. Wash., 1888. C. A. White.

Formation: Cretaceous.

Location: Fossil Point, Port Müller, Alaska.

**— concentrica White. (1888.)**

Mon. U. S. Geol. Sur. vol. 13, pp. 226-232, pl. 4, figs. 16-20. Wash., 1888. C. A. White.

Formation: Cretaceous.

Location: Near Knoxville, California.

**— concentrica White. (1889.)**

Mon. U. S. Geol. Sur. vol. 13, pp. 226-232, pl. 4, fig. 21. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Washington.

**— concentrica var. crassicollis.****(Keys.) Toulou. (1874.)**

Die Zweite Deutsche Nordpolarfahrt. Zweiter Band, p. 504. Leipzig, 1874. Franz Toulou.

Formation: Jurassic [Cretaceous?].

Location: Kuhn island, east coast of Greenland.

**— concentrica var. inflata n. var. Toulou. (1874.)**

Die Zweite Deutsche Nordpolarfahrt. Zweiter Band, p. 504. Leipzig, 1874. Franz Toulou.

Formation: Jurassic [Cretaceous?].

Location: Kuhn island, east coast of Greenland.

**— concentrica var. rugosa (Keys.) Toulou. (1874.)**

Die Zweite Deutsche Nordpolarfahrt. Zweiter Band, pp. 503-504, Taf. 2, figs. 2a, d, and fig. 3. Leipzig, 1874. Franz Toulou.

Formation: Jurassic [Cretaceous?].

Location: Kuhn island, east coast of Greenland.

**Aucella—Continued.****— concentrica var. rugosissima n. var.****Toulou. (1874.)**

Die Zweite Deutsche Nordpolarfahrt. Zweiter Band, p. 504, Taf. 2, fig. 4. Leipzig, 1874.

Franz Toulou.

Formation: Jurassic [Cretaceous?].

Location: Kuhn island, east coast of Greenland.

**— concentrica var. sublaevis (Keys.)****Toulou. (1874.)**

Die Zweite Deutsche Nordpolarfahrt. Zweiter Band, p. 504. Leipzig, 1874. Franz Toulou.

Formation: Jurassic [Cretaceous?].

Location: Kuhn island, east coast of Greenland.

**— concentrica Fischer (var.) White. (1884.)**

Bull. U. S. Geol. Sur. No. 4, p. 13, pl. 6, figs. 2-12.

Wash., 1884. C. A. White.

**— concentrica (Fischer) var. White. (1884.)**

Bull. U. S. Geol. Sur. No. 4, pp. 13-14, pl. 6.

Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Fossil Point, Port Müller, Alaska.

**— erringtoni (Gabb sp.) Meek. (1865.)**

Geol. Sur. Cal., Geology, vol. 1, pp. 479-480, pl. 1, figs. 2, 375, a-d. Phila., 1865. F. B. Meek.

Formation: Jurassic [Cretaceous?].

Location: Mariposa estate, California.

**— erringtonii (Meek) White. (1888.)**

Mon. U. S. Geol. Sur. vol. 13, pp. 226-232, pl. 4, figs. 6-10. Wash., 1888. C. A. White.

Formation: Cretaceous.

**— erringtoni var. linguiformis n. var. Meek. (1865.)**

Geol. Sur. Cal., Geology, vol. 1, p. 481, pl. 1, figs. 1, 1a. Phila., 1865. F. B. Meek.

Formation: Jurassic [Cretaceous?].

Location: Mariposa estate, California.

**— mosquensis (Buch.) Eichwald. (1871.)**

Geog. Paleont., Bemerk. Halb. Mang. Aleutischen Inseln, pp. 185-186, Taf. 17, figs. 7-12. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

**— mosquensis ? (Von Buch.) Whiteaves. (1876.)**

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 1, pp. 74-78, pl. 10, figs. 3, 3a. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**— mosquensis var. concentrica. Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 151-153. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

**Aucella—Continued.**

Location: Tatlayoco lake, B. C., banks of the upper Skagit river, B. C.; Browning creek, Forward inlet, Quatsino sound, northwest coast of Vancouver island, Long island; Harrison lake, B. C.; also west shore and peninsula on the southeast shore of the same lake, and Chilliwack river, near Tamiahai, B. C.; west side of Winter harbor, in Forward inlet; west of Fraser river, B. C., a little to the north of sources of Bridge river, B. C., from a mountain six or seven thousand feet high above sea level; south fork of Quesnel river, near the foot of Quesnel lake; Porcupine river, N. W. T., in lat.  $67^{\circ} 8' N.$ , long.  $137^{\circ} 47' W.$ ; Yukon river, Alaska, eight miles below the Antoine river, in lat.  $65^{\circ} 15' N.$ , long.  $141^{\circ} 40' W.$

**—piochii Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 194-195, pl. 32, figs. 92a-c. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: From Mount Diablo, at various points along the east face of the Coast range to the north end of the Sacramento valley; Washington, east of Puget sound; Colusa county, east of Clear lake, California.

**—piochii (Gabb) Whiteaves. (1882.)**

Proc. and Trans. Roy. Soc. Canada, vol. 1, sec. 4, pp. 84, 85. Montreal, 1883. J. F. Whiteaves.

Formation: Cretaceous.

Location: Tatlayoca lake and Forward inlet, banks of the upper Skagit.

**—piochii (Gabb) Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can.; Mes. Foss., vol. 1, pt. 3, p. 239. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: Skidegate inlet, west of Alliford bay.

**—piochii (Gabb) Whiteaves. (1887.)**

Geol. and Nat. Hist. Sur. Can., vol. 2, n. ser. 1886. App. I, pp. 111-112b. Montreal, 1887. J. F. Whiteaves.

Formation: Cretaceous.

Location: Tatlayoca lake, B. C.; banks of the upper Skagit river, B. C.; Browning creek, Forward inlet, Quatsino sound, northwest coast of Vancouver island; Long island, Harrison lake, B. C.; west shore and peninsula on the southeast shore of the same lake, and Chilliwack river, near Tamiahai creek, B. C.; Browning creek, Forward inlet; Raft cove on the west coast of Vancouver island, north of Quatsino sound; west of Fraser river, B. C., a little to the north of sources of Bridge river, B. C.; from a mountain six or seven thousand feet high above sea level, south fork of Quesnel river, near the foot of Quesnel lake.

**—piochii (Gabb) White. (1888.)**

Mong. U. S. Geol. Sur., vol. 13, pp. 226-232, pl. 4, figs. 3-5. Wash., 1888. C. A. White.

Formation: Cretaceous.

**—Fischer. (1872.)**

Comptes Rend., 1872, vol. LXV, p. 1785. Paris, 1872. P. Fischer.

Formation: Jurassic [Cretaceous?].

Location: Alaska.

**Aulacoceras carlottense n. s. Whiteaves. (1887.)**

Geol. and Nat. Hist. Sur. Can., vol. 2, n. ser. 1886. App. I, p. 109b. Montreal, 1887. J. F. Whiteaves.

Formation: Triassic.

Location: Houston Stewart channel, in the Queen Charlotte islands.

**Aulacomya (sub. gen. Mörch.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 68. Wash., 1876. F. B. Meek.

**Aulopora sp. Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 220. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Timber creek, New Jersey.

**Avalana subglobosa n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 64. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau trading post, Nebraska.

**Avellana (d'Orb) Meek. (1859.)**

N. W. Terr. Rep. Prog. Assin. and Saskat. Expl. Exped., H. Y. Hind, p. 184. Toronto, 1859. F. B. Meek.

**—(sub. gen. d'Orb.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 283. Wash., 1876. F. B. Meek.

**—concinna (H. & M. sp.) Meek. (1859.)**

N. W. Terr. Rep. Prog. Assin. and Saskat. Expl. Exped., H. Y. Hind, p. 184. Toronto, 1859. F. B. Meek.

Formation: Cretaceous.

Location: Two creeks, on the Assiniboine, Canada.

**—texana n. s. Shumard. (1859.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 597. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Near Bosque creek, in Bosque county, Texas.

**Avicula (Lam.) Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 63. Phila., 1834. S. G. Morton.

**—abrupta n. s. Conrad. (1853.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser. 1850-1854, p. 274, pl. 24, figs. 5, 6. Phila., 1850-1854. T. A. Conrad.

Formation: Cretaceous.

Location: Nimrod Woodward's farm, New Jersey.

**—convexo-plana n. s. Roemer. (1849.)**

Texas, pp. 400-401. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Texas.

**—convexo-plana Roemer. (1852.)**

Kreide von Texas, pp. 61-62, Taf. 7, figs. 9a-d. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Texas.

**Avicula—Continued.**

- **cretacea** n. s. Conrad. (1843.)  
Rep. Hydrol. Basin upper Mississippi river, I. N. Nicollet. App. C, p. 170. Wash., 1843. T. A. Conrad Formation: Cretaceous.  
Location: On the Missouri river.
- **? fibrosa** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, pp. 86-87. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Forks of Cheyenne river, Nebraska.
- **haydeni** n. s. H. & M. (1854.)  
Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 382, pl. 1, figs. 5, a, b. Cambridge and Boston, 1855. Hall & Meek.  
Formation: Cretaceous.  
Location: On the Missouri near Red Cedar island, twenty-five miles below Fort Pierre.
- **homfrayi** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, pp. 29-30, pl. 6, fig. 26. Phila., 1864. W. M. Gabb.  
Formation: Triassic.  
Location: Star district, Humboldt county, Nevada.
- **iridescent** n. s. Shumard. (1861.)  
Proc. Boston Soc. Nat. Hist., vol. 8, 1861-1862, pp. 203-204. Boston, 1862. B. F. Shumard.  
Formation: Cretaceous.  
Location: Head of Pine creek, Lamar county, Texas.
- **laripes** n. s. Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 63, pl. 17, fig. 5. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Delaware.
- **lineata** (Roem.) Eichwald. (1871.)  
Geog. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln., pp. 187-188, Taf. 16, fig. 5. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaska.
- **lingueformis** n. s. (E. & S.) (1854.)  
Proc. Acad. Nat. Sci., Phila., vol. 7, p. 153. Phila., 1856. Evans & Shumard.  
Formation: Cretaceous.  
Location: Sage creek, Nebraska.
- **lingueformis** (E. & S.) Meek. (1859.)  
N. W. Terr., Rep. Prog. Assin. and Saskat. Expl. Exped. H. Y. Hind, p. 183, pl. 1, fig. 6. Toronto, 1859. F. B. Meek.  
Formation: Cretaceous.  
Location: Sandy hills, south branch, Saskatchewan. Height of land in the Qu'Appelle valley, near the elbow of south branch of the Saskatchewan, Canada.
- **mucronata** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, p. 30, pl. 5, fig. 27. Phila., 1864. W. M. Gabb.  
Formation: Triassic.  
Location: Gifford's ranch, Plumas county, Cal.
- **nebrascana** n. s. F. & S. (1857.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 38. St. Louis, 1856-1860. Evans & Shumard.  
Formation: Cretaceous.  
Location: Near Moreau river, Nebraska territory.

**Avicula—Continued.**

- **nebrascana** (E. & S.) Meek. (1859.)  
N. W. Terr. Rep. Prog. Assin. and Saskat. Expl. Exped. H. Y. Hind, p. 183, pl. 1, fig. 7. Toronto, 1859. F. B. Meek.  
Formation: Cretaceous.  
Location: South branch of the Saskatchewan, Canada.
- **parkensis** n. s. White. (1876.)  
Rep. Geol. Uinta Mts., p. 115. Wash., 1876. C. A. White.  
Formation: Cretaceous.  
Location: South of Grand river, Middle park, Colorado.
- **pedernalis** n. s. Roemer. (1849.)  
Texas, p. 400. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Texas.
- **pedernalis** Roemer. (1852.)  
Kreide. von Texas, p. 61, Taf. 8, figs. 1a, b. Bonn, 1852.  
Formation: Cretaceous.  
Location: Fredericksburg, Texas.
- **pellucida** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, pp. 186-187, pl. 25, fig. 172. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Martinez; ranch of San Luis Gonzaga, Pacheco's Pass, California.
- **petrosa** n. s. Conrad. (1853.)  
Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 274, pl. 24, fig. 15. Phila., 1850-1854. T. A. Conrad.  
Formation: Cretaceous.  
Location: Chesapeake and Delaware canal.
- **planiuscula** n. s. Roemer. (1849.)  
Texas, p. 401. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Waterfall, near New Braunfels, Texas.
- **planiuscula** Roemer. (1852.)  
Kreide. von Texas, p. 62, Taf. 7, fig. 7. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Waterfall of the Guadalupe below New Braunfels, Texas.
- **rarocostata** n. s. Eichwald. (1871.)  
Geog.-Paleont. Bemerk. Halb. Mang. Aleutischen Inseln., p. 188, Taf. 16, figs. 6-8. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaska peninsula.
- **subgibbosa** n. s. M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 180. Phila., 1861. Meek & Hayden.  
Formation: Cretaceous.  
Location: Long lake, Nebraska.
- **triangularis** n. s. (E. & S.) (1854.)  
Proc. Acad. Nat. Sci., Phila., vol. 7, p. 163. Phila., 1856. Evans & Shumard.  
Formation: Cretaceous.  
Location: Sage creek, Nebraska.

**Avicula—Continued.****— volgensis (d'Orb) Eichwald. (1871.)**

Geog.-Paleont. Bemerk. Halb. Mang. Aleutischen Inseln., p. 189, Taf. 16, figs. 9, 10. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

**— (Monotis) tenuicostata n. s. M. & H. (1858.)**

Proc. Acad. Nat. Sci., Phila., for 1858, pp. 50-51. Phila., 1859. Meek & Hayden.

Formation: Jurassic.

Location: Southwestern and eastern sides of Black hills.

**— (Oxytoma?) gastroides n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 491-492. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Coalville, Utah.

**— (Oxytoma) mucronata (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black hills of Dakota, pp. 357-358, pl. 4, figs. 1, 2. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Two miles south of the Belle Fourche river, near Bear Lodge butte, Black hills.

**— (Pseudoptera) propleura n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 489-490. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Coalville, Utah.

**— (Pseudoptera) rhytophora n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 490-491. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Coalville, Utah.

**— sp. undet. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 286. New Haven, 1830. S. G. Morton.

Formation: Ferruginous sand [Cretaceous.]

Location: United States.

**— sp. undet. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 63. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Delaware.

**Aviculopecten (McCoy.) H. & W. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, p. 288. Wash., 1877. Hall & Whitfield.

**— altus n. s. White. (1880.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 1, p. 110. Wash., 1880. C. A. White.

Formation: Jura-Trias, [Triassic].

Location: Locality No. 3, southeastern Idaho.

**Aviculopecten—Continued.****— idahoensis (Meek) White. (1880.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 1, pp. 110-111. Wash., 1880. C. A. White.

Formation: Jura-Trias, [Triassic].

Location: About sixty-five miles north of the boundary line between Idaho and Utah, about eighteen miles west of the boundary line between Idaho and Wyoming, and about five miles south of John Gray's lake. Locality No. 1. Also, locality No. 3.

**— ? idahoensis (Meek) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 110-111, pl. 32, fig. 2a. Wash., 1883. C. A. White.

Formation: Triassic.

Location: Locality No. 1. Within the limits of Idaho, about sixty-five miles north of the boundary line between that territory and Utah, about eighteen miles west of the boundary line between Idaho and Wyoming, and about five miles west of Gray's lake.

**— pealei n. s. White. (1880.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 1, pp. 109-110. Wash., 1880. C. A. White.

Formation: Jura-Trias [Triassic].

Location: Southeastern Idaho.

**— ? pealei White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 109-110, pl. 32, fig. 4a. Wash., 1883. C. A. White.

Formation: Triassic.

Location: Locality No. 1. Within the limits of Idaho, about sixty-five miles north of the boundary line between that territory and Utah, about eighteen miles west of the boundary line between Idaho and Wyoming, and about five miles west of Gray's lake.

**— ? superstrictus n. s. White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 144, pl. 37, fig. 4a, b. Wash., 1883. C. A. White.

Formation: Jurassic.

Location: Head of Lincoln valley.

**— (Eumicrotis?) augustensis n. s. H. & W. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, p. 288, pl. 7, figs. 14-16. Wash., 1877. Hall & Whitfield.

Formation: Jurassic.

Location: Shoshone springs, Augusta mountains.

**— (Pseudomonotis?) idahoensis n. s. White. (1872.)**

Fifth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 374-375. Wash., 1872. F. B. Meek.

Formation: Jurassic.

Location: Lincoln valley, near Fort Hall, Idaho.

**Axinæa (Poli) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser. 1858-1860, p. 396. Phila., 1858-1860. W. M. Gabb.



**Axinæa**—Continued.

- **alta** n. s. Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, p. 101, pl. 11, figs. 26-29. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: C. Bruere's pits, Wainford; also at upper Freehold, New Jersey.
- **hamula** (Morton sp.) Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, pp. 317-318. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: Georgia.
- **holmesiana** n. s. White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 59-60, pl. 20, figs. 2a, b. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Point of Rocks station, Bitter creek valley, Wyoming.
- **mortoni** n. s. Conrad. (1869.)  
Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 44, pl. 1, fig. 14. Phila., 1870. T. A. Conrad.  
Formation: Cretaceous.  
Location: Crosswicks, New Jersey.
- **mortoni** (Con.) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, pp. 99-101, pl. 11, figs. 23-25. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Holmdel; Wainford; Manalapan; George Hunt's pits; Crosswicks, New Jersey.
- **rotundata** n. s. Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 396, pl. 68, fig. 33. Phila., 1858-1860. W. M. Gabb.  
Formation: Cretaceous.  
Location: Eufaula, Alabama.
- **sagittata** Gabb. (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, p. 196. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.
- **sagittata** (Gabb?) White. (1889.)  
Bull. U. S. Geol. Sur. No. 51, p. 39. Wash., 1889. C. A. White.  
Formation: Cretaceous, Vancouver group.  
Location: Sucia island.
- **subaustralis** n. s. Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila. for 1861, p. 365. Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.  
Location: New Jersey.
- **subimbricata** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 95-96, pl. 28, figs. 14a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Heart river.
- **veatchii** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, p. 197, pl. 25, figs. 183, 183a. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Tuscan springs, Tehama county; Texas Flat, Placer county; Pence's ranch, Butte county; Cow creek, Shasta county; Orestimba cañon, Stanislaus county; San Diego, California.

**Axinæa**—Continued.

- **veatchii** (Gabb) Whiteaves. (1874.)  
Geol. Sur. Canada, Rep. Prog. for 1873-1874, p. 262. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Coast, a little west of Northwest bay, Vancouver island.
- **veatchii** (Gabb) Whiteaves. (1879.)  
Geol. Sur. Can.: Mes. Foss., vol. 1, pt. 2, p. 162. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest side of Hornby island; Blunden point; Northwest bay; entrance to Departure bay, Vancouver island; Sucia islands.
- **veatchii** (Gabb) var. Whiteaves. (1874.)  
Geol. Sur. Canada, Rep. Prog. for 1873-1874, p. 261. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest bay, Vancouver island.
- **wyomingensis** n. s. Meek. (1877.)  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 149-150, figs. 2, 3, text. Wash., 1877. F. B. Meek.  
Formation: Cretaceous.  
Location: East side of Cooper creek, near Old Stage station; Laramie Plains, Wyoming.
- (**Limopsis?**) **sagittata** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, pp. 197-198, pl. 31, figs. 267-267a. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Fort Tejon; Martinez, California.
- **sp. undet. Whiteaves.** (1874.)  
Geol. Sur. Canada: Rep. Prog. for 1873-1874, p. 265. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Gabriola island.
- **? Whiteaves.** (1874.)  
Geol. Sur. Canada, Rep. Prog. for 1873-1874, p. 263. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Nanaimo river, Vancouver island, two and one-quarter and two and one-half miles up.
- Baculites**, (Lam.) Say. (1820.)  
Am. Jour. Sci., 1st ser., vol. 2, p. 40, New Haven, 1820. Thomas Say.
- (Lam.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 392. Wash., 1876. F. B. Meek.
- **annulatus** n. s. Conrad. (1855.)  
Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 265. Phila., 1856. T. A. Conrad.  
Formation: Cretaceous.  
Location: Dallas county [Texas].
- **asper** n. s. Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 23, p. 291, New Haven, 1833. S. G. Morton.  
Formation: [Cretaceous].  
Location: Alabama.

**Baculites—Continued.**— **asper** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., pp. 43, 44, pl. 1, figs. 12, 13; pl. 13, fig. 2. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Cahawba and Prairie Bluff, Alabama.

— **asper** (Morton) Roemer. (1849.)

Texas, p. 416, Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

— **asper** (Mort.) Roemer. (1852.)

Kreide, von Texas, p. 36, Taf. 2, figs. 2a-d. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe below New Braunfels, Tex.

— **asper** (Morton?) Meek. (1876.)

Rep. U. S. Geol. Sur., Terr., vol. 9, pp. 404, 405, pl. 39, figs. 10a, d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Near the mouth of Judith River, Montana.

— **asper** (Mort.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can.; Cont. Can. Paleont., vol. 1, pt. 1, p. 82. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rocky Spring Ridge, near MacLeod Benton trail; west flank of West Butte, Montana, but close to the forty-ninth parallel.

— **anceps** (Lam.) Roemer. (1849.)

Texas, p. 416, Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

— **anceps** (Lam.) Roemer. (1852.)

Kreide, von Texas, pp. 36, 37, Taf. 2, figs. 3a-g, Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of Guadalupe below New Braunfels and at the crossing of the Cibola between New Braunfels and San Antonio, Tex.

— **anceps** (Lam.) Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, pp. 395, 396. Phila., 1862. Wm. M. Gabb.

Formation: Cretaceous.

— **anceps var. obtusus**, n. var. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 406-408, figs. 57-60, p. 406. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Deer creek, on the North Platte [Nebraska].

— **anceps var. obtusus** Meek. (1876.)

Rep. Expl. Exped., Santa Fe, New Mexico, to junction of Grand and Green rivers, pp. 130-132, pl. 2, figs. 1a-h. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Rio de la Plata [Colorado].

— **baculus** n. s. M. & H. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 445. Phila., 1862. Meek & Hayden.

Formation: Cretaceous.

Location: Deer creek, a tributary of the north branch of Platte river, Nebraska.

**Baculites—Continued.**— **carinatus** n. s. Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 44, pl. 13, fig. 1. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Prairie Bluff, Alabama.

**Baculite[s] chicoensis** n. s. Trask. (1856.)

Proc. Cal. Acad. Nat. Sci., vol. 1, 1st ed., pp. 85, 86, pl. 2, figs. 2 and 2a. San Francisco, 1854-1857. J. B. Trask.

Formation: Upper Eocene. [Cretaceous].

Location: Chico Creek, California.

**Baculites chicoensis** (Trask) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 80, 81, pl. 17, figs. 27, 27a; pl. 14, figs. 27b, 29, 29a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous (Div. A).

Location: Chico creek; Pence's ranch, Butte county; Cottonwood creek, Shasta county; Orestimbo cañon, Stanislaus county; in débris at Point Loma, near San Diego (?) and near Martinez, Cal.

— **chicoensis** (Trask?) Meek. (1876.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, pp. 364, 365, pl. 4, figs. 2, 2a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Sucia islands.

— **chicoensis** (Trask.) Whiteaves. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 114. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Southwest side of Denman island; Sucia islands; below Dodd narrows, Vancouver island.

— **chicoensis** (Trask) White. (1889.)

Bull. U. S. Geol. Sur., No. 51, p. 49. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Sucia and Sheep Jack islands.

— **columna** n. s. Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 44, pl. 19, fig. 8. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Prairie Bluff, Alabama.

— **compressa** n. s. Say. (1820.)

Am. Jour. Sci., 1st ser., vol. 2, pp. 41-42. New Haven, 1820. Thomas Say.

Formation: [Cretaceous.]

Location: Missouri river, from White river to the Mandans.

— **compressa** (Say) Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 23, p. 291 (pl. 9, fig. 1, [vol. 24]). New Haven, 1833. S. G. Morton.

Formation: [Cretaceous.]

Location: Great Bend of the Missouri river.

— **compressus** (Say) Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 24, pl. 9, fig. 1. New Haven, 1833. S. G. Morton.

[Described in vol. 23.]

**Baculites—Continued.**— **compressus** (Say) Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 43, pl. 9, fig. 1. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Missouri river, between White river and the Mandan settlements.

— **compressus** (Say) Morton. (1841.)

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st. ser., 1839-1842, p. 211. Phila., 1839-1842. S. G. Morton.

Formation: Cretaceous.

Location: Great Bend of the Missouri river. (Lat. 43° 40' N.)

— **compressus** (Say) H. & M. (1854.)

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., pp. 400-402, pl. 5, figs 2, a, b, pl. 6, figs. 8, 9. Cambridge and Boston. Hall & Meek.

Formation: Cretaceous.

Location: Sage creek and Great Bend of Missouri river, etc.

— **compressus** (Say) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 400-404, pl. 20, figs. 3a-c; figs. 55, 56, p. 403. Wash., 1876.

F. B. Meek.

Formation: Cretaceous.

Location: Upper Missouri river, at or near the Great Bend; on Sage creek; on Cheyenne river; near Milk river.

— **compressus** (Say) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can.; Cont. Can. Paleont., vol. 1, pt. 1, pp. 49, 50. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Creek twelve miles east of White Mud river (or Frenchman's creek) and White Mud river near the 49th parallel; also, east branch of the Poplar river, on the 49th parallel; elbow of south Saskatchewan; Bow river, between Horseshoe bend, and Belly river, five miles above Coal Banks; St. Mary river, west of MacLeod-Benton trail; Belly river, twenty-two miles and a half above the mouth of the Waterton; Milk River ridge and Red Deer river, above crossing of Lord Lorne trail; Ross creek, near Irvine station, on the Canadian Pacific railway; Bull Pound creek, section 3 and 15, township 26, range 14, west of 4th principal meridian; Battle river, township 38, between ranges 12 and 13; Berry creek, township 25, range 12, Canada.

— **compressus** (Say) Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can.; Cont. Can. Paleont., vol. 1, pt. 2, p. 182. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: "The Nose," township 37, range 8, west of the 4th principal meridian, and Nose creek, township 37, range 9, west of the same meridian; North Saskatchewan, near mouth of Moose Hill creek; same river in township 56, range 5, west of the 4th principal meridian; mouth of Vermilion river, in township 53, range 3, west of the 4th principal meridian; North Saskatchewan river, township 54, range 2, west of 4th meridian, Northwest Territory.

**Baculites—Continued.**— **compressus** (Say) Brown. (1891.)

Proc. Acad. Nat. Sci. Phila. [vol. 43], pp. 159, 160, figs. 1-6. Phila., 1891. A. P. Brown.

Formation: Cretaceous.

Location: Vicinity of Deadwood, S. Dak.

— **faujasi** (Lam.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 240. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Mullica Hill, New Jersey.

— **gracilis** n. s. Shumard. (1859.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 596. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Shawnee creek, Grayson County, Texas.

— **grandis** n. s. H. & M. (1854.)

Mem. Am. Acad. Arts and Sci., vol. 5 n. s., pp. 402-404, pl. 7, figs. 1, 2; pl. 8, figs. 1, 2; pl. 6, fig. 10. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: Mauvais Terres, head of Bear creek.

— **grandis** (H. & M.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 398-400, pl. 33, figs. 1a, b; figs. 53, 54, p. 399. Wash., 1876.

F. B. Meek.

Formation: Cretaceous.

Location: Cheyenne River, near the Black hills,

[S.] Dakota.

— **grandis** (H. & M.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can.; Cont. Can. Paleont., vol. 1, pt. 1, pp. 50, 51. Montreal, 1885.

J. F. Whiteaves.

Formation: Cretaceous.

Location: East fork of Milk river, in drift bowl-

ers, Canada.

— **grandis** (H. & M.) Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can.; Cont. Can. Paleont., vol. 1, pt. 2, p. 182. Montreal, 1889.

J. F. Whiteaves.

Formation: Cretaceous.

Location: Sounding Creek, township 30, range 8, west of the 4th principal meridian, Northwest Territory.

— **inornatus** n. s. Meek. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 216. Phila., 1862. F. B. Meek.

Formation: Cretaceous.

Location: Sucia island, Gulf of Georgia.

— **labyrinthicus** n. s. Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 44, pl. 13, fig. 10. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Prairie Bluff, Alabama.

— **labyrinthicus** (Morton) Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, pp. 394, 395. Phila., 1862. Wm. M. Gabb.

Formation: Cretaceous.

**Baculites—Continued.**

- **occidentalis** n. s. Meek. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, pp. 316, 317. Phila., 1862. F. B. Meek.  
Formation: Cretaceous.  
Location: Komooks, eastern shore of Vancouver island.
- **occidentalis** (Meek) Gabb. (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, p. 145. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Vancouver island.
- **occidentalis** Meek. (1876.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, pp. 366-367, pl. 4, figs. 1, 1a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Sucia island.
- **occidentalis** (Meek) Whiteaves. (1879.)  
Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 2, p. 115. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest side of Hornby island.
- **ovata** n. s. Say. (1820.)  
Am. Jour. Sci., 1st ser., vol. 2, p. 41. New Haven, 1820. Thomas Say.  
Formation: [Cretaceous.]  
Location: Neversink hills, Monmouth county, New Jersey.
- **ovata** (Say) Morton. (1828.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 89-90, pl. 5, fig. 6. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.  
Location: Sandy Hook bay, New Jersey.
- **ovatus** (Say) Morton. (1830.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 196, pl. 5, figs. 5-6, and pl. 8, figs. 6-8. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.  
(No pl. 8 in the vol.)
- **ovatus** (Say) Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 280. New Haven, 1830. S. G. Morton.  
Formation: [Cretaceous.]  
Location: Blue marls of Monmouth and Burlington counties, in New Jersey, and at the deep cut of the Chesapeake and Delaware canal.
- **ovatus** (Say) Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, pl. 1, figs. 6-8. New Haven, 1830. S. G. Morton.
- **ovatus** (Say) Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., pp. 42, 43, pl. 1, figs. 6-8. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey, Delaware, Alabama.
- **ovatus** (Say) Marcou. (1853.)  
Geol. Map of the U. S. and British Provinces of N. A., p. 46, pl. 7, fig. 5. Boston, 1853. Jules Marcou.  
Formation: Cretaceous.  
Location: New Jersey, Delaware, Alabama, and Texas.

**Baculites—Continued.**

- **ovatus** (Say) H. & M. (1854.)  
Mem. Am. Acad. Arts and Sci., vol. 5, n. s. pp. 399, 400, pl. 5, figs. 1a-c; pl. 6, figs. 1-7. Cambridge and Boston, 1855. Hall & Meek.  
Formation: Cretaceous.  
Location: Great Bend of the Missouri and various other localities on that river, between Fort Pierre and the mouth of Big Sioux river.
- **ovatus?** (Say) Meek. (1858.)  
Trans. Albany Inst., vol. 4, pp. 48, 49. Albany, 1858-1864. F. B. Meek.  
Formation: Cretaceous.  
Location: Nanaimo, Vancouver island.
- **ovatus** (Say) White. (1875.)  
Rep. Geogr. and Geol. Expl. and Sur. west of 100th meridian, vol. 4, pt. 1, pp. 199, 200, pl. 19, figs. 4a-c; 5a-c. Wash., 1875. C. A. White.  
Formation: Cretaceous.  
Location: Southeast of Paria, Utah.
- **ovatus** (Say) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 394-397, pl. 20, figs. 2a-d, 1a, b, and figs. 51, 52, p. 397. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Great Bend of the Missouri below Fort Pierre, Sago creek, and Cheyenne river, and near the eastern base of the Black hills, all in S. Dakota. Along the Missouri between Fort Benton and Fort Union, and on the Yellowstone river, in Montana, as well as at many localities along the eastern base of the Rocky mountains and elsewhere in Colorado.
- **ovatus** (Say) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 206. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Sage creek, Colorado.
- **ovatus** (Say) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 185, 186. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Fossil ridge, Colorado.
- **ovatus** (Say) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear creek, near Morrison, Col.
- **ovatus** (Say) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 225. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Near White River Indian agency, Colorado.
- **ovatus** (Say?) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 238. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **ovatus** (Say) Stanton. (1887.)  
Proc. Colorado Sci. Soc., vol. 2, pt. 3, for 1877, p. 185. [Denver, 1888.] T. W. Stanton.  
Formation: Cretaceous.  
Location: About five miles north of Boulder, Col.

**Baculites—Continued.**— **ovatus** (Say) Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can.; Cont. Can. Paleont., vol. 1, pt. 2, pp. 181, 182. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Ghost river, township 25, range 6 west of the fifth principal meridian; North Saskatchewan river, near mouth of Moose Hill creek; also, on the same river, in township 54, range 2, and in township 56, range 5, in each case west of the fourth principal meridian; mouth of Vermilion river, in township 54, range 3, west of the same meridian, Northwest Territory.

— **spillmani** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 335, pl. 35, fig. 24. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **tippaensis** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 334, pl. 35, fig. 27. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **sp. undet.** Troost. (1840.)

Fifth Geol. Rep. Tennessee, p. 53. Nashville, 1840. G. Troost.

Formation: Cretaceous.

Location: McNairy county, Tennessee.

— **sp. undet.** Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 81, pl. 17, figs. 28, 28a; pl. 14, fig. 28s. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Vancouver island.

— **sp. undet.** Whiteaves. (1874.)

Geol. Sur. Canada; Rep. Prog. for 1873-1874, p. 264. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Below Dodd Narrows.

**Balanus peregrinus** n. s. Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 24, p. 131, pl. 10, fig.

5. New Haven, 1833. S. G. Morton.

Formation: Cretaceous. [Tertiary.]

Location: Southern states.

— **peregrinus** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 72, pl. 10, fig.

5. Phila., 1834. S. G. Morton.

Formation: Cretaceous. [Tertiary.]

Location: South Carolina.

**Barbatia** (Gray) (typical) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 77. Wash., 1876. F. B. Meek.

— **barbatula** n. s. White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur., Terr., part 1, p. 19, pl. 11, fig. 5a. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Cimarron, New Mexico.

**Barbatia—Continued.**— **coalvillensis** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 235. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— **coalvillensis** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 248. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear River valley, Wyoming.

— **coalvillensis** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 286, 287, pl. 6, figs. 2a, b. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— (**Plagiarcia**) **carolinensis** n. s. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875.

W. C. Kerr, App. A, p. 4, pl. 1, fig. 11. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

— (**Polynema**) **lintea** n. s. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875.

W. C. Kerr, App. A, p. 4, pl. 1, fig. 12. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

— (**Polynema**?) **parallela** Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 80-81, pl. 2, fig. 10. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Kansas.

**Bariosta** (subgen. Raf.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 613. Wash., 1876. F. B. Meek.

**Baroda** (Stoliczka) Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, p. 8. T. A. Conrad.

— **carolinensis** n. s. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, pp. 8, 9, pl. 2, fig. 10. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

— **subelliptica** n. s. White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 294, 295, pl. 10, figs. 4a-d. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Mouth of the Saint Vrain, northern Colorado.

**Baroda—Continued.****— wyomingensis (Meek.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 293, 294, pl. 10, figs. 3a, b. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Mouth of Deer creek, on North Platte, Wyoming.

**Bathyomphalus (sub. gen. Ag.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 536. Wash., 1876. F. B. Meek.

**Batissa (Gray) White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 60. Wash., 1889. C. A. White.

**— dubia n. s. White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 61, pl. 11, figs. 1 and 2. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Newcastle and Wilkeson. Washington.

**— newberryi n. s. White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 60, pl. 9, figs. 1-3. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Carbonado, Wilkeson (Fletts creek), and Newcastle, Washington.

**Baumontia (Edwards & Haime.) White. (1880.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 2, p. 221. Wash., 1880. C. A. White.

**— ? solitaria n. s. White. (1880.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 2, p. 221. Wash. 1880. C. A. White.

Formation: Cretaceous.

Location: Fossil creek, sixteen miles west of Greeley and six miles south of Fort Collins, Colorado.

**— ? solitaria White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Terr., part 1, p. 8, pl. 12, figs. 13a-c. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Northern Colorado.

**Bela (Leach) Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 152. Phila., 1869. W. M. Gabb.

**— clathrata n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 152, 153, pl. 26, fig. 31. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, California.

**Belemnitella (d'Orb.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 501-503. Wash., 1876. F. B. Meek.

**— americana (Mort.) Emmons. (1858.)**

Rep. N. Carolina Geol. Sur., p. 246, fig. 101. Raleigh, 1858. E. Emmons.

Formation: Cretaceous.

Location: Black rock and Rocky point, North Carolina.

**Belemnitella—Continued.****— ? bulbosa n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 70. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebraska [S. Dakota].

**— bulbosa (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 504, pl. 33, figs. 2a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

**• Location: Near Moreau trading-post, [S.] Dakota.****— compressa n. s. Emmons. (1858.)**

Rep. N. Carolina Geol. Sur., p. 246, figs. 102, 103. Raleigh, 1858. E. Emmons.

Formation: Cretaceous.

Location: North Carolina.

**— manitobensis n. s. Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 189-190, pl. 26, figs. 3, 3a, b. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: East bank of the Assiniboine river, a short distance below the mouth of the Little Souris river; Ochre river, Riding mountains; Vermillion river, township 24, range 20 W.; South Duck river, township 34, range 20 W.; Swan river, township 35, range 29 W.; Assiniboine river, section 36, township 8, range 11 W., Manitoba.

**— mucronata (Blainv.) Marcou. (1853.)**

Geol. Map of U. S. and British Provinces of N. A., p. 46, pl. 7, fig. 3. Boston, 1853. Jules Marcou.

Formation: Cretaceous.

Location: New Jersey, Delaware, Georgia, Arkansas, Tennessee, and Texas.

**— mucronata (Schloth.) Cook. (1868.)**

Geol. of New Jersey, p. 375. Newark, 1868. G. H. Cook.

Formation: Cretaceous.

Location: New Jersey.

**Belemnites absolutus (Fischer) Toulou. (1874.)**

Die Zweite Deutsche Nordpolarfahrt, Zweiter Band, p. 501, Taf. 2, fig. 1. Leipzig, 1874. Franz Toulou.

Formation: Jurassic [Cretaceous?]

Location: Kuhn island, east coast of Greenland.

**— ambiguus n. s. Morton. (1830.)**

Am. Jour. Sci. 1st ser., vol. 17, p. 231. New Haven, 1830. S. G. Morton.

Formation: [Cretaceous.]

Location: Gloucester county, New Jersey.

**— ambiguus Morton. (1830.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 192-194, pl. 8, figs. 4; 5. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Gloucester county and near Vincent town, N. J.

(No pl. 8 in vol.);

**Belemnites—Continued.**

- **ambiguus** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, pl. 1, figs. 4, 5.  
New Haven, 1830. S. G. Morton.
- **? ambiguus** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr., U. S., pp. 35, 36, pl. 1, figs. 4, 5. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Timber creek, Gloucester county, New Jersey.
- **americanus n. s.** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 281. New Haven, 1830. S. G. Morton.  
Formation: [Cretaceous.]  
Location: New Jersey.
- **americanus** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, pl. 1, figs. 1-3.  
New Haven, 1830. S. G. Morton.
- **americanus** Morton. (1830.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 190, pl. 8, figs. 1-3. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.  
Location: Near Arneytown, N. J.  
(= pl. 5, fig. 7. No pl. 8 in vol.)
- **americanus** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., pp. 34, 35, pl. 1, figs. 1-3, 3a, and pl. 17, fig. 2. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey, Delaware, North Carolina, and Georgia.
- **americanus** Morton. (1841.)  
Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser., 1839-1842, p. 211. Phila., 1839-1842. S. G. Morton.  
Formation: Cretaceous.  
Location: Great Bend of the Missouri river (lat. 43° 40' N.).
- **conformis n. s.** Eichwald. (1871.)  
Geog.-Paleont. Bemerk. Halbins. Mang. u. Aleutischen Inseln, pp. 153, 154, Taf. 11, figs. 20-24. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Chasik island, Tukusitnu bay, Alaska.
- **densus n. s. M. & H.** (1858.)  
Proc. Acad. Nat. Sci., Phila., for 1858, pp. 58, 59. Phila., 1859. Meek & Hayden.  
Formation: Jurassic.  
Location: Southwest base of the Black hills.
- **densus M. & H.** (1865.)  
Paleont. Up. Missouri; Smithsonian. Cont. Kno. J., vol. 14, No. 172, pp. 126, 127, pl. 4, figs. 10a-c, and pl. 5, figs. 1, 1a-h. Wash., 1865. Meek & Hayden.  
Formation: Jurassic.  
Location: Southwest base of the Black hills.
- **densus (M. & H.) Meek.** (1876.)  
Rep. Expl. Great Basin Terr., Utah, p. 358, pl. 3, fig. 4a, b. Wash., 1876. F. B. Meek.  
Formation: Jurassic.  
Location: On the North Platte, near the Red Buttes.

**Belemnites—Continued.**

- **densus (M. & H.) Whitfield.** (1880.)  
Rep. Geol. Black Hills of Dakota, pp. 381, 382, pl. 6, figs. 15-19. Wash., 1880. R. P. Whitfield.  
Formation: Jurassic.  
Location: On Beaver creek, east of the Belle Fourche, near Bear Lodge butte, Black hills.
- **densus (M. & H.) Whiteaves.** (1884.)  
Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 194, 195, pl. 22, fig. 1. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Coal locality south of Skidegate channel, Queen Charlotte islands.
- **impressus n. s. Gabb.** (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 58, pl. 9, figs. 2, 2a. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: North fork of Cottonwood creek, southwest of Horsetown, Shasta county, California.
- **impressus** Gabb. (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, p. 129. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: East side of the Northern Coast Range, more especially in Colusa county, and elsewhere east of Clear lake, California.
- **impressus (Gabb) Whiteaves.** (1883.)  
Proc. and Trans. Roy. Soc. Canada, vol. 1, sec. 4, p. 82. Montreal, 1883. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Tatlayoco lake; Skagit river; Jackass mountain, Canada.
- **inequilateralis n. s. Eichwald.** (1871.)  
Geog. Paleont. Bemerk. Halbins. Mang. u. Aleutischen Inseln, pp. 151, 152, Taf. 11, figs. 12-16. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Chasik island, Alaska.
- **macritatis n. s. White.** (1884.)  
Bull. U. S. Geol. Sur., No. 4, pp. 14-15, pl. 6, figs. 13-14. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Fossil point, Port Møller, Alaska.
- **mucronatus (Schlot.) Bronn.** 1838.)  
Lethæa Geognostica Zweiter Band, pp. 716-718, Taf. 33, figs. 10a-c, 11. Stuttgart, 1838. H. G. Bronn.  
Formation: Cretaceous.  
Location: Bufilestown, New Jersey; Camden, South Carolina.
- **mucronatus (Blainv.) Credner.** (1870.)  
Zeitsch. Deutsch. Geol., Ges. Band 22, pp. 238-240. Berlin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: Mullica Hill, New Jersey.
- **nevadensis n. s. Meek.** (1877.)  
Rep. Geol. Expl. 40th Parallel, vol. 4, pt. 1, pp. 138-139, pl. 12, figs. 7a, b; (8a, b?) Wash., 1877. F. B. Meek.  
Formation: Jurassic.  
Location: Cottonwood canon, West Humboldt range; American district, West Humboldt range, Nevada.

**Belemnites—Continued.**

- **pacificus** n. s. Gabb. (1864.)  
Proc. Cal. Acad. Nat. Sci., vol. 3, p. 173. San Francisco, 1863-1868. W. M. Gabb.  
Formation: Jurassic [Cretaceous?].  
Location: Mariposa estate, Mariposa county, [California.]
- **pacificus** (Gabb) Meek. (1865.)  
Geol. Sur. Cal. Geology, vol. 1, p. 482. Phila., 1865. F. B. Meek.  
Formation: Jurassic [Cretaceous].  
Location: Mariposa estate, California.
- **panderianus** (d'Orb.) Toulou. (1874.)  
Die Zweite Deutsche Nordpolarfahrt, Zweiter Band, pp. 500, 501, Taf. 1, figs. 2a-c. Leipzig, 1874. Franz Toulou.  
Formation: Jurassic [Cretaceous?].  
Location: Kuhn island, east coast of Greenland.
- **pistilliformis** (Bl.) Eichwald. (1871.)  
Geog.-Paleont. Bemerk. Halbins. Mang. u. Aleutischen Inseln, pp. 150, 151. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Chasik island, Alaska.
- **sicarius** n. s. Eichwald. (1871.)  
Geog.-Paleont. Bemerk. Halbins. Mang. u. Aleutischen Inseln, pp. 152, 153, Taf. 11, figs. 5-8. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaskan peninsula.
- **skidegatensis** nom. prov. Whiteaves. (1884.)  
Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 195-197, pl. 22, fig. 2, 2a-c. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Skidegate inlet, east side of Alliford bay; south side of same bay.
- **subconicus** (Lam.) Morton. (1828.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 91, 92, pl. 5, fig. 7. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.  
Location: Sandy Hook; Woodward's farm, near Wainford; Mullica Hill, New Jersey; Cockspur island, South Carolina.
- **sp. undet. Say.** (1820.)  
Am. Jour. Sci., 1st ser., vol. 2, p. 44. New Haven, 1820. Thomas Say.  
Formation: Alluvium [Cretaceous].  
Location: New Jersey.
- **sp. undet. Toulou.** (1874.)  
Die Zweite Deutsche Nordpolarfahrt, Zweiter Band, pp. 501, 502. Leipzig, 1874. Franz Toulou.  
Formation: Jurassic [Cretaceous?].  
Location: Kuhn island, east coast of Greenland.
- **sp. undet. Whiteaves.** (1876.)  
Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, p. 14. Montreal, 1876. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Queen Charlotte islands.

**Belemnites—Continued.**

- **sp. undet. Whiteaves.** (1876.)  
Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 11-13, pl. 1, figs. 1a-c, and fig. 1, p. 11. Montreal, 1876. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Queen Charlotte islands.
- **sp. undet.** (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 172. Montreal, 1889. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Rocky mountains, three miles north of the east end of Devil's lake, Northwest Territory.
- **sp. undet. Meek.** (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, p. 53, pl. 8, figs. 9, 9a. Phila., 1864. F. B. Meek.  
Formation: Jurassic.  
Location: Genesee Valley, Plumas county, California.
- **sp. undet. White.** (1889.)  
Bull. U. S. Geol. Sur., No. 51, p. 67, pl. 14, fig. 4, Wash., 1889. C. A. White.  
Formation: Jurassic.  
Location: Kialagvic bay, Alaska.
- **sp. undet. White.** (1889.)  
Bull. U. S. Geol. Sur., No. 51, p. 67, pl. 13, fig. 6. Wash., 1889. C. A. White.  
Formation: Jurassic.  
Location: Kialagvic bay, Alaska.
- **? Whiteaves.** (1878.)  
Geol. Sur. Can., Rep. Prog. for 1876-77, p. 157. Montreal, 1878. J. F. Whiteaves.  
Formation: Jurassic.  
Location: Ilitsayouco river, British Columbia.
- **? Whiteaves.** (1878.)  
Geol. Sur. Can., Rep. Prog. for 1876-77, p. 157. Montreal, 1878. J. F. Whiteaves.  
Formation: Jurassic.  
Location: Ilitsayouco river, British Columbia.
- **? Whiteaves.** (1878.)  
Canadian Naturalist, vol. 8, n. ser., No. 7, pp. 407, 408. Montreal, 1878. J. F. Whiteaves.  
Formation: Jurassic.  
Location: Ilitsayouco river.
- **? Whiteaves.** (1878.)  
Canadian Naturalist, vol. 8, n. ser., No. 7, p. 408. Montreal, 1878. J. F. Whiteaves.  
Formation: Jurassic.  
Location: Ilitsayouco river.
- **Bicrisina** (d'Orb.) G. & H. (1862.)  
Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862-1863, p. 173, 174. Phila., 1862-1863. Gabb & Horn.
- **abbottii** G. & H. (1862.)  
Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862-1863, p. 174 [pl. 21], fig. 65. Phila., 1862-1863. Gabb & Horn.  
Formation: Cretaceous.  
Location: Near Mullica Hill, New Jersey.



**Biflustra (d'Orb.) G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862-1863, p. 152. Phila., 1862-1863. Gabb & Horn.

**— dijuncta n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862-1863, pp. 153, 154 [pl. 20], fig. 37. Phila., 1862-1863. Gabb & Horn.

Formation: Cretaceous.

Location: Timber creek and near Mullica Hill, New Jersey.

**— torta n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862-1863, pp. 152, 153 [pl. 20], fig. 36. Phila., 1862-1863. Gabb & Horn.

Formation: Cretaceous.

Location: Timber creek, and near Mullica Hill, New Jersey.

**Bivonia (Gray) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 302. Phila., 1876. Wm. M. Gabb.

**— ? cretacea n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 302. Phila., 1876. Wm. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Georgia.

**Bothriopygus alabamensis n. s. Clark. (1891.)**

Johns Hopkins Univ. Cir. vol. 10, No. 87, p. 76. Balto., 1891. Wm. B. Clark.

Formation: Cretaceous.

Location: Alabama.

**Bourgueticrinus alabamensis n. s. De Loriol (1882.)**

Jour. Cincinnati Soc. Nat. Hist., vol. 5, p. 118, pl. 5, figs. 1, 1a-c. Cincinnati, 1882. P. De Loriol.

Formation: Cretaceous.

Location: Livingston, Alabama.

**Brachydontes (subgen. Swainson) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 70. Wash., 1876. F. B. Meek.

**Brachymeris n. g. Conrad. (1875.)**

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, p. 6. T. A. Conrad.

**— alta n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, p. 6, pl. 1, fig. 16; pl. 2, fig. 23. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

**Brachysphingus n. g. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 155, 156. Phila., 1869. W. M. Gabb.

**— liratus Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 156. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**Brachysphingus—Continued.****— sinuatus n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 156, pl. 26, fig. 35. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

**Breviarca n. subgen. Conrad. (1872.)**

Proc. Acad. Nat. Sci., Phila., for 1872, p. 55. Phila., 1872. T. A. Conrad.

**— saffordi (Gabb.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 87, 88, pl. 12, figs. 11, 12. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**Bucardia [Schum.] Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 41, Phila., 1870. T. A. Conrad.

**— veta n. s. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 41, pl. 1, fig. 2. Phila., 1870. T. A. Conrad.

Formation: Eocene. [Cretaceous.]

Location: Shark river, New Jersey.

**Buchiceras (Hyatt) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur., west of 100th meridian, vol. 4, pt. 1, p. 202. Wash., 1875. C. A. White.

**— ? cornutum n. s. Whiteaves. (1884.)**

Proc. and Trans. Roy. Soc. Canada, vol. 3, sec. 4, pp. 239, 240. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Fort St. John, on the Peace river.

**— swallowi (Shum.) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur., west of 100th meridian, vol. 4, pt. 1, pp. 202, 203, pl. 20, figs. 1 a-c. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Glendale, Long valley, Utah.

**Buccinopsis n. g. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 158. Wash., 1857. T. A. Conrad.

**— ? conradi n. s. Hill. (1888.)**

Ann. Rep. Geol. Sur. Ark. for 1888, vol. 2, pp. 130, 131, pl. 3, figs. 2, 2a. Little Rock, 1888. R. T. Hill.

Formation: Cretaceous.

Location: Upper part of the gypsum bluffs of the Little Missouri river, Arkansas.

**— parryi n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 158, pl. 13, figs. 4a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Between Rio San Pedro and Rio Puerco.

**Buccinum (Linn.) Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 96. Phila., 1864. W. M. Gabb.

**— bicarinatum (Goldf.) Eichwald. (1871.)**

Geog., Paleont., Bemerk. Halbins. Mang. u. Aleutischen Inseln, pp. 117, 118.

Formation: Cretaceous.

Location: Kadiak island, Alaska.

**Buccinum—Continued.**

- **constrictum** H. & M. (1854.)  
Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 411.  
Cambridge and Boston, 1855. Hall & Meek.  
Formation: Cretaceous.

- **liratum** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, p. 96, pl. 28, fig. 211. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez, Clayton, and Marsh's ranch, Contra Costa county, Cal.

- **? nebrascensis** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 67. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Moreau and Fox hills, Nebraska, [S. Dak.].

- **? vinculum** n. s. H. & M. (1854.)  
Mem. Am. Acad. Arts and Sci., vol. 5, n. s., pp. 390, 391, pl. 3, figs. 5a, b. Cambridge and Boston, 1855. Hall & Meek.  
Formation: Cretaceous.  
Location: Great Bend [of the Missouri river].

**Bulimina (d'Orb.) Reuss. (1861.)**

Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsab. 1861, Band XLIV, p. 338, Wien, 1862. A. E. Reuss.

- **tortilis** n. s. Reuss. (1861.)  
Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsab. 1861, Band XLIV, p. 338, Taf. viii, fig. 3, Wien, 1862. A. E. Reuss.  
Formation: Cretaceous.  
Location: New Jersey.

- **sp. undet.** Reuss. (1861.)  
Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsab. 1861, Band XLIV, p. 338, Wien, 1862. A. E. Reuss.  
Formation: Cretaceous.  
Location: New Jersey.

**Bulimnea (subgen. Haldeman) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 532. Wash., 1876. F. B. Meek.

**Bulimus limneaformis** n. s. (M. & H.). (1856.)

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 118. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Fort Clark [N. Dakota].

- **nebrascensis** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 118. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Fort Clark [N. Dakota].

- **? teres** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, pp. 117, 118. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Three miles below Fort Union [N. Dakota].

**Bulimus—Continued.**

- **? vermiculus** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 118. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Three miles below Fort Union [N. Dakota].

**Bulinus (O. F. Müller) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 540. Wash., 1876. F. B. Meek.

- **atavus** White. (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 86, pl. 24, figs. 5a, b. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Dog creek, a tributary of the Upper Missouri river.

- **atavus** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 450, pl. 25, figs. 6, 7. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Dog creek.

- **disjunctus** n. s. White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 170. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Crow Creek valley, Colorado.

- **disjunctus** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 244. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Evanston coal mines, Wyoming.

- **disjunctus** White. (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 86, 87, pl. 24, figs. 6a, b. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Crow creek, northern Colorado, about 10 miles above the confluence of that creek with Platte river.

- **disjunctus** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 451, pl. 25, figs. 4, 5. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: East of the Rocky mountains, in Colorado.

**longiusculus (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 541, 542, pl. 43, figs. 16a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Three miles below Fort Union, N. Dakota.

- **longiusculus (M. & H.) White. (1879.)**  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 243. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Evanston coal mines, Wyoming.

- **longiusculus (M. & H.) White. (1883)**  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 87. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near Fort Union, on the upper Missouri river.

**Bulinus—Continued.**— *longiusculus* (M. & H.) White.  
(1880.)

Third Ann. Rep. U. S. Geol. Sur., p. 451, pl. 25,  
fig. 8. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near Fort Union, N. Dakota.

— ? *rhomboideus* (M. & H.) Meek.  
(1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 542, pl. 43,  
fig. 17. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Three miles below Fort Union, N. Dakota.

— ? *rhomboideus* (M. & H.) White.  
(1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 87. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near Fort Union on the upper Missouri  
river.

— *rhomboideus* (M. & H.) White.  
(1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 451, pl. 25,  
fig. 9. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near Fort Union, N. Dakota.

— *subelongatus* (M. & H.) Meek.  
(1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 540, 541,  
pl. 42, figs. 13a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, on the Missouri,  
in Montana.

— *subelongatus* (M. & H.) White.  
(1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 170, 171. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow Creek valley, Colorado.

— *subelongatus* (M. & H.) White.  
(1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 243. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near Mellis Station, Wyoming.

— *subelongatus* (M. & H.) White.  
(1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 87. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri River region.

— *subelongatus* (M. & H.) White.  
(1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 450, pl. 25,  
figs. 10, 11. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Mouth of Judith river, Montana.

**Bulla** (Linn.) Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 46. Phila.,  
1834. S. G. Morton.

**Bulla—Continued.**— *hornii* n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 143, pl. 29,  
fig. 235. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon, Cal.

— *macrostoma* n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser.,  
1858-1860, pp. 301, 302, pl. 48, fig. 16 [15]. Phila.,  
1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Prairie Bluff, Alabama.

— *minor* n. s. (M. & H.) (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, p. 69.  
Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau trading post [S. Dakota].

— *mortoni* n. s. Forbes. (1844.)

Quart. Jour. Geol. Soc., London, vol. 1, p. 63, fig.  
a. London, 1845. Edward Forbes.

Formation: Cretaceous.

Location: New Jersey.

— *occidentalis* n. s. (M. & H.) (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, p. 69.  
Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river.

— *recta* n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 302, pl. 48, fig. 17 [16]. Phila., 1858-  
1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Burlington county, New Jersey.

— *subcylindrica* n. s. (M. & H.)  
(1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, p. 270.  
Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Near mouth of Milk river, Nebraska  
[Montana].

— *volvaria* n. s. (M. & H.) (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, p. 69.  
Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau trading post, [S. Dakota].

— *sp. undet.* Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 46. Phila.,  
1834. S. G. Morton.

Formation: Cretaceous.

Location: Alabama.

— *sp. undet.* Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 46. Phila.,  
1834. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

## — ? Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 282. New  
Haven, 1830. S. G. Morton.

Formation: Ferruginous sand [Cretaceous].

Location: [New Jersey?]

**Bullia** (Gray) Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 156. Phila., 1869. W. M. Gabb.

— (**Molopophorus**) **striata** n. s., Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 157, pl. 26, fig. 36. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: California.

**Bullopsis** n. g. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d. ser., 1855-1858, p. 334. Phila., 1855-1858. T. A. Conrad.

— **cretacea** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 334. Phila., 1855-1858. T. A. Conrad.  
Formation: Cretaceous.  
Location: Owl creek, 3 miles north of the town of Ripley, Miss.

**Busycon** ? **blakei** n. s. Conrad. (1855.)

Rep. Expl. and Sur. R. R. R., Miss. River to Pacific ocean, App. Prelim., Geol. Rep. of W. P. Blake, Pal., p. 11. Wash., 1855. T. A. Conrad.  
Formation: Eocene [Cretaceous].  
Location: Cañada de las Uvas.

— ? **blakei** Conrad. (1856.)

Rep. Expl. and Sur. R. R. R., Miss. River to Pacific ocean, vol. 5, App., p. 322, pl. 2, fig. 13. Wash., 1856. T. A. Conrad.  
Formation: Eocene [Cretaceous].  
Location: Cañada de las Uvas.

**Callianassa** (Leach) Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 57. Phila., 1864. W. M. Gabb.

— **antiqua** (Otto) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 241, 242. Berlin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: Middletown, New Jersey.

— **danai** n. s. H. & M. (1854.)

Mem. Am. Acad. Arts and Sci., n. s., vol. 5, pp. 379, 380, pl. 1, figs. 1a, b. Cambridge and Boston, 1855. Hall & Meek.  
Formation: Cretaceous.  
Location: Great Bend of the Missouri.

— **stimpsonii** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 57, pl. 9, figs. 1a-c. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Chico creek; Clayton, Contra Costa county; Near Cañada de las Uvas, California.

— **stimpsonii** Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 127, pl. 19, fig. 3. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.

— **ulrichi** n. s. White. (1880.)

Proc. U. S. Nat. Mus., vol. 3, pp. 161, 162. Wash., 1880. Smithsonian. Misc. Coll., vol. 22. Wash., 1882. C. A. White.  
Formation: Cretaceous [Tertiary].  
Location: Near Little Rock, Arkansas.

**Callianassa**—Continued.— **ulrichi** White. (1881.)

Proc. U. S. Nat. Mus., vol. 4, p. 137, pl. 1, figs. 10 and 11. Wash., 1881. Smithsonian. Misc. Coll., vol. 22. Wash., 1882. C. A. White.

**Callista** (Poli) Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d. ser., 1858-1860, p. 282. Phila., 1858-1860. T. A. Conrad.

## — (Poli) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 178. Wash., 1876. F. B. Meek.

— **delawarensis** (Gabb) Whitfield, (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 153, 154, pl. 22, figs. 8-10. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Freehold, Marlboro, and Holmdel, New Jersey.

— **deweyi** M. & H. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 443. Phila., 1862. Meek & Hayden.  
Formation: Cretaceous.

Location: Deer creek, a tributary of the north branch of Platte river, Nebraska.

— **deweyi** (M. & H.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 183. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Little Thompson creek and Fossil ridge, Colorado.

— **eufaulensis** n. s. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 282, pl. 46, fig. 24. Phila., 1858-1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Eufaula, Alabama.

— ? **pellucida** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 187, 188, pl. 17, figs. 10a-e, 12a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Two hundred miles above the mouth of Milk river [Montana].

— (?) **subtrigona** n. s. Whiteaves. (1876.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 63, 64, pl. 9, fig. 10. Montreal, 1876. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Queen Charlotte Islands.

— (**Aphrodina** ?) **tenuis** (H. & M.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 188, 189, pl. 5, figs. 1a-d. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.

Location: South fork of Cheyenne river, near the base of Black hills.

— (**Dosiniopsis** ?) **orbiculata** (H. & M.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 186, 187, pl. 5, figs. 2a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Five miles below the mouth of James river [S. Dakota].

**Callista**—Continued.— (*Dosiniopsis*) *owenana* (M. & H.)

Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 183, 184, pl. 37, fig. 1. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river [Montana].

— (*Dosiniopsis*) *nebrascensis* (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 184-186, figs. 15-17, p. 184. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: On Cheyenne and Moreau rivers; Deer creek, on the North Platte river [S. Dakota].

— (*Dosiniopsis*?) *deweyi* (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 182, 183, pl. 17, figs. 15a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, and on the Yellowstone river.

— (*Dosiniopsis*) *deweyi* (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can.; Cont. Can. Paleont., vol. 1, pt. 1, pp. 42, 43, pl. 6, figs. 4, 5, 5a. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Bull's Head, about twenty-two miles west of the west end of the Cypress hills; hills south of Big Plume creek, township 8, range 5, west of 4th principal meridian, Canada.

— (?) *sp. undet.* Whiteaves. (1876.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 64, 65, pl. 9, fig. 11. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**Calliostoma** (Swains.) Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 170. Phila., 1869. W. M. Gabb.

— *constrictum* n.s. Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 217, pl. 28, figs. 4, 4a. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: East end of Maud island, opposite Leading island.

— *radiatum* n. s. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, pp. 170, 171, pl. 28, fig. 53. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Texas Flat, Placer-county, Cal.

**Calloarca** (subgen. Gray) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 78. Wash., 1876. F. B. Meek.

**Callonema** n. g. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, p. 12. T. A. Conrad.

**Callonema**—Continued.— *bellan* n. s. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, p. 12. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

— *carolinensis* n. s. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, p. 12, pl. 2, fig. 27. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

**Calobates** (subgen. Gould) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 261. Wash., 1876. F. B. Meek.

**Camæna** (subgen. Albers) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 550. Wash., 1876. F. B. Meek.

**Campeloma** (Raf.) Meek. (1877.)

Rep. Geol. Expl. 40th parallel, vol. 4, pt. 1, p. 179. Wash., 1877. F. B. Meek.

— *macrospira* Meek? (1877.)

Rep. Geol. Expl. 40th parallel, vol. 4, pt. 1, pp. 179-180, pl. 17, figs. 17a, b. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Sulphur creek, on Bear river, Wyoming.

— *macrospira* (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 245-246. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear River valley, Wyoming.

— *macrospira* (Meek) White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 102, pl. 30, fig. 2a. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Bear River valley, southwestern Wyoming.

— *macrospira* (Meek) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 469, pl. 8, figs. 6-7. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Southwestern Wyoming.

— *multilineata* (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 586, 587, pl. 44, figs. 1a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Fort Clarke, N. Dakota, on the Missouri.

— *multilineata* (M. & H.) White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 101. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**Campeloma—Continued****—multilineata (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 469, pl. 27, figs. 1-7. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near Fort Clarke, in the valley of the Upper Missouri.

**—multilineata (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont. vol. 1, pt. 1, p. 77. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Belly river, east side of Driftwood bend, and South Saskatchewan, six miles below the mouth of Bow river; north side of Milk river, five miles below Pá-kow-kí coulé, Canada.

**—multistriata (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 588, 589, pl. 43, figs. 15a-e, fig. 80, p. 588. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Fort Clarke, N. Dakota, on the Missouri river; near mouth of Yellowstone river, Montana.

**—multistriata (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 173. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow Creek valley, Colorado.

**—multistriata (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 221, 222. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyoming.

**—multistriata (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., part 1, p. 101. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**—multistriata (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 469, pl. 27, fig. 15. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near Fort Clarke, in the valley of the Upper Missouri.

**—producta n. s. White. (1882.)**

Proc. U. S. Nat. Mus., vol. 5, p. 97, pl. 3, figs. 7-9. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of Yellowstone river, Montana.

**—producta (White). (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 469, pl. 26, figs. 21-27. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of the Yellowstone river.

**—producta (White) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 24. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Three Hills creek, township 30, range 23, west of 4th principal meridian, Canada.

**Campeloma—Continued.****—producta (White) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 28. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Wood End depot, Souris river, and "Great Valley," about one hundred miles west of Wood End, on the 49th parallel; Short creek, Souris river, Canada.

**—producta (White) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 77. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South Saskatchewan, one mile below the mouth of Bow river, Canada.

**—vetula (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 587-588, pl. 44, figs. 14a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, Montana.

**—vetula (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 210. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Yampa valley, near Cañon park, Colorado.

**—vetula (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 221. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyoming.

**—vetula (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 216. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Point of Rocks station, Wyoming.

**—vetula (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., part 1, p. 101. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**—vetula (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 469, pl. 27, figs. 8-9. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region; Black Buttes, Wyoming.

**Campeloma sp. undet. Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p. 181, pl. 17, figs. 15a, b, and 16a-c. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Sulphur creek, on Bear river, Wyoming.

**—(Melantho) macrospira n. s. Meek. (1871.)**

Proc. Acad. Nat. Sci., Phila., for 1871, pp. 181-182. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Gilmore, Wyo.; Bear river, near the mouth of Sulphur creek, Utah [Wyoming]; various localities in the Bear river country.

**Campeloma—Continued.****— (Melantho) macrospira Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 180-181. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Sulphur creek, on Bear river, Wyoming.

**Camptonectes n. g. Agassiz MS. (1864.)**

Check List Invert. Foss. N. Am. Cret. and Jur., Smithsonian. Misc. Coll., vol. 7, No. 177, p. 39. Wash., 1864. F. B. Meek.

**— argillensis Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 99. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

**— bellisculptus n. s. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 99, pl. 9, fig. 11. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**— bellistriatus Meek. (1864.)**

Check List Invert. Foss. N. Am. Cret. and Jur., Smithsonian. Misc. Coll., vol. 7, No. 177, p. 39. Wash., 1864. F. B. Meek.

Formation: Jurassic.

Location: Idaho.

**— bellistriatus (Meek) M. & H. (1865.)**

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, pp. 77, 78, figs. a-d, text. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Red Buttes and below there on the north branch of Platte river, Dakota [Wyoming].

**— bellistriatus (M. & H.) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of one hundredth Meridian, vol. 4, pt. 1, p. 165. Wash., 1875. C. A. White.

Formation: Jurassic.

Location: Five miles east of Gunnison, Utah.

**— bellistriata Meek. (1876.)**

Rep. Expl. Great Basin Terr. Utah, pp. 356, 357, pl. 3, figs. 3a-d. Wash., 1876. F. B. Meek.

Formation: Jurassic.

Location: Near the Red Buttes, on the North Platte [Wyoming].

**— bellistriatus (Meek) H. & W. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, pp. 289-290, pl. 7, fig. 13. Wash., 1877. Hall & Whitfield.

Formation: Jurassic.

Location: Northwest of Rawlings station, Wyoming, and from Sheep creek, and Flaming Gorge, Uinta range, Utah.

**— bellistriatus (Meek) Whitfield. (1880.)**

Rep. Geol. Black hills of Dakota, pp. 351-353, pl. 4, figs. 6-11. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Near Bear Lodge, on the Belle Fourche river; on Spearfish creek; in Redwater valley, and in the Big Horn mountains.

**Camptonectes—Continued.****— burlingtonensis (Gabb) Conrad. (1870.)**

Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p. 76. Phila., 1871. T. A. Conrad.

Formation: Cretaceous.

**— burlingtonensis Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 318. Phila., 1876. Wm. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**— curvatus (Geinitz) Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can.; Mes. Foss. vol. 1, pt. 3, p. 242, pl. 32, fig. 4. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: East end of Maud Island.

**— ? extenuatus (M. & H.) (1865.)**

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, p. 78, pl. 3, fig. 6. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: North Platte, below Red Buttes, Dakota [Wyoming]; and southwest base of Black Hills.

**— extenuatus (Meek) H. & W. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, pp. 290, 291, pl. 7, fig. 18. Wash., 1877. Hall & Whitfield.

Formation: Jurassic.

Location: Northwest of Rawlings station, Wyoming.

**— ? extenuatus (M. & H.) Whiteaves. (1878.)**

Canadian Naturalist, vol. 8, n. ser. No. 7, pp. 401, 402. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river.

**— ? extenuatus (M. & H.) Whiteaves. (1878.)**

Geol. Sur. Canada; Rep. Prog., for 1876-'77, pp. 151, 152. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river, British Columbia.

**— extenuatus (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black hills of Dakota, pp. 353, 354, pl. 4, figs. 4, 5. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: East of the Belle Fourche river, near Bear Lodge, Black hills.

**— pertenuistriatus n. s. H. & W. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, pp. 291, 292, pl. 7, fig. 17. Wash., 1877. Hall & Whitfield.

Formation: Jurassic.

Location: Northwest of Rawlings station, Wyoming.

**Camptonectes**—Continued.— **platessa** n. s. White. (1874.)

Prelim. Rep. Geogr. and Geol. Expl. and Sur., West of 100th Merid., G. M. Wheeler, p. 25. Wash., 1874. C. A. White.

Formation: Cretaceous.

Location: Fifty miles north of Camp Apache and five miles west of Mineral Spring, Arizona.

— **platessa** White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur. west of 100th Meridian, vol. 4, pt. 1, p. 176, pl. 17, fig. 5a. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Fifty miles north of Camp Apache and five miles west of Mineral Spring, Arizona.

— **platessiformis** White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 143, 144, pl. 37, fig. 5a. Wash., 1883. C. A. White.

Formation: Jurassic.

Location: Aquarius plateau, southern Utah.

— **parvus** n. s. Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 55, pl. 8, figs. 1 and 2. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Freehold, New Jersey.

— **stygius** n. s. White. (1874.)

Prelim. Rep. Geogr. and Geol. Expl. and Sur. west of 100th Merid., G. M. Wheeler, p. 23. Wash., 1874. C. A. White.

Formation: Jurassic.

Location: "Edge of the bluff, fifteen to twenty miles south of Dirty Devil river and upon the north fork of Virgin river, Utah."

— **stygius** White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur. west of 100th Meridian, vol. 4, pt. 1, pp. 164-165, pl. 13, figs. 2a-c. Wash., 1875. C. A. White.

Formation: Jurassic.

Location: East of Aquarius plateau, fifteen to twenty miles south of Dirty Devil river, and also at the North fork of Virgin river, Utah.

— (**Amusium**) **burlingtonensis** (Gabb)

Whitfield. (1884.)

Mon. U. S. Geol. Sur., vol. 9, pp. 53-55, pl. 8, figs. 3-9. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield and Holmdel, New Jersey.

— ? **sp. undet. Whiteaves.** (1877.)

Geol. Sur. Can.; Rep. Prog. for 1875-1876, app. II, p. 96. Montreal, 1877. J. F. Whiteaves.

Formation: Jurassic or Cretaceous.

Location: Rock Island gates, below Hudson's Hope, Peace river.

**Cancellaria** (Lam.) Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 390. Phila., 1858-1860. Wm. M. Gabb.

— **alabamensis** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 301, pl. 48, fig. 14. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Prairie Bluff, Alabama.

**Cancellaria**—Continued.— **eufaulensis** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 390, 391, pl. 68, fig. 8. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Eufaula, Alabama.

— **septemlirata** n. s. Gabb. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 94, pl. 2, fig. 10. Phila., 1861. Wm. M. Gabb.

Formation: Cretaceous.

Location: Mullica Hill, New Jersey.

— **subalta** n. s. Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 100, pl. 9, fig. 22. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, New Jersey.

— **turneri** n. s. White. (1889.)

Bull. U. S. Geol. Sur. No. 51, p. 25, pl. 3, figs. 6 and 7. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Martinez, Contra Costa county, Cal.

**Cancer** (Linn.) Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 287. New Haven, 1830. S. G. Morton.

— **sp. undet. Morton.** (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 287. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

— **sp. undet. Morton.** (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 74. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Sandy Hook [N. J].

**Candona? emmonsii** n. s. Jones. (1862.)

Paleontographical Society, pp. 125-126, fig. 12, in text. London, 1862. T. R. Jones.

Formation: Triassic?

Location: Phoenixville, Pa.

— ? **rogersii** n. s. Jones. (1862.)

Paleontographical Society, pp. 124, 125, pl. 5, figs. 20-22. London, 1862. T. R. Jones.

Formation: Triassic?

Location: Culpeper and Prince Edward counties, Virginia; Deep river, North Carolina; Phoenixville, Pa.

**Cantharus** subgen. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 378. Wash., 1876. F. B. Meek.

**Cantharus** (Bolten) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 377-379. Wash., 1876. F. B. Meek.

— ? **julesburgensis** n. s. White. (1881.)

Proc. U. S. Nat. Mus., vol. 4, p. 138, pl. 1, figs. 1 and 2. Wash., 1881. Smithsonian. Misc. Coll., vol. 22. Wash., 1882. C. A. White.

Formation: Cretaceous.

Location: Vicinity of Julesburg, Colo.



**Cantharus—Continued.****— (Cantharulus) vaughani (M. & H.)****Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 379, 380, pl. 32, figs. 5a, b, fig. 48, p. 379. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Near the mouth of Heart river, on the Upper Missouri.

**Canthyria (subgen. Swain.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 514. Wash., 1876. F. B. Meek.

**Caprina (d'Orb.) Conrad. (1855.)**

Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 268. Phila., 1856. T. A. Conrad.

**— crassifibra n. s. Roemer. (1849.)**

Texas, pp. 408, 409. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Near Waco camp, above New Braunfels, and on Pedernales and San Saba rivers, Texas.

**— crassifibra Roemer. (1852.)**

Kreide, von Texas, p. 79, Taf. 5, figs. 6a-f. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waco camp on the Guadalupe, above New Braunfels, upper course of Pedernales river, and San Saba valley, Texas.

**— guadalupae n. s. Roemer. (1849.)**

Texas, p. 408. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waco camp, above New Braunfels, Tex.

**— guadalupae Roemer. (1852.)**

Kreide, von Texas, pp. 79, 80, Taf. 5, figs. 4a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waco camp, on the Guadalupe, above New Braunfels, Tex.

**— occidentalis n. s. Conrad. (1855.)**

Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 268. Phila., 1856. T. A. Conrad.

Formation: Cretaceous.

Location: Near the mouth of Puercos river, Texas.

**— occidentalis Con. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 147, pl. 2, fig. 1-a. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Near the mouth of Puercos river.

**— planata n. s. Conrad. (1855.)**

Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 268. Phila., 1856. T. A. Conrad.

Formation: Cretaceous.

Location: Oak creek, near Puercos [Texas].

**— planata Con. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 147, pl. 2, figs. 2a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Oak creek, near Puercos.

**Caprina—Continued.****— quadrata n. s. Conrad. (1855.)**

Proc. Acad. Nat. Sci., Phila., for 1854-1855, p. 266. Phila., 1856. T. A. Conrad.

Formation: Cretaceous.

Location: Alabama.

**— ? texana n. s. Roemer. (1849.)**

Texas, p. 409. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Near Waco camp, slope of plateau near Braunfels and on road from New Braunfels to Fredericksburg, Tex.

**— sp. undet. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869-1870, p. 429. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Mission Station, N. P. R. R.

**Caprinella coraloidea n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts. and Sci., n. s., vol. 5, pp. 380-381, pl. 2, figs. 3a-f. Cambridge and Boston, 1855. Hall &amp; Meek.

Formation: Cretaceous.

Location: Sage creek, Nebr.

**Caprotina (d'Orb.) Meek. (1876.)**

Rep. Expl. Exped. Santa Fe, N. Mex., to junction of Grand and Green rivers, p. 126. Wash., 1876. F. B. Meek.

**— texana Roemer. (1852.)**

Kreide, von Texas, p. 80, Taf. 5, figs. 2a-c. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Highlands between New Braunfels and Fredericksburg, Tex.

**— texana (Roem.) Marcou. (1858.)**

Geol. N. Am. p. 42. Zurich, 1858. Jules Marcou.

Formation: Cretaceous.

Location: Hills surrounding Comet creek, on the left bank of the False Washita.

**— (Requienia ?) bicornis n. s. Meek. (1876.)**

Rep. Expl. Exped. Santa Fe, N. Mex., to junction of Grand and Green rivers, p. 126, pl. 1, figs. 7a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Fort Lancaster, Texas.

**Capsa (Lam.) Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 164. Wash., 1857. T. A. Conrad.

**— texana n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 164, pl. 21, fig. 6. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Leon Springs [Texas].

**Capulus fragilis n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 68. Phila., 1857. Meek &amp; Hayden.

Formation: Cretaceous.

Location: Fox hills, Nebraska [S. Dakota].

**Capulus—Continued.****— occidentalis n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., pp. 385, 386, pl. 1, figs. 13a-d. Cambridge and Boston, 1855. Hall & Muek.

Formation: Cretaceous.

Location: Sage creek, Nebraska [Wyoming].

**Cardiaster (Forbes) d'Orb.**

Paleont. Française, Echinoides Irreguliers, Terr.

Crét., t. 6, pp. 123, 124. Paris, 1853-1860. A. d'Orbigny.

**— (Forbes) Desor. (1858.)**

Synop. Echinides Foss., p. 344. Paris and Wiesbade, 1858. E. Desor.

**— cinctus (Mort.) d'Orb. (1854.)**

Paleont. Française Echinoides Irreguliers, Terr. Crét., t. 6, p. 147, pl. 905, fig. 4. Paris, 1853-1860. A. d'Orbigny.

Formation: Cretaceous.

Location: New Jersey.

**— cinctus (Morton) Desor. (1858.)**

Synop. Echinides Foss., p. 346. Paris and Wiesbade, 1858. E. Desor.

Formation: Cretaceous.

Location: New Jersey.

**— fimbriatus (Mort.) d'Orb. (1854.)**

Paleont. Française Echinoides Irreguliers, Terr. Crét., t. 6, pp. 146, 147, pl. 905, fig. 3. Paris, 1853-1860. A. d'Orbigny.

Formation: Cretaceous.

Location: New Jersey.

**Cardinia (Agass.) Gabb. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 13.

Phila., 1870. Wm. M. Gabb.

**— ? ponderosa n. s. Gabb. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 13, pl. 6, fig. 11, 11a. Phila., 1870. Wm. M. Gabb.

Formation: Triassic.

Location: New pass, near Austin [Nevada].

**— praecisa n. s. White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., part 1, pp. 149, 150, pl. 37, figs. 7a, b. Wash., 1883. C. A. White.

Formation: Jurassic.

Location: Near the lower cañon of Yellowstone river, Montana.

**— ? triangularis n. s. Eichwald. (1871.)**

Geog. Paleont. Bemerk. Halbins. Mang. u. Aleutischen Inseln, p. 179, Taf. 16, figs. 21, 22. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

**— ? sp. undet. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 428. Phila., 1871. F. B. Meek.

Formation: Jurassic.

Location: Salinas creek, Hot Springs.

**Cardita (Brug.) Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 66. Phila., 1834. S. G. Morton.

**Cardita—Continued.****— ? alticosta n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont. vol. 2, p. 268, pl. 36, fig. 16. Phila., 1869. Wm. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

**— decisa n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 292 (pl. 9, fig. 3, [vol. 24]). New Haven, 1833. S. G. Morton.

Formation: Cretaceous.

Location: St. Georges, Del.

**— decisa Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 24, pl. 9, fig. 3. New Haven, 1833. S. G. Morton.

[Described in vol. 23.]

**— decisa Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 66, pl. 9, fig. 3. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: St. Georges, Del.

**— eminula n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 150, pl. 6, fig. 8. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Leon springs [Texas.]

**— hornii n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 174, pl. 24, fig. 157. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon, Martinez, near Clayton, Cal.

**— hornii Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 187, 188, pl. 80, figs. 83, 83a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon; Martinez; Clayton; near New Idria, and west of Griswold's, on the road from the latter place to San Juan, Cal.

**— intermedia n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, p. 209, pl. 28, figs. 14, 15. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Farmingdale, N. J.

**— planicosta (Lam.) Conrad. (1855.)**

Rep. Expl. and Sur. P. R. R. Miss. River to Pacific Ocean. App. Prelim. Geol. Rep. of W. P. Blake, Pal., p. 10. Wash., 1855. T. A. Conrad.

Formation: Eocene [Cretaceous.]

Location: Cañada de las Uvas [California].

**— planicosta (Lam.) Conrad. (1856.)**

Rep. Expl. and Sur. P. R. R. Miss. River to Pacific Ocean, vol. 5, App. p. 321, pl. 2, fig. 6. Wash., 1856. T. A. Conrad.

Formation: Eocene [Cretaceous].

Location: Canada de las Uvas.

**— subtetrica n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 164, pl. 21, fig. 5. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Rio Bravo del Norte [Texas].

**Cardita—Continued.**

- **subquadrata** n. s. Gabb. (1860.)  
 Jour. Acad. Nat. Sci. Phila., vol. 4, 2d ser., 1858-1860, p. 303, pl. 48, fig. 22a, b. [21a, b]. Phila. 1858-1860. Wm. M. Gabb.  
 Formation: Cretaceous.  
 Location: Burlington county, New Jersey.
- **subquadrata?** Gabb. (1860.)  
 Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 395. Phila., 1858-1860. Wm. M. Gabb.  
 Formation: Cretaceous.  
 Location: Hardeman county, Tennessee.

**Cardium (Linn.) Morton. (1834.)**

- Synop. Org. Rem. Cret. Gr. U. S., p. 66. Phila., 1834. S. G. Morton.
- (Linn.) Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 166. Wash., 1876. F. B. Meek.

- **abruptum** n. s. Gabb. (1860.)  
 Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 302. Phila., 1858-1860. Wm. M. Gabb.  
 Formation: Cretaceous.  
 Location: "Near Purdy," Tenn.

- **arcaeformis** n. s. Gabb. (1869.)  
 Am. Jour. Conch., vol. 5, Phila., 1869, 1870, pp. 11, 12, pl. 3, fig. 9. Phila., 1870. Wm. M. Gabb.  
 Formation: Jurassic.  
 Location: Volcano, about thirty miles southeast of Walker's lake, Nevada.

- **arkansense** n. s. Conrad. (1855.)  
 Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 266. Phila., 1856. T. A. Conrad.  
 Formation: Cretaceous.  
 Location: Arkansas.

- **bellulum** n. s. Meek. (1876.)  
 Rep. Expl. Exped. Santa Fe, New Mexico, to junction of Grand and Green rivers, pp. 128-129, pl. 2, figs. 6a, b. Wash., 1876. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Rio de la Plata [Colorado].

- **brazoense** n. s. Shumard. (1859.)  
 Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 600. St. Louis, 1856-1860. B. F. Shumard.  
 Formation: Cretaceous.  
 Location: Johnson county, at Comanche Peak, a few feet above the level of Brazos river, and near Patrick's creek, Parker county, Texas.

- **brewerii** n. s. Gabb. (1864.)  
 Geol. Sur. Cal., Paleont., vol. 1, p. 175, pl. 24, fig. 155. Phila., 1864. Wm. M. Gabb.  
 Formation: Cretaceous.  
 Location: East of the north end of Cañada de las Uvas; around Martinez, Cal.

- **choctawense** n. s. Shumard. (1859.)  
 Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 599. St. Louis, 1856-1860. B. F. Shumard.  
 Formation: Cretaceous.  
 Location: Post-Oak creek, Grayson county, Texas.

**Cardium—Continued.**

- **choctawense** (Shumard) White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 39, pl. 18, figs. 7a-c. Wash., 1883. C. A. White.

- **coloradoense** n. s. Shumard. (1859.)  
 Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 599, 600. St. Louis, 1856-1860. B. F. Shumard.  
 Formation: Cretaceous.  
 Location: Burnet, Travis, Bosque, Johnson, and McLennan counties, and several hundred miles further westward, Texas.

- **congestum** n. s. Conrad. (1857.)  
 Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 149, pl. 6, figs. 5a-d. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.  
 Location: Rio San Pedro [Texas].

- **cooperii** n. s. Gabb. (1864.)  
 Geol. Sur. Cal., Paleont., vol. 1, p. 172, pl. 24, figs. 154, 154a. Phila., 1864. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Martinez, San Diego, near Cañada de las Uvas, Cal.

- **cooperi** (Gabb) Eichwald. (1871.)  
 Geog. Paleont. Bemerck. Halbins. Mang. u. Aleutischen Inseln, p. 176, Taf. 16, figs. 3, 4. St. Petersburg, 1871. E. Eichwald.  
 Formation: Cretaceous.  
 Location: Alaska.

- **curtum** (M. & H.?) Meek. (1877.)  
 Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 151, 152, pl. 15, fig. 3 (not 3a). Wash., 1877. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Chalk creek, two miles west of Uptown, Utah.

- **curtum** (M. & H.) White. (1879.)  
 Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 235. Wash., 1879. C. A. White.  
 Formation: Cretaceous.  
 Location: Coalville, Utah.

- **curtum** (M. & H.) White. (1879.)  
 Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 249. Wash., 1879. C. A. White.  
 Formation: Cretaceous.  
 Location: Hilliard station, Wyoming.

- **decoratum** (Grew.) Eichwald. (1871.)  
 Geog. Paleont. Bemerck. Halbins. Mang. u. Aleutischen Inseln, pp. 129, 130. St. Petersburg, 1871. E. Eichwald.  
 Formation: Cretaceous.  
 Location: Alaskan peninsula, Kadiak, Unga, and Atcha islands.

- **dumosum** n. s. Conrad. (1870.)  
 Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p. 75. Phila., 1871. T. A. Conrad.  
 Formation: Cretaceous.  
 Location: Haddonfield, N. J.

- **elegantulum** n. s. Roemer. (1849.)  
 Texas, pp. 405, 406, Bonn, 1849. F. Roemer.  
 Formation: Cretaceous.  
 Location: Waterfall, near New Braunfels, Tex.

**Cardium—Continued.**

- **elegantulum** Roemer. (1852.)  
Kreide. von Texas, pp. 48, 49, Taf. 6, figs. 3a-b  
Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Waterfall of the Guadalupe below New Braunfels, Tex.
- **eufaulense** n. s. Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 282, pl. 46, fig. 12. Phila., 1858-1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Tippah county, Miss., and Eufaula, Ala.
- **eufaulensis** (Con.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, p. 132, pl. 20, figs. 17-19. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Holmdel, N. J.
- **guerangeri** (d'Orb.) Eichwald. (1871.)  
Geog. Paleont. Bemerk. Halbins. Mang. u. Aleutischen Inseln, pp. 128, 129. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Kadiak island, Alaska.
- **hemicycliscus** n. s. Tuomey. (1854.)  
Proc. Acad. Nat. Sci., Phila. 1856. M. Tuomey.  
Formation: Cretaceous.  
Location: Alabama.
- **hillanum** (Sow.) Roemer. (1849.)  
Texas, p. 406. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg and San Saba river, Texas.
- **hillanum** (Sow.) Roemer. (1852.)  
Kreide. von Texas, p. 49, Taf. 6, fig. 12. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg and San Saba valley, Texas.
- **inbricatarium** (Leym.) Eichwald. (1871.)  
Geog. Paleont. Bemerk. Halbins. Mang. u. Aleutischen Inseln, pp. 175, 176. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaska.
- **kansasense** n. s. Meek. (1871.)  
Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 307, 308. Wash., 1871. F. B. Meek.  
Formation: Cretaceous.  
Location: Twelve miles southwest of Salina, Saline county, Kansas.
- **? kansasense** Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 170, 171, pl. 2, figs. 14a-d. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Twelve miles southwest of Salina, Kans.

**Cardium—Continued.**

- **kansasense** (Mk.) Cragin. (1889.)  
Bull. Washb. Col. Lab. Nat. Hist., vol. 2, No. 10, p. 67. Topeka, 1889. F. W. Cragin.  
Formation: Cretaceous.  
Location: Kiowa, Comanche, Bavaria, and Ellsworth counties, Kansas.
- **lamarensis** n. s. Shumard. (1859.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 600, 601. St. Louis, 1856-1860. B. F. Shumard.  
Formation: Cretaceous.  
Location: Red river, Lamar county, Texas.
- **luteum** n. s. Conrad. (1855.)  
Rep. Expl. and Sur. R. R. R. Miss. River to Pacific Ocean, App. Prelim. Geol. Rep. of W. P. Blake, Pl. p. 9. Wash., 1855. T. A. Conrad.  
Formation: Eocene [Cretaceous].  
Location: Cañada de las Uvas.
- **luteum** Conrad. (1856.)  
Rep. Expl. and Sur. R. R. R. Miss. River to Pacific Ocean, vol. 5, App., p. 320, pl. 2, fig. 1. Wash., 1856. T. A. Conrad.  
Formation: Eocene [Cretaceous].  
Location: Cañada de las Uvas.
- **mediale** n. s. Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 149, pl. 4, figs. 4a-b. Wash., 1857. T. A. Conrad.  
Formation: Cretaceous.  
Location: [Texas].
- **multistriatum** n. s. Shumard. (1853.)  
Expl. Red river, Louisiana, by R. B. Marcy, p. 207, pl. 4, fig. 2. Wash., 1853. B. F. Shumard.  
Formation: Cretaceous.  
Location: Camp No. 4, Cross Timbers, Tex.
- **multistriatum** (Shum.) Schiel. (1855.)  
Rep. Expl. and Sur. R. R. R. Miss. River to Pacific Ocean, vol. 2; Rep. Expl. Forty-first Parallel N. Lat., p. 109, pl. 1, fig. 10. Wash., 1855. James Schiel.  
Formation: Cretaceous.  
Location: Upper Green river.
- **multiradiatum** n. s. Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 395, pl. 68, fig. 29. Phila., 1858-1860. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Eufaula, Ala.
- **pauperculum** n. s. Meek. (1871.)  
Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 306. Wash., 1871. F. B. Meek.  
Formation: Cretaceous.  
Location: Oil Springs, twenty miles west of Fort Bridger, Wyo.
- **pauperculum** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 291, pl. 9, fig. 3a. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Oil Springs, twenty miles west of Fort Bridger, Wyo.

**Cardium—Continued.**

- **pedernalis** n. s. Roemer. (1849.)  
Texas, p. 406, Bonn., 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.
- **pertenue** n. s. M. & H. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 442.  
Phila., 1862. Meek & Hayden.  
Formation: Cretaceous.  
Location: Deer creek, near the north branch of  
Platte river, Nebraska [Wyoming].
- **protectum** n. s. Conrad. (1853.)  
Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-  
1854, p. 275, pl. 24, fig. 12. Phila., 1850-1854.  
T. A. Conrad.  
Formation: Cretaceous.  
Location: Burlington county, New Jersey.
- **remondianum** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Palaeont., vol. 1, p. 172, pl. 23, fig.  
153. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Benicia, "Wright's Gulch," near  
Shasta City, Cal.
- **ripleyanum** n. s. Conrad. (1869.)  
Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 96,  
pl. 9, fig. 6. Phila., 1870. T. A. Conrad.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.
- **ripleyanum** (Con.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 132, 133, pl. 20,  
fig. 14. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Keyport, N. J.
- **ripleyense** n. s. Conrad. (1858.)  
Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-  
1858, p. 326. Phila., 1855-1858. T. A. Conrad.  
Formation: Cretaceous.  
Location: Owl creek, three miles north of the  
town of Ripley, Miss.
- **rarum** n. s. E. & S. (1857.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p.  
39. St. Louis, 1856-1860. Evans & Shumard.  
Formation: Cretaceous.  
Location: On Moreau and Grand rivers [S. Da-  
kota].
- **? sancti-sabæ** n. s. Roemer. (1849.)  
Texas, p. 405. Bonn., 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg and old Spanish fort on  
San Saba river, Texas.
- **sancti-sabæ** Roemer. (1852.)  
Kreide. von Texas, p. 48, Taf. 6, figs. 7a, b. Bonn,  
1852. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg and Spanish fort on  
San Saba river, Texas.
- **scitulum** n. s. Meek. (1858.)  
Trans. Albany Inst., vol. 4, pp. 40, 41. Albany,  
1858-1864. F. B. Meek.  
Formation: Cretaceous.  
Location: Nanaimo, Vancouver island.

**Cardium—Continued.**

- **? severiensis** n. s. Hill. (1888.)  
Ann. Rep. Geol. Sur. Ark. for 1888, vol. 2, pp. 134,  
135, pl. 2, figs. 21, 21a. Little Rock, 1888. R. T.  
Hill.  
Formation: Cretaceous.  
Location: Near Murfreesboro, Ark.
- **shumardi** n. s. M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, pp. 182, 183.  
Phila., 1861. Meek & Hayden.  
Formation: Jurassig.  
Location: Southwest base of Black hills, Nebraska  
[Wyoming].
- **speciosum** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, pp. 274,  
275. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Bad Lands of Judith river, Nebraska  
[Montana].
- **speciosum** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 182, 183. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Fossil ridge; mouth of St. Vrain creek;  
valleys of the Cache à la Poudre and Little  
Thompson creeks, Colorado.
- **speciosum** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 197. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear creek, near Morrison, Colo.
- **speciosum** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 225. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Near White River Indian agency, Colo-  
rado.
- **speciosum** (M. & H.?) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 229. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Dodd's ranch on Ashley's fork, Utah.
- **spillmani** n. s. Conrad. (1858.)  
Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-  
1858, p. 326, pl. 34, fig. 3. Phila., 1855-1858.  
T. A. Conrad.  
Formation: Cretaceous.  
Location: Owl creek, three miles north of town  
of Ripley, Miss.
- **subcurtum** Meek. (1877.)  
Rep. Geol. Expl., Fortieth Parallel, vol. 4, pt. 1,  
pp. 152, 153, pl. 15, fig. 3a (not fig. 3). Wash.,  
1877. F. B. Meek.  
Formation: Cretaceous.  
Location: Chalk hill, near Coalville, Utah; be-  
tween Coalville and Weber Canon.
- **subcurtum** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 235. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

**Cardium—Continued.**— **subcurtum** (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 250. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Hilliard station, Wyo.

— **subquadratum** n. s. E. & S. (1857.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 38, 39. St. Louis, 1856-1860. Evans & Shumard.

Formation: Cretaceous.

Location: Moreau river [S. Dakota].

— **tippanum** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 326, pl. 34, fig. 8b. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **transversale** n. s. Roemer. (1849.)

Texas, p. 406. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— **trite** n. s. White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 291, 292, pl. 5, figs. 4a, b. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Head of Waterpocket cañon, southern Utah.

— **trite** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 248. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear River valley, Wyoming.

— **tumidulum** n. s. Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 249, 250, pl. 33, fig. 4. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Maud island.

— (**Adacna**)? sp. undet. White. (1889.)

Bull. U. S. Geol. Sur., No. 51, p. 58, pl. 9, fig. 4. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Palace Camp, Washington.

— (**Criocardium**) **dumosum** (Con.)

Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 133-135, pl. 20, figs. 9-13. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— (**Criocardium**) **multiradiatum** (Gabb.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 135, 136, pl. 21, figs. 1-3. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel, Monmouth, Freehold, and Burlington, N. J.

— (**Criocardium**) **speciosum** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 169, 170, pl. 37, figs. 4a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river; on Cache La Poudre river, Colorado.

**Cardium—Continued.**— (**Granocardium**) **sabulosum** n. s. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 267, pl. 36, fig. 14. Phila., 1869. Wm. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

— (**Granocardium**) **tippanum** (Con.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 310. Phila., 1876. Wm. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Georgia.

— (**Hemicardium**?) **curtum** n. s. M. & H. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 442. Phil., 1862. Meek & Hayden.

Formation: Cretaceous.

Location: Head Gros Ventres river, Nebraska [Wyoming].

— (**Lævicardium**) **annulatum** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 171, pl. 23, fig. 152. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Curry's, south side of Mount Diablo, California.

— (**Lævicardium**) **annulatum** Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 187, pl. 30, fig. 81. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, south of Mount Diablo, and in Orestimba cañon, California.

— (**Protocardium**) **filosum** n. s. Conrad. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 150, pl. 6, figs. 7a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Leon Springs, Texas.

— (**Protocardium**) **granuliferum** n. s. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, pp. 267, 268, pl. 36, fig. 15. Phila., 1869. Wm. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

— (**Protocardia**) **linteum** n. s. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 278, 279, pl. 46, fig. 17. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula [Alabama]; Tippah county, Alabama [Mississippi].

— (**Protocardia**) **multistriatum** (Shum.) Conrad. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 149, pl. 6, figs. 4a-c. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Leon Springs [Texas].

**Cardium—Continued.****—(Protocardium) perelongatum n. s.**

Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 136-138, pl. 20, figs. 20, 21, pl. 21, figs. 4, 5. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Cream Ridge and Mullica Hill, New Jersey.

**—(Protocardium) placerensis n. s.**

Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 173, pl. 24, fig. 156. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas Flat, Placer county, California.

**—(Protocardia) salinaense n. s. Meek. (1871.)**

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 306, 307. Wash., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Saline county, Kansas.

**—(Protocardia) texanum n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 150, pl. 6, figs. 6a-c. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Between El Paso and Frontera.

**—(Protocardium) translucidum n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 187, pl. 30, figs. 82, 82a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, south of Mount Diablo, California.

**—(Trachycardium) alabamense n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 310. Phila., 1876. Wm. M. Gabb.

Formation: Cretaceous.

**—(Trachycardium) carolinensis n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. Carolina, vol. 1; Raleigh, 1875, W. C. Kerr, App. A, p. 7, pl. 2, fig. 1. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

**—(Trachycardium) carolinense (Con.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 310. Phila., 1876. Wm. M. Gabb.

Formation: Cretaceous.

Location: Patanla creek, Georgia.

**—(Trachycardium) eufaulense (Con.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 310. Phila., 1876. Wm. M. Gabb.

Formation: Cretaceous.

Location: Quitman county, Georgia.

**Cardium—Continued.****—sp. undet. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 285. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

**—sp. undet. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 66. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

**—sp. undet. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 66. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

**—sp. undet. Roemer. (1849.)**

Texas, p. 406. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**—sp. undet. Roemer. (1849.)**

Texas, p. 406. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Ford near New Braunfels, Tex.

**—sp. undet. Roemer. (1852.)**

Kreide. von Texas, p. 50. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**—sp. undet. Roemer. (1852.)**

Kreide. von Texas, p. 49. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**—sp. undet. Roemer. (1852.)**

Kreide. von Texas, p. 49. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Ford of the Guadalupe, New Braunfels, Tex.

**—sp. undet. Roemer. (1852.)**

Kreide. von Texas, p. 50. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**—sp. undet. Owen. (1860.)**

Second Rep. Geol. Rec. Arkansas, pl. 7, fig. 2. Phila., 1860. D. D. Owen.

Formation: Cretaceous.

Location: Arkansas.

**—sp. undet. White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 292, pl. 9, figs. 2a-c. Wash., 1879. C. A. White.

Formation: Cretaceous.

**Caryatis (Roem.) Gabb. (1864)**

Geol. Sur. Cal., Paleont., Phila., 1869. W. M. Gabb.

**—nitida Gabb.**

Geol. Sur. Cal., fig. 79. Pl.

Formation:

Location:

**Caryatis—Continued.**— **subtrigona** Whiteaves. (1884.)

Geol. and Nat. Hist., Sur. Can.: Mes. Foss., vol. 1, pt. 3, p. 226. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.

Location: Bear Skin bay, Skidegate inlet; south side of Alliford bay, Queen Charlotte islands.

— **? veta n. s.** Whitfield. (1884.)

Mon. U. S. Geol. Sur., vol. 9, pp. 218, 219, pl. 28, figs. 16-19. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.

Location: Farmingdale, Squankum, New Egypt, and at Shark river, New Jersey.

**Caryophyllia** (Lam.) Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 288. New Haven, 1830. S. G. Morton

— **egeria n. s.** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 275, pl. 6, figs. 7a, b. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: [Cimarron, N. Mex.]

— **egeria** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 205. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Sage creek, Colorado.

— **johannis n. s.** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 274, 275, pl. 6, figs. 6a, b. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Cimarron, N. Mex.

— **sp. undet.** Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 288. New Haven, 1830. S. G. Morton.

Formation: [Cretaceous.]

Location: Gloucester county, New Jersey.

**Cassianella** (Beyrich) Gabb. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 14. Phila., 1870. Wm. M. Gabb.

— **lingulata n. s.** Gabb. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, pp. 14-15, pl. 5, figs. 13-13a, b. Phila., 1870. Wm. M. Gabb.

Formation: Triassic.

Location: Star cañon, Nevada.

**Cassidulus** (Lam.) Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 76. Phila., 1834. S. G. Morton.

— **abruptus n. s.** Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 291. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Mississippi.

— **æquoreus n. s.** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 76, pl. 3, fig. 14. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Prairie bluff, Alabama.

**Cassidulus—Continued.**— **æquoreus** (Morton) D'Orb.

Paleont. Française Echinoides Irreguliers, Terr. Crét. t. 6, pp. 329, 330, pl. 926, figs. 6-12. Paris, 1853-1860. A. d'Orbigny.

Formation: Cretaceous.

Location: Prairie Bluff, Alabama.

— **æquoreus** (Morton) Desor. (1858.)

Synop. Echinides Foss., p. 290. Paris and Wiesbaden, 1858. E. Desor.

Formation: Cretaceous.

Location: Prairie bluff, Alabama.

— **æquoreus** (Morton) Clark. (1891.)

Johns Hopkins Univ. Cir. vol. 10, No. 87, p. 76. Baltimore, 1891. Wm. B. Clark.

Formation: Cretaceous.

Location: Alabama.

— **florealis** (Morton) Clark. (1891.)

Johns Hopkins Univ. Cir. vol. 10, No. 87, p. 76. Baltimore, 1891. Wm. B. Clark.

Formation: Cretaceous.

Location: New Jersey.

— **micrococcus n. s.** Gabb. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 519. Phila., 1861. Wm. M. Gabb.

Formation: Cretaceous.

Location: Eufaula, Ala.

— **micrococcus** (Gabb) Clark. (1891.)

Johns Hopkins Univ. Cir. vol. 10, No. 87, p. 76. Baltimore, 1891. Wm. B. Clark.

Formation: Cretaceous.

Location: Alabama.

— **porrectus n. s.** Clark. (1891.)

Johns Hopkins Univ. Cir. vol. 10, No. 87, p. 76. Baltimore, 1891. Wm. B. Clark.

Formation: Cretaceous.

Location: Mississippi.

— **stantoni n. s.** Clark. (1891.)

Johns Hopkins Univ. Cir. vol. 10, No. 87, p. 76. Baltimore, 1891. Wm. B. Clark.

Formation: Cretaceous.

Location: Colorado.

— **subconicus n. s.** Clark. (1891.)

Johns Hopkins Univ. Cir. vol. 10, No. 87, p. 76. Baltimore, 1891. Wm. B. Clark.

Formation: Cretaceous.

Location: Mississippi.

— **subquadratus n. s.** Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 291, pl. 47, fig. 19. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Mississippi.

— **subquadratus** (Conrad) Clark. (1891.)

Johns Hopkins Univ. Cir. vol. 10, No. 87, p. 76. Baltimore, 1891. Wm. B. Clark.

Formation: Cretaceous.

Location: Mississippi.

**Cassiope** (Coquand) White. (1874.)

Prelim. Rep. Invert. Foss.; Geogr. and Geol. Expl. and Sur. West of 100th Meridian, p. 27. Wash., 1874. C. A. White.



**Cassiope—Continued.****— whitfieldi n. s. White. (1874.)**

Prelim. Rep. Geogr. and Geol. Expl. and Sur. West of 100th Merid., G. M. Wheeler, p. 27. Wash., 1874. C. A. White.

Formation: Cretaceous.

Location: At the head of Le Verken creek, and also in Pace's cañon, Utah.

**— whitfieldi White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. West of 100th Meridian, vol. 4, pt. 1, p. 196, pl. 18, fig. 1a. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: At the head of Le Verken creek, and also in Pace's cañon, Utah.

**Cassiopella n. g. White. (1877.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 3, No. 3, p. 606. Wash., 1877. C. A. White.

**— turricula n. s. White. (1877.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 3, No. 3, p. 606. Wash., 1877. C. A. White.

Formation: Cretaceous.

Location: Black Buttes, Wyo.

**— turricula White. (1879.)**

Eloventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 220. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyoming.

**— turricula White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 58, pl. 23, figs. 25-29. Wash., 1883. C. A. White.

Location: Black Buttes, Wyo.

**— turricula White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 97, pl. 27, figs. 3a-g. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyoming.

**Catillus (subgen. Brong.?) (Chenu.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 39. Wash., 1876. F. B. Meek.

**Catopygus (Agas.) Conrad. (1850.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 39. Phila., 1850-1854. T. A. Conrad.

**— oviformis (Couper MSS.) Conrad. (1850.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 39, pl. 1, fig. 15. Phila., 1850-1854. T. A. Conrad.

Formation: Cretaceous.

Location: Timber creek, New Jersey.

**— oviformis (Conrad) Clark. (1891.)**

Johns Hopkins Univ. Cir. vol. 10, No. 87, p. 76. Baltimore, 1891. Wm. B. Clark.

Formation: Cretaceous.

Location: New Jersey.

**— pusillus n. s. Clark. (1891.)**

Johns Hopkins Univ. Cir. vol. 10, No. 87, p. 76. Baltimore, 1891. Wm. B. Clark.

Formation: Cretaceous.

Location: Monmouth County, New Jersey.

**Cavaria pustulosa (Hag.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges. Band 22, p. 220. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Brownville, New Jersey.

**Cavea (d'Orb.) G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 175. Phila., 1862, 1863. Gabb & Horn.

**— prisca n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, pp. 175, 176 [pl. 21], fig. 67. Phila., 1862, 1863. Gabb & Horn.

Formation: [Cretaceous?]

Location: Fort Belknap, Texas.

**Cellepora [Fabr.] Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 400. Phila., 1858-1860. Wm. M. Gabb.

**— bilabiata n. s. G. & H. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 366. Phila., 1861. Gabb & Horn.

Formation: Cretaceous.

Location: New Jersey.

**— bilabiata (G. & H.) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 400, pl. 69, figs. 21-23. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Timber creek, New Jersey.

**— carinata n. s. G. & H. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 366. Phila., 1861. Gabb & Horn.

Formation: Cretaceous.

Location: New Jersey.

**— carinata (G. & H.) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 400, pl. 69, figs. 24-26. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Timber creek, New Jersey.

**— exserta n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 125 [pl. 19], fig. 6. Phila., 1862, 1863. Gabb & Horn.

Formation: Cretaceous.

Location: Near Mullica Hill, New Jersey.

**— granulosa (Hag.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges. Band 22, pp. 219, 220. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Timber creek, New Jersey.

**— janewayi n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 126 [pl. 19], fig. 7. Phila., 1862, 1863. Gabb & Horn.

Formation: Cretaceous.

Location: Seven miles below Yazoo, Miss.

[This specimen was evidently not found in place, as the locality has yielded no other Cretaceous fossils and is nearly 75 miles SW. of the known Cretaceous area in the well-known Tertiary region.]

**Cellepora**—Continued.

- **prolifera** n. s. G. & H. (1862.)  
 Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
 1863, pp. 124, 125. Phila., 1862, 1863. Gabb &  
 Horn.  
 Formation: Cretaceous.  
 Location: Timber creek, New Jersey.  
 (= *Cellepora bilabiata* G. & H.)
- **pumila** n. s. G. & H. (1862.)  
 Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
 1863, pp. 126, 127 [i. l. 19], fig. 8. Phila., 1862,  
 1863. Gabb & Horn.  
 Formation: Cretaceous.  
 Location: Timber creek, New Jersey.
- **pusilla** (Hag.) Credner. (1870.)  
 Zeitsch. Deutsch. Geol. Ges. Band 22, p. 219.  
 Berlin, 1870. H. Credner.  
 Formation: Cretaceous.  
 Location: Near Brownville and Turtle Mill, N. J.
- **tubulata** n. s. Lonsdale. (1844.)  
 Quart. Jour. Geol. Soc., London, vol. 1, p. 70, figs.  
 a-c. London, 1845. William Lonsdale.  
 Formation: Cretaceous.  
 Location: Lewis creek (South Washington, North  
 Carolina), and Timber creek, New Jersey.
- **typica** n. s. G. & H. (1860.)  
 Proc. Acad. Nat. Sci., Phila., for 1860, p. 366.  
 Phila., 1861. Gabb & Horn.  
 Formation: Cretaceous.  
 Location: New Jersey.
- **typica** (G. & H.) Gabb. (1860.)  
 Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
 1860, p. 400, pl. 69, figs. 27-29. Phila., 1858-  
 1860. Wm. M. Gabb.  
 Formation: Cretaceous.  
 Location: New Jersey.
- Celtites** (?) **vancouverensis** n. s. Whit-  
 eaves. (1887.)  
 Geol. and Nat. Hist. Surv. Can., vol. 2, n. ser., 1886,  
 App. I, pp. 110, 111 B. Montreal, 1887. J. F.  
 Whiteaves.  
 Formation: Triassic.  
 Location: North entrance point of Houston Stew-  
 art channel, Queen Charlotte islands, at east  
 end of channel; Crescent inlet, Moresby island,  
 Q. C. I.; north shore of Kun-ja Island, Q. C. I.;  
 Browning creek, Forward inlet, Quatsino  
 sound, Vancouver island, and Forward inlet,  
 near Observatory rock, Robson island, Forward  
 inlet, east side of Winter harbour, Forward  
 inlet, a mile and a half north of Log Point,  
 Alexander harbour, Galiano island, north end  
 of Vancouver island, and Hernandez island, Strait  
 of Georgia.
- Ceratia** (H. & A. Adams) White. (1889.)  
 Bull. U. S. Geol. Sur. No. 51, p. 21. Wash., 1889.  
 C. A. White.
- **nexilia** n. s. White. (1889.)  
 Bull. U. S. Geol. Sur. No. 51, p. 21, pl. 3, figs. 13  
 and 14. Wash., 1889. C. A. White.  
 Formation: Cretaceous.  
 Location: [Near Pence's ranch, Butte county,  
 Cal.]

- Ceratites** (De Haan) Gabb. (1864.)  
 Geol. Sur. Cal., Paleont., vol. 1, p. 22. Phila.,  
 1864. W. M. Gabb.
- **americanus** n. s. Harper. (1856.)  
 Proc. Acad. Nat. Sci., Phila., for 1856, pp. 126-128,  
 figs. A and B, p. 127. Phila., 1857. L. Harper.  
 Formation: Cretaceous.  
 Location: Bed of Black Warrior river, near Erie,  
 Greene county, Alabama.
- **haidingeri** (Hauer) Gabb. (1864.)  
 Geol. Surv. Cal. Paleont., vol. 1, pp. 22, 23, pl. 5,  
 figs. 8, 9; pl. 4, fig. 9. Phila., 1864. W. M. Gabb.  
 Formation: Triassic.  
 Location: Humboldt Mining region, Nevada.
- **virginianus** n. s. Gabb. (1860.)  
 Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
 1860, p. 307, pl. 48, figs. 27a-c. Phila., 1858-1860.  
 Wm. M. Gabb.  
 Formation: Triassic?  
 Location: Bath county, Virginia.
- **whitneyi** n. s. Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, pp. 23, 24, pl. 4,  
 figs. 11-13. Phila., 1864. W. M. Gabb.  
 Formation: Triassic.  
 Location: [California.]
- Cerastoderma** (subgen. *Poli*) Meek.  
 (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 166. Wash.  
 1876. F. B. Meek.
- Cercomya** (Agassiz) Whitfield. (1885.)  
 Mon. U. S. Geol. Sur., vol. 9, p. 178. Wash.,  
 1885. R. P. Whitfield.
- **peculiaris** (Con.) Whitfield. (1885.)  
 Mon. U. S. Geol. Sur., vol. 9, p. 178, pl. 23, figs.  
 24, 25. Wash., 1885. R. P. Whitfield.  
 Formation: Cretaceous.  
 Location: Crosswicks, New Jersey.
- Cerithidea** (Swain.) Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 558. Wash.,  
 1876. F. B. Meek.
- ? **nebrascensis** (M. & H.) White.  
 (1883.)  
 Third Ann. Rep. U. S. Geol. Sur., p. 57, pl. 26,  
 fig. 19. Wash., 1883. C. A. White.  
 Formation: Cretaceous.
- (**Pirenella**) **nebrascensis** (M. & H.)  
 White. (1880.)  
 Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
 Terr., Part I, p. 90. Wash., 1883. C. A. White.  
 Formation: Cretaceous.  
 Location: Near the head of Little Missouri river.
- (**Pirenella**)? **nebrascensis** (M. &  
 H.) Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 559, pl. 43,  
 figs. 9 a, b, c (bis). Wash., 1876. F. B. Meek.  
 Formation: Cretaceous?  
 Location: Head of Little Missouri.
- Cerithiopsis** (Forbes & Hanley) Gabb.  
 (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 116. Phila.,  
 1864. W. M. Gabb.

**Cerithiopsis—Continued.**

- **alternata** n. s. Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 116, pl. 21, figs. 114, 114 a. Phila., 1864. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Northeast of Martinez and Cochran's, east of Mount Diablo, Cal.
- **moreauensis** (M. & H.) Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 335-337, pl. 31, fig. 4, fig. 38, p. 336. Wash., 1876. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Moreau river. [S. Dakota.]

**Cerithium [Brug.] N. & G. (1840.)**

- Bull. Roy. Acad. Sci., Bruxelles, Tome 7, pt. 2, p. 215, Bruxelles, 1840. Nyst & Galeotti.
- **sp. undt. Credner.** (1870.)  
 Zeitsch. Deutsch. Geol. Ges., Band 22, p. 237. Berlin, 1870. H. Credner.  
 Formation: Cretaceous.  
 Location: New Jersey.
- **austinense** n. s. Roemer. (1888.)  
 Palcont. Abhandl. Band 4, Heft 4, pp. 16, 17, Taf. I [XXXI], fig. 12. Berlin, 1888. F. Roemer.  
 Formation: Cretaceous.  
 Location: Two miles above the mouth of Bartons creek, near Austin, Texas.
- **bosquense** n. s. Shumard. (1859.)  
 Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 596, 597. St. Louis, 1856-1860. B. F. Shumard.  
 Formation: Cretaceous.  
 Location: Near Bosque creek, Bosque county, Texas.

**— bustamentii (Galeotti) N. & G. (1840.)**

- Bull. Roy. Acad. Sci., Bruxelles, Tome 7, pt. 2, pp. 215, 216, fig. 5. Bruxelles, 1840. Nyst & Galeotti.  
 Formation: Jurassic.  
 Location: Tehuacan, Mexico.

**— cingulatum** n. s. N. & G. (1840.)

- Bull. Roy. Acad. Sci., Bruxelles, Tome 7, pt. 2, pp. 216, 217, fig. 6. Bruxelles, 1840. Nyst & Galeotti.  
 Formation: Jurassic.  
 Location: Tehuacan, Mexico.

**— lallierianum var. suciense** n. var. **Whiteaves.** (1879.)

- Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 122, 123, pl. 15, figs. 10, 10a. Montreal, 1879. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Sucia islands, Protection island.

**— mexicanum** n. s. Gabb. (1869.)

- Geol. Sur. Cal., Paleont., vol. 2, p. 263, pl. 35, fig. 8. Phila., 1869. Wm. M. Gabb.  
 Formation: Cretaceous.  
 Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

**Cerithium—Continued.**

- **nebrascensis** n. s. M. & H. (1856.)  
 Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 125. Phila., 1857. Meek & Hayden.  
 Formation: Tertiary [Cretaceous].  
 Location: Near head waters of Little Missouri.
- **nodosus** n. s. Tuomey. (1854.)  
 Proc. Acad. Nat. Sci., Phila., vol. 7, p. 170. Phila., 1856. M. Tuomey.  
 Formation: Cretaceous.  
 Location: Alabama.
- **obliterato-granosum** n. s. Roemer. (1888.)  
 Palcont. Abhandl. Band 4, Heft 4, p. 16, Taf. I [XXXI], fig. 11. Berlin, 1888. F. Roemer.  
 Formation: Cretaceous.  
 Location: Two miles above the mouth of Bartons creek, near Austin, Texas.
- **pillingi** n. s. White. (1885.)  
 Bull. U. S. Geol. Sur., No. 22, p. 13, pl. 5, figs. 3-6. Wash., 1885. C. A. White.  
 Formation: Cretaceous.  
 Location: Shore of Todos Santos bay, lower California.
- **skidegatense** n. s. Whiteaves. (1884.)  
 Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 215, pl. 27, figs. 3, 3a. Montreal, 1884. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: East end of Maud island, opposite Leading island.
- **suturosum** n. s. N. & G. (1840.)  
 Bull. Roy. Acad. Sci., Bruxelles, Tome 7, pt. 2, p. 215, fig. 4. Bruxelles, 1840. Nyst & Galeotti.  
 Formation: Cretaceous.  
 Location: Tehuacan, Mexico.
- **totium-sanctorum** n. s. White. (1885.)  
 Bull. U. S. Geol. Sur., No. 22, p. 13, pl. 5, figs. 12 and 13. Wash., 1885. C. A. White.  
 Formation: Cretaceous.  
 Location: Shore of Todos Santos bay, Lower California.
- (?) **sp. undet. Roemer.** (1849.)  
 Texas, p. 414. Bonn., 1849. F. Roemer.  
 Formation: Cretaceous.  
 Location: Waterfall near New Braunfels, Tex.
- (?) **sp. undet. Roemer.** (1852.)  
 Kreide von Texas, p. 38. Bonn., 1852. F. Roemer.  
 Formation: Cretaceous.  
 Location: Waterfall of the Guadalupe below New Braunfels, Tex.
- ? **sp. undet. White.** (1889.)  
 Bull. U. S. Geol. Sur., No. 51, pt. 62, 63, pl. 9, fig. 5. Wash., 1889. C. A. White.  
 Formation: Cretaceous.  
 Location: Palace camp Washington.
- Ceripor sessilis** (Hag.) Credner. (1870.)  
 Zeitsch. Deutsch. Geol. Ges., Band 22, p. 220. Berlin, 1870. H. Credner.  
 Formation: Cretaceous.  
 Location: Brownville, N. J.

**Chaetetes (Fischer) White. (1880.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 2, p. 220. Wash., 1880. C. A. White.

**— ? ? dimissus n. s. White. (1880.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 2, pp. 220, 221. Wash., 1880. C. A. White.  
Formation: Cretaceous.

Location: Fossil creek, sixteen miles west of Greeley and six miles south of Fort Collins, Colorado.

**— ? ? dimissus White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 7, pl. 12, fig. 14a. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Fossil ridge, sixteen miles westward from Greeley, and six miles southward from Fort Collins, Colorado.

**Chemnitzia (d'Orb.) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 333. Phila., 1855-1858. T. A. Conrad.

**— subgen. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 287. Phila., 1858-1860. T. A. Conrad.

**— cerithiformis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 339-341, pl. 32, figs. 10a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.

Location: Moreau Trading post. [S. Dakota.]

**— distans n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 333, pl. 35, fig. 30. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**— ? gloriosa n. s. Roemer. (1849.)**

Texas, pp. 412, 413. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

**— (?) gloriosa Roemer. (1852.)**

Kreide. von Texas, pp. 40, 41, Taf. 4, fig. 12. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe below New Braunfels, Tex.

**— interrupta n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 333, pl. 35, fig. 15. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**— meekana n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 299, pl. 48, fig. 1. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Prairie bluff, Alabama.

**Chemnitzia—Continued.****— occidentale n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 391, pl. 68, fig. 10. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Near the Choctaw Mission, Indian Territory.

**— planulata Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 162. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**— spillmani (Con. ?) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 115, pl. 19, fig. 70. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Pence's ranch, north of Oroville, Butte county, California.

**— texana (Roem.) Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 261. Phila., 1869. Wm. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

**— zebra n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 260, 261, pl. 35, fig. 5. Phila., 1869. Wm. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

**Chlamys (Bolton) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 23-25. Wash., 1876. F. B. Meek.

**— nebrascensis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 25, 26, pl. 16, figs. 6a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles from its mouth.

**— nebrascensis (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 31. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: East branch of the Poplar river, on the 49th parallel; Old Wives creek, township 10, range 11, west of 3d principal meridian, Canada.

**Cibota (Browne) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 328. Phila., 1855-1858. T. A. Conrad.

**— lintea n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 328, pl. 34, fig. 11. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**Cibota—Continued.**

- **multiradiata** n. s. Gabb. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 95, pl. 2,  
fig. 1. Phila., 1861. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Mullica Hill, New Jersey.
- **multiradiata** (Gabb) Whitfield. (1884.)  
Mon. U. S. Geol. Sur., vol. 9, p. 94, pl. 11, figs.  
21, 22. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Mullica Hill, New Jersey.
- **obesa** n. s. Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 93, 94, pl. 11,  
figs. 30, 31. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Burlington county, New Jersey.
- **rostellata** (Mort.) Whitfield. (1884.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 91, 92, pl. 11,  
figs. 34-36. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Freehold, New Jersey.
- **uniopsis** (Con.) Whitfield. (1884.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 92, 93, pl. 11,  
figs. 32, 33. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Near Burlington, New Jersey.
- Cidaritis** (Swains.) Shum. (1859.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p.  
609. St. Louis, 1856-1860. B. F. Shumard.
- **armiger** (Morton) Clark. (1891.)  
Johns Hopkins Univ. Cir., vol. 10, No. 87, p. 75.  
Baltimore, 1891. Wm. B. Clark.  
Formation: Cretaceous.  
Location: New Jersey.
- **clavigera** (Koen.) Credner. (1870.)  
Zeitsch. Deutsch. Geol. Ges., Band 22, p. 218.  
Berlin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: New Jersey.
- **diatretum** n. s. Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 23, p. 294. New  
Haven, 1833. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.
- **galeottii** n. s. Desor. (1858.)  
Synop. Echinides Foss., p. 10. Paris and Wies-  
bade, 1858. E. Desor.  
Formation: Jurassic.  
Location: Anahuac mountains, 12 leagues west-  
northwest of Tehuacan, Mexico.
- **hemigranosus** n. s. Shumard. (1859.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp.  
609, 610. St. Louis, 1856-1860. B. F. Shumard.  
Formation: Cretaceous.  
Location: Upper part of the Bluffs of Red river,  
Lamar county, Texas, and ten miles above the  
mouth of Kiamasha creek.
- **hemigranosus** (Shumard) White. (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 38, pl. 18, figs. 2a, b. Wash.,  
1883. C. A. White.

**Cidaritis—Continued.**

- **sceptrifera** (Mant.) Credner. (1870.)  
Zeitsch. Deutsch. Geol. Ges., Band 22, p. 218.  
Berlin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: New Jersey.
- **texasus** n. s. Clark. (1891.)  
Johns Hopkins Univ. Cir., vol. 10, No. 87, p. 75.  
Baltimore, 1891. Wm. B. Clark.  
Formation: Cretaceous.  
Location: Texas.
- **walcotti** n. s. Clark. (1891.)  
Johns Hopkins Univ. Cir., vol. 10, No. 87, p. 75.  
Baltimore, 1891. Wm. B. Clark.  
Formation: Cretaceous.  
Location: New Jersey.
- ? **sp. undet.** Morton. (1829.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-  
1831, p. 123. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.  
Location: Big Timber creek, Gloucester county,  
New Jersey.
- Cidarites** (Lam.) Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 75. Phila.,  
1834. S. G. Morton.
- **armiger** n. s. Morton. (1842.)  
Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser.,  
1839-1842, p. 215, pl. 11, fig. 1. Phila., 1839-  
1842. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.
- **diatretum** Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 24, pl. 10, fig. 10.  
New Haven, 1833. S. G. Morton.  
[Described in vol. 23 as *Cidaritis diatretum* n. s.]
- **diatretum** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 75, pl. 10, fig.  
10. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Gloucester, New Jersey.
- **glandiferus** (Goldf.) N. & G. (1840.)  
Bull. Roy. Acad. Sci., Bruxelles, Tome 7, pt. 2,  
p. 219, fig. 12. Bruxelles, 1840. Nyst & Gal-  
eotti.  
Formation: Jurassic.  
Location: Tehuacan, Mexico.
- **propinquus** (Munster) N. & G. (1840.)  
Bull. Roy. Acad. Sci., Bruxelles, Tome 7, pt. 2, p.  
218, fig. 10. Bruxelles, 1840. Nyst & Galeotti.  
Formation: Jurassic.  
Location: Tehuacan, Mexico.
- **pustulosus** n. s. N. & G. (1840.)  
Bull. Roy. Acad. Sci., Bruxelles, Tome 7, pt. 2,  
p. 219, fig. 11. Bruxelles, 1840. Nyst & Galeotti.  
Formation: Jurassic.  
Location: Tehuacan, Mexico.
- **splendens** n. s. Morton. (1841.)  
Proc. Acad. Nat. Sci., Phila., vol. 1, 1841-1843,  
pp. 132, 133. Phila., 1843. S. G. Morton.  
Formation: Cretaceous.  
Location: Timber creek, in Gloucester county,  
New Jersey.

**Cinulia (Gray) Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 111. Phila., 1864. W. M. Gabb.

**— (Gray) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 283. Wash., 1876. F. B. Meek.

**— concinna (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can.; Cont. Can., Paleont., vol. 1, pt. 1, p. 46. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Twelve miles east of White Mud river (or Frenchman's creek); elbow of South Saskatchewan; Old Wives' creek, township 10, range 11, west of 3d principal meridian: "Two creeks, on the Assiniboine," Canada.

**— inflata(?) (Gabb) Whiteaves. (1874.)**

Geol. Sur. Canada; Rep. Prog. for 1873-1874, p. 263. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, Vancouver island,  $2\frac{1}{4}$  and  $2\frac{1}{2}$  miles up.

**— mathewsonii n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 111, pl. 19, fig. 65. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Bull's Head point, Martinez; Orestimba cañon, Stanislaus county, California.

**— obliqua n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 111, pl. 19, fig. 64, 64a-c. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan Springs, Martinez; Ponce's ranch, above Oroville; Chico creek, Texas Flat, Placer county; Cottonwood creek, Siskiyou mountains, Siskiyou county, California.

**— obliqua (?) (Gabb) Whiteaves. (1874.)**

Geol. Sur. Canada; Rep. Prog. for 1873-1874, p. 263. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Protection island.

**— obliqua (Gabb) Whiteaves. (1879.)**

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 2, p. 131. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island; southwest side of Denman island; Nanaimo river,  $2\frac{1}{2}$  miles up, Vancouver island; Protection, Gabriola, and Salt Springs or Admiralty islands; also at the Sucia islands.

**— obliqua (Gabb) White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 44. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Sucia and Sheep Jack islands.

**— pinguis n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 112, pl. 20, figs. 221, 221a, b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Bluffs a mile west of Martinez, Cal.

**Cinulia—Continued.****— pusilla n. s. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can.; Mes. Foss., vol. 1, pt. 3, pp. 217, 218, pl. 23, figs. 5, 5a. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South island, in Skidegate inlet.

**— rectilabrum n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 264, 265, pl. 35, figs. 10, 10a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Mexico.

**— (oligoptycha) concinna (H. & M.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 284, pl. 31, figs. 6, bis, a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, S. Dakota; Yellowstone river, Montana; on the Assiniboine river, British America.

**— sp. undet. Whiteaves. (1874.)**

Geol. Sur. Canada, Rep. Prog. for 1873-1874, p. 264. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Gabriola island.

**— sp. undet. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can.; Mes. Foss., vol. 1, pt. 3, p. 249. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Maud island.

**Cinuliopsis n. g. Whiteaves. (1879.)**

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 2, p. 131. Montreal, 1879. J. F. Whiteaves.

**— typica n. s. Whiteaves. (1879.)**

Geol. Surv. Can.; Mes. Foss., vol. 1, pt. 2, pp. 131, 132, pl. 16, figs. 7, 7a, b. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands.

**Cirrus (Sowerby) Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 49. Phila., 1834. S. G. Morton.

**— crotaloides n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 49, pl. 19, fig. 5. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Erie, Alabama.

**Cirsotrema tenuisculptum n. s. Whiteaves. (1879.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 127, pl. 16, figs. 3, 3a-c. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands.

**Cladophyllia furcifera n. s. Roemer. (1888.)**

Paleont. Abhandl. Band 4, Heft 4, pp. 8, 9, Taf. 1 [xxxii], figs. 4a, 4b. Berlin, 1888. F. Roemer.

Formation: Cretaceous.

Location: Two miles above the mouth of Bartons creek, near Austin, Texas.

**Clavagella (Deshayes) Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 69. Phila., 1834.  
S. G. Morton.

**— armata n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 24, pp. 129, 130, pl. 9,  
fig. 11. New Haven, 1833. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**— armata Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 69, pl. 9, fig. 11.  
Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Near Arneytown, New Jersey; Prairie  
Bluff, Alabama.

**— armata (Mort.) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 364.  
Phila., 1862. Wm. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**— armata (Mort.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 192, 193, pl. 25,  
fig. 24. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Wainford, Monmouth county, and near  
New Egypt, New Jersey.

**Clavatula ? californica n. s. Conrad. (1855.)**

Rep. Expl. and Sur. R. R. R. Mississippi river to  
Pacific ocean, Prelim. Geol. Rep. of W. P.  
Blake, Pal., p. 11. Wash., 1855. T. A. Con-  
rad.

Formation: Eocene [Cretaceous].

Location: Cañada de las Uvas.

**— ? californica Conrad. (1856.)**

Rep. Expl. and Sur. R. R. R. Mississippi river to  
Pacific ocean, vol. 5, app., p. 322, pl. 2, fig. 11.  
Wash., 1856. T. A. Conrad.

Formation: Eocene [Cretaceous].

Location: Cañada de las Uvas.

**Clavellithes (Piestochilus) scarboroughi (M. & H.) Meek. 1864.**

Check List Invert. Foss., N. Am. Cret. and Jur.,  
Smithson. Mis. Coll., vol. 7, No. 177, p. 37.  
Wash. 1864. F. B. Meek.

Formation: Cretaceous.

Location: Dakota.

**Clavigella (Sow.) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 18, p. 245. New  
Haven, 1830. S. G. Morton.

**— sp. undet. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 18, p. 245. New  
Haven, 1830. S. G. Morton.

Formation: Ferruginous sand. [Cretaceous.]

Location: New Jersey.

**Clisocolus n. g. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 188, 189.  
Phila., 1869. Wm. M. Gabb.

**— cordatus (M. & H.) Whiteaves. (1879.)**

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 2, pp. 157,  
158, pl. 18, fig. 3, 3a, b. Montreal, 1879. J. F.  
Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, Vancouver island, two  
and a quarter miles up.

**Clisocolus—Continued.****— cordatus (Whiteaves) White. 1889.**

Bull. U. S. Geol. Sur., No. 51, pp. 41, 42, pl. 6,  
figs. 8, 9. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Socia and Sheep Jack islands.

**— dubius n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 189. Phila.,  
1869. Wm. M. Gabb.

Formation: Cretaceous.

**— dubius (Gabb) White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 41, pl. 6, figs.  
5-7. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Socia island.

**Closteriscus n. g. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 306, 307.  
Wash., 1876. F. B. Meek.

**— tenullineatus (H. & M.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 308, 309, pl.  
19, figs. 10a, b, and fig. 9c. Wash., 1876. F.  
B. Meek.

Formation: Cretaceous.

Location: Cheyenne river [S. Dakota].

**Clydonites (Hauer) Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1,  
p. 109. Wash., 1877. F. B. Meek.

**— lævidorsatus (Hauer) Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1,  
pp. 109, 110, pl. 10, fig. 7. Wash., 1877. F. B.  
Meek.

Formation: Triassic.

Location: Buena Vista cañon, North Fork, Hum-  
boldt range, Nevada.

**Clypeaster (Lam.) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 287. New  
Haven, 1830. S. G. Morton.

**— florealis n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 294. New  
Haven, 1833. S. G. Morton.

Formation: Ferruginous sand. [Cretaceous.]

Location: Delaware.

**— florealis Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 24, pl. 10, fig. 12.  
New Haven, 1833. S. G. Morton.

**— florealis Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 76, pl. 3, fig.  
12, pl. 10, fig. 12. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Delaware and Chesapeake canal.

**— geometricus n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 24, p. 131, pl. 10, fig.  
9. New Haven, 1833. S. G. Morton.

Formation: Cretaceous.

Location: Delaware and Chesapeake canal.

**— geometricus Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 76, pl. 10, fig.  
9. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Canal excavations of Delaware.

**Clypeaster**—Continued.— *sp. undet.* Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 287. New Haven, 1830. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.

**Cœlosmilia americana** n. s. Roemer. (1888.)

Paleont. Abhandl. Band 4, Heft 4, pp. 6, 7, Taf. 1 [xxx], figs. 5a, b. Berlin, 1888. F. Roemer.  
Formation: Cretaceous.  
Location: Two miles above the mouth of Barton's creek, near Austin, Tex.

— ? *atlantica* (Mort.) Bölsche. (1870.)

Zeitsch. Deutsch. Geol. Ges. Band 22, p. 217. Berlin, 1870. Wilh. Bölsche.  
Formation: Cretaceous.  
Location: Brownville, N. J.

**Columna** (Perry) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 554, 555. Wash., 1876. F. B. Meek.

— *teres* (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 555-556, pl. 44, figs. 11a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Near Fort Union, [N.] Dakota, on the upper Missouri.

— *teres* (M. & H.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 244. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Evanston coal mines, Wyoming.

— *teres* (M. & H.) White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 88. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Montana.

— *teres* (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 454, pl. 25, fig. 15. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

— *vermicula* (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 556, 557, pl. 44, figs. 12a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Near Fort Union, on the upper Missouri.

— *vermicula* (M. & H.) White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 88. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Montana.

— *vermicula* (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 454, pl. 25, fig. 16. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

— *vermicula* var. *contraria* n. var. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 557. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Near Fort Union, on the upper Missouri.

**Cominella** (Gray) White. (1889.)

Bull. U. S. Geol. Sur. No. 51, p. 22. Wash., 1889. C. A. White.

— *lecontii* n. s. White. (1889.)

Bull. U. S. Geol. Sur. No. 51, p. 22, pl. 4, figs. 4 and 5. Wash., 1889. C. A. White.  
Formation: Cretaceous.  
Location: Near Pence's ranch, Butte county, California.

**Complanaria** (subgen. Swainson) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 113. Wash., 1876. F. B. Meek.

— *cretacea* n. s. Whiteaves. (1874.)

Geol. Sur. Can., Rep. Prog., for 1873-74, pp. 264, 266, 267, pl. fig. 2. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Below Dodd Narrows.

— *cretacea* Whiteaves. (1879.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 156, 157. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Below Dodd Narrows, Vancouver island.

**Conus** [Linn.] Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 49. Phila., 1834. S. G. Morton.

— *canalis* n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci. Phila., vol. 3, 2d ser., 1855-1858, p. 331, pl. 35, fig. 22. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— *gyratus* n. s. Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 24, p. 131, pl. 10, fig.

3. New Haven, 1833. S. G. Morton.

Formation: Cretaceous [Tertiary].

Location: Southern states.

— *gyratus* Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 49, pl. 10, fig. 13. Phila., 1834. S. G. Morton.

Formation: Cretaceous [Tertiary].

Location: South Carolina.

— *hornii* n. s. Gabb. (1864.)

Geol. Sur. Cal., Palaeont., vol. 1, pp. 122, 123, pl. 29, fig. 226. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Alizos creek, near Fort Tejon, California.

— *remondii* (Con.) Gabb. (1864.)

Geol. Sur. Cal., Palaeont., vol. 1, p. 122, pl. 20, fig. 79. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Cochran's, east of Mount Diablo, and Bull's Head point, northeast of Martinez; Clayton; San Diego; near Cañada, Los Angeles county, California.

— *sinuatus* n. s. Gabb. (1864.)

Geol. Sur. Cal., Palaeont., vol. 1, p. 123, pl. 29, fig. 227. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon, Cal.



**Coralliochama n. g. White. (1885.)**

Bull. U. S. Geol. Sur., No. 22, pp. 9, 10. Wash., 1885. C. A. White.

**— orcutti n. s. White. (1885.)**

Bull. U. S. Geol. Sur., No. 22, pp. 10-12, pls. 1-4. Wash., 1885. C. A. White.

Formation: Cretaceous.

Location: Shore of Todos Santos bay, Lower California, and near the town of Wallala, Mendocino county, California.

**Corbicula (Megerle) Prime. (1865.)**

Mon. Am. Corbiculadæ (Recent and Fossil), Smithsonian. Misc. Coll. vol. 17, No. 145, pp. 2, 3. Wash., 1865. T. Prime.

**— (Mühlfeldt) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 161. Wash., 1876. F. B. Meek.

**— æquilateralis n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 495. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Bear River city (Sulphur creek), Wyoming.

**— annosa (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 26, 27, pl. 2, figs. 2-4. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Near Washington, Middlesex county, New Jersey; Sayre and Fisher's brick and clay yards, near Sayreville, New Jersey; near Woodbridge, N. J.

**— augheyi n. s. White. (1882.)**

Proc. U. S. Nat. Mus., vol. 5, p. 95, pl. 4, figs. 4-6. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of South Platte river, northeastern Colorado.

**— augheyi White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 438, pl. 21, figs. 4-6. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of the South Platte river, in Northern Colorado, east of the Rocky mountains.

**— berthoudi n. s. White. (1882.)**

Proc. U. S. Nat. Mus., vol. 5, pp. 94, 95, pl. 4, figs. 1-3. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of South Platte river, northeastern Colorado.

**— berthoudi White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 438, pl. 21, figs. 1-3. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: East of the Rocky mountains in Colorado.

**— cardiniæformis n. s. White. (1878.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, pp. 911-912. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Valley of Crow creek, fifteen miles above its confluence with Platte river, northern Colorado.

**Corbicula—Continued.****— cardiniæformis White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 169. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow creek valley, Colorado.

**— cardiniæformis White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 73, pl. 25, figs. 5a, b. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of Crow creek, fifteen miles above the confluence of that creek with Platte river, northern Colorado.

**— cleburni n. s. White. (1878.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, p. 711. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Crow creek, Colorado, about twelve miles north of its confluence with South Platte river.

**— cleburni White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 168, 169. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow Creek valley, Colorado.

**— cleburni White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 73, 74, pl. 23, figs. 1a-c. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of Crow creek, northern Colorado, about fifteen miles above the confluence of that creek with Platte river.

**— cleburni White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 437, pl. 20, figs. 7-9. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of the South Platte, Colorado.

**— ? crassatelliformis n. s. Meek. (1871.)**

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 315, 316. Wash., 1871. F. B. Meek.

Formation: Tertiary [Cretaceous].

Location: Hallville coal mines [Wyoming].

**— cytheriformis (M. & H.) Prime. (1865.)**

Mon. Am. Corbiculadæ (Recent and Fossil), Smithsonian. Misc. Coll., vol. 7, No. 145, p. 9. Wash., 1865. T. Prime.

Formation: Tertiary [Cretaceous].

Location: Near the mouth of the Judith river, Nebraska [Montana].

**— cytheriformis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 520, 521, pl. 40, figs. 5a-e. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Bad Lands of Judith river, on the upper Missouri, in Montana; mouth of Muscle-shell river; from near Fort Benton, and from one hundred and twenty-five miles below the same.

**Corbicula—Continued.****—cytheriformis (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 212. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Danforth hills, Colorado.

**—cytheriformis (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 215. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bitter creek valley, two miles west of Point of Rocks station, Wyoming.

**—cytheriformis (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 219. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyoming.

**—cytheriformis (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 74, pl. 21, figs. 4a-d. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: About two miles west of Point of Rocks station, Wyoming.

**—cytheriformis (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 437, pl. 22, figs. 1-6. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**—cytheriformis (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 7. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rye-grass flat, Old Man river, Canada.

**—? emacerata n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, p. 26, pl. 2, figs. 5 and 6. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Clay banks near Woodbridge, N. J.

**—? fracta n. s. Meek. (1871.)**

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 314, 315. Wash., 1871. F. B. Meek.

Formation: Tertiary [Cretaceous].

Location: Hallville coal mines [Wyoming].

**—? fracta var. crassiuscula n. var. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 512, 513. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Black Buttes, Wyo.

**—moreauensis (M. & H.) Prime. (1865.)**

Mon. Am. Corbiculade (Recent and Fossil), Smithsonian Misc. Coll., vol. 7, No. 145, pp. 7, 8. Wash., 1865. T. Prime.

Formation: Tertiary [Cretaceous].

Location: Near Moreau river, Nebraska [S. Dakota].

**Corbicula—Continued.****—nebrascensis (M. & H.) Prime. (1865.)**

Mon. Am. Corbiculade (Recent and Fossil), Smithsonian Misc. Coll., vol. 7, No. 145, p. 8. Wash., 1865. T. Prime.

Formation: Tertiary [Cretaceous].

Location: Near Moreau river, Nebraska [S. Dakota].

**—nebrascensis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 522, pl. 43, figs. 2a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau River, [S.] Dakota.

**—nebrascensis (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., part 1, p. 74. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**—nebrascensis (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 437, pl. 20, figs. 12, 13. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**—? nucalis n. s. Meek. (1871.)**

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 304, 305. Wash., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Kans.

**—nucalis Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 163, 164, pl. 2, figs. 5a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Kansas.

**—obesa n. s. White. (1878.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, pp. 712, 713. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Valley of Crow creek, Colorado, fifteen miles north of its confluence with South Platte river.

**—obesa White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 169. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow Creek valley, Colorado.

**—obesa White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 190. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Bijou creek, Colorado.

**—obesa White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., part 1, pp. 72, 73, pl. 23, figs. 3a-e. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valleys of Crow and Bijou creeks, northern Colorado.

**Corbicula—Continued.****— obesa White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 437, pl. 23, figs. 7-11. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of the South Platte and its tributaries, Colorado.

**— obliqua n. s. Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 8, 9, pl. 1, figs. 4, 4a, b, Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rye-grass flat, Old Man river, Bow river, eight miles west of Blackfoot crossing; Upper Belly river, twenty-two miles above the mouth of the Waterton, and Little Bow river, opposite the mouth of Snake valley, Canada.

**— occidentalis (M. & H.) Prime. (1865.)**

Mon. Am. Corbiculade (Recent and Fossil), Smithsonian. Misc. Coll., vol. 7, No. 145, pp. 8, 9. Wash., 1865. T. Prime.

Formation: Tertiary [Cretaceous].

Location: Bad lands of the Judith river, Nebraska [Montana].

**— occidentalis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 521, 522, pl. 40, figs. 6a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Bad lands of the Judith river, Montana, on the Upper Missouri.

**— occidentalis (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 208, 209. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Yampa valley, near Cañon park, Colorado.

**— occidentalis (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 216. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Point of Rocks station, Wyoming.

**— occidentalis (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 219. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyoming.

**— occidentalis (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 75, pl. 21, figs. 3a-c. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valleys of Bitter creek and Yampa river.

**— occidentalis (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 437, pl. 17, figs. 6, 7, pl. 23, figs. 1-6. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**Corbicula—Continued.****— occidentalis (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 7-8, pl. 1, figs. 3, 3 a. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: St. Mary river, two miles north of the 49th parallel, and four miles west of the St. Mary river; Bow river, mouth of East Arrow-wood creek; Rye-Grass flat, Old Man river; upper Belly river, twenty-two and twenty-three miles above the mouth of the Waterton; Oyster creek; northwest branch of the north fork of the Old Man river; Red Deer river, near the 8th correction line, and forks of the Devil's Pine and Three Hills creeks, Canada.

**— occidentalis (M. & H.) Whiteaves (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 40. Montreal 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Milk river ridge, Canada.

**— occidentalis (M. & H.) Whiteaves (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 67, 68. Montreal 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: North side of the Milk river, five miles below Pa-Kow-Ki coulee, Canada.

**— pugetensis n. s. White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 60, pl. 11, fig. 8. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Carbonado, Washington.

**— subelliptica (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 437, pl. 20, figs. 10-11. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**— ? subtrigonalis n. s. Meek. (1871.)**

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 305-306. Wash., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Kans.

**— ? subtrigonalis Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 164, 165, pl. 2, fig. 6. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Kans.

**— umbonella (Meek) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 438, pl. 21, figs. 7-10. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: East of the Rocky mountains in Colorado.

**— willisi n. s. White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 63, pl. 11, figs. 3-7. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Carbonado, Wilkeson (Fletts creek), and valley of Green river, Washington.

**Corbicula—Continued.**— ? (*Astarte*?) *pikensis* n. s. Hill. (1888.)

Ann. Rep. Geol. Sur. Arkansas, for 1888, vol. 2, p. 134, pl. 2, figs. 13, 13a, 14-17. Little Rock, 1888. R. T. Hill.

Formation: Cretaceous.

Location: Throughout the Trinity beds in Arkansas.

— [*Cyrena*?] *securis* n. s. Meek. (1873.)

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 494, 495. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Bear River city (Sulphur creek), Wyoming.

— (*Leptesthes*) *cardiniæformis* White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 437, pl. 22, figs. 10-15. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: East of the Rocky mountains in Colorado.

— (*Leptesthes*) *fracta* (M. & H.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 169. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow creek valley, Colorado.

— (*Leptesthes*) *fracta* (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 209. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Yampa valley, near Cañon park, Colorado.

— (*Leptesthes*) *fracta* (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 212, 213. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Danforth hills, Colorado.

— (*Leptesthes*) *fracta* (Meek) White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 75-77, pl. 23, figs. 2a-c, pl. 21, fig. 5a. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Hallville, [Wyoming].

— (*Leptesthes*) *fracta* (Meek.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 439, pl. 20, figs. 1-6. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black Buttes, Wyoming.

— (*Leptesthes*) *macropistha* n. s. White. (1878.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, p. 713. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Crow creek, northern Colorado, 15 miles above its confluence with the South Platte river.

**Corbicula—Continued.**— (*Leptesthes*) *macropistha* White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 169. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow Creek valley, Colorado.

— (*Leptesthes*) *macropistha* White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 190. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Bijou creek, Colorado.

— (*Leptesthes*) *macropistha* White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 78, 79, pl. 23, figs. 4a-f. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valleys of Crow and Bijou creeks, northern Colorado.

— (*Leptesthes*) *macropistha* White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 437, pl. 21, figs. 11-14. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: East of the Rocky mountains in Colorado.

— ? (*Leptesthes*) *planumbona* n. s. Meek. (1875.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 1, No. 1, 2d ser., pp. 43-45. Wash., 1875. F. B. Meek.

Formation: [Cretaceous.]

Location: Two hundred miles east of Denver, Colo.

— (*Leptesthes*) *planumbona* (Meek.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 190. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Bijou creek, Colorado.

— (*Leptesthes*) *planumbona* (Meek.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 169, 170. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow creek valley, Colorado.

— (*Leptesthes*) *planumbona* (Meek.) White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 77, 78, pl. 21, figs. 2a-d. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Two hundred miles east of Denver city, on the Kansas Pacific railroad; valleys of Crow and Bijou creeks, northern Colorado.

— (*Leptesthes*) *planumbona* (Meek.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 437, pl. 22, figs. 7-9. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: East of the Rocky mountains in Colorado.

**Corbicula—Continued.****— (Leptesthes) subelliptica (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 523, 524, pl. 43, figs. 9a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: On Cherry creek, [S.] Dakota; and on Bijou creek, Colorado.

**— (Leptesthes) subelliptica (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 169. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow Creek valley, Colorado.

**— (Leptesthes) subelliptica (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 190. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Bijou creek, Colorado.

**— (Leptesthes) subelliptica (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 79. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri River region; valley of Bijou creek, northern Colorado.

**— (Leptesthes) subelliptica (var. moreauensis n. var.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 524, pl. 43, figs. 1a-b, 2c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, [S.] Dakota.

**— (Veloritina) bannisteri n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 513. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Black Butte station, Wyoming.

**— (Veloritina) cytheriformis (M. & H. ?) Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 511. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Point of Rocks, on Bitter creek, Wyoming.

**— Veloritina (durkeei) Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 167-170, pl. 16, figs. 6a-g. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: On Sulphur creek, near Bear river, Wyoming.

**— (Veloritina) durkeei (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 242. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear River valley, Wyoming.

**Corbicula—Continued.****— (Veloritina) durkeei (Meek) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 79-80. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Bear River valley, near the mouth of Sulphur creek.

**— (Veloritina) durkeei (Meek) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 437, pl. 8, figs. 8-11. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Southwestern Wyoming and adjacent parts of Utah.

**— (Veloritina) inflexa n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 493, 494. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Near Missouri river, below Gallatin city, Mont.

**— sp. undet. White. (1879)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 212. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Danforth hills, Colorado.

**Corbis ? sp. undet. Roemer. (1849.)**

Texas, p. 407. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**— sp. undet. Roemer. (1852.)**

Kreide von Texas, p. 47. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**Corbula (Brug.) Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 150. Wash., 1857. T. A. Conrad.

**— alaeformis n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 177, pl. 29, fig. 63. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Near Lower Lake village, Lake county, California.

**— bisulcata n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr., App. A, p. 11, pl. 2, figs. 13, 14. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

**— blakei n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 29, pl. 5, fig. 21. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: Humboldt mining region.

**— carolinensis n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr., App. A, p. 11, pl. 2, fig. 15. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

**Corbula—Continued.**

- **caudata** n. s. Tuomey. (1854.)  
Proc. Acad. Nat. Sci., Phila., vol. 7, p. 170.  
Phila., 1856. M. Tuomey.  
Formation: Cretaceous.  
Location: Noxubie [Mississippi].
- **concinna** n. s. Whiteaves. (1884.)  
Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 219, 220, pl. 29, figs. 3, 3a. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: South side of Alliford bay, Skidegate inlet; Bear Skin bay.
- **brassatelliformis** (Meek) White. (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 80. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Crow creek, Colorado, east of the Rocky mountains.
- **crassimarginata** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 244, 245, pl. 17, figs. 14a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Moreau river, [S.] Dakota.
- **crassiplica** n. s. Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 394, pl. 68, fig. 25. Phila., 1858-1860. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Cut on the Memphis and Charleston Railroad where it crosses the Tennessee and Mississippi state line.
- **crassiplica** (Gabb) Whitfield. (1884.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 178, 179, pl. 23, fig. 30. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.
- **cultriformis** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, p. 149, pl. 22, fig. 122. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: West of Martinez, California.
- **dubiosa** n. s. White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 236. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **dubiosa** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 249. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear River valley, Wyoming.
- **dubiosa** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 250. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Hilliard station, Wyoming.
- **elegans** (Sow.) Eichwald. (1871.)  
Geog. Paleont. Bemerk. Halbins. Mang. u. Aleutischen Inseln, pp. 133, 134. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Kadiak island, Alaska.

**Corbula—Continued.**

- **engelmanni** Meek. (1876.)  
Rep. Expl. Great Basin Terr., Utah, p. 362, pl. 5, figs. 13a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous?  
Location: Bear river, near the mouth of Sulphur creek.
- **englemanni** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 243. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear River valley, Wyoming.
- **eufaulensis** n. s. Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 233. Phila., 1858-1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Eufaula, Alabama.
- **foulkei** n. s. Lea. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 149. Phila., 1862. Isaac Lea.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.
- **foulkei** (Lea) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, p. 180, pl. 23, figs. 27-29. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.
- **? gregaria** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 84. Phila., 1856. Meek & Hayden.  
Formation: Cretaceous.  
Location: Yellowstone river, 150 miles from mouth, Nebraska [Montana].
- **graysonensis** n. s. Shumard. (1859.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 603. St. Louis, 1856-1860. B. F. Shumard.  
Formation: Cretaceous.  
Location: Post-oak creek, near Sherman, Grayson county, Texas.
- **hornii** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, pp. 149, 150, pl. 29, fig. 238. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Fort Tejon, Cal.
- **hornii** Gabb. (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, p. 176, pl. 29, figs. 62a, b. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.
- **inornata** n. s. M. & H. (1858.)  
Proc. Acad. Nat. Sci., Phila., for 1858, p. 52. Phila., 1859. Meek & Hayden.  
Formation: Cretaceous.  
Location: Long lake.
- **inornata** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 245, 246, pl. 30, figs. 4a-d. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Long lake, near Fort Pierre, [S.] Dak.
- **mactriformis** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 117. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Fort Clark [N. Dakota].

**Corbula—Continued.****— mactriformis (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 80. Wash., 1883. C. A. White.  
Formation: Cretaceous.

Location: Near Fort Clark, in the Upper Missouri River region.

**— mactriformis (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 442, pl. 18, figs. 12-15. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri River region.

**— mactriformis (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can.; Cont. Can., Paleont., vol. 1, pt. 1, p. 27. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Wood End depot, Souris river, Canada.

**— moreauensis n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, pp. 83, 84.

Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebraska [S. Dakota].

**— minima (d'Orb.) Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 13, pl. 17, figs. 4, 4a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island.

**— nematophora n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 496, 497. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Near Cedar city, southern Utah.

**— nematophora (Meek) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of 100th meridian, vol. 4, pt. 1, pp. 188, 189, pl. 17, figs. 7a-c. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Plateau near the west crossing of the north fork of Virgin river, and elsewhere near the north fork of that river, Utah.

**— nematophora (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 236. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— nematophora (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 290, 291, pl. 3, figs 4a-d. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near Cedar City, southern Utah.

**— occidentalis n. s. Conrad. (1854.)**

Rep. U. S. and Mex., Bound. Sur., vol. 1, pt. 2, p. 150, pl. 6, fig. 9. Wash., 1857. T. A. Conrad.

Formation: Eocene? [Cretaceous].

Location: Western Texas.

**Corbula—Continued.****— oxynema n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875. W.

C. Kerr, App. A., p. 11. T. A. Conrad.

Formation: Cretaceous.

Location: Cape Fear river, North Carolina.

**— parilis n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 150, pl. 29, figs. 239, 239a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez to Marsh's, east of Mount Diablo and San Diego, Cal.

**— perangulata n. s. Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can.; Cont. Can., Paleont., vol. 1, pt. 1, pp. 9-11, pl. 1, figs. 5, 5a, b, pl. 2, fig. 1. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rye-Grass flat, Old Man river; upper Belly river, twenty-three miles above the mouth of the Waterton, and Scabby butte, seven miles north of the confluence of the Belly and Old Man rivers, Canada.

**— perbrevis n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875.

W. C. Kerr, App. A., p. 11, pl. 2, fig. 5. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

**— perundata n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 116. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Mouth of the Judith [Montana].

**— perundata (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 80. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**— perundata (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can., Paleont., vol. 1, pt. 1, p. 9. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South or first branch of the Milk river, N. W. T., Canada.

**— perundata (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can., Paleont., vol. 1, pt. 1, p. 62. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Peigan creek, township 7, range 6 west of 4th principal meridian, near U. S. boundary line, on a branch of the east fork of the Milk river, Canada.

**— perundata (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can., Paleont., vol. 1, pt. 1, p. 69. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Creek "about fourteen miles northeastward from the most eastern of the Three buttes," Canada.

**Corbula—Continued.****—perundata? (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can., Paleont., vol. 1, pt. 1, p. 80. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rocky Spring ridge, near MacLeod, Benton trail, Canada.

**—? primorsa n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 148, pl. 22, figs. 120, 120a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous?

Location: South side of Corral hollow, Alameda county, California.

**—pyriformis (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 243. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear River valley, Wyoming.

**—pyriformis (Meek) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 82. Wash. 1883. C. A. White.

Formation: Cretaceous.

Location: Peculiar to the Bear River Laramie series, and at most of the known localities at which those strata are exposed.

**—pyriformis (Meek) White. (1883.)**

Third Ann. Rep. U. S. Geol. and Geogr. Sur., p. 441. pl. 8, figs. 12-16. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Southwestern Wyoming and the adjacent parts of Utah.

**—striatula (Sow.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges. Band 22, p. 236. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Woodbury, N. J.

**—subcompressa n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 394, pl. 68, fig. 24. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Two miles east of Middleton, Harde-man county, Tennessee.

**—subcompressa (Gabb) Whitfield (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 180, 181, pl. 23, fig. 26. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**—subgibbosa n. s. Conrad. (1875.)**

Rep. Geol. Surv. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, p. 11, pl. 2, fig. 12. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

**—subtrigonalis n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 116. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Mouth of the Judith [Montana].

**Corbula—Continued.****—subtrigonalis (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 170. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow Creek valley, Colorado.

**—subtrigonalis (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 190. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Bijou creek, Colorado.

**—subtrigonalis (M. & H.) White (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 209. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Yampa valley near Cañon park, Colorado.

**—subtrigonalis (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 215. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bitter Creek valley, two miles west of Point of Rocks station, Wyoming.

**—subtrigonalis (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 220. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyoming.

**—subtrigonalis (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 80. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**—subtrigonalis (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Survey, p. 442, pl. 19, figs. 10-17. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**—subtrigonalis (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur., Can., Cont. Can., Paleont., vol. 1, pt. 1, p. 62. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Peigan creek, township 7, range 6, west of 4th principal meridian, Canada.

**—subtrigonalis (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur., Can., Cont. Can., Paleont., vol. 1, pt. 1, p. 68. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Belly river east of Driftwood bend, and Belly river near its junction with the Bow



**Corbula—Continued.**

river; South Saskatchewan, six miles below the mouth of Bow river; north side of Milk river, five miles below Pa-kow-ki Coulee, and south side of Milk river, one mile above the mouth of Pa-kow-ki Coulee; south side of Saskatchewan, one mile below the mouth of the Bow river, Canada.

— **subundifera n. s. White. (1876.)**  
Rep. Geol. Uinta Mts., p. 129. Wash., 1875. C. A. White.

Formation: Tertiary [Cretaceous.]  
Location: Point of Rocks, Wyoming.

— **subundifera White. (1879.)**  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 216. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Point of Rocks station, Wyoming.

— **traskii n. s. Gabb. (1864.)**  
Geol. Sur. Cal., Paleont., vol. 1, p. 149, pl. 22, figs. 121, 121a. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Texas Flat, Placer county; Tuscan Springs, Tehama county; Pence's Ranch, Butte county, California.

— **traskii (?) (Gabb) Whiteaves. (1879.)**  
Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 138, pl. 17, fig. 3. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest side of Hornby island.

— **tropidophora n. s. Meek. (1873.)**  
Sixth Ann. Rep. U. S. Geol. and Geog. Sur. Terr., pp. 514, 515. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Point of Rocks, Wyoming.

— **tropidophora (Meek) White. (1880.)**  
Twelfth Ann. Rep. U. S. Geol. and Geog. Sur. Terr., pt. 1, p. 80. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Crow creek, Colorado, east of the Rocky mountains.

— **tuomeyi n. s. Shumard. (1859.)**  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 604. St. Louis, 1856-1860. B. F. Shumard.  
Formation: Cretaceous.  
Location: Grayson county, four and a half miles north of Sherman, Tex.

— **undifera n. s. Meek. (1873.)**  
Sixth Ann. Rep. U. S. Geol. and Geog. Sur. Terr., pp. 513, 514. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Rock Springs station, Wyoming.

— **undifera (Meek) White. (1879.)**  
Eleventh Ann. Rep. U. S. Geol. and Geog. Sur. Terr., p. 213. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Danforth Hills, Colorado.

**Corbula—Continued.**

— **undifera (Meek) White. (1879.)**  
Eleventh Ann. Rep. U. S. Geol. and Geog. Sur. Terr., p. 215. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Rock Springs, Wyoming.

— **undifera (Meek) White. (1879.)**  
Eleventh Ann. Rep. U. S. Geol. and Geog. Sur. Terr., p. 219. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Black Buttes station, Wyoming.

— **undifera (Meek) White. (1880.)**  
Twelfth Ann. Rep. U. S. Geol. and Geog. Sur. Terr., pt. 1, pp. 80, 81, pl. 29, figs. 4a-f. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Rock Springs station, Wyoming.

— **undifera (Meek) White. (1883.)**  
Third Ann. Rep. U. S. Geol. Sur., p. 442, pl. 18, figs. 6-9. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Bitter creek, southern Wyoming, and Yampa river, northwestern Colorado.

— **undifera var. subundifera n. var. White. (1880.)**  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 81, 82, pl. 29, figs. 5a-c. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Point of Rocks station, Wyoming.

— **undifera var. subundifera White. (1883.)**  
Third Ann. Rep. U. S. Geol. Sur., p. 442, pl. 18, figs. 10, 11. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Bitter creek, southern Wyoming.

— **ventricosa n. s. M. & H. (1856.)**  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 83. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Moreau river, Nebraska [S. Dakota].

— **(Anisorhynchus ?) engelmanni Meek. (1877.)**  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 174, 175, pl. 17, fig. 1, 1a. Wash., 1877. F. B. Meek.  
Formation: Cretaceous.  
Location: Bear river, mouth of Sulphur creek, Wyoming.

— **(Anisorhynchus) pyriformis Meek. (1876.)**  
Rep. Expl. Great Basin, Terr. Utah, pp. 361, 362, pl. 5, figs. 9, 10. Wash., 1876. F. B. Meek.  
Formation: Cretaceous?  
Location: Bear river, near the mouth of Sulphur creek.

— **(Anisorhynchus) pyriformis Meek. (1877.)**  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 170-174, pl. 17, figs. 2a-d. Wash., 1877. F. B. Meek.  
Formation: Cretaceous.  
Location: Sulphur creek, near Bear river, Wyoming.

**Corbula—Continued.****— (Azara) engelmanni n. s. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869-1870, p. 431.

Phila., 1871. F. B. Meek.

Formation: Tertiary [Cretaceous].

Location: Limestone hill, Bear river [Wyoming].

**— (Azara) pyriformis n. s. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869-1870, p. 431.

Phila., 1871. F. B. Meek.

Formation: Tertiary [Cretaceous].

Location: Limestone hill, Bear river.

**— (Azara) pyriformis var. concentrica n. var. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869-1870, p. 431.

Phila., 1871. F. B. Meek.

Formation: Tertiary [Cretaceous].

Location: Limestone hill, Bear river.

**— (Pachyodon) mactriformis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 528, 529, pl. 43, figs. 7a-f. Wash., 1876. F. B. Meek.

Formation: Lower Eocene? [Cretaceous].

Location: Fort Clark, [N.] Dakota, on the Upper Missouri.

**— (Pachyodon) perundata (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 530, 531, pl. 40, figs. 1a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous?

Location: Mouth of Judith river, Montana.

**— (Pachyodon) subtrigonalis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 529, 530, pl. 40, figs. 3a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous?

Location: Mouth of Judith river, Montana.

**— (Potamomya?) concentrica n. s. Meek. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 313.

Phila., 1861. F. B. Meek.

Formation: Tertiary [Cretaceous].

Location: Bear river, lat. 40° 12' north, long. 110° 52' west.

**— (Potamomya?) engelmanni n. s. Meek. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 313.

Phila., 1861. F. B. Meek.

Formation: Tertiary [Cretaceous].

Location: Bear river, lat. 40° 12' north, long. 110° 52' west.

**— (Potamomya?) pyriformis n. s. Meek. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, pp. 312, 313.

Phila., 1861. F. B. Meek.

Formation: Tertiary [Cretaceous].

Location: Bear river, lat. 40° 12' north, long. 110° 52' west.

**Corbula—Continued.****— n. s. Hill. (1889.)**

Geol. Sur., Texas, Bull. No. 4, p. 16. Austin, 1889.

R. T. Hill.

Formation: Cretaceous.

Location: Gillespie county, Texas.

**— sp. undet. Owen. (1860.)**

Second Rep. Geol. Rec., Arkansas, pl. 8, fig. 1.

Phila., 1860. D. D. Owen.

Formation: Cretaceous.

Location: Arkansas.

**— sp. undet. Meek. (1877.)**

Rep. Geol. Expl., Fortieth Parallel, vol. 4, pt. 1, pp. 150, 151, pl. 14, fig. 2. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: Coalville, Utah.

**Corbulamella n. g. M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, pp. 142, 143.

Phila., 1858. Meek &amp; Hayden.

**— gregaria M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, p. 143.

Phila., 1858. Meek &amp; Hayden.

Formation: Cretaceous.

Yellowstone river, Nebraska [Montana].

**— gregaria (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 247, pl. 17, figs. 13a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: On the Yellowstone river, Montana.

**— gregaria (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can., Paleont., vol. 1, pt. 1, p. 80. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: West flank of West Butte, Montana, in the Sweet Grass hills, near the international boundary line.

**Cordiera (Rouault). Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 93. Phila., 1864. W. M. Gabb.

**— microptygma n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 93, 94, pl. 23, fig. 203. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon, California.

**— mitræformis n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 153, 154, pl. 26, fig. 32. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Colusa county, near the Hot Sulphur springs, California.

**Corimya (Agassiz) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, p. 170. Wash., 1885. R. P. Whitfield.

**— tenuis n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 170, 171, pl. 23, figs. 9-11. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Upper Freehold and Marshallville, N. J.

**Coroceras n. g. Hyatt. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 107, 108. Wash., 1877. Alpheus Hyatt.

**Crassatella [Lam.] Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 66. Phila., 1834. S. G. Morton.

**— (Lam.). Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 116. Wash., 1876. F. B. Meek.

**— alta Conrad. (1855.)**

Rep. Expl. and Sur. R. R. R. Mississippi river to Pacific Ocean, App. Prelim. Geol. Rep. of W. P. Blake, Pl., p. 9. Wash., 1855. T. A. Conrad.

Formation: Eocene [Cretaceous].

Location: Cañada de las Uvas.

**— alta Conrad. (1856.)**

Rep. Expl. and Sur. R. R. R. Mississippi river to Pacific ocean, vol. 5, App., p. 321. Wash., 1856. T. A. Conrad.

Formation: Eocene [Cretaceous].

Location: Cañada de las Uvas.

**— cimarronensis n. s. White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 287, 288, pl. 5, figs. 3a-c. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Cimarron, N. Mex.

**— compacta n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 190, pl. 30, fig. 85. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

**— conradi n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 209, 210, pl. 28, figs. 1-5. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Shark river, near New Egypt, and at Squankum, N. J.

**— cuneata (Gabb) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 118, 119, pl. 17, figs. 18-20. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Monmouth, N. J.

**— delawarensis n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 303, pl. 48, fig. 21 [20]. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Deep cut, Delaware and Chesapeake canal.

**— delawarensis (Gabb) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, p. 119. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

**— delawarensis (Gabb) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 210, 211, pl. 27, figs. 14, 15. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Mostly from the pits of John Irons, New Egypt, and other places near by, and also from Poke hill, New Jersey.

**Crassatella—Continued.****— eufalensis n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 394, pl. 68, fig. 26. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Eufaula, Alabama.

**— evansii n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., pp. 383, 384, pl. 1, figs. 9a-e. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: Sage creek.

**— ? exigua n. s. Eichwald. (1871.)**

Geog. Paleont. Bermerk. Halbins. Mang. u. Aleutischen Inseln, p. 179, Taf. 16, figs. 30, 31. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

**— grandis n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 181, pl. 24, fig. 163. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Clayton; Alizos creek, near Cañada de las Uvas, California.

**— grandis Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 189. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

**— ligeriensis (d'Orb.) Conrad. (1872.)**

Proc. Acad. Nat. Sci., Phila., for 1872, p. 50, [pl. 1], fig. 10. Phila., 1872. T. A. Conrad.

Formation: Cretaceous.

**— lineata n. s. Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861-1862, p. 201. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Near Corsicana, Navarro county, Texas.

**— lintea n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 279, pl. 46, fig. 6. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Alabama.

**— littoralis n. s. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 41, pl. 1, fig. 3. Phila., 1870. T. A. Conrad.

Formation: Eocene [Cretaceous].

Location: Shark river, New Jersey.

**— littoralis (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 212, 213, pl. 28, figs. 6, 7. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Shark river and Squankum, and doubtfully from Farmingdale, N. J.

**— monmouthensis n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 302, 303, pl. 48, fig. 20 [19]. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Monmouth and Burlington counties, New Jersey.

**Crassatella—Continued.****— monmouthensis (Gabb) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 119, 120, pl. 17, figs. 21, 22. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Monmouth, N. J.

**— ? parvula n. s. Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861-1862, p. 202. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Red river, Fannin county, Texas.

**— prora n. s. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 43, pl. 1, fig. 8. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Crosswicks, N. J.

**— prora (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 120-121, pl. 17, figs. 10-11. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Crosswicks, N. J.

**— pteropsis n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 279, pl. 46, fig. 9. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Mississippi.

**— pteropsis n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 395, pl. 68, fig. 28. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Hardeman county, Tennessee, and Eu-  
faula, Ala.

**— pteropsis (Gabb, not Con.) Conrad. (1869.)**

Amer. Jour. Conch., vol. 5, Phila., 1869-1870, pp. 47-48. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Tennessee and Alabama; Haddonfield,  
N. J.; Mississippi.

**— pteropsis Conrad. (1872.)**

Proc. Acad. Nat. Sci., Phila., for 1872, p. 60, pl. 1, fig. 1. Phila., 1872. T. A. Conrad.

Formation: Cretaceous.

**— pteropsis ? Conrad. (1875.)**

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr., App. A, p. 6, pl. 1, fig. 25. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Caro-  
lina.

**— pteropsis (Con.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 310. Phila., 1876. Wm. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Georgia; North Caro-  
lina.

**— rhombea n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 213, 214, pl. 27, figs. 16-19. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: New Egypt and Squankum, N. J.

**Crassatella—Continued.****— riplejana n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 327, pl. 35, fig. 3. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, 3 miles north of the town of  
Ripley, Miss.

**— riplejana Conrad. (1872.)**

Proc. Acad. Nat. Sci., Phila., for 1872, p. 50 [pl. 1], fig. 7. Phila., 1872. T. A. Conrad.

Formation: Cretaceous.

**— shumardi n. s. Meek. (1876.)**

Rep. Expl. Exped. Santa Fe, N. Mex., to junction  
of Grand and Green rivers, pp. 127, 128, pl. 2,  
figs. 7a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Pope's Well.

**— subplana n. s. Conrad. (1853.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 274, pl. 24, fig. 9. Phila., 1850-1854. T. A. Conrad.

Formation: Cretaceous.

Location: Arneytown, N. J.

**— subplana (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 121, 122, pl. 18, figs. 14-16. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Bruere's pits, on Crosswicks creek,  
near Walnford, and near Cream Ridge, New  
Jersey.

**— subplana ? (Con.) Hill. (1889.)**

Geol. Sur. Texas, Bull. No. 4, p. 11. Austin,  
1889. R. T. Hill.

Formation: Cretaceous.

Location: Two miles north of Webberville, Tex.

**— subquadrata n. s. Whitfield. (1877.)**

U. S. Geogr. and Geol. Sur. Rocky Mt. region;  
Prelim. Rep. Paleont. Black Hills, p. 34.  
Wash., 1877. R. P. Whitfield.

Formation: Cretaceous.

Location: On Cheyenne river [S. Dakota].

**— subquadrata Whitfield. (1880.)**

Rep. Geol. Black Hills of Dakota, pp. 412, 413,  
pl. 11, fig. 12. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river [S. Dakota].

**— transversa n. s. Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, pp. 364,  
365. Phila., 1862. Wm. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**— transversa (Gabb) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 122, 123, pl. 17,  
figs. 16, 17. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: New Jersey.

**— tuscana (Gabb) White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, pp. 39, 40, pl. 6,  
figs. 2-4. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Sucia and Waldron islands.

**Crassatella—Continued.**

- **vadosa** n. s. Morton. (1834.)  
Synop. Org. Rem., Cret. Gr. U. S., p. 66, pl. 13, fig. 12. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Prairie Bluff, Alabama.
- **vadosa** (Morton) Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, pp. 310, 311. Phila., 1876. Wm. M. Gabb.  
Formation: Cretaceous.
- **vadosa** (Mort.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 116, 117, pl. 17 figs. 12-15. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Holmdel, Freehold, and Burlington, N. J.
- **uvasana** n. s. Conrad. (1855.)  
Rep. Expl. and Sur. R. R. R. Miss. River to Pacific Ocean. App. Prelim. Geol., Rep. of W. P. Blake, Pal., p. 9. Wash., 1855. T. A. Conrad.  
Formation: Eocene [Cretaceous].  
Location: Cañada de las Uvas.
- **uvasana** Conrad. (1856.)  
Rep. Expl. and Sur. R. R. R. Miss. River to Pacific Ocean, vol. 5, App., pp. 320, 321, pl. 2, fig. 5. Wash., 1856. T. A. Conrad.  
Formation: Eocene [Cretaceous].  
Location: Cañada de las Uvas.
- **sp. undet.** Owen. (1860.)  
Second Rep. Geol. Rec., Arkansas, pl. 8, fig. 5. Phila., 1860. D. D. Owen.  
Formation: Cretaceous.  
Location: Arkansas.
- **sp. undet.** Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 311. Phila., 1876. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Pataula creek, Georgia.

— **(Pachythærus) carolinensis** n. s. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875, W. C. Kerr., App. A, p. 6, pl. 2, fig. 24. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

— **(Pachythærus) evansi** (H. & M.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 117, 118, pl. 17, figs. 6a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Near Sage creek, on the Cheyenne [S. Dakota].

**Crassatellina** n. g. Meek. (1871.)

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 300, 301. Wash., 1871. F. B. Meek.

— **oblonga** n. s. Meek. (1871.)

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 301, figs. A and B text. Wash., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Saline county, Kansas.

**Crassatellina—Continued.**

— **oblonga** Meek: (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 120, 121, pl. 2, figs 3a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Saline county, Kansas.

**Crenella** (Brown) Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d. ser., 1858-1860, p. 281. Phila., 1858-1860. T. A. Conrad.

— (Brown) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 75. Wash., 1876. F. B. Meek.

— **concentrica** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 186, pl. 24, fig. 169. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

— **elegantula** n. s. M. & H. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, pp. 441, 442. Phila., 1862. Meek & Hayden.

Formation: Cretaceous.

Location: Deer creek, near north branch Platte river [Wyoming]; Yellowstone river, Nebraska [Montana].

— **elegantula** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 75, 76, pl. 28, figs. 6a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Deer creek, near North Platte [Wyoming].

— **elegantula** (M. & H.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 181. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Little Thompson creek, Colorado.

— **? parvula** n. s. Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can., Paleont., vol. 1, pt. 1, p. 57, pl. 9, fig. 1. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Milk River ridge, Canada.

— **serica** n. s. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 281, pl. 46, fig. 23. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

**Crescis** n. g. G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862-1863, p. 177. Phila., 1862, 1863. Gabb & Horn.

— **labiata** n. s. G. & H. (1862.)

Jour. Acad. Nat. Sci., Phil., vol. 5, 2d ser., 1862-1863, pp. 177, 178 [pl. 21], fig. 69. Phila., 1862-1863. Gabb & Horn.

Formation: Cretaceous.

Location: Near Mullica Hill and at Timber creek, New Jersey.

**Criocardium** n. subgen. Conrad. (1870.)

Ann. Jour. Conch., vol. 6, Phila., 1870-1871, p. 75. Phila., 1871. T. A. Conrad.

**Criocardium**—Continued.

## — (Con.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 214. Wash., 1885. R. P. Whitfield.

— **nucleolus** n. s. Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 214, 215, pl. 28, figs. 10, 11. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Buckelew and Corliss pits, at Farmingdale, N. J.

**Crioceras** (d'Orb.) Conrad. (1855.)

Proc. Acad. Nat. Sci., Phila., for 1854-1855, p. 266. Phila., 1856. T. A. Conrad.

— **latus** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, pp. 76, 77, pl. 15, figs. 25, 25a; pl. 14, fig. 25b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Weaverville, in the Trinity river, Trinity county, California, from a boulder.

— **percostatus** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, pp. 77, 78, pl. 16, fig. 26, pl. 17, fig. 26a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, Arbuckle's diggings, Shasta county, on the shore of the straits of Carquines, west of Martinez, Cal.

— (**Ammonceras**) **conradi** (Mort.)

Conrad. (1855.)

Proc. Acad. Nat. Sci., Phila., for 1854-1855, p. 366. Phila., 1856. T. A. Conrad.

Formation: Cretaceous.

Location: Wainford, Ocean county, New Jersey.

— (**Ancyloceras**?) **rémondin** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, pp. 75, 76, pl. 14, figs. 24, 24a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, California.

**Cristellaria** (Lam.) Reuss. (1861.)

Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsab., 1861, Band XLIV, p. 335. Wien, 1862. A. E. Reuss.

— **alta** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 37. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

— **baylei** n. s. Reuss. (1861.)

Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsab., 1861, Band XLIV, Taf. vii, fig. 7. Wien, 1862. A. E. Reuss.

Formation: Cretaceous.

Location: New Jersey.

— **intermedia** var. Reuss. (1861.)

Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsab., 1861, Band XLIV, p. 336, Taf. viii, fig. 2. Wien, 1862. A. E. Reuss.

Formation: Cretaceous.

Location: New Jersey.

**Criocardium**—Continued.— **rotulata** (?) (d'Orb.) Schlumberger. (1882.)

Jour. Cincinnati Soc. Nat. Hist., vol. 5, p. 119, pl. 5, figs. 2, 2a. Cincinnati, 1882. C. Schlumberger.

Formation: Cretaceous.

Location: Near Livingston, Ala.

— **sp. undet.** Lyell. (1844.)

Quart. Jour. Geol. Soc., London, vol. 1, p. 64, figs. b and c. London, 1845. Charles Lyell.

Formation: Cretaceous.

Location: Timber creek, New Jersey.

**Crypta** (Humph.) Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 136. Phila., 1864. W. M. Gabb.

— (**Spirocrypta**) **pileum** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 137, pl. 29, figs. 233, 233a-b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon, Cal.

**Cryptorhytis** n. subgen. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 356. Wash., 1876. F. B. Meek.

**Ctenoides** (Klein.) Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 329. Phila., 1855-1858. T. A. Conrad.

— **acutilineata** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 329, pl. 34, fig. 2. Phila., 1855-1858.

T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **denticulicosta** n. s. Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 327. Phila., 1862. Wm. M. Gabb.

Formation: Cretaceous.

Location: Tennessee.

— **squarrosa** n. s. Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 366. Phila., 1862. Wm. M. Gabb.

Formation: Cretaceous.

Location: Alabama.

**Cucullæa** (Lam.) Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 285. New Haven, 1830. S. G. Morton.

## — (Lam.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 84. Wash., 1886. F. B. Meek.

— **antrosa** n. s. Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 65, pl. 13, fig. 6. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

— **capax** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 328, pl. 35, fig. 2. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**Cucullæa—Continued.**

- **exigua** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, pp. 275, 276. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Mouth of Milk river, Nebraska [Montana].
- **haguei** n. s. Meek. (1870.)  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 134, 135, pl. 12, figs. 1, 1a, b. Wash., 1877. F. B. Meek.  
Formation: Jurassic.  
Location: Weber cañon, Wasatch range, Utah.
- **increbescens** n. s. White. (1889.)  
Bull. U. S. Geol. Sur. No. 51, p. 65, pl. 14, figs. 5, 6. Wash., 1889. C. A. White.  
Formation: Jurassic.  
Location: Kialagvic bay, Alaska.
- **inermis** n. s. Gabb. (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, pp. 271, 272, pl. 36, fig. 18. Phila., 1869. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.
- **insularis** n. s. Eichwald. (1871.)  
Geog. Paleont. Bemerk. Halbins. Mang. u. Aleutischen Inseln, p. 168, Taf. 15, figs. 6, 7. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaskan peninsula.
- **maconensis** n. s. Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 281, pl. 47, fig. 20. Phila., 1858-1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Chunonnugga ridge, Macon county, Alabama.
- **mathewsonii** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 195, 196, pl. 31, fig. 266. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez; Clayton, Cal.
- **millestriata** n. s. Shumard. (1861.)  
Proc. Boston Soc. Nat. Hist., vol. 8, 1861-1862, p. 202. Boston, 1862. B. F. Shumard.  
Formation: Cretaceous.  
Location: Red river, Lamar county, Texas.
- **nebrascensis** n. s. Owen. (1852.)  
Rep. Geol. Sur. Wis., Iowa, Minn., p. 582, pl. 8, figs. 1, 1a. Phila., 1852. D. D. Owen.  
Formation: Cretaceous.  
Location: Fox hills, between the Cheyenne and Moreau rivers [S. Dakota].
- **neglecta** n. s. Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 326. Phila., 1862. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: New Jersey.
- **terminalis** n. s. Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 148, pl. 4, figs. 2a, b. Wash., 1857. T. A. Conrad.  
Formation: Cretaceous.  
Location: [Texas].

**Cucullæa—Continued.**

- **tippana** n. s. Conrad. (1858.)  
Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 328, pl. 35, fig. 1. Phila., 1855-1858. T. A. Conrad.  
Formation: Cretaceous.  
Location: Owl creek, three miles north of the town of Ripley, Miss.
- **transversa** n. s. Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 326. Phila., 1862. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Arneytown? N. J.
- **truncata** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, p. 196, pl. 25, fig. 182. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Curry's; south of Mount Diablo; Tuscan springs, Tehama county; Benicia; Martinez; Texas Flat, Placer county; many points in the coast range, on the east side between Mount Diablo and Pacheco's pass, California; Jacksonville, Oregon.
- **truncata** (Gabb?) White. (1889.)  
Bull. U. S. Geol. Sur. No. 51, pp. 38, 39. Wash., 1889. C. A. White.  
Formation: Cretaceous.  
Location: Socia island.
- **vulgaris** n. s. Morton. 1830.  
Am. Jour. Sci., 1st ser., vol. 17, p. 235. New Haven, 1830. S. G. Morton.  
Formation: [Cretaceous].  
Location: United States.
- **vulgaris** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, pl. 3, fig. 21. New Haven, 1830. S. G. Morton.
- **vulgaris** Morton. (1830.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 199. Phila., 1827-1831. S. G. Morton.  
Formation: [Cretaceous].
- **vulgaris** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., pp. 64, 65, pl. 3, fig. 8; pl. 13, fig. 5. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.
- **vulgaris** (Mort.) Emmons. (1858.)  
Rep. N. Carolina Geol. Sur., p. 278, fig. B. Raleigh, 1858. E. Emmons.  
Formation: Cretaceous.  
Location: Black Rock, on the Cape Fear, North Carolina.
- **vulgaris** (Morton) Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 326. Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.  
Location: New Jersey.
- (**Idonearca?**) **cordata** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 89, 90, pl. 29, figs. 6a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Moreau river and Long lake [S. Dakota].

**Cucullæa—Continued.****— (Idonearca) nebrascensis (Owen).  
Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 88, 89, pl. 29, figs. 5a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Fox hills and Moreau river [S. Dakota].

**— (Idonearca) shumardi (M. & H.)  
Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 86, 87, pl. 28, figs. 15a-g, pl. 29, fig. 4. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, Fox hills, Long lake, etc.

**— (Idonearca) truncata (Gabb) Whiteaves. (1879.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 165-167, pl. 19, figs. 2, 2a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: West side of Hornby island, Gabriola island, Nanaimo river, two miles and a half up, and Northwest bay, Vancouver island.

**— (Idonearca) sp. undet. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 235. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: East end of Maud island.

**— (Trigonarca?) obliqua n. s. Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 148, 149, pl. 14, figs. 1a, b. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: East Cañon creek, Wasatch range, Utah.

**— (Lam.) Say. (1820.)**

Am. Jour. Sci., 1st ser., vol. 2, pp. 44, 45. New Haven, 1820. Thomas Say.

Formation: [Cretaceous.]

Location: New Jersey.

**— sp. undet. Roemer. (1849.)**

Texas, pp. 403, 404. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall, near New Braunfels, Tex.

**— sp. undet. Roemer. (1849.)**

Texas, p. 404. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**— sp. undet. Roemer. (1852.)**

Kreide. von Texas, p. 53. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**— sp. undet. Roemer. (1852.)**

Kreide. von Texas, p. 52, Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe below New Braunfels, Tex.

**Cucullæa—Continued.****— sp. undet. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869-1870, p. 430.

Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Dodson's rancho.

**— (?) sp. undet. Whiteaves. (1876.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, p. 73.

Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**— (?) sp. undet. Whiteaves. (1878.)**

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 404.

Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river?

**— (?) sp. undet. Whiteaves. (1878.)**

Geol. Sur. Can., Rep. Prog. for 1873-1877, p. 154.

Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river, British Columbia.

**— sp. undet. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 261.

Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest bay, Vancouver island.

**— sp. undet. Whiteaves. (1882.)**

Proc. and Trans. Roy. Soc., Can., vol. 1, sec. 4, p. 85. Montreal, 1883. J. F. Whiteaves.

Formation: Cretaceous.

Location: Jackass mountain, Canada.

**Cultellus (Con.) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 303. Phila., 1858-1860. Wm. M. Gabb.

**— cretaceus n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-

1860, pp. 303, 304, pl. 48, fig. 25. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Burlington county, New Jersey.

**Cyclas subgen. (H. & A. Ad.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 131. Wash., 1876. F. B. Meek.

**— formosa n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 115. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Three miles above Fort Union [N. Dakota].

**— fragilis n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 115. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Three miles above Fort Union [N. Dakota].

**— subellipticus n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 115. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Three miles above Fort Union [N. Dakota].



**Cyclomera** n. subgen. Conrad. (1866)

Ann. Jour. Conch., vol. 2, p. 78. Phila., 1866.  
T. A. Conrad.

**Cyclothyrus** n. g. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1, Raleigh, 1875.  
W. C. Kerr., App. A, p. 8. T. A. Conrad.

— **alta** n. s. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1, Raleigh, 1875.  
W. C. Kerr., App. A, p. 8, pl. 2, fig. 4. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

— **carolinensis** n. s. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1, Raleigh, 1875.  
W. C. Kerr., App. A, p. 8, pl. 2, fig. 3. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

**Cylicha** (Loven) Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861-1862, p. 194. Boston, 1862. B. F. Shumard.

— **costata** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, pp. 143, 144, pl. 21, fig. 107. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez; Texas Flat, Placer county; Clayton; Cochran's, east of Mount Diablo; San Diego; Alizos creek, near Fort Tejon, Cal.

— **minuscule** n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861-1862, p. 195. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Red river, Lamar county, Texas.

— **scitula** n. s. M. & H. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 178. Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebraska [S. Dakota].

— **scitula** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 276, 277, pl. 31, figs. 3a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river [S. Dakota].

— **scitula** (M. & H.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 184. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Mouth of St. Vrain creek and in the valley of the Cache à la Poudre, Colorado.

— **striatella** n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861-1862, pp. 194, 195. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Navarro county, Texas.

— **?volvoria** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 275, 276, pl. 31, figs. 2a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river [S. Dakota].

**Cylicha**—Continued.— (**Bulla**) sp. undet. Hill. (1889.)

Geol. Sur. Texas, Bull. No. 4, p. 20. Austin, 1889.  
R. T. Hill.

Formation: Cretaceous.

Location: San Antonio, Tex.

**Cylindrites** (Morris & Lycett) Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 115. Phila., 1864. W. M. Gabb.

— **brevis** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 15, pl. 29, fig. 223. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Vicinity of Martinez, Ca.

**Cymbophora** n. g. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 180. Phila., 1869. W. M. Gabb.

## — subgen. (Gabb) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 204. Wash., 1876. F. B. Meek.

— **ashburnerii** Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 181. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Typical localities of the Chico, Tejon, and Martinez groups, California.

— **ashburnerii** (Gabb) Whiteaves (1879.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 141, 142, pl. 17, fig. 8. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island; Gabriola island; Blunden point, Vancouver island; Protection and Socia islands.

— **lintea** (Con.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 306. Phila., 1876. Wm. M. Gabb.

Formation: Cretaceous.

Location: [Pataula creek, Georgia?]

— **lintea** Conrad. (1877.)

Proc. Acad. Nat. Sci., Phila., for 1877, p. 24. Phila., 1877. T. A. Conrad.

Formation: Cretaceous.

Location: California, New Jersey, and North Carolina.

**Cymella** n. g. Meek. (1864.)

Check List Invert. Foss. N. Am. Cret. and Jur. Smithson. Misc. Coll., vol. 7, No. 177, p. 34. Wash., 1864. F. B. Meek.

## — (subgen. Meek) White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur. West of One Hundredth Meridian, vol. 4, pt. 1, p. 187. Wash., 1875. C. A. White.

— **bella** n. s. Conrad. (1875.)

Rep. Geol. Sur. North Carolina, vol. 1. Raleigh, 1875. W. C. Kerr., App. A, p. 10, pl. 2, fig. 9. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, North Carolina.

**Cymella**—Continued.— **meeki** Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 142, 143, pl. 20, figs. 6, 7. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Marlborough, Monmouth county, near Keyport, N. J.

— **undata** (M. & H.) Meek. (1864.)

Check List Invert. Foss. N. Am. Cret. and Jur. Smithsonian. Misc. Coll., vol. 7, No. 177, p. 34. Wash., 1864. F. B. Meek.

Formation: Cretaceous.

Location: Idaho.

**Cyphosoma** (Agas.) Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 276. Phila., 1869. Wm. M. Gabb.

— **speciosum** n. s. Clark. (1891.)

Johns Hopkins Univ. cir. vol. 10, No. 87, p. 76. Baltimore, 1891. Wm. B. Clark.

Formation: Cretaceous.

Location: New Jersey.

— **texanum** n. s. Roemer. (1852.)

Kreide. von Texas, pp. 82, 83, Taf. 10, figs 6a-c. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg and San Saba valley, Texas.

— **texanum** (Roem.) Hall. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 145, pl. 1, figs. 3a-c. Wash., 1857. James Hall.

Formation: Cretaceous.

Location: Leon Springs, Texas.

— **texanum** (Roem.) Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 276. Phila., 1869. Wm. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

**Cypræa** (Linn.) Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 282. New Haven, 1830. S. G. Morton.

Formation: Ferruginous sand [Cretaceous].

Location: Chesapeake and Delaware canal.

— **? bayerquei** n. s. Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, pp. 129, 130, figs. in text. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Clayton, Contra Costa county, California.

— **mortoni** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 391, pl. 68, fig. 8[9]. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Prairie Bluff, Alabama, and Burlington county, New Jersey.

— **(Epona) mathewsonii** n. s. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 164, pl. 27, figs. 44a-b. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

**Cypræa**—Continued.— **(Luponia) bayerquei** Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, pp. 163, 164, pl. 27, figs. 43a-c. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

— **sp. undet.** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 50. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Chesapeake and Delaware canal.

**Cypricardia** (Lam.) Eichwald. (1871.)

Geog. Paleont. Bemerk. Halbins. Mang. u. Aleutischen Inseln, p. 176. St. Petersburg, 1871. E. Eichwald.

— **leidyi** n. s. Lea. (1855.)

Proc. Acad. Nat. Sci. Phila., vol. 7, p. 341, pl. 4, fig. 2. Phila., 1856. Isaac Lea.

Formation: [Triassic?]

Location: Near Pottsville, Pa.

— **? texana** n. s. Roemer. (1849.)

Texas, pp. 404, 405. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— **texana** Roemer. (1852.)

Kreide. von Texas, pp. 50, 51, Taf. 6, figs. 6a-c. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— **(Crassatella) trapezoidalis** (Röm.)

Eichwald. (1871.)

Geog. Paleont. Bemerk. Halbins. Mang. u. Aleutischen Inseln, pp. 176, 177, Taf. 15, figs. 4, 5. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaskan peninsula.

**Cyprimeria** n. g. Conrad. (1864.)

Proc. Acad. Nat. Sci. Phila., for 1864, p. 212. Phila., 1864. T. A. Conrad.

— **alta** n. s. Conrad. (1875.)

Rep. Geol. Sur. North Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, app. a, p. 27. T. A. Conrad.

Formation: Cretaceous.

— **? crassa** n. s. Meek. (1876.)

Rep. Expl. Exped., Santa Fe, N. Mex., to junction of Grand and Green rivers, p. 128, pl. 1, figs. 8a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Pope's Well.

— **cretacea** Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 98, pl. 9, fig. 12. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **cretacensis** Conrad. (1867.)

Am. Jour. Conch., vol. 3, p. 9. Phila., 1867. T. A. Conrad.

Formation: Cretaceous.

— **densata** (Con.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 157, 158, pl. 22, figs. 19-21. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel and Burlington, N. J.

**Cyprimeria—Continued.**

- **depressa** n. s. Conrad. (1875.)  
Rep. Geol. Sur. North Carolina, vol. 1. Raleigh,  
1875. W. C. Kerr. App. A, p. 9. T. A. Conrad.  
Formation: Cretaceous.  
Location: Snow Hill, Greene county, North  
Carolina.
- **depressa** (Con.) Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 308.  
Phila., 1876. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Georgia.
- **depressa** (Con.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 156, 157, pl. 22,  
figs. 11-13. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield and Freehold, N. J.
- **excavata** (Morton) Conrad. (1864.)  
Proc. Acad. Nat. Sci., Phila., for 1864, p. 212, fig.  
in text. Phila., 1864. T. A. Conrad.  
Formation: Cretaceous.  
Location: Arnetown, N. J.
- **excavata** (Mort.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 159, 160, pl. 22,  
figs. 16, 17. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Holmdel and elsewhere in Monmouth  
county, New Jersey.
- **heilprini** n. s. Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, p. 160, pl. 22, figs.  
14, 15. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Crosswick, N. J.
- **lens** (Gabb) Whiteaves. (1879.)  
Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 152.  
Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest side of Hornby island; Su-  
cia islands.
- **lens** (Gabb) White. (1889.)  
Bull. U. S. Geol. Sur. No. 51, p. 42. Wash., 1889.  
C. A. White.  
Formation: Cretaceous.  
Location: Waldron island.
- **spissa** n. s. Conrad. (1869.)  
Am. Jour. Conch., vol. 5, Phila., 1869-1870, p.  
44, pl. 1, fig. 9. Phila., 1870. T. A. Conrad.  
Formation: Cretaceous.  
Location: Crosswicks, N. J.
- **spissa** (Con.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 160, 161, pl. 22,  
fig. 18. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Holmdel, Monmouth county, New Jer-  
sey.
- **? subalata** Meek. (1877.)  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1,  
pp. 158, 159, pl. 15, fig. 7. Wash., 1877. F. B.  
Meek.  
Formation: Cretaceous.  
Location: East cañon, Wasatch range, Utah.

**Cyprimeria—Continued.**

- **? subalata** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 235. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **? tenuis** Meek. (1876.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2,  
No. 4, p. 361, pl. 2, figs. 5, 5a, and 5b. Wash.,  
1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Near Nanaimo, Vancouver's island, and  
on Newcastle island.
- **torta** n. s. Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, pp. 308,  
309. Phila., 1876. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Georgetown, Ga.
- Cyprina** (Lam.) Shumard. (1861.)  
Proc. Boston Soc. Nat. Hist., vol. 8, 1861-1862,  
p. 204. Boston, 1862. B. F. Shumard.
- **arenarea** n. s. M. & H. (1857.)  
Proc. Acad. Nat. Sci., Phila., for 1857, p. 143.  
Phila., 1858. Meek & Hayden.  
Formation: Cretaceous.  
Location: Big Sioux river, two miles above the  
mouth, Nebraska.
- **compressa** n. s. M. & H. (1857.)  
Proc. Acad. Nat. Sci., Phila., for 1857, p. 144.  
Phila., 1858. Meek & Hayden.  
Formation: Cretaceous.  
Location: Moreau river, Nebraska [S. Dakota].
- **cordata** n. s. M. & H. (1857.)  
Proc. Acad. Nat. Sci., Phila., for 1857, p. 143.  
Phila., 1858. Meek & Hayden.  
Formation: Cretaceous.  
Location: Moreau river, Nebraska [S. Dakota].
- **? dallii** n. s. White. (1884.)  
Bull. U. S. Geol. Sur. No. 4, p. 14, pl. 6, fig. 1.  
Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Fossil Point, Port Møller, Alaska.
- **humilis** n. s. M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, pp. 179,  
180. Phila., 1861. Meek & Hayden.  
Formation: Cretaceous.  
Location: North branch of Cheyenne river, near  
Black Hills, Nebraska [S. Dakota].
- **laphami** n. s. Shumard. (1861.)  
Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p.  
204. Boston, 1862. B. F. Shumard.  
Formation: Cretaceous.  
Location: Bluffs of Red river, Fannin county,  
Texas.
- **occidentalis** n. s. Whiteaves. (1884.)  
Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1,  
pt. 3, pp. 227, 228, fig. 10, p. 227. Montreal,  
1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: South side of Alliford Bay.

**Cyprina—Continued.****—occidentalis Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 169. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rocky Mountains, three miles north of the east end of Devil's lake, Northwest Territory.

**—ovata n. s. M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1858, p. 144. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Heart river, Nebraska.

**—ovata (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 146, 147, pl. 29, figs. 7a-c and fig. 8, p. 146. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Heart river [S. Dakota].

**—ovata (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 40. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Belly river, near and a little west of the mouth of St. Mary river, also below Horseshoe bend; St. Mary river, near its confluence with the Belly river; St. Mary river, west of MacLeod-Benton trail; South Saskatchewan, opposite Swift Current creek; Ross Coulee, near Irvine station, on the Canadian Pacific railway, Canada.

**—ovata (M. & H.) Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 175. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Battle river, township 40, range 13, west of the fourth principal meridian, and township 40, range 15, west of the same meridian, Northwest Territory.

**—ovata var. alta n. var. Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 40, pl. 5, fig. 3. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Belly river, near and a little west of the mouth of St. Mary river, also below Horseshoe bend; St. Mary river, near its confluence with the Belly river; St. Mary river, west of MacLeod-Benton trail; South Saskatchewan, opposite Swift Current creek; Ross Coulee, near Irvine station, on the Canadian Pacific railway, Canada.

**—ovata var. compressa Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 147, pl. 30, fig. 11. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

**—subtrapeziformis Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 176. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Battle river, township 46, range 4, west of the fourth principal meridian, Northwest Territory.

**Cyprina—Continued.****—subtumida n. s. M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, p. 144. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, Nebraska [Montana].

**—yukonensis n. s. Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 160, pl. 21, fig. 4. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rink rapids, on the Lewis river, a tributary of the Yukon, lat. 66° 20', long. 136° 30', Northwest Territory.

**—? sp. undet. Roemer. (1849.)**

Texas, p. 407. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Upper course of Pedernales river, Texas.

**—? sp. undet. Roemer. (1849.)**

Texas, pp. 406, 407. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Upper course of Pedernales river, Texas.

**—sp. undet. Roemer. (1852.)**

Kreide. von Texas, p. 47. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: On the upper course of Pedernales river, Texas.

**—sp. undet. Roemer. (1852.)**

Kreide. von Texas, p. 47. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: On the upper course of Pedernales river, Texas.

**—sp. undet. Toul. (1874.)**

Die Zweite Deutsche Nordpolarfahrt. Zweiter Band, p. 505. Leipzig, 1874. Franz Toul.

Formation: Jurassic [Cretaceous?].

Location: Kuhn island, east coast of Greenland.

**Cyprinella n. g. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 170. Phila., 1864. W. M. Gabb.

**—tenuis n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 170, 171, pl. 23, figs. 151, 151a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: South Side of Corral hollow; Contra Costa county, California.

**Cyprinopsis n. g. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 101. Phila., 1870. T. A. Conrad.

**—ovalis (Gabb) Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 101. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: California.

**Cypris purbeckensis ? (Forbes) White. (1886.)**

Bull. U. S. Geol. Sur., No. 29, p. 24. Wash., 1886.

C. A. White.

Formation: Jurassic.

Location: Canyon city, Colo.

**Cypris—Continued.**

- *sp. undet. White.* (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 246. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Evanston coal mines, Wyoming.
- *sp. undet. (Jones) White.* (1886.)  
Bull. U. S. Geol. Sur., No. 29, p. 24. Wash., 1886. C. A. White.  
Formation: Jurassic.  
Location: Canyon city, Colo.
- *sp. undet. (Jones) White.* (1886.)  
Bull. U. S. Geol. Sur., No. 29, p. 24. Wash., 1886. C. A. White.  
Formation: Jurassic.  
Location: Canyon city, Colo.

**Cyrena (Lamarck) Prime.** (1865.)

- Mon. Ann. Corbiculadæ (Recent and Fossil). Smithsonian. Misc. Coll., vol. 7, No. 145, pp. 11, 12. Wash., 1865. T. Prime.
- (Lamarck) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 157. Wash., 1876. F. B. Meek.
- *brevidentis n. s. White.* (1889.)  
Bull. U. S. Geol. Sur., No. 51, pp. 58, 59, pl. 10, figs. 8-11. Wash., 1889. C. A. White.  
Formation: Cretaceous.  
Location: Palace Camp, Washington.
- *carletoni n. s. (Meek) White.* (1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 495, 496. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Carleton's coal mine, Coalville, Utah.
- *carletoni (Meek) White.* (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 235. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- *carletoni (Meek) White.* (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 20, 21, pl. 12, figs. 16a, b. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- *carletoni (Meek) White.* (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 436, pl. 5, figs. 4, 5. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- *dakotensis (M. & H.) Prime.* (1865.)  
Mon. Ann. Corbiculadæ (Recent and Fossil). Smithsonian. Misc. Coll., vol. 7, No. 145, p. 31. Wash., 1865. T. Prime.  
Formation: Cretaceous.  
Location: At mouth of Big Sioux or Dakota river.
- *dakotensis (M. & H.) Meek.* (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 159, 160, pl. 1, figs. 1a-f. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of the Big Sioux river, on the Missouri.

**Cyrena—Continued.**

- *dakotensis (M. & H.) White.* (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 436, pl. 4, figs. 3, 4. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southeastern Dakota.
- *? holmesi n. s. Meek.* (1875.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 1, No. 1, 2d ser., pp. 45, 46. Wash., 1875. F. B. Meek.  
Formation: Tertiary? [Cretaceous].  
Location: Balston creek, three to four miles north of Golden city, Colo.
- *inflexa (Meek) White.* (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 290, pl. 10, figs. 7a, b. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Near Missouri river, below Gallatin City, Mont.
- *intermedea n. s. M. & H.* (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 116. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Near Moreau river [S. Dakota].
- *moreauensis n. s. M. & H.* (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, pp. 115, 116. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Near Moreau river [S. Dakota].
- *occidentalis n. s. M. & H.* (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 116. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Bad Lands of the Judith [Montana].
- *securis (Meek) White.* (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 248. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear River valley, Wyoming.
- *securis (Meek) White.* (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 250. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Hilliard station, Wyoming.
- *securis (Meek) White.* (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 289, pl. 3, figs. 2a-c. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Hilliard station, Wyoming.
- (Corbicula ?) *arkansaensis n. s. Hill.* (1888.)  
Ann. Rep. Geol. Sur. Arkansas for 1888, vol. 2, pp. 133, 134, pl. 2, fig. 20; pl. 4, figs. 3, 3a, b. Little Rock, 1888. R. T. Hill.  
Formation: Cretaceous.  
Location: Arkansas.
- (Corbicula ?) *cytheriformis n. s. M. & H.* (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 176. Phila., 1861. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Near the mouth of Judith river, Nebraska [Montana].

**Cyrena—Continued.****—(Corbicula) durkeei n. s. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869-1870, p. 431. Phila., 1871. F. B. Meek.

Formation: Tertiary [Cretaceous].

Location: Wyoming.

**—(Veloritina) durkeei (Meek) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of One Hundredth Meridian, vol. 4, pt. 1, pp. 207, 208, pl. 21, figs. 13a, b. Wash., 1875. C. A. White.

Formation: Eocene? [Cretaceous].

Location: Plateau near the west crossing of the north fork of Virgin river, at Pace's cañon, and at the north fork of Virgin river, Utah.

**—(Veloritina) erecta n. s. White. (1876.)**

Rep. Geol. Uinta Mts., p. 117. Wash., 1876. C. A. White.

Formation: Cretaceous.

Location: Upper Kanab, Utah, and Hilliard station, Wyoming.

**— n. s. Hill. (1889.)**

Geol. Sur. Texas, Bull. No. 4, p. 14. Austin, 1889. R. T. Hill.

Formation: Cretaceous.

Location: Barton's creek, west of Austin, Tex.

**Cyrtochilu n. subgen. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 392. Wash., 1876. F. B. Meek.

**Cytherea [Lam.] Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 67. Phila., 1834. S. G. Morton.

**—deweyi n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 83. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebraska [S. Dakota].

**—excavata n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 292, pl. 5, fig.

1. New Haven, 1833. S. G. Morton.

Formation: [Cretaceous].

Location: New Jersey.

**—excavata n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 67, pl. 5, fig.

1. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Arnetown, N. J.

**—leonensis n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, pl. 6, fig. 1. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Leon Springs, El Paso road [Texas].

**—missouriana n. s. Morton. (1841.)**

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser., 1839-1842, p. 210, pl. 11, fig. 2. Phila., 1839-1842. S. G. Morton.

Formation: Cretaceous.

Location: Great bend of the Missouri river (lat. 43° 40' N.).

**Cytherea—Continued.****—missouriana (Mort.) Marcou. (1858.)**

Geol. N. Am., p. 42. Zurich, 1858. Jules Marcou.

Formation: Cretaceous.

Location: Between Gold mount and the villages of Galisteo and Algodones, in New Mexico.

**—nebrascensis n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 83. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebraska [S. Dakota].

**—orbiculata n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., pp. 382, 383, pl. 1, fig. 7. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: On the Missouri, five miles below James river.

**—owenana n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 273. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Judith river, Nebraska [Montana].

**—pellucida n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, pp. 272, 273. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Two hundred miles above mouth of Milk river, Nebraska [Montana].

**—tenuis n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 383, pl. 1, figs. 8a-c. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: On the Missouri, five miles below James river.

**—(Callista) laciniata (Stoliczka)**

Whiteaves. (1879.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 148, pl. 17, figs. 13, 13a; pl. 19, figs. 4, 4a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island, Suclia islands.

**—(Caryatis) plana (Sow.) Whiteaves. (1879.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 149-151, pl. 17, figs. 14, 14a, b. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island; entrance to Departure bay, Vancouver island; Suclia islands.

**—texana n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 153, pl. 6, fig. 2. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Between El Paso and Frontera.

**—lamarensis (Shumard) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 39, pl. 18, figs. 4a, b. Wash., 1883. C. A. White.

**Cytherina (Lam.) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 335. Phila., 1855-1858. T. A. Conrad.

— **tippana n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 335, pl. 35, fig. 31. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **? White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 213. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Danforth hills, Colorado.

**Dalliconcha n. g. White. (1887.)**

Proc. Acad. Nat. Sci., Phila., pt. 1, for 1887, pp. 34, 35. Phila., 1887. C. A. White.

— **invaginata n. s. White. (1887.)**

Proc. Acad. Nat. Sci., Phila., pt. 1, for 1887, p. 35, pl. 2, figs. 4 and 5. Phila.; 1887. C. A. White.

Formation: Cretaceous.

Location: [Four miles north of Fort Worth], Texas.

— **ensiformis (Conrad) White. (1887.)**

Proc. Acad. Nat. Sci., Phila., pt. 1, for 1887, pl. 2, fig. 6. Phila., 1887. C. A. White.

**Daphnella? (Hinds) Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 285. Phila., 1858-1860. T. A. Conrad.

— **? eufaulensis n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 285. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

— **? lintea n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 285, 286, pl. 46, fig. 47. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

— **? subfilosa n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 285. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

**Delphinula lapidosa n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 46, pl. 19, fig. 7. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Prairie Bluff, Ala.

— **? Troost. (1840.)**

Fifth Geol. Rep., Tennessee, p. 56. Nashville, 1840. G. Troost.

Formation: Cretaceous.

Location: Near Purdy, McNairy county, Tennessee.

**Dentalina (d'Orb.) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 402. Phila., 1858-1860. Wm. M. Gabb.

**Dentalina—Continued.**— **(d'Orb.) Reuss. (1861.)**

Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsab., 1861, Band xlv, p. 334. Wien, 1862. A. E. Reuss.

— **americana Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 3. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

— **colligata n. s. Reuss. (1861.)**

Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsab., 1861, Band xli v, pp. 334, 335, Taf. vii, fig. 4. Wien, 1862. A. E. Reuss.

— **confluens n. s. Reuss. (1861.)**

Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsab., 1861, Band xlv, p. 335, Taf. vii, fig. 5. Wien, 1862. A. E. Reuss.

Formation: Cretaceous.

Location: New Jersey.

— **pulchra n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 402, 403, pl. 68, figs. 40, 41. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Near Mullica Hill, N. J.

**Dentalium [Linn.] Conrad. (1853.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 276. Phila., 1850-1854. T. A. Conrad.

— **cooperi n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 139, pl. 21, fig. 100. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: San Diego, Martinez, near Fort Tejon; Curry's, south of Mount Diablo, and in the Sierran mountains, California.

— **cooperi (Gabb?) White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 44. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Socia island.

— **falcatum n. s. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869-1870, pp. 44, 45, pl. 1, figs. 12-16. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Crosswicks, N. J.

— **fragilis n. s. M. & H. 1856.**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 69. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above mouth, Nebraska [Montana.]

— **gracile (H. & M.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 266, 267, pl. 18, fig. 13a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone River [Montana.]

— **gracile (H. & M.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 181. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Mouth of St. Vrain creek and in the valley of the Cache à la Poudre, Colorado.

**Dentalium—Continued.**

- **gracile** (H. & M.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 197. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear creek, near Morrison, Colo.

- **gracile** (H. & M.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dakota, pp. 438, 439, pl.  
12, fig. 26. Wash., 1880. B. P. Whitfield.  
Formation: Cretaceous.  
Location: On the Cheyenne river near Rapid  
creek, Black Hills.

- **gracilis n. s.** H. & M. (1854.)  
Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 393,  
pl. 3, figs. 11a-c. Cambridge and Boston, 1855.  
Hall & Meek.  
Formation: Cretaceous.  
Location: Sage creek [Wyoming.]

- **komooksense** [nanaimoensis]  
Meek. (1876.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No.  
4, p. 364. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Nanaimo? Vancouver's island.

- **nanaimoense** (Meek) Whiteaves.  
1879.  
Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 133,  
134, pl. 16, figs. 9, 9a-b. Montreal, 1879. J. F.  
Whiteaves.  
Formation: Cretaceous.  
Location: Denman island, southwest side; two  
miles and a quarter up the Nanaimo river, Van-  
couver island; Sucia island.

- **nanaimoensis n. s.** Meek. (1858.)  
Trans. Albany Inst., vol. 4, pp. 44, 45. Albany,  
1858-1864. F. B. Meek.  
Formation: Cretaceous.  
Location: Nanaimo, Vancouver's island.

- **pauperculum n. s.** M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 178.  
Phila., 1861. Meek & Hayden.  
Formation: Cretaceous.  
Location: Moreau river, Nebraska [S. Dakota.]

- **polygonum** (Reuss) Credner. (1870.)  
Zeitsch. Deutsch. Geol. Ges., Band 22, p. 238. Ber-  
lin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

- **ripleyanum n. s.** Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 393, pl. 68, fig. 17 [pl. 69, fig. 48].  
Phila., 1858-1860. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Eufaula, Ala.

- **stramineum n. s.** Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, pp. 139, 143, pl. 21,  
fig. 101. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Northeast of Martinez, San Diego;  
Curry's, south of Mount Diablo, California.

**Dentalium—Continued.**

- **subarcuatum n. s.** Conrad. (1853.)  
Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-  
1854, p. 276, pl. 24, fig. 13. Phila., 1850-1854.  
T. A. Conrad.  
Formation: Cretaceous.  
Location: New Egypt, N. J.

- **? subquadratum n. s.** Meek. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 311.  
Phila., 1861. F. B. Meek.  
Formation: Jurassic.  
Location: Red Buttes, on the North Platte, lat.  
42° 50' north, long. 106° 40' west.

- **? subquadratum** (Meek) M. & H.  
(1865.)  
Paleont., Upper Missouri, Smithson. Cont. Knowl.,  
vol. 14, No. 172, p. 111, fig. 1, text. Wash.,  
1865. Meek & Hayden.  
Formation: Jurassic.  
Location: North Platte river, at the Red Buttes,  
lat. 42° 50' N., long. 106° 40' W.

- **? subquadratum** Meek. (1876.)  
Rep. Exp. Great Basin Terr. Utah, p. 357, pl. 3,  
figs. 1a-c. Wash., 1876. F. B. Meek.  
Formation: Jurassic.  
Location: On the North Platte, at Red Buttes,  
lat. 42° 50' north, long. 106° 40' west.

- (**Ditrupe?**) **pusillum n. s.** Gabb.  
(1864.)  
Geol. Sur. Cal., Paleont., vol. 1, p. 139, pl. 21, fig.  
99. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Northeast of Martinez, Alizos creek,  
near Fort Tejon; Tuscan Springs, Cal.

- [Linn.] Say. (1820.)  
Am. Jour. Sci., 1st ser., vol. 2, p. 44. New Ha-  
ven, 1820. Thomas Say.  
Formation: [Cretaceous.]  
Location: Near Mullica Hill, N. J.

- **Morton.** (1830.)  
Am. Jour. Sci., 1st ser., vol. 47, p. 281. New  
Haven, 1830. S. G. Morton.  
Formation: Ferruginous sand [Cretaceous].  
Location: Mullica Hill, N. J.

- **sp. undet.** Troost. (1840.)  
Fifth Geol. Rep. Tennessee, p. 56. Nashville,  
1840. G. Troost.  
Formation: Cretaceous.  
Location: Near Purdy, McNairy county, Tennes-  
see.

- **Desmatocium n. g.** Gabb. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 518.  
Phila., 1861. Wm. M. Gabb.

- **trilobatum n. s.** Gabb. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 518.  
Phila., 1861. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Near Mullica Hill, N. J.  
(See pl. 69, figs. 39, 39a, Jour. Acad. Nat. Sci.,  
Phila., vol. 4, 2d ser.)



**Diadema texanum** n. s. Roemer. (1849.)

Texas, pp. 392, 393. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg and San Saba river, Texas.

— **texanum** Roemer. (1852.)

Kreide. von Texas, p. 83, Taf. 10, figs. 5a-c. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg and San Saba valley, Texas.

— **sp. undet.** Roemer. (1852.)

Kreide. von Texas, p. 84. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Ford of the Guadalupe, New Braunfels, Tex.

**Dianchora** (Sow.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 58, 59. Wash., 1885. R. P. Whitfield.

— **echinata** (Mort.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 59, 60, pl. 10, figs. 3-9. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Holmdel, Freehold, and on Mr. Woodward's farm, Monmouth county, New Jersey.

**Diastopora** G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862-1863, p. 171. Phila., 1862-1863. Gabb & Horn.

— **lineata** n. s. G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862-1863, p. 172 [pl. 21], fig. 62. Phila., 1862-1863. Gabb & Horn.  
Formation: Cretaceous.  
Location: Timber creek and Mullica Hill, N. J.

**Diceras** (Lam.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 131. Wash., 1885. R. P. Whitfield.

— **dactyloides** n. s. Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 131, pl. 18, figs. 26, 27. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Bruer's pits near Walnford, on Crosswicks creek, Monmouth county, New Jersey.

— **sp. undet.** Roemer. (1849.)

Texas, p. 404. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Slope of plateau near New Braunfels, Tex.

— **sp. undet.** Roemer. (1852.)

Kreide. von Texas, p. 63. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Slope of the plateau, near New Braunfels, Tex.

**Dimorphina saxipara** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 27. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.

**Dione** (Gray) Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 302. Phila., 1858-1860. Wm. M. Gabb.

— (subgen. **Gray**) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 178. Wash., 1876. F. B. Meek.

— **delawarensis** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 302, pl. 48, fig. 19 [18]. Phila., 1858-1860. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Delaware and Chesapeake canal and New Jersey.

**Diploconcha** n. g. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, p. 12. T. A. Conrad.

— **cretacea** n. s. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr, App. A, p. 12, pl. 2, fig. 26. T. A. Conrad.  
Formation: Cretaceous.  
Location: Snow Hill, Greene county, North Carolina.

**Diplodon** (subgen. **Spix.**) Meek, (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 514. Wash., 1876. F. B. Meek.

**Diplopodia malbosi** (Desor) Cotteau. (1890.)

Bull. Soc. Géol., France, 3d ser., vol. 18, p. 294. Paris, 1890. Cotteau.  
Formation: Cretaceous.  
Location: Valley of Arivechi, Sonora, Mexico.

**Diploschiza** n. g. Conrad. (1866.)

Am. Jour. Conch., vol. 2, p. 77. Phila., 1866. T. A. Conrad.

— **cretacea** n. s. Conrad. (1866.)

Am. Jour. Conch., vol. 2, p. 77, pl. 2, figs. 2, 3. Phila., 1866. T. A. Conrad.  
Formation: Cretaceous.  
Location: Alabama.

— **cretacea** (Con.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 43, 44, pl. 4, figs. 4-8. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Upper Freehold, N. J.

**Diptychoceras** n. g. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 143. Phila., 1869. W. M. Gabb.

— **laevis** n. s. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, pp. 144, 145, pl. 25, figs. 21a-b. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Cottonwood creek, Shasta county, California.

**Discina** (Lam.) Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p. 99. Wash., 1877. F. B. Meek.

**Discina—Continued.**

- **pileolus n. s. Whiteaves. (1889.)**  
 Geol. and Nat. Hist. Sur. Can., Cont. Can. Palaeont., vol. 1, pt. 2, p. 159, pl. 21, figs. 3, 3a. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rink Rapid, on the Lewes river, a tributary of the Yukon, lat. 60° 20', long. 136° 30', Northwest Territory.

- **semipolita n. s. Whiteaves. (1884.)**  
 Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 352-354, pl. 33, figs. 9, 9a. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Maud island.

- **vancouverensis n. s. Whiteaves. (1879.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 177, pl. 20, fig. 6. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Southeast of Ganges harbor, on Salt Spring or Admiralty island.

- **sp. undet. Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 99, 100, pl. 10, figs. 3, 3a. Wash., 1877. F. B. Meek.

Formation: Triassic.

Location: Weber cañon, Wasatch range.

- Discites (subgen. De Haan.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 491. Wash., 1876. F. B. Meek.

- Discohelix (Dunker) Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 119. Phila., 1864. W. M. Gabb.

- **leana n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, pp. 113, 120, pl. 20, fig. 75. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas Flat, Placer county, California.

- Discoidea (Agas.) Conrad. (1850.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 40. Phila., 1850-1854. T. A. Conrad.

- **occidentale n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 398, pl. 68, figs. 42-44. Phila., 1858-1860. Wm. M. Gabb.

Formation: Cretaceous.

Location: Oregon.

- **occidentalis Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 323, 324. Phila., 1876. Wm. M. Gabb.

Formation: Cretaceous.

Location: Oregon? Or may be from Peru.

- Discorbina globularis (d'Orb.) Dawson. (1874.)**

Canadian Naturalist, vol. 7 n. ser., p. 255, fig. 1, c, p. 253. Montreal, 1875. G. M. Dawson.

Formation: Cretaceous.

Location: About twenty miles north of the forty-ninth parallel, on the escarpment called Pembina mountain, Manitoba.

- Discoscaphites n. subgen. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869-1870, p. 429. Phila., 1871. F. B. Meek.

- Ditaxia compressa (Goldf.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 220. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Timber creek, New Jersey.

- Donax (Linn.) Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, p. 183. Phila., 1869. W. M. Gabb.

- **fordii n. s. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 102, pl. 9, fig. 25. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

- **fordii (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 171, 172, pl. 23, fig. 1. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

- **latus n. s. Gabb. (1869.)**

Geol. Sur. Cal., Paleont., vol. 2, pp. 183, 184, pl. 30, fig. 75. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Ten miles west of Griswold's, southeast of the Sheep Well, on the road from San Juan to New Idria, Cal.

- Dosinia (Scopoli) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 325. Phila., 1855-1858. T. A. Conrad.

- **alta n. s. Conrad. (1855.)**

Rep. Expl. and Sur. E. R. R. Miss. river to Pacific Ocean. App. Prelim. Geol. Rep. of W. P. Blake. Pal., p. 9. Wash., 1855. T. A. Conrad.

Formation: Eocene [Cretaceous].

Location: Cañada de las Uvas.

- **alta Conrad. (1856.)**

Rep. Expl. and Sur. E. R. R. Miss. river to Pacific Ocean, vol. 5, App., p. 320, pl. 2, fig. 2. Wash., 1856. T. A. Conrad.

Formation: Eocene [Cretaceous].

Location: Cañada de las Uvas.

- **densata n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 325, pl. 34, fig. 13. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

- **depressa n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 278, pl. 46, fig. 6. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

- **elevata n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 167, pl. 30, fig. 252. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon, Cal.

**Dosinia—Continued.****— ? erecta n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 162, 163, pl. 18, figs. 17-20. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Upper Freehold and near Marshallville, N. J.

**— gabbi n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 161, 162, pl. 22, figs. 4, 5. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Burlington and Freehold, N. J.

**— gyrata n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 168, pl. 23, fig. 148. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Marsh's; southeast of Mount Diablo; Martinez; near San Diego; near the mouth of the Cañada de las Uvas; at Alizos creek, California.

**— gyrata (Gabb.) Whiteaves. (1879.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 151. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Socia islands.

**— haddonfieldensis n. s. Lea. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 149. Phila., 1862. Isaac Lea.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**— inflata n. s. Gabb. (1864.)**

Geol. Sur. Cal., Paleont., vol. 1, p. 168, pl. 23, fig. 149. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Chico creek, Butte county, California.

**— jurassica n. s. Whitfield. (1877.)**

U. S. Geogr. and Geol. Sur., Rocky Mt. region; Prelim. Rep., Paleont., Black Hills, pp. 23, 24. Wash., 1877. R. P. Whitfield.

Formation: Jurassic.

Location: Two miles south of Belle Fourche; and also on the east side of Spearfish creek, near junction with the Redwater, northeast of Crow peak, Black hills, [S.] Dakota.

**— jurassica Whitfield. (1880.)**

Rep. Geol. Black Hills of Dakota, p. 373, pl. 5, figs. 21-24. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: East of Belle Fourche; and also on the east side of Spearfish creek, near junction with the Redwater, Black hills.

**— missouriana ? (Morton) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dakota, pp. 416, 417, pl. 11, figs. 25, 26. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, ten or fifteen miles west of the mouth of Beaver creek, Black hills.

**— obliquata n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 278, pl. 46, fig. 2. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Mississippi.

**Dosinia—Continued.****— pertenuis n. s. Gabb. (1864.)**

Geol. Sur., Cal., Paleont., vol. 1, pp. 167, 168, pl. 30, fig. 253. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North side of Siskiyou mountains, in southern Oregon.

**— ? tenuis n. s. Meek. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 315. Phila., 1862. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

**— tenuis ? (Meek) Whiteaves. (1874)**

Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 264, pl. —, fig. 5. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Protection island.

**— Conrad. (1875.)**

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875. W. C. Kerr. App. A, p. 8. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, N. C.

**Dosiniopsis ? (subgen. Conrad) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 179. Wash., 1876. F. B. Meek.

**Dreissena (Van Beneden) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 328. Phila., 1855-1858. T. A. Conrad.

**— tippiana n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 328, pl. 34, fig. 14. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**Drepanocheilus n. subgen. Meek. (1864.)**

Check List Invert. Foss. N. Am., Cat. and Jour. Smithsonian. Misc. Coll., vol. 7, No. 177, p. 35. Wash., 1864. F. B. Meek.

**Dropanochilus subgen. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 324. Wash., 1876. F. B. Meek.

**Drillia (Gray) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 331. Phila., 1855-1858. T. A. Conrad.

**— ? distans. n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 286, pl. 46, fig. 49. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Enfaula, Ala.

**— georgiana n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 280, 281. Phila., 1876. Wm. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Clay county, Ga.

**— novemcostata n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 231, pl. 35, fig. 13. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, 3 miles north of the town of Ripley, Miss.

**Drillia**—Continued.— **? tippana** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 331, pl. 35, fig. 5. Phila., 1855-1858.  
T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, 3 miles north of the town of Ripley, Miss.

**Dysnomya** (subgen. Ag.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 514. Wash., 1876. F. B. Meek.

**Echinus** (Lam.) Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 287. New Haven, 1830. S. G. Morton.

— **infulatus** n. s. Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 24, p. 131, pl. 10, fig. 7. New Haven, 1833. S. G. Morton.

Formation: Cretaceous [Tertiary].

Location: South Carolina.

— **infulatus** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 75, pl. 10, fig. 7. Phila., 1834. S. G. Morton.

Formation: Cretaceous [Tertiary].

Location: South Carolina.

— **sp. undet.** Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 287. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: United States.

**Edmondia** (De Koninck) H. & W. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, p. 283. Wash., 1877. Hall & Whitfield.

— **myrina** n. s. H. & W. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, p. 283, pl. 6, fig. 19. Wash., 1877. Hall & Whitfield.

Formation: Triassic.

Location: Dun glen, Pah-Ute range, Nev.

**Egeta** (subgen. H. & A. Ad.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 157. Wash., 1876. F. B. Meek.

**Electroma** (Stoliczka) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 29. Wash., 1876. F. B. Meek.

**Ellipsosmilina** (subgen. d'Orb.) Gabb. (1864.)

Geol. Sur. Cal., Paleont., vol. 1, p. 208. Phila., 1864. W. M. Gabb.

**Emarginula** (Lam.) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 140. Phila., 1864. W. M. Gabb.

— **radiata** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 140, pl. 21, figs. 102, 102a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas flat, Placer county, Cal.

**Embudo** sp. undet. Ramirez. (1880.)

An. Min. Fomento Rep. Mex., Tomo 3, p. 657, Lam. 1, fig. 12. Mexico, 1880. S. Ramirez.

Formation: Cretaceous.

Location: Sierra Mojada, Mexico.

**Enallaster** d'Orb. (1853.)

Paleont. Francaise, Echinoides Irreguliers, Terr. Cret. t. Sixieme, pp. 181-183. Paris, 1853-1860. A. d'Orbigny.

## — (d'Orb.) Desor. (1858.)

Synop. Echinides Foss., p. 357. Paris and Wiesbaden, 1858. E. Desor.

— **mexicanus** n. s. Cotteau. (1890.)

Bull. Soc. Geol. France, 3d ser., vol. 18, pp. 296-298, pl. 2. Paris, 1890. Cotteau.

Formation: Cretaceous.

Location: Guadalupe, state of Chihuahua, and Colima, Mexico.

— **texasus** (Roemer sp.) d'Orb. (1853.)

Paleont. Francaise Echinoides Irreguliers, Terr. Cret. t. Sixieme, pp. 184-186, pl. 850. Paris, 1853-1850. A. d'Orbigny.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— **texasus** (Roemer sp.) Desor. (1858.)

Synop. Echinides Foss., p. 358. Paris and Wiesbaden, 1858. E. Desor.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**Enclimatoceras** (Hyatt) White. (1884.)

Bull. U. S. Geol. Sur., No. 4, pp. 16, 17. Wash., 1884. C. A. White.

— (**Nautilus**) **ulrichi** White. (1884.)

Bull. U. S. Geol. Sur., No. 4, p. 17, pls. 7-9. Wash., 1884. C. A. White.

Formation: Cretaceous [Tertiary].

Location: Near Little Rock, Ark.

**Encrinites** and **Bryozoa**. (1854.)

Rep. Expl. and Sur. P. R. R., Mississippi River to Pacific Ocean, vol. 2; Rep. Expl. Forty-first Parallel N. Lat., p. 109, pl. 1, fig. 12. Wash., 1855. James Schiel.

Formation: Cretaceous.

Location: Indian creek.

**Endocostea** n. g. Whitfield. (1877.)

U. S. Geog. and Geol. Sur. Rocky Mt. Region, Prelim. Rep. Paleont., Black Hills, pp. 31, 32. Wash., 1877. R. P. Whitfield.

— **sulcata** (Roem.) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 404, 405, pl. 10, fig. 6. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: Loose, on the east fork of Beaver creek, Black hills.

— **typica** n. s. Whitfield. (1877.)

U. S. Geog. and Geol. Sur. Rocky Mt. Region, Prelim. Rep. Paleont., Black Hills, pp. 32, 33. Wash., 1877. R. P. Whitfield.

Formation: Cretaceous.

Location: Old Womans Fork of the Cheyenne river, Black hills, Dak.

— **Whitfield**. (1880.)

Rep. Geol. Black Hills of Dak., pp. 403, 404, pl. 9, figs. 1-7. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: Old Womans fork of the Cheyenne river, Black hills.

**Endoptygma n. g. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 302.  
Phila., 1876. Wm. M. Gabb.

**— umbilicata (Tuomey sp.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 302,  
pl. 17, figs. 8 and 9. Phila., 1876. Wm. M.  
Gabb.

Formation: Cretaceous.

Location: Mississippi and Alabama.

(=Pholus umbilicata Tuomey.)

**Entalis (Sow.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 267, 268.  
Wash., 1876. F. B. Meek.

**— cooperi (Gabb sp.) Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 138.  
pl. 16, figs. 10, 10a. Montreal, 1879. J. F.  
Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island, two  
miles and a quarter up the Nanaimo river, and  
lower part of the Trent river, Vancouver is-  
land.

**— ? paupercula (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 269, pl. 18,  
fig. 14. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river.

**— paupercula (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Pa-  
leont., vol. 1, pt. 1, p. 81. Montreal, 1885. J.  
F. Whiteaves.

Formation: Cretaceous.

Location: Milk river, at the mouth of Pa-kow-ki  
coulee, Canada.

**Entalaphora n. g. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862-  
1863, p. 170. Phila., 1862, 1863. Gabb & Horn.

**— conradi n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862-  
1863, p. 170 [pl. 21], fig. 59. Phila., 1862-1863.  
Gabb & Horn.

Formation: Cretaceous.

Location: Near Mullica hill, N. J.

**— quadrangularis n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, p. 170, pl. 21, fig. 58. Phila., 1862, 1863.  
Gabb & Horn.

Formation: Cretaceous.

Location: Timber creek, and probably near Mul-  
lica hill, N. J.

**Entolium n. subgen. Meek. (1865.)**

Geol. Sur. Cal. Geol., vol. 1, p. 478. Phila., 1865.  
F. B. Meek.

**Epona (subgen. H. & A. Ad.) Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 164. Phila.,  
1869. W. M. Gabb.

**Eripachya n. g. (Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 148, 149.  
Phila., 1869. W. M. Gabb.

**— hoffmannii Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 149. Phila.,  
1869. W. M. Gabb.

**— perforata Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 149. Phila.,  
1869. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Cal.

**— ponderosa Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 149. Phila.,  
1869. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan or Lick springs, Pence's ranch,  
Butte county, Cal.

**Eriphyla n. g. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 180. Phila.,  
1864. W. M. Gabb.

**— gregaria (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 124-126,  
pl. 17, figs. 9 a-b, figs. 6, 7, p. 124. Wash., 1876.  
F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and  
fifty miles above its mouth.

**— umbonata n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 180, pl. 24, figs.  
162, 162a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Cow creek, Shasta county; Curry's,  
south side of Mount Diablo, Cal.

**— umbonata (Gabb) Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 151,  
152. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, two miles and a quar-  
ter up and at the Sucia islands.

**Eschara (Lam.) Morton. (1829.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser.,  
1827-1831, p. 124. Phila., 1827-1831. S. G.  
Morton.

Formation: Cretaceous.

Location: Big Timber creek, Gloucester county,  
N. J.

**— digitata n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 79, pl. 13,  
fig. 8. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

**— digitata (Mort.) Lonsdale. (1844.)**

Quart. Jour. Geol. Soc., London, vol. 1, pp. 71-75,  
figs. a, 9, p. 73. London, 1845. William Lons-  
dale.

Formation: Cretaceous.

Location: Timber creek, N. J.

**— digitata (Mort.) G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, pp. 114, 115. Phila., 1862, 1863. Gabb &  
Horn.

Formation: Cretaceous.

Location: Timber creek and near Mullica hill,  
N. J.

**Eschara**—Continued.

- **dichotoma** (Goldf.) Credner. (1870.)  
Zeitsch. Deutsch. Geol. Ges., Band 22, pp. 218, 219.  
Berlin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: Near Brownville, N. J.

- **sp. undet.** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 288. New  
Haven, 1830. S. G. Morton.  
Formation: Ferruginous sand [Cretaceous].  
Location: Gloucester county, N. J.

- **sp. undet.** Hill. (1889.)  
Geol. Sur. Tex., Bull. No. 4, p. 2. Austin, 1889.  
R. T. Hill.  
Formation: Cretaceous.  
Location: Texas.

**Escharina sagena** (Mort. sp.) Lonsdale.  
(1844.)

Quart. Jour. Geol. Soc., London, vol. 1, pp. 71, 72,  
figs. a-c, p. 71. London, 1845. William Lons-  
dale.

Formation: Cretaceous.  
Location: Timber creek, N. J.

**Escharinella muralis** n. s. G. & H.  
(1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, p. 140 [pl. 19], fig. 23. Phila., 1862, 1863.  
Gabb & Horn.

Formation: Cretaceous.  
Location: Near Mullica hill, N. J.

— (**d'Orb.**) G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, p. 140. Phila., 1862, 1863. Gabb &  
Horn.

**Escharifora** (**d'Orb.**) G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, p. 134. Phila., 1862, 1863. Gabb &  
Horn.

— **typica** (G. & H. sp.) G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, pp. 134, 155 [pl. 19], fig. 16. Phila., 1862,  
1863. W. M. Gabb.

Formation: Cretaceous.  
Location: Timber creek and Mullica hill, N. J.

**Escharipora** (**d'Orb.**) G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, p. 148. Phila., 1862, 1863. Gabb &  
Horn.

— **abbottii** n. s. G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, p. 149 [pl. 20], fig. 33. Phila., 1862, 1863.  
Gabb & Horn.

Formation: Cretaceous.  
Location: Near Mullica hill, N. J.

— **distans** n. s. G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, pp. 148, 149 [pl. 20], fig. 32. Phila., 1862,  
1863. Gabb & Horn.

Formation: Cretaceous.  
Location: Timber creek, N. J.

**Escharipora**—Continued.— **immersa** n. s. G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, pp. 149, 150. Phila., 1862, 1863. Gabb &  
Horn.

Formation: Cretaceous.  
Location: Timber creek, N. J.

**Estheria bellula** n. s. Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can.; Cont. Can. Paleont.,  
vol. 1, pt. 2, pp. 162, 163, pl. 21, figs. 7, 7a.  
Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.  
Location: Rink rapids, on the Lewes river, a  
tributary of the Yukon, lat. 60° 20'. long. 136°  
20', Northwest Territory.

— **ovata** (Lea) Jones. (1862.)

Paleontographical Society, pp. 84-99, pl. 2, figs.  
26-28. London, 1862. T. R. Jones.

Formation: Triassic?  
Location: Blackheath, near Richmond, Va., Dan  
river and Chatham county, N. C., Phoenix-  
ville, Pa.

— **ovata** (Lea. sp.) Jones. (1862.)

Quart. Jour. Geol. Soc., London, vol. 19, pp. 151-  
153. London, 1863. T. R. Jones.

Formation: Lower Mesozoic.  
Location: North and South Carolina, Eastern  
Virginia, Pennsylvania.

**Etea** n. g. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875.  
W. C. Ken., App. A, pp. 5, 6. T. A. Conrad.

— **carolinensis** n. s. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875.  
W. C. Ken., App. A, p. 6, pl. 1, fig. 14. T. A.  
Conrad.

Formation: Cretaceous.  
Location: Snow hill, Greene county, N. C.

**Ethmocardium** n. subgen. **White.**  
(1879.)

Proc. U. S. Nat. Mus., vol. 2, pt. 2, pp. 291, 293.  
Wash., 1890. Smithsonian. Misc. Coll., vol. 19.  
Wash., 1880. C. A. White.

**Eudea** (Lam.) Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 320.  
Phila., 1862. W. M. Gabb.

— **dichstoma** n. s. Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 330.  
Phila., 1862. W. M. Gabb.

Formation: Cretaceous.  
Location: Near Mullica hill, and at Blackwoods-  
town, N. J.

**Eudiscoceras** n. g. Hyatt. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p.  
128. Wash., 1877. Alpheus Hyatt.

— **gabbii** n. s. Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp.  
128, 129, pl. 11, figs. 3, 3a. Wash., 1877. F. B.  
Meek.

Formation: Triassic.  
Location: Cottonwood canyon, West Humboldt  
range, Nev.

**Eulima (Risso) Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 170.  
Phila., 1870. T. A. Conrad.

**— ? chrysalis n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr. p.  
506. Wash., 1872. F. B. Meek.

Formation: Cretaceous.

Location: Carleton's coal mine, near Coalville,  
Utah.

**— funicula n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr.,  
p. 506. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Coalville, Utah.

**— ? inconspicua n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr.,  
p. 507. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Carleton's coal mine, near Coalville,  
Utah.

**— ? inconspicua (Meek) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 33, pl. 12, fig. 5a. Wash., 1883.  
C. A. White.

Formation: Cretaceous.

Location: Carleton's coal mine, Coalville, Utah.

**— (?) subfusiformis n. s. Shumard. (1853.)**

Expl. Red River Louisiana, by R. B. Marcy, p. 208,  
pl. 4, fig. 3. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Camp No. 4, Cross Timbers, Tex.

**— (?) texana n. s. Roemer. (1849.)**

Tex., p. 413. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

**— (?) texana Roemer. (1852.)**

Kreide von Tex., p. 40, Taf. 4, fig. 2. Bonn, 1852.  
F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe below  
New Braunfels, Tex.

**Eulimella (Forbes) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of one  
hundredth meridian, vol. 4, pt. 1, p. 197. Wash.,  
1875. C. A. White.

**— ? chrysalis (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 238. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— (?) chrysalis (Meek) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 32, 33, pl. 12, fig. 4a. Wash.,  
1883. C. A. White.

Formation: Cretaceous.

Location: Carleton's coal mine, Coalville, Utah.

**— funicula (Meek) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of one  
hundredth meridian, vol. 4, pt. 1, p. 197, pl. 18,  
fig. 6a. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: North Fork of Virgin river, Utah.

**Eulimella—Continued.****— ? funicula (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 238. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— funicula (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 310, 317, pl. 9, fig. 10a. Wash., 1876.  
C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— inconspicua (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 238. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**Eumicrotis n. g. Meek. (1864.)**

Am. Jour. Sci., 2d ser., vol. 37, pp. 218, 219. New  
Haven, 1864. F. B. Meek.

**— curta (Hall) M. & H. (1865.)**

Paleont., Up. Missouri, Smithsonian. Cont. Knowl.,  
vol. 14, No. 182, p. 81. pl. 3, figs. 10. a-d.  
Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base Black hills.

**— curta (Hall) H. & W. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2,  
p. 289, pl. 7, fig. 24. Wash., 1877. Hall &  
Whitfield.

Formation: Jurassic.

Location: Ashley creek, Uinta range, Utah.

**— curta (?) (M. & H.) Whiteaves. (1878.)**

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 403.  
Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river.

**— curta (?) (M. & H.) Whiteaves. (1878.)**

Geol. Sur. Can. Rep. Prog. for 1876-1877, pp. 152,  
153. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river, British Columbia.

**Euspira (Ag.) Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 160. Phila.,  
1869. W. M. Gabb.

**— alveata (Con. sp.) Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 160. Phila.,  
1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**— coalvillensis White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 237. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— coalvillensis White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 310, pl. 4, figs. 2a, b. Wash., 1879.  
C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**Euspira**—Continued.— **tabulata** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 260, pl. 32, fig.

4. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

— **utahensis** White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.

Terr., pt. 1, p. 29. Wash., 1883. C. A. White.

(E. coalvillensis, Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 237, 253 and 310, by mistake.)

**Eutomoceras** n. g. Hyatt. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1,

p. 126. Wash., 1877. Alpheus Hyatt.

— **laubei** n. s. Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1,

pp. 126–128, pl. 10, figs. 8, 8a. Wash., 1877. F. B. Meek.

Formation: Triassic.

Location: New Pass, Desatoya mountains, Nev.

**Exilifusus** n. subgen. Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 278, 279.

Phila., 1876. W. M. Gabb.

**Exogyra** n. g. Say. (1820.)

Am. Jour. Sci., 1st ser., vol. 2, p. 43. New Haven,

1820. Thomas Say.

— **arietina** n. s. Roemer. (1849.)

Texas, pp. 397, 398. Bonn, 1849. Roemer.

Formation: Cretaceous.

Location: Waco camp and Mission hills, near New Braunfels, springs of San Marcos river and Brazos river, above Torrey's trading house.

— **arietina** Roemer. (1852.)

Kreide von Texas, p. 68, Taf. 8, figs. 10a–e.

Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waco camp above New Braunfels, Mission hills, springs of San Marcos river, upper Brazos, above Torrey's trading house, and near Austin, Tex.

— **arietina** (Roem.) Conrad. (1854.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p.

153, pl. 7, figs. 1a–e. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Leon springs.

— **arietina** (Roem.) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., pp. 303, 304, pl.

51, figs. 3–5. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Texas.

— **aquila** (Gold.) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 304, pl.

53, figs. 1, 2. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Bell county, Tex.

— **auricularis** (Wahl.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges. Band 22, pp. 230, 231. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Near Woodbury, N. J.

**Exogyra**—Continued.— **caprina** n. s. Conrad. (1853.)

Jour. Acad. Nat. Sci., Phila., vol. 2, 2 ser., 1850–

1854, p. 273, pl. 24, figs. 3, 4. Phila., 1850–

1854. T. A. Conrad.

Formation: Cretaceous.

Location: San Felipe creek, near Rio Grande, Western Tex.

— **columbella** n. s. Meek. (1876.)

Rep. Expl. Exped. Santa Fe, N. Mex., to junction

of Grand and Green rivers, pp. 124, 125, pl. 1, figs. 3a–d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Covero; Sierra Abajo; Galisteo, New Mexico.

— **columbella** (Meek) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 304, pl. 55,

figs. 5, 6. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Southern Utah and adjacent parts of New Mexico.

— **costata** n. s. Say. (1820.)

Am. Jour. Sci., 1st ser., vol. 2, p. 43. New Haven,

1820. Thomas Say.

Formation: Cretaceous.

Location: New Jersey.

— **costata** (Say) Morton. (1828.)

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827–

1831, pp. 85–88, pl. 6, figs. 1–4. Phila., 1827–1831. S. G. Morton.

Formation: Cretaceous.

Location: Delaware; well near Eutaw springs, S. C.

— **costata** (Say) Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 284. New

Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey to South Carolina.

— **costata** (Say) Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., pp. 55, 56, pl. 6,

figs. 1–4. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey, Delaware, South Carolina, Alabama, Tennessee, and Arkansas.

— **costata** (Say) Troost. (1840.)

Fifth Geol. Rep. Tenn., p. 46. Nashville, 1840.

G. Troost.

Formation: Cretaceous.

Location: McNairy county, Tenn.

— **costata** (Say) Roemer. (1849.)

Tex., p. 396. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Colorado river, near Austin, Tex.

— **costata** (Say) Roemer. (1852.)

Kreide von Texas, p. 72. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: On the Colorado river, near Austin, Tex.

— **costata** (Say) Conrad. (1854.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2,

pp. 154, 155, pl. 9, figs. 1, 2; pl. 10, fig. 1; pl. 8, fig. 3. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Eocene locality, Jacun, three miles below Laredo, Mexico.



**Exogyra—Continued.**

- **costata** var. Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 154, pl. 8, fig. 2. Wash., 1859. T. A. Conrad.  
Formation: Cretaceous.  
Location: Texas.
- **costata** (Say) Emmons. (1858.)  
Rep. N. Carolina Geol. Sur., p. 278, fig. A. Raleigh, 1858. E. Emmons.  
Formation: Cretaceous.  
Location: Black rock on the Cape Fear, and at Rocky point, twenty miles north of Wilmington, N. C.
- **costata** (Say) Owen. (1860.)  
Second Rep. Geol. Rec., Ark., pl. 7, fig. 4. Phila., 1860. D. D. Owen.  
Formation: Cretaceous.  
Location: Arkansas.
- **costata** (Say) Cook. (1868.)  
Ann. Rep. Geol. Sur. N. J., for 1868, p. 374, fig. —, p. 374. Newark, 1868. G. H. Cook.  
Formation: Cretaceous.  
Location: New Jersey.
- **costata** (Say) Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 323. Phila., 1876. Wm. M. Gabb.  
Formation: Cretaceous.  
Location: Georgetown, and five miles north of Lumpkin, Stewart county, Ga.
- **costata** (Say) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 304, pl. 51, figs. 1, 2; pl. 57, figs. 1, 2. Wash., 1884. C. A. White.  
Formation: Cretaceous.
- **costata** (Say) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, pp. 39-41, pl. 6, figs. 1, 2. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Nearly all the localities of the lower marl beds of the Cretaceous in New Jersey.
- **costata** var. **fluminis** n. var. White. (1875.)  
Rep. Geogr. and Geol. Expl. and Sur. west of one hundredth meridian, vol. 4, pt. 1, pp. 174, 175, pl. 17, figs. 3a-d. Wash., 1875. C. A. White.  
Formation: Cretaceous.  
Location: East bank of the Rio Puerco, six miles below Casa Salazan, N. M.
- **sinuata** n. s. Conrad. (1855.)  
Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 269. Phila., 1856. T. A. Conrad.  
Formation: Cretaceous.  
Location: Texas.
- **sinuata** Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 154, pl. 7, figs. 2a, b. Wash., 1857. T. A. Conrad.  
Formation: Cretaceous.  
Location: Western Texas.
- **sinuata** (Con.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 305. Wash., 1884. C. A. White.  
Formation: Cretaceous.

**Exogyra—Continued.**

- **flabellata** (Goldf.) Marcou. (1858.)  
Geol. N. Am., pp. 41, 42. Zurich, 1858. Jules Marcou.  
Formation: Cretaceous.  
Location: Cross Timbers, Fort Arbuckle; headwaters of the Rio Colorado, Tex., and the vicinity of Fredericksburg and New Braunfels.
- **forficulata** n. s. White. (1879.)  
Proc. U. S. Nat. Mus., vol. 2, pt. 2, pp. 293, 294, pl. 4, fig. 384. Wash., 1880. Smithsonian Misc. Coll., vol. 19. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Bexar county, Tex.
- **forficulata** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pl. 14, figs. 2a, b. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Bexar county, Tex.
- **forficulata** White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 305, pl. 52, figs. 1, 2. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Texas.
- **fragosa** n. s. Conrad. (1855.)  
Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 269. Phila., 1856. T. A. Conrad.  
Formation: Cretaceous.  
Location: Between El Paso and Frontera [Tex.].
- **fragosa** Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, pl. 8, figs. 2a, b. Wash., 1857. T. A. Conrad.  
Formation: Cretaceous.  
Location: Between El Paso and Frontera.
- **fragosa** (Con.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 305. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Texas.
- **interrupta** n. s. Conrad. (1858.)  
Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 330, pl. 34, fig. 15. Phila., 1855-1858. T. A. Conrad.  
Formation: Cretaceous.  
Location: Owl creek, three miles north of the town of Ripley, Miss.
- **interrupta** (Con.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 305. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Mississippi.
- **laciniata** (Goldf.) Credner. (1870.)  
Zeitsch. Deutsch. Geol. Ges., Band 22, pp. 229, 230. Berlin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: Near Woodbury, N. J.
- **laeviuscula** n. s. Roemer. (1849.)  
Tex., p. 398. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Crossing of the Cibola between New Braunfels and San Antonio, Tex.

**Exogyra—Continued.****—laeviuscula Roemer. (1852.)**

Kreide von Tex., pp. 70, 71, Taf. 9, figs. 3a-c.  
Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Crossing of the Cibolo between New Braunfels and San Antonio, Tex.

**—laeviuscula (Roem.) Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 154, pl. 7, figs. 4a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Leon springs.

**—laeviuscula (Roem.) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of one hundredth meridian, vol. 4, pt. 1, pp. 173, 174, pl. 17, figs. 2a-d. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Linear Plateau, Southeastern Utah.

**—laeviuscula (Roem.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., pp. 305, 306, pl. 52, figs. 3-5. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Texas and New Mexico.

**—matheroniana (d'Orb.) Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 154, pl. 8, figs. 1a, b, pl. 11, figs. 1a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Between El Paso and Frontera.

**—matheroniana (d'Orb.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 306. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Texas.

**—parasitica n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 205, pl. 26, figs. 192, 192a, b, pl. 31, figs. 273, 273a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas flat, opposite Folsom; Cottonwood creek, Shasta county, Cal.

**—parasitica (Gabb) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 306, pl. 55, figs. 3, 4. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: California.

**—planospirites (Goldf.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 231. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: New Jersey.

**—plicata (Lam. sp.) Gabb. (1869.)**

Geol. Sur., Cal. Paleont., vol. 2, p. 275, pl. 36, figs. 19, 19a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

**Exogyra—Continued.****—plicata (Goldf.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges., Band 22, pp. 228, 229. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Middletown, Nut swamp, Marlboro, N. J.

**—plicata (Lam.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 306. Wash., 1884. C. A. White.

Formation: Cretaceous.

**—ponderosa n. s. Roemer. (1849.)**

Texas, pp. 395, 396. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Many places near New Braunfels, especially in ravine on the road to Seguin, Tex.

**—ponderosa Roemer. (1852.)**

Kreide von Tex., pp. 71, 72, Taf. 9, figs. 2a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Ford of the Guadalupe, New Braunfels, and ravine three miles from New Braunfels on road to Seguin, Tex.

**—ponderosa (Roem.) Shumard. (1853.)**

Expl. Red River, Louisiana, by R. B. Marcy, p. 204. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Fort Washita, Ind. T.

**—ponderosa (Roem.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 229. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Nut swamp, N. J.

**—ponderosa (Roem.) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of one hundredth meridian, vol. 4, pt. 1, pp. 172, 173, pl. 14, figs. 1a-c. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: East of Impracticable ridge, Utah.

**—ponderosa (Roem.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 306, pl. 50, figs. 1-3. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Gulf States.

**—texana n. s. Roemer. (1849.)**

Tex., pp. 396, 397. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Hills near Fredericksburg, San Saba river, near Waco camp, etc.

**—texana Roemer. (1852.)**

Kreide von Tex., pp. 69, 70, Taf. 10, figs. 1a-c. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, San Saba valley, on road from New Braunfels to Fredericksburg and near the Waco camp on the Guadalupe above New Braunfels.

**—texana (Roem.) Shumard. (1853.)**

Expl. Red river, Louisiana, by R. B. Marcy, p. 205, pl. 5, figs. 1a, b. and fig. 5. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Camp No. 4, Cross timbers, Tex.

**Exogyra—Continued.**

- **texana** (Roem.) Blake. (1855.)  
Rep. Expl. and Sur. P. R. R. Mississippi river to Pacific ocean, vol. 2; Rep. Geol. thirty-second parallel, p. 39. Wash., 1855. W. P. Blake.  
Formation: Cretaceous.  
Location: From the banks of Red river near Preston; from the Big springs of the Colorado.
- **texana** (Roem.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 306, pl. 51, figs. 1-5. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Texas.
- **valkeri** n. s. White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 278, pl. 1, figs. 1a, b. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Salado, Bell county, Tex.
- **walkeri** White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 307, pl. 54, figs. 1, 2. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Texas.
- **winchelli** n. s. White. (1879.)  
Proc. U. S. Nat. Mus., vol. 2, pt. 2, pp. 294, 295, pl. 2, figs. 1, 2, pl. 3, figs. 1, 2. Wash., 1880. Smithsonian. Misc. Coll., vol. 19. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Collin county, Tex.
- **winchelli** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 12, pl. 13, figs. 1 a-d. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Collin county, Tex.
- **winchelli** White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 307, pl. 55, figs. 6, 7; pl. 56, figs. 1, 2. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Gulf States.
- **sp. undet. Troost.** (1840.)  
Fifth Geol. Rep. Tenn., p. 46. Nashville, 1840. G. Troost.  
Formation: Cretaceous.  
Location: McNairy county, Tenn.
- **sp. undet. Roemer.** (1852.)  
Kreide von Tex., p. 72. Bonn., 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Waco camp on the Guadalupe above New Braunfels, Tex.
- **sp. undet. Roemer.** (1852.)  
Kreide von Tex., p. 73. Bonn., 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Waco camp, on the Guadalupe above New Braunfels, Tex.
- **sp. undet. Whiteaves.** (1879.)  
Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 175. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Entrance to Departure bay, Vancouver island.

**Exogyra—Continued.**

- **sp. undet. Whiteaves.** (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 165. Montreal, 1889. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Rocky mountains, three miles north of the east end of Devils lake, Northwest Territory.
- Fasciolaria** (Lam.) Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 390. Phila., 1858-1860. W. M. Gabb.
- (Lam. typical) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 355. Wash., 1876. F. B. Meek.
- **buccinoides** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 67. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Moreau and Fox hills, Nebr.
- **buccinoides** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 358, 359, pl. 31, figs. 8a-d. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Moreau river and Long lake.
- **cretacea** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, pp. 66, 67. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Moreau river and Fox hills, Nebr.
- **? io** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 101, 102, pl. 28, fig. 214. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Fort Tejon, Cal.
- **? læviuscula** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, pp. 100, 101, pl. 18, fig. 55. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Below coal in the Mount Diablo district, San Diego and Martinez; Bulls Head point, Hill mine, near Clayton, Cal.
- **? nodulosa** n. s. Whiteaves. (1874.)  
Geol. Sur. Can.; Rep. Prog. for 1873-74, p. 263. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Nanaimo river, Vancouver island, two and a quarter and two and a half miles up.
- **nodulosa** Whiteaves. (1874.)  
Geol. Sur. Can.; Rep. Prog. for 1873-74, p. 263. Montreal 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Protection island.
- **nodulosa** Whiteaves. (1874.)  
Geol. Sur. Can.; Rep. Prog. for 1873-74, p. 268, pl. —, figs. 7, 7a, b. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Nanaimo river, Vancouver island, two and a quarter miles up; Protection island.

**Fasciolaria—Continued.**

- **saffordi** n. s. Gabb. (1860.)  
Journ. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 390, pl. 68, fig. 6. Phila., 1858-1860.  
W. M. Gabb.  
Formation: Cretaceous.  
Location: Hardeman county, Tenn.
- **sinuata** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 101, pl. 28, fig. 213a. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Alizos creek, near Fort Tejon; San Diego, Cal.
- **slackii** n. s. Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 322. Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.  
Location: Crosswicks, N. J.
- **slackii** Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 282. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: New Jersey.
- **(Cryptorhytis) cheyennensis** (M. & H. sp.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 365, 366, pl. 19, figs. 13a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: South fork of Cheyenne river, near the Black hills.
- **(Cryptorhytis) contorta** (M. & H.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 422, 423, pl. 12, fig. 10. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: On Old Woman fork of the Cheyenne river, Wyo.
- **(Cryptorhytis) crassicosta** n. s. Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, pp. 282, 283. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: Pataula creek, Ga.
- **(Cryptorhytis) flexicostata** (M. & H. sp.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 367, 368, pl. 19, fig. 2, and fig. 46 p. 367. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Yellowstone river, one hundred and fifty miles from its mouth.
- **(Cryptorhytis) fusiformis** (M. & H.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 421, 422, pl. 12, fig. 12. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: On the Cheyenne river, near Rapid creek, Black hills.
- **(Cryptorhytis) kerri** n. s. Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 283. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: North Carolina.

**Fasciolaria—Continued.**

- **(Cryptorhytis) obliquicostata** n. s. Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, pp. 283, 284. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: North Carolina.
- **(Mesorhytis) gracilenta** Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 364, 365, fig. 45, p. 364. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Yellowstone river, one hundred and fifty miles from its mouth.
- **(Piestoecheilus) alleni** n. s. White. (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 34, 35, pl. 12, fig. 1a. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Yellowstone river, Mont.
- **(Piestoecheilus) cretacea** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 363, 364, pl. 31, figs. 11a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Moreau river.
- **(Piestoecheilus) culbertsoni** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 360-362, pl. 32, figs. 1a-f, and fig. 44, p. 360. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Moreau river.
- **(Piestoecheilus) culbertsoni** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 185. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of Saint Vrain creek, and also in the valley of the Cache à la Poudre, Colo.
- **(Piestoecheilus) culbertsoni** (M. & H.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 423, 424, pl. 12, fig. 11. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Near French creek, Black hills.
- **(Piestoecheilus)? galpiniana** (M. & H. sp.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 362, 363, pl. 32, figs. 2a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Moreau river.
- **(Piestoecheilus) scarboroughi** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 359, 360, pl. 32, figs. 4a-d. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Butte au Grès, on the Missouri river.

**Fasciolaria**—Continued.— *sp. undet.* Hill. (1889.)

Geol. Sur. Tex., Bull. No. 4, p. 19. Austin, 1889.

R. T. Hill.

Formation: Cretaceous.

Location: North of Webberville, Tex.

**Fascipora** (d'Orb.) G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 165. Phila., 1862, 1863. Gabb & Horn

— *americana* n. s. G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, pp. 165, 166, pl. 21, fig. 54. Phila., 1862, 1863. Gabb & Horn.

Formation: Cretaceous.

Location: Mullica hill and Timber creek, N. J.

**Faujasia** n. g. d'Orb. (1855.)

Paleont. Francaise, Echinoides Irreguliers, Terr. Cret., 1 Sixieme, pp. 314, 315. Paris, 1853-1860.

A. D'Orbigny.

## — (d'Orb.) Desor. (1858.)

Synop. Echinoides Foss., pp. 316, 317. Paris & Wiesbade, 1858. E. Desor.

— *florealis* (Mort. sp.) d'Orb. (1855.)

Paleont. Francaise, Echinoides Irreguliers, Terr. Cret., 1, Sixieme, pp. 319, 320, pl. 920, figs. 5, 6. Paris, 1853-1860. A. d'Orbigny.

Formation: Cretaceous.

Location: Delaware and Chesapeake canal.

— *florealis* (Mort. sp.) Desor. (1858.)

Synop. Echinoides Foss., p. 318. Paris & Wiesbade, 1858. E. Desor.

Formation: Cretaceous.

Location: Chesapeake canal, Del.

**Faunus** (Montfort.) White. (1889.)

Bull. U. S. Geol. Sur. No. 51, p. 20. Wash., 1889. C. A. White.

— *marcidulus* n. s. White. (1889.)

Bull. U. S. Geol. Sur., No. 51, pp. 20, 21, pl. 4, figs. 12, 13. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Butte county, Cal.

**Ficopsis** (Con.) Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 158. Phila., 1869. W. M. Gabb.

— *cooperii* Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 159. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

— *hornii* Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 158. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

— *remondii* Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 158. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**Ficus** (Klein) Conrad. (1858)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 332. Phila., 1855-1858. T. A. Conrad.

— ? *cypræoides* n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 105, pl. 19, fig. 68. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs, Tehama county, Cal.

— *octoliratus* n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 332, pl. 35, fig. 6. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— (*Pyrifusus*) *granosus* n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 196. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Chatfield point, Navarro county, Tex.

**Filifascigera** (d'Orb.) G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 165. Phila., 1862, 1863. Gabb & Horn.

— *megæra* (d'Orb.) G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 165, pl. 21, figs. 63. Phila., 1862, 1863. Gabb & Horn.

Formation: Cretaceous.

Location: Timber creek, N. J.

**Flabellina cordata** (Reuss) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 214. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Brownville, N. J.

**Flabellum** (Lesson) Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 399. Phila., 1858-1860. W. M. Gabb.

— *remondianum* n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 207, pl. 26, fig. 199. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Between Mount Diablo and the coal mines, Cal.

— *striatum* (G. & H.) Gabb. (1860.)

Jour. Acad. Nat. Sci. Phila., vol. 4, 2d ser., 1858-1860, p. 399, pl. 69, figs. 10, 11. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Prairie bluff, Ala.

**Flustra** (Lam.) Morton. (1829.)

Jour. Acad. Nat. Sci. Phila., vol. 6, 1st ser., 1827-1831, p. 24. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Big Timber creek, Gloucester county, N. J.

— *sagena* n. s. Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 79, pl. 13, fig. 7. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**Flustra—Continued.**

- *sp. undet.* Morton. (1830.)  
 Am. Jour. Sci., 1st. ser., vol. 17, p. 288. New Haven, 1830. S. G. Morton.  
 Formation: Cretaceous.  
 Location: Gloucester county, N. J.

**Flustrella G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 160. Phila., 1862, 1863. Gabb & Horn.

— **capistrata n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 161, pl. 20, fig. 48. Phila., 1862, 1863. Gabb & Horn.  
 Formation: Cretaceous.  
 Location: Near Mullica hill, N. J.

— **cylindrica n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 161 [pl. 20], fig. 49. Phila., 1862, 1863. Gabb & Horn.  
 Formation: Cretaceous.  
 Location: Near Mullica hill, N. J.

**Fragum (Bolton) Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, p. 139. Wash., 1885. R. P. Whitfield.

— **tenuistriatum n. s. Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, pp. 139, 140, pl. 20, fig. 15. Wash., 1885. R. P. Whitfield.  
 Formation: Cretaceous.  
 Location: Rev. G. C. Schauck's pits, Marlboro, N. J.

**Frondicularia? strophoconus Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 29. Leipzig, 1854. C. G. Ehrenberg.  
 Formation: Cretaceous.  
 Location: Mississippi region.

**Fulgur (Montfort) White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 22. Wash., 1889. C. A. White.

— **hilgardi n. s. White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, pp. 22, 23, pl. 3, figs. 2 and 3. Wash., 1889. C. A. White.  
 Formation: Cretaceous.  
 Location: Near Pence's ranch, Butte county, Cal.

**Fulguraria (Schumacker) White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 23. Wash., 1889. C. A. White.

— **gabri n. s. White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, pp. 23-25, pl. 3, fig. 1. Wash., 1889. C. A. White.  
 Formation: Cretaceous.  
 Location: Near Centerville, Butte county, Cal.

— **gabri White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, pp. 46, 47. Wash., 1889. C. A. White.  
 Formation: Cretaceous.  
 Location: Sucia and Sheep Jack islands.

**Fulguraria—Continued.**— **navarroensis (Shum. sp.) Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 117-119, pl. 15, figs. 3, 3a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: West side of Hornby island; Blunden point; Browns river, Vancouver island; Sucia islands.

**Fulvia (Grey) Whitfield. (1884.)**

Mong. U. S. Geol. Sur., vol. 9, p. 139. Wash., 1885. R. P. Whitfield.

— **tenuis n. s. Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, p. 133, pl. 20, fig. 8. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel, Monmouth county, N. J.

**Fusus (Klein) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855, 1858, p. 332. Phila., 1855, 1858. T. A. Conrad.

— **sp. Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges. Band 22, p. 237. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: New Jersey.

— **(Brug. typical). Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 373. Wash., 1876. F. B. Meek.

— **aratus n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 84, pl. 28, fig. 202. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Martinez, Cal.

— **averillii n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 83, 84, pl. 18, fig. 34. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs, Tehama county, Cal.

— **bellaliratus n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 332, pl. 35, fig. 17. Phila., 1855, 1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **californicus (Con.) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 85, 86, pl. 28, figs. 205, 205a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Clayton; Cochran's, near Mount Diablo; Alizos creek, near Fort Tejon, Cal.

— **cheyennensis n. s. Whitfield. (1877.)**

U. S. Geogr. and Geol. Sur., Rocky Mountain region: Prelim. Rep. Paleont. Black hills, p. 37. Wash., 1877. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Rapid creek, Black hills, Dak.

**Fusus—Continued.**

- **cheyennensis** Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 424, 425, pl. 12,  
fig. 9. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Rapid  
creek, Black hills.

- **constrictus** n. s. H. & M. (1854.)  
Mem. Am. Acad. Arts and Sci., vol. 5, n. s. pp.  
391, 392, pl. 3, figs. 7a-d. Cambridge and Bos-  
ton, 1855. Hall & Meek.

Formation: Cretaceous.

Location: Sage creek.

- **contortus** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 65.  
Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau trading post, Nebr.

- **culbertsoni** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 66.  
Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau trading post, Nebr.

- **dakotaensis** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 65.  
Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau trading post, Nebr.

- **diaboli** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 84, pl. 18, fig. 35.  
Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Cochran's, east of Mount Diablo; near  
Clayton, Cal.

- **flexuocastatus** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 66.  
Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebr.

- **flexuosus** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 85, pl. 21, fig.  
109. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Martinez.

- **galpinianus** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 65.  
Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau trading post, Nebr.

- **haydeni** n. s. E. & S. (1857.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p.  
41. St. Louis, 1856-1860. Evans & Shumard.

Formation: Cretaceous.

Location: Moreau river.

- **holmesianus** n. s. Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 389, pl. 68, fig. 4. Phila., 1858-1860.  
W. M. Gabb.

Formation: Cretaceous.

Location: Eufaula, Ala.

**Fusus—Continued.**

- **intertextus** n. s. M. & H. (1857.)  
Proc. Acad. Nat. Sci., Phila., for 1857, p. 139.  
Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and  
fifty miles above its mouth, Nebr.

- **kingii** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 85, pl. 28, fig.  
204. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Siskiyou county,  
north of Yreka, Cal.

- **kingii** (Gabb) Whiteaves. (1879.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 119, pl.  
15, fig. 4. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands.

- **kingii** (Gabb) White. (1889.)  
Bull. U. S. Geol. Sur., No. 51, p. 46. Wash., 1889.  
C. A. White.

Formation: Cretaceous.

Location: Sheep Jack island.

- **martinez** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 82, 83, pl. 18,  
fig. 32. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Bulls Head point, northeast of Mar-  
tinez.

- **mathewsonii** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 83, pl. 18, fig. 33.  
Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez; Clayton; Cochran's, six miles  
east of Mount Diablo; Curry's, south side of  
Mount Diablo, Cal.

- **mexicanus** n. s. Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 259, pl. 35, fig. 2.  
Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi,  
Sonora, Mexico.

- **newberryi** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 66.  
Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river and Fox hills, Nebr.

- **nebrascensis** n. s. E. & S. (1857.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p.  
41. St. Louis, 1856-1860. Evans & Shumard.

Formation: Cretaceous.

Location: Sage creek, Mauvais, Tenn.

- **novemliratus** n. s. Conrad. (1858.)  
Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-  
1858, p. 332, pl. 35, fig. 18. Phila., 1855-1858.  
T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the  
town of Ripley, Miss.

- **occidentalis** n. s. Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 126, pl. 26, fig.  
23. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

**Fusus**—Continued.—(?) **pedernalis** n. s. Roemer. (1849.)

Texas, pp. 414, 415. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.

— **pedernalis** Roemer. (1852.)

Kreide von Tex., p. 38, Taf. 4, figs. 13a, b. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.

— **retifer** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 301, pl. 48, fig. 11. Phila., 1858-1860. W. M. Gabb.  
Formation: Cretaceous.  
Location: Mullica hill, N. J.

— **shumardii** n. s. H. & M. (1854.)

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 391, pl. 3, figs. 6a, c. Cambridge & Boston, 1855. Hall & Meek.  
Formation: Cretaceous.  
Location: Great bend of the Missouri.

— **shumardi** (H. & M.) Whitfield: (1880.)

Rep. Geol. Black Hills of Dakota, p. 424, pl. 12, figs. 7, 8. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: East fork of Beaver creek, Black hills.

— **subtunitus** n. s. M. & H. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, p. 139. Phila., 1858. Meek & Hayden.  
Formation: Cretaceous.  
Location: Near Grand river, Nebr.

—(?) **tenuilineata** n. s. H. & M. (1854.)

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 392, pl. 3, figs. 8a-c and 9a-c. Cambridge & Boston, 1855. Hall & Meek.  
Formation: Cretaceous.  
Location: Sage creek.

— **tippana** n. s. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 286, pl. 46, fig. 41. Phila., 1858-1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Tippah county, Miss.

— **trivolvus** n. s. Gabb. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860 p. 94, pl. 2, fig. 5. Phila., 1861. W. M. Gabb.  
Formation: Cretaceous.  
Location: Timber creek, N. J.

— **tumidus** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, pp. 145, 146, pl. 26, fig. 22. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez, Cal.

— ? **utahensis** (Meek) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur., Terr., pt. 1, p. 34, pl. 12, fig. 2a. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah, from "Chalk hill."

**Fusus**—Continued.— **vaughani** n. s. (M. & H.) (1875.)

Proc. Acad. Nat. Sci., Phila., for 1857, pp. 138, 139. Phila., 1858. Meek & Hayden.  
Formation: Junction of upper Cretaceous and Tertiary beds. [Cretaceous.]  
Location: Near mouth of Heart river, Nebr.

— (**Exilifusus**) **kerri** n. s. Gabb. 1876.

Proc. Acad. Nat. Sci. Phila., for 1876, p. 279, pl. 17, fig. 1. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: North Carolina.

— (**Hemifusus**) **cooperii** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. pp. 86, 87, pl. 28, fig. 207. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: San Diego, and Cochran's, east of Mount Diablo, Cal.

— (**Hemifusus**) **hornii** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 86, pl. 28, figs. 206, 206a. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Fort Tejon, Cal.

— (**Hemifusus**) **remondii** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 87, pl. 18, fig. 36. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Cochran's, east of Mount Diablo; Bulls head point, northeast of Martinez; Alizos creek, near Fort Tejon, Cal.

— (**Neptunea**?) **gabbi** n. s. Meek. (1873.)

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 504, 505. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Coalville, Utah.

— (**Neptunea**?) **gabbi** (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 238. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

— (**Neptunea**?) **gabbi** (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 317, pl. 9, fig. 9a. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

— (**Neptunea**?) **utahensis** n. s. Meek. (1873.)

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 505. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Coalville, Utah; from "Chalk hill."



**Fusus**—Continued.**—(Neptunea) utahensis (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 238. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**—(Pleurotoma?) scarboroughi n. s. (M. & H.). (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, pp. 139, 140. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Butte aux Grès, on the Missouri river, Nebr.

**—(Serrifusus) dakotensis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 374, 375, pl. 31, fig. 11 and pl. 32, figs. 6a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Long lake and Moreau river, Dak.

**—? (Serrifusus) dakotensis n. var. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 375-377, pl. 32, fig. 7a (and 7, b?) Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, Dak.

**—sp. undet. Owen. (1860.)**

Second Rep. Geol. Rec. Arkansas, pl. 8, fig. 4. Phila., 1860. D. D. Owen.

Formation: Cretaceous.

Location: Arkansas.

**Gadus (Rang.) Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 101, Phila., 1870. T. A. Conrad.

**—obrutus n. s. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 101, pl. 9, fig. 18. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**Galaxias (subgen. Beck.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 549. Wash., 1876. F. B. Meek.

**Galerites (Descoidea) sp. nov. Hill. (1889.)**

Geol. Sur. Tex. Bull. No. 4, p. 2. Austin 1889. R. T. Hill.

Formation: Cretaceous.

Location: Sierra Blanca district, Tex.

**Galerus (Humph.) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 136. Phila., 1864. W. M. Gabb.

**—excentricus n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 136, pl. 20, fig. 95; pl. 29, fig. 232a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Northeast of Martinez; Clayton; seven miles south of Martinez; San Diego; near Fort Tejon, Cal.

**Gari (Shum.) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 155. Phila., 1864. W. M. Gabb.

**—elliptica n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 307, 308. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

**—? texta n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 155, pl. 22, fig. 130. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Martinez, Cal.

**Gastrochaena (Spengl.) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d. ser., 1858-1860, p. 393. Phila., 1858-1860. W. M. Gabb.

**—americana n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci. Phila., vol. 4, 2d ser., 1858-1860, p. 393, pl. 68, fig. 20. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Timber creek and Burlington county, N. J.

**—americana (Gabb) Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, pp. 203, 204, pl. 26, figs. 17, 18. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Timber creek, N. J.

**—tibialis (Mort. sp.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges. Band 22, pp. 236, 237. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: New Jersey.

**Gemma? (Deshayes) Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 96. Phila., 1870. T. A. Conrad.

**—cretacea n. s. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, pp. 96, 97, pl. 9, fig. 19. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county?, Miss.

**Genota (subgen. H. & A. Ad.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 382. Wash., 1876. F. B. Meek.

**Gervillia (Defrance) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d. ser., 1855-1858, p. 328. Phila., 1855-1858. T. A. Conrad.

**—ensiformis n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci. Phila., vol. 3, 2d. ser., 1855-1858, pp. 328, 329, pl. 34, fig. 10. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**—gregaria n. s. Shumard. (1859.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 606, 607. St. Louis, 1856-1860. R. F. Shumard.

Formation: Cretaceous.

Location: Bluffs of Red river, Lamar county, Tex.

**Gervillia—Continued.**— **gregaria** (Shumard) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 38, pl. 18, fig. 3a. Wash., 1883. C. A. White.

— **montanaensis** (Meek) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 145, pl. 37, fig. 1, b, a. Wash., 1883. C. A. White.

Formation: Jurassic.

Location: Near the lower canyon of Yellowstone river, Mont.

— **mudgeana n. s.** White. (1879.)

Proc. U. S. Nat. Mus., vol. 2, pt. 2, pp. 295, 296, pl. 5, figs. 3 and 4. Wash., 1880. Smithsonian. Misc. Coll., vol. 19. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Saline county, Kans.

— **mudgeana** White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 16, 17, pl. 14, figs. 3a, b. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Saline county, Kans.

— **recta n. s.** (M. & H.) (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 441. Phila., 1862. Meek & Hayden.

Formation: Cretaceous.

Location: Deer creek, near north branch Platte river, Nebr.

— **recta** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 66, 67, pl. 29, figs. 1a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Deer creek, near North Platte.

— **recta** (Meek) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 358, 359, pl. 4, fig. 3. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Near Sun Dance hills, Black hills.

— **recta** (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 35. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Bulls Head, about twenty-two miles west of the west end of the Cypress hills, Canada.

— **recta var. borealis n. var.** Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 35, 36, pl. 4, figs. 2, 2a; b. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Belly river, west of the mouth of the St. Mary river; Belly river, near the mouth of the St. Mary river; St. Mary river, near the Police Fort; South Saskatchewan, opposite Swift Current creek; Lone crossing of the Red Deer river, township 35, range 16, west of fourth principal meridian; Berry creek, section 31, township 25, range 12, west of fourth principal meridian, Canada.

**Gervillia—Continued.**— **recta var. borealis** Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 175. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sounding creek, township 30, range 8, west of the fourth principal meridian, Northwest Territory.

— **solenoides** (Defr.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, pp. 232, 233. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Woodbury, N. J.

— **sparsalirata n. s.** Whitfield. (1876.)

Rep. Rec. Carroll, Mont., to Yellowstone and National park, p. 142, pl. 2, fig. 8. Wash., 1876. R. P. Whitfield.

Formation: Jurassic.

Location: Bridges mountains, Mont.

— **subtortuosa n. s.** M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, p. 276. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Three hundred miles above Fort Union, on the Missouri, Nebr.

— **subtortuosa** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 65, 66, pl. 16, figs. 7a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Three hundred miles above Fort Union, on the Missouri river.

**Gervillioipsis n. g.** Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, p. 73. Wash., 1885. R. P. Whitfield.

— **ensiformis** (Con.) Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 73, 74, pl. 15, figs. 8-11; pl. 16, fig. 5. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Woodbury, Gloucester county, N. J.

— **minima n. s.** Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 74, 75, pl. 15, fig. 7. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Freehold, N. J.

**Globiconcha** (d'Orb.) Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 319. Phila., 1862. W. M. Gabb.

— **coniformis n. s.** Roemer. (1849.)

Tex., p. 411. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Upper course of Pedernales river, Tex.

— **coniformis** Roemer. (1852.)

Kreide von Tex., p. 42, Taf. 4, figs. 5, a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: On the upper course of Pedernales river, Tex.

**Globiconcha**—Continued.

- **curta** n. s. Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861. p. 319.  
Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.  
Location: Comanche peak, Tex.

- (?) **elevata** n. s. Shumard. (1853.)  
Expl. Red river, Louisiana, by R. B. Marcy, p. 208, pl. 4, fig. 4. Wash., 1853. B. F. Shumard.  
Formation: Cretaceous.  
Location: Cross Timbers, Tex.

- **planata** n. s. Roemer. (1849.)  
Tex., p. 411. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Waco camp, above New Braunfels, Tex.

- **planata** Roemer. (1852.)  
Kreide von Tex., pp. 42, 43, Taf. 4, figs. 6, a, b.  
Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Waco camp, on the Guadalupe, sixteen miles above New Braunfels, Tex.

- (**Phasianella** ?) **remondii** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 114, pl. 19, fig. 69. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Two miles north of Benicia, Cal.

- (**Tylostoma**) **tumida** n. s. Shumard. (1853.)  
Expl. Red River, La., by R. B. Marcy, p. 208, pl. 5, fig. 3. Wash., 1853. B. F. Shumard.  
Formation: Cretaceous.  
Location: Cross Timbers, Tex.

- ? n. s. Hill. (1889.)  
Geol. Sur. Tex., Bull. No. 4, p. 20. Austin, 1889.  
R. T. Hill.  
Formation: Cretaceous.  
Location: [Shoal Creek], Tex.

- Glycimeris** (Lam.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 248, 249.  
Wash., 1876. F. B. Meek.

- **berthoudi** n. s. White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 184. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Fossil ridge, Colo.

- **berthoudi** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 299, 300, pl. 6, figs. 1a, b. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: About fifteen miles west of Greeley and about six miles south of Fort Collins, Colo.

- ? **dalli** n. s. White. (1889.)  
Bull. U. S. Geol. Sur., No. 51, pp. 66, 67, pl. 14, figs. 7-9. Wash., 1889. C. A. White.  
Formation: Jurassic.  
Location: Kialagvic bay, Alaska.

**Glycimeris**—Continued.

- **occidentalis** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 250, pl. 30, figs. 9, a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Judith river, on the Missouri.

- Gnathodon** (—) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, p. 27. Wash., 1885. R. P. Whitfield.

- ? **tenuidens** n. s. Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, pp. 27, 28, pl. 2, figs. 7-10. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Sayre's and Fisher's brickyards, and at R. N. and H. Valentine's, near Woodbridge, N. J.

- Goniaster mammillata** n. s. Gabb. (1876.)

- Proc. Acad. Nat. Sci. Phila., for 1876, pp. 178, 179, pl. 5, figs. 2, 2a, b. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: Neighborhood of Vincenttown, N. J.

- Goniatites** (De Haan) Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 21. Phila., 1864. W. M. Gabb.

- **laevadorsatus** (Hauer sp.) Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 21, 22, pl. 3, figs. 6, 7. Phila., 1864. W. M. Gabb.  
Formation: Triassic.

- Location: Opposite the military station in Owen's valley, Tulare county, Cal., about thirteen miles north of Owen's lake.

- Goniobasis** (Lea) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 560, 561. Wash., 1876. F. B. Meek.

- **arcta** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 244. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Near Mellis station, Wyo.

- **chrysallis** n. s. Meek. (1871.)  
Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 316. Wash., 1871. F. B. Meek.  
Formation: Tertiary [Cretaceous].  
Location: Bear river, near Sulphur creek, Utah.

- **chrysallis** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 245. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, Wyo.

- **chrysallis** (Meek) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 91, 92, pl. 30, figs. 6a, b. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near the mouth of Sulphur creek, Bear river valley, Wyo.

**Goniobasis—Continued.**

- **chrysalis** (Meek) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 56, pl. 6, figs. 13, 14. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming and adjacent parts of Utah.
- **chrysalloidea n. s.** White. (1876.)  
Rep. Geol. Uinta Mts., 123. Wash., 1876. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, near Mellis station, Wyo.
- **chrysalloidea** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 245. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, Wyo.
- **chrysalloidea** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 92, pl. 30, figs. 6a, b. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near the mouth of Sulphur creek, Bear river valley, Wyo.
- **chrysalloidea** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 92, pl. 30, figs. 6a, b. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near the mouth of Sulphur creek, Bear river valley, Wyo.
- **chrysalloidea** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 56, pl. 6, figs. 10, 11. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming and adjacent parts of Utah.
- **cleburni n. s.** White. (1876.)  
Rep. Geol. Uinta Mts., pp. 122, 123. Wash., 1876. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, near Mellis station, Wyo.
- **cleburni** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 244, 245. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, Wyo.
- **cleburni** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 91, pl. 30, figs. 4a-d. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near the mouth of Sulphur creek, Bear river valley, Wyo.
- **cleburni** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 56, pl. 6, figs. 7-9. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming and adjacent parts of Utah.

**Goniobasis—Continued.**

- **convexa** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 562, 563, pl. 42, figs. 2a, b, fig. 71, p. 562, fig. 72, p. 563. Wash., 1876. F. B. Meek.  
Formation: Probably Cretaceous.  
Location: At the mouth of Judith river, Mont.
- **convexa** (M. & H.) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 94. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near the mouth of Judith river, Mont.
- **convexa** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 57, pl. 26, figs. 6, 7. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.
- **convexa var. impressa** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 563, 564, pl. 42, figs. 2c, d. Wash., 1876. F. B. Meek.  
Formation: Probably Cretaceous.  
Location: Mouth of Judith river, Mont.
- **convexa var. impressa** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 57, pl. 26, figs. 8, 9. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: [Upper Missouri river region?]
- **endlichi n. s.** White. (1878.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, p. 716. Wash., 1878. C. A. White.  
Formation: Cretaceous.  
Location: Seven miles west of Evanston, Wyo.
- **endlichi** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 245. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Seven miles northward from Evanston, Wyo.
- **endlichi** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 92, 93, pl. 30, figs. 7a-c. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Seven miles northward from Evanston, on the Bear river valley [Wyoming].
- **endlichi** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 57, pl. 7, figs. 7-9. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming and adjacent parts of Utah.
- **gracilenta n. s.** Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 568, 569, pl. 42, fig. 3, fig. 74, p. 569. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Mont.

**Goniobasis—Continued.**

- **gracilentia** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 220. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Black buttes station, Wyo.

- **gracilentia** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 171. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Crow creek valley, Colo.

- **gracilentia** (Meek) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 57, pl. 26,  
figs. 12, 13. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Crow creek valley, northern Colorado,  
east of the Rocky mountains; Black buttes,  
Wyo.

- **gracilentia** (M. & H.) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 94. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

- **? insculpta** n. s. Meek. (1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 515, 516. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Rock springs, Wyo.

- **invenusta** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 564, 565,  
pl. 42, figs. 1a-c. Wash., 1876. F. B. Meek.  
Formation: Probably Cretaceous.  
Location: Mouth of Judith river, Mont.

- **invenusta** (M. & H.) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 94. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near the mouth of Judith river, Mont.

- **invenusta** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 57, pl. 17,  
fig. 17. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

- **? omitta** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 568, pl. 42,  
figs. 4a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Mont.

- **? omitta** (M. & H.) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 94. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near the mouth of Judith river, Mont.

- **? omitta** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 57; pl. 26,  
fig. 10. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

**Goniobasis—Continued.**

- **macilentia** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 93, pl. 30, fig. 10a. Wash., 1883.  
C. A. White.  
Formation: Cretaceous.

- Location: Near the mouth of Sulphur creek; val-  
ley of Bear river, Wyo.

- **macilentia** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 56, pl. 6, fig.  
12. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming and adjacent  
parts of Utah.

- **nebrascensis** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 565, 566,  
pl. 43, figs. 12a-h, fig. 73, p. 565. Wash., 1876.  
F. B. Meek.  
Formation: Cretaceous.

- Location: Fort Clarke, and at mouth of Yellow-  
stone river.

- **nebrascensis** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 171. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Crow creek valley, Colo.

- **nebrascensis** (M. & H.) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 94. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

- **nebrascensis** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 57, pl. 26,  
figs. 15, 16. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Wales, Utah.

- **nebrascensis** (M. & H.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, pp. 21, 22, pl. 3, figs. 4, 4a.  
Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.

- Location: North or second branch of the Milk  
river; Old Man river, two miles above Rye-  
Grass flat, and St. Mary river, three miles  
north of the forty-ninth parallel, Canada.

- **sublævis** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 567, pl. 42;  
figs. 5a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Mont.

- **sublævis** (M. & H.) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 94. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near the mouth of Judith river, Mont.

**Goniobasis—Continued.**— **sublaevis** (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 57, pl. 26, fig. 18. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— ? **subtortuosa** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 569, 570, pl. 42, figs. 17a, b, figs. 75, 76, p. 569. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river.

— ? **subtortuosa** (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 57, pl. 27, fig. 34. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— ? **subtortuosa** (M. & H.) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 94. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near the mouth of Judith river, Mont.

— **subtortuosa** (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 74, 75, pl. 10, fig. 7. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Belly river, two miles above Woodpecker island, and Belly river, east side of Driftwood bend; South Saskatchewan, one mile above the mouth of the Bow river, Canada.

— **tenuicarinata** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 566, 567, pl. 43, figs. 14a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Near Fort Union, Mont.

— **tenuicarinata** (M. & H.) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 94. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— **tenuicarinata** (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 57, pl. 26, fig. 11. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Wales, Utah; Cross creek valley; Northern Colorado, east of the Rocky mountains.

— **tenuicarinata** (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 22, pl. 3, figs. 5, 5a. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Bow river, two miles below the mouth of Jumping Pound river, Canada.

**Goniobasis—Continued.**— **tenuicarinata** (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 27. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Pyramid creek, Canada.

— **tenuicarinata** (M. & H.) var. **Whiteaves**. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 22, 23, pl. 3, figs. 6, 6a. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Two miles above Rye-Grass flat and twelve miles below Fort MacLeod on the Old Man river; Gooseberry canyon on the St. Mary river; Pincher creek, Canada.

**Goniochasma** n. g. Meek. (1864.)

Check List Invert. Foss. N. Am., Cret. and Jur., Smithsonian. Misc. Coll., vol. 7, No. 177, p. 34. Wash., 1864. F. B. Meek.

Type: *Xylophaga stimpsoni* (M. & H.) Meek.

— **subgen.** Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 255. Wash., 1876. F. B. Meek.

— **stimpsoni** (M. & H.) Meek. (1864.)

Check List Invert. Foss. N. Am. Cret. and Jur., Smithsonian. Misc. Coll., vol. 7, No. 177, p. 34. Wash., 1864. F. B. Meek.

Formation: Cretaceous.

Location: Dakota.

**Goniomya** (Agas.) Gabb. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 11, Phila., 1870. W. M. Gabb.

— **americana** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, pp. 81, 82, Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Monroe trading post, Nebr.

— **americana** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 221, 222, pl. 30, figs. 12a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, Dak.

— **aperta** n. s. Gabb. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 11, pl. 6, fig. 8, Phila., 1870. W. M. Gabb.

Formation: Jurassic.

Location: Volcano about thirty miles southeast of Walkers lake, Nev.

— **borealis** Meek. (1876.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, pp. 362, 363, pl. 2, fig. 2. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

— **montanaensis** (Meek) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 151, pl. 38, fig. 8a. Wash., 1883. C. A. White.

Formation: Jurassic.

Location: Near the lower canyon of the Yellowstone river, Mont.

**Goniomya**—Continued.— **Whiteaves.** (1882.)

Proc. and Trans. Roy. Soc. Can., vol. 1, sec. 4, p. 83. Montreal, 1883. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northeast slope of Jackass mountain, in the valley of the Lower Fraser, Canada.

— **sp. undet. Whiteaves.** (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 225. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Alliford bay.

**Goniosoma n. g.** Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, pp. 43, 44. Phila., 1870. T. A. Conrad.

— **inflata n. s.** Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 44, pt. 1, fig. 10. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Crosswicks, N. J.

**Gouldia** [Adams] Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 48. Phila., 1870. T. A. Conrad.

— **conradi n. s.** Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 125, 126, pl. 18, figs. 1-3. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **declivis n. s.** Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, pl. 9, fig. 5. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **declivis (Con.)** Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, p. 126, pl. 18, fig. 11. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **decemnaria n. s.** Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 48, pl. 9, fig. 4. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **decemnaria (Con.)** Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 124, 125, pl. 18, fig. 4. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **parilis (Con.)** Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 126, 127, pl. 18, figs. 12, 13. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Marlboro, N. J.

**Grammatodon n. g.** M. & H. (1865.)

Paleont. Up. Mo., Smithsonian. Cont. Knowl., vol. 14, No. 172, pp. 89, 90. Wash., 1865. Meek & Hayden.

Type: *Arca (cucullacea) inornata* M. & H.

**Grammatodon**—Continued.— **(?) iltasyoucoensis n. s.** Whiteaves. (1878.)

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 404.

Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Iltasyouco river.

— **(?) iltasyoucoensis** Whiteaves. (1878.)

Geol. Sur. Can.; Rep. Prog. for 1876, 1877, pp. 153, 154. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Iltasyouco river, British Columbia.

— **inornatus M. & H.** (1865.)

Paleont. Up. Mo., Smithsonian. Cont. Knowl., vol. 14, No. 172, p. 90, pl. 3, figs. 9, 9a, b. Wash., 1865.

Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of Black hills.

— **inornatus (M. & H.)** Whiteaves. (1878.)

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 404. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Iltasyouco river.

— **inornatus (M. & H.)** Whiteaves. (1878.)

Geol. Sur. Can.; Rep. Prog. for 1876, 1877, p. 153. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Iltasyouco river, British Columbia.

— **inornatus (M. & H.)** Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 359, 360, pl. 5, figs. 16-18. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Near the Black hills.

— **inornatus (M. & H.)** Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can.; Mes. Foss., vol. 1, pt. 3, p. 235, pl. 31, figs. 8, 8a, b. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: North shore of Cumshewa inlet, Skidegate inlet, south side of Alliford bay, bay east of Alliford bay.

— **? vancouverensis** Meek. (1876.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, pp. 356, 357, pl. 3, figs. 5, 5a. Wash., 1876.

F. B. Meek.

Formation: Cretaceous.

Location: Komooks, Vancouver island.

— **? vancouverensis** (Meek) White. (1889.)

Bull. U. S. Geol. Sur. No. 51, p. 39. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Suia island.

**Grammostomum americanum** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 11. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

— **americanum** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 15. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

— **invalidum** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 17. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

— **phylloides** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 16. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

— **rhomboidale** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 19. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

— **tessera** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 18. Leipzig, 1856.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

— **validum** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 12. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

**Granoarca** (subgen. Conrad) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 78, 79.

Wash., 1876. F. B. Meek.

**Grnocardium** n. subgen. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 266. Phila.,

1869. W. M. Gabb.

**Graptocarcinus texanus** n. s. Roemer. (1887.)

Neues Jahrbuch f. Mineral. Geol. u. Paleont., pp.

173-176, figs. a and b, text. Stuttgart, 1887.

F. Roemer.

Formation: Cretaceous.

Location: Shoal creek, near Austin, Tex.

**Gryphæa** [Lam.] Morton. (1828.)

Jour. Acad. Nat. Sci. Phila., vol. 6, 1st ser. 1827-

1831, p. 79. Phila., 1827-1831. S. G. Morton.

— **aucella** n. s. Roemer. (1849.)

Texas, p. 395. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Ford near New Braunfels, Tex.

— **bryani** (Gabb) Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 206, 207, pl. 27,

figs. 6-9. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Vincenttown, N. J.

**Gryphæa**—Continued.— **bryani** var. **precedens** n. var. Whitfield. (1885.)

Mong. U. S. Geol. Sur. vol. 9, pp. 194, 195, pl. 26,

figs. 7, 8. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Throughout Monmouth county and also particularly so in the vicinity of New Egypt, N. J.

— **calceola** (Quenstedt) Meek. (1860.)

Rep. Expl. Great Basin Terr., Utah, p. 356, pl. 3,

fig. 2. Wash., 1876. F. B. Meek.

Formation: Jurassic.

Location: Near the Red buttes, on the North Platte.

— **calceola** var. **nebrascensis** n. var.

M. &amp; H. (1861.)

Proc. Acad. Nat. Sci. Phila., for 1861, pp. 437-439,

Phila., 1862. Meek &amp; Hayden.

Formation: Jurassic.

Location: Head of Wind river valley, at base of mountains, Nebr.

— **calceola** var. **nebrascensis** M. & H. (1865.)

Paleont. Up. Missouri, Smithson. Cont. Knowl.,

vol. 14. No. 172, pp. 74-76, pl. 3, figs. 1 a-c, and

annexed cuts. Wash., 1865. Meek &amp; Hayden.

Formation: Jurassic.

Location: Wind river mountains, southern part of Dakota: Red buttes, further east, Dakota.

— **calceola** var. **nebrascensis** (M. &

H.) H. &amp; W. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2,

pp. 286, 287, pl. 7, fig. 11. Wash., 1877. Hall

&amp; Whitfield.

Formation: Jurassic.

Location: Sheep creek, Uinta range, Utah; and on Ashley creek, Uinta range.

— **calceola** var. **nebrascensis** (M. &

H.) Whiteaves. (1878.)

Canadian Naturalist vol. 8, n. ser., No. 7, p. 401.

Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river.

— **calceola** var. **nebrascensis** (M. &

H.) Whiteaves. (1878.)

Geol. Sur. Can., Rep. Prog. for 1876-77, p. 151

Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river, British Columbia.

— **calceola** var. **nebrascensis** (M. & H.)

Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 349, 350, pl. 3,

figs. 13-16. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Wind river mountains.

— **calceola** var. **nebrascensis** (M. &

H.) White. (1885.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 290, pl. 35,

figs. 1-5. Wash., 1884. C. A. White.

Formation: Jurassic.

Location: Distant localities in Wyoming and Idaho.



**Gryphæa—Continued.**

- **convexa** n. s. Morton. (1828.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1828-1831, pp. 79, 80, pl. 4, figs. 1, 2. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.  
Location: Woodward's farm, near Wainford, New Egypt, N. J.; St. Georges, Del.
- **convexa** (Say sp.) Morton. (1829.)  
Jan. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 121. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.  
Location: Big Timber creek, Gloucester county, N. J.
- **convexa** (Say sp.) Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 283. New Haven, 1830. S. G. Morton.  
Formation: [Cretaceous.]  
Location: New Jersey.
- **convexa** (Say) Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 63, pl. 4, figs. 1, 2. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey, Delaware, and Alabama.
- **convexa** (Say) Troost. (1840.)  
Fifth Geol. Rep. Tenn., p. 46. Nashville, 1840. G. Troost.  
Formation: Cretaceous.  
Location: McNairy county, Tenn.
- **corrugata** n. s. Say. (1823.)  
Account of Exped. Pittsburgh to Rocky mountains, vol. 2, pp. 410, 411. Phila., 1823. Thos. Say.  
Formation: [Cretaceous.]  
Location: About Red river.
- **dilatata** var. **tucumcarii** n. var. Marcou. (1858.)  
Geol. N. Am. pp. 43, 44, pl. 4, figs. 1, 1a, b, 2, 3. Zurich, 1858. Jules Marcou.  
Formation: Jurassic [Cretaceous].  
Location: Bluffs surrounding Plaza Larga, in the bed of Fossil creek, at the big and little Tucumcarii, Pyramid mount, Monte reynelto and the Llano Estacado, near the village of Covoero, New Mexico, and on the tableland or mesa between Inscription rock and the Canoncito Bonito, west of the Sierra Madre. Southern part of the Llano Estacado. Leon springs between Fort Inge, Tex., and El Paso, Chihuahua.
- **mucronata** Gabb. (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, pp. 274, 275. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.
- **mucronata** (Gabb) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 302. Wash., 1884. C. A. White.  
Formation: Cretaceous.
- **mutabilis** n. s. Morton. (1828.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1828-1831, pp. 81-83, pl. 4, fig. 3. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey and Delaware.

**Gryphæa—Continued.**

- **mutabilis** (Say sp.) Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 283. New Haven, 1830. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.
- **mutabilis** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., pp. 63, 64, pl. 4, fig. 3. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey, Delaware, Alabama, Tennessee, and Missouri.
- **mutabilis** (Mort.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 302. Wash., 1884. C. A. White.  
Formation: Cretaceous.
- **navia** (Con.) Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, pp. 273, 274. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.
- **navia** (Con.) White. (1883.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 302. Wash., 1884. C. A. White.  
Formation: Cretaceous.
- **nebrascensis** (M. & H.) Whiteaves. (1884.)  
Geol. and Nat. Hist. Sur. Can. Mess. Foss., vol. 1, pt. 3, pp. 244, 245, pl. 32, figs. 2, 2a, b. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: East end of Maud island; south side of Alliford bay.
- **pitcheri** n. s. Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 65, pl. 15, fig. 9. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Plains of the Kiamesha, in Arkansas; falls of Verdigris river, in the same territory.
- **pitcheri** (Morton) Roemer. (1849.).  
Tex., pp. 394, 395. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Eight miles above New Braunfels, Mission hill, upper Brazos river, and near Fredericksburg, Tex.
- **pitcheri** Morton. (1852.)  
Kreide von Tex., pp. 73, 74, Taf. 9, figs. 1a-c. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Guadalupe river, eight miles above New Braunfels, Mission hills, upper Brazos river, and Fredericksburg, Tex.
- **pitcheri** (Mort.) Shumard. (1853.)  
Expl. Red river, Louisiana, by R. B. Marcy, p. 205, pl. 6, fig. 5. Wash., 1853. B. F. Shumard.  
Formation: Cretaceous.  
Location: Fort Washita, Ind. T.; Cross Timbers, Tex.
- **pitcheri** (Mort.) Blake. (1855.)  
Rep. Expl. and Sur. P. R. R. Mississippi river to Pacific ocean, vol. 2; Rep. Geol. Thirty-second Parallel, p. 39. Wash., 1855. W. P. Blake.  
Formation: Cretaceous.  
Location: From the Big springs of the Colorado.

**Gryphæa—Continued.**

- **pitcheri** (Morton) Conrad. (1855.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 155, pl. 7, fig. 3; pl. 10, figs. 2a, b. Wash., 1857. T. A. Conrad.  
Formation: Cretaceous.  
Location: Leon springs, Tex., plains of the Kiam-  
esha, Ark., New Braunfels, Tex., Fort Washita  
and Cross Timbers, Tex.
- **pitcheri** (Mort.) Schiel. (1855.)  
Rep. Expl. and Sur. P. R. R. Mississippi river to  
Pacific ocean, vol. 2; Rep. Expl. Forty-first par-  
allel, N. Lat., p. 108, pl. 3, fig. 9. Wash., 1855.  
James Schiel.  
Formation: Cretaceous.  
Location: Top of a sand hill near Grand river.
- **pitcheri** (Mort.) Hall. (1856.)  
Rep. Expl. and Sur. P. R. R. Mississippi river to  
Pacific ocean, vol. 3, pt. 4, pp. 99, 100, pl. 1,  
figs. 1-6. Wash., 1856. James Hall.  
Formation: Cretaceous.  
Location: Pyramid mountain, Plaza Larga,  
Camp 50.
- **pitcheri** (Morton) Marcou. (1858.)  
Geol. N. Am. pp. 38-40, pl. 4, figs. 5, 5a, b, 6.  
Zurich, 1858. Jules Marcou.  
Formation: Cretaceous.  
Location: Hills surrounding Comet creek, one of  
the affluents of the False Washita river (Long.  
99°, Lat. 35° 50'); on the bank of the Canadian;  
at Fort Washita; in the plain of Kiamesha,  
Arkansas; at the fall of the Verdigris river,  
affluent of the Arkansas; near Preston; in the  
vicinity of New Braunfels; and at Waco camp  
on the Rio Guadalupe, Tex.
- **pitcheri** (Mort.) Gabb. (1860.)  
Second Rep. Geol. Rec. Arkansas, pl. 7, fig. 6.  
Phila., 1860. D. D. Owen.  
Formation: Cretaceous.  
Location: Arkansas.
- **pitcheri** (Mort.) Newberry. (1861.)  
Rep. Colorado river of the West, pt. 3, p. 121.  
Wash., 1861. J. S. Newberry.  
Formation: Cretaceous.  
Location: A few miles east of Fort Defiance, still  
further eastward near Covern; on the banks of  
the Pecos, east of Albuquerque.
- **pitcheri** (Morton) Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, pp. 272, 273.  
Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Sierra de las Conchas, near Arivechi,  
Sonora, Mexico.
- **pitcheri** (Mort.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., pp. 302, 303,  
pl. 49, figs. 1-6. Wash., 1884. C. A. White.  
Formation: Cretaceous.
- **pitcheri** var. *navia* n. var. Hall.  
(1856.)  
Rep. Expl. and Sur. P. R. R. Mississippi river to  
Pacific ocean, vol. 3, pt. 4, p. 100, pl. 1, figs.  
7-10. Wash., 1856. James Hall.  
Formation: Cretaceous.  
Location: False Washita, Camp 31.

**Gryphæa—Continued.**

- **pitcheri** var. *navia* (Hall) New-  
berry. (1861.)  
Rep. Colorado river of the West, pt. 3, p. 120.  
Wash., 1861. J. S. Newberry.  
Formation: Cretaceous.  
Location: At the Moqui villages; east of Fort  
Defiance; on the Pecos.
- **pitcheri** var. *navia* (Hall) Whit-  
field. (1884.)  
Mong. U. S. Sur., vol. 9, p. 38. Wash., 1885.  
R. P. Whitfield.  
Formation: Cretaceous.  
Location: Moumouth county and Blue Ball, N.  
J.; also from Freehold, Burlington, Timber  
creek, and New Egypt, N. J.
- **pitcheri** var. (Mort.) White. (1875.)  
Rep. Geogr. and Geol. Expl. and Sur. west of  
one-hundredth meridian, vol. 4, pt. 1, pp. 171,  
172, pl. 17, figs. 1a-f. Wash., 1875. C. A. White.  
Formation: Cretaceous.  
Location: Twenty-five miles southwest of and  
also near Paria; east fork of Paria creek; east  
of Impracticable ridge; Dirty Devil river, east  
of ridge, Utah; canyon five miles west of  
Puerco; east of Mount Taylor, and Acoma  
plateau, New Mexico, etc.
- **planoconvexa** n. s. Whitfield.  
(1876.)  
Rep. Rec. Carroll, Mont., to Yellowstone National  
Park, p. 142, pl. 2, figs. 9, 10. Wash., 1876.  
R. P. Whitfield.  
Formation: Jurassic.  
Location: In the Bridger mountains, Mont.
- **plicatella** n. s. Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 23, p. 293, pl. 9, fig.  
4, [vol. 24]. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous.  
Location: Alabama.
- **plicatella** Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 24, pl. 9, fig. 4. New  
Haven, 1833. S. G. Morton.
- **sinuata** var. *americana* n. var.  
Marcou. (1858.)  
Geol. N. Am., pp. 37, 38, pl. 3, fig. 1. Zurich,  
1858. Jules Marcou.  
Formation: Cretaceous.  
Location: Borders of Red river, near Preston,  
Tex.
- **thirsæ** n. s.\* Gabb. (1861.)  
Proc. Acad. Nat. Sci. Phila., for 1861, pp. 329, 330.  
Phila., 1862. W. M. Gabb.  
Formation: Cretaceous. [Tertiary.]  
Location: "Nanafalia," Ala.
- **thirsæ** (Gabb) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 303. Wash.,  
1884. C. A. White.  
Formation: Cretaceous.
- **vesicularis** (Lam.) Bronn. (1838.)  
Lethæa Geognostica, Zweiter Band, pp. 670-672.  
Taf. 32, figs. 1 a-c. Stuttgart, 1838. H. G.  
Bronn.  
Formation: Cretaceous.  
Location: New Jersey.

\* Nanafalia Bluff referred to Tertiary by Smith &amp; Johnson. G. thirsæ, referred to Osted thirsæ by Heilprin.

**Gryphæa—Continued.**

- **vesicularis** (Lam.) Gabb. 1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 205. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near San Diego, Cal.
- **vesicularis** (Lam.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 20, 21, pl. 11, figs. 2a-c; pl. 16, figs. 8a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Cheyenne river, near the Black hills.
- **vesicularis** (Lam.) Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 323. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: Georgetown, Ga.
- **vesicularis** (Lam.) White. (1883.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 303, pl. 48, figs. 1-5. Wash., 1884. C. A. White.  
Formation: Cretaceous.
- **vesicularis** (Lam.) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, p. 194, pl. 26, figs. 9, 10. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: New Jersey.
- **vesicularis** (Lam.?) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, pp. 36-39, pl. 3, figs. 15, 16; pl. 4, figs. 1-3; pl. 5. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: All the noted localities of the lower and middle green sands of the New Jersey Cretaceous.
- **vesicularis** var. **aucella** (Roem.) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, pp. 37, 38, pl. 26, figs. 9, 10. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: New Jersey.
- **vesicularis** var. **convexa** (Say) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, p. 37. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Monmouth, Cream ridge, New Egypt, Harrisonville, near Mullica hill, and elsewhere in New Jersey.
- **vesicularis** var. **mutabilis** (Mort.) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, p. 38, pl. 4, fig. 3. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Monmouth county, N. J., Cream ridge, N. J.
- **vesicularis** var. **No. 4. n. var.** Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, p. 38, pl. 3, fig. 15. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: New Jersey.

**Gryphæa—Continued.**

- **vomer** n. s. Morton. (1828.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 83-85, pl. 5, figs. 1-3. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.  
Location: Near New Egypt, N. J.
- **vomer** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, pl. 3, figs. 1, 2. New Haven, 1830. S. G. Morton.
- **vomer** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 283. New Haven, 1830. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.
- **vomer** Morton. (1830.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser. 1827-1831, pp. 197, 198, pl. 8, figs. 11, 12. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.  
Location: New Egypt, N. J.
- **vomer** Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 24, pl. 9, fig. 5. New Haven, 1833. S. G. Morton.
- **vomer** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., pp. 54, 55, pl. 9, fig. 5. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Egypt, N. J.
- **vomer** (Mort.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 303. Wash., 1884. C. A. White.  
Formation: Cretaceous.
- **washitaensis** n. s. Hill. (1889.)  
Geol. Sur. Tex., Bull. No. 4, p. 4. Austin, 1889. R. T. Hill.  
Formation: Cretaceous.  
Location: Washita limestone, extending southward continuously through Danison, Fort Worth, and Austin, Tex.
- (— ?) Blake. (1855.)  
Rep. Expl. and Sur. P. R. R. Mississippi river to Pacific ocean, vol. 2; Rep. Geol. Thirty-second parallel, p. 40. Wash., 1855. W. P. Blake.  
Formation: Cretaceous.  
Location: Elm fork of the Trinity river.
- **Meek.** (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 42, pl. 8, figs. 4, 4a. Phila., 1864. F. B. Meek.  
Formation: Jurassic.  
Location: Genessee valley, Plumas county, Cal.
- ? White. (1878.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 234. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- ? **Whiteaves.** (1882.)  
Proc. and Trans. Roy. Soc. Can., vol. 1, sec. 4, p. 85. Montreal, 1883. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Skagit river, Canada.

**Gryphæa—Continued.**

- **sp. undet. Urquiza.** (1882)  
An. Min. Fomento Rep. Mex., Tomo 7, p. 224,  
fig. 16. Mexico, 1882. M. Urquiza.  
Formation: Cretaceous.  
Location: Astala, Coalcoman district, state of  
Michoacan, Mex.

**Gryphæostrea** (subgen. Conrad) Meek. (1876.)

- Rep. U. S. Geol. Sur. Terr., vol. 9, p. 11. Wash.,  
1876. F. B. Meek.

## — (Con.) Whitfield. (1885.)

- Mong. U. S. Geol. Sur., vol. 9, p. 195. Wash.,  
1885. R. P. Whitfield.

— **vomer** (Mont.) Whitfield. (1885.)

- Mong. U. S. Geol. Sur., vol. 9, pp. 195, 196, pl.  
26, figs. 11, 12. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Timber creek, near New Egypt, Mul-  
lica hill, Monmouth county, N. J.

**Gryphorhynchus n. g.** Meek. (1864.)

- Am. Jour. Sci., 2d ser., vol. 37, pp. 217, 218. New  
Haven, 1864. F. B. Meek.

**Guttulina turrita** Ehrenberg. (1854.)

- Mikrogeologie, Taf. 32, fig. 28. Leipzig, 1854.  
C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.

**Gymnarus n. subgen.** Gabb. (1868.)

- Am. Jour. Conch., vol. 4, p. 139. Phila., 1868.  
W. M. Gabb.

**Gymnotoceras n. g.** Hyatt. (1877.)

- Rep. Geol. Expl., Fortieth Parallel, vol. 4, pt. 1,  
pp. 110, 111. Wash., 1877. Alpheus Hyatt.

— **blakei** (Gabb sp.) Meek. (1877.)

- Rep. Geol. Expl., Fortieth Parallel, vol. 4, pt. 1,  
pp. 113-116, pl. 10, figs. 10, 10a-c, pl. 11, figs.  
6, 6a. Wash., 1877. F. B. Meek.  
Formation: Triassic.  
Location: Cottonwood canyon, West Humboldt  
range, Nev.

— **rotelliforme n. s.** Meek. (1877.)

- Rep. Geol. Expl., Fortieth Parallel, vol. 4, pt. 1,  
pp. 111-113, pl. 10, figs. 9, 9a. Wash., 1877.  
F. B. Meek.  
Formation: Triassic.  
Location: Buena Vista canyon, West Humboldt  
range, Nev.

**Gyraulus** (subgen. ag.) Meek. (1876.)

- Rep. U. S. Geol. Sur., Terr., vol. 9, p. 536.  
Wash., 1876. F. B. Meek.

**Gyrodes** (Con.) Gabb. (1861.)

- Proc. Acad. Nat. Sci., Phila., for 1861, p. 320.  
Phila., 1862. W. M. Gabb.

— **abbotti n. s.** Gabb. (1861.)

- Proc. Acad. Nat. Sci., Phila., for 1861, pp. 320-321.  
Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.  
Location: Mullica hill, N. J.

**Gyrodes—Continued.**— **abyssinus** (Morton sp.) Gabb. (1876.)

- Proc. Acad. Nat. Sci., Phila., for 1876, p. 295.  
Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: Pataula creek, Ga.

— **conradi n. s.** Meek. (1876.)

- Rep. U. S. Geol. Ser. Terr., vol. 9, pp. 310, 311,  
figs. 33-36, p. 310. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Cheyenne river, Dak.

— **conradiana** (Gabb) White. (1889.)

- Bull. U. S. Geol. Sur., No. 51, p. 45. Wash.,  
1889. C. A. White.  
Formation: Cretaceous, Vancouver group.  
Location: Sucia and Sheep Jack islands.

— **depressa n. s.** Meek. (1877.)

- Rep. Geol. Expl., Fortieth Parallel, vol. 4, pt. 1,  
pp. 159, 160, pl. 15, figs. 1, 1a. Wash., 1877.  
F. B. Meek.  
Formation: Cretaceous.

- Location: Chalk creek, at the mouth of the  
canyon above Coalville, Utah.

— **depressa** (Meek) White. (1879.)

- Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 237. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

— **dowelli n. s.** White. (1889.)

- Bull. U. S. Geol. Sur., No. 51, p. 19, pl. 3, figs.  
8 and 9. Wash., 1889. C. A. White.  
Formation: Cretaceous.  
Location: Near Jacksonville, Oreg.

— **expansa n. s.** Gabb. (1864.)

- Geol. Sur. Cal. Paleont., vol. 1, p. 108, pl. 19,  
figs. 62a-c. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.

- Location: Hills southwest of Martinez; Pence's  
ranch, above Oroville, Butte county; north  
fork of Cottonwood creek; Tuscan springs;  
Texas flat, Placer county; Siskiyou mountains,  
Siskiyou county, Cal.; Jacksonville, Oreg.

— **expansa?** (Gabb) Whiteaves. (1874.)

- Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 263.  
Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Protection island.

— **excavata** (Michelin sp.) Whiteaves. (1879.)

- Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 124,  
125, pl. 16, figs. 2, 2a. Montreal, 1879. J. F.  
Whiteaves.  
Formation: Cretaceous.  
Location: Northwest side of Hornby island;  
Brown river, Vancouver island; Nanaimo  
river, ten miles up, Vancouver island; Blunden  
point, Vancouver island; Sucia islands.

**Gyrodes?** **obtusivolva n. s.** Gabb. (1861.)

- Proc. Acad. Nat. Sci., Phila., for 1861, p. 320.  
Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.  
Location: New Jersey.

**Gyrodos**—Continued.— **petrosa** (Morton sp.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 295.

Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Glassboro and Mullica hill, N. J.

— **spillmanii** n. g. Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 320.

Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Mississippi.

**Gyrotropis** n. g. Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 300.

Phila., 1876. W. M. Gabb.

— **squamosus** n. s. Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 301,

301. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Snow hill, N. C.

**Hyatt, A.** (1889.)

Genesis of the Arietidae, Mem. Mus. Comp. Zool.,

vol. 16, No. 3, p. 238, pl. 14. Cambridge, 1889.

**Halobia** (Bronn) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 30. Phila.,

1864. W. M. Gabb.

**Halobia? dubia** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 30, 31, pl. 5,

figs. 28a, b. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: Star canyon, Buena Vista district, Nev., and Gifford's ranch, Plumas county, Cal.

— **occidentalis** n. s. Whiteaves.

(1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-

ont., vol. 1, pt. 2, pp. 134, 135, pl. 17, figs. 5, 6.

Montreal, 1889. J. F. Whiteaves.

Formation: Triassic.

Location: Liard river, about twenty-five miles below Devil's Portage, Canada.

— **(Daonella) lommeli** (Wissmann)

Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1,

pp. 100-102, pl. 10, fig. 5. Wash., 1877. F. B.

Meek.

Formation: Triassic.

Location: West of New Pass mines, Desatoya mountains, Cottonwood canyon, West Humboldt range, Nev.

— **(Daonella) lommeli** (Wissmann)

Whiteaves. (1887.)

Geol. and Nat. Hist. Sur. Can., vol. 2, n. ser.,

1886, app. I, pp. 108, 109 B. Montreal, 1887.

J. F. Whiteaves.

Formation: Triassic.

Location: South side of Houston Stewart channel, Q. C. I.; nearly opposite Rose harbor; Section cove, north end of Barnaby island, Q. C. I.; bay five miles west of Cape Commercial, north end of Vancouver island.

**Halobia**—Continued.— **(Daonella) lommeli** (Wissmann)

Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can.

Paleont., vol. 1, pt. 2, pp. 133, 134. Montreal,

1889. J. F. Whiteaves.

Formation: Triassic.

Location: South side of Houston Stewart chan-

nel, Q. C. I.; nearly opposite Rose harbor;

Liard river, about twenty-five miles below

Devils Portage, Canada.

**Haminea** (Leach) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 270, 271.

Wash., 1876. F. B. Meek.

— **horni** (Gabb ?) var. Whiteaves.

(1879.)

Geol. Sur. Can. Mes. Foss. vol. 1, pt. 2, p. 132,

pl. 16, figs. 8, 8a, b. Montreal, 1879. J. F.

Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island;

southwest side of Denman island; Blundon

point, and two miles and a quarter up the

Nanaimo river, Vancouver island; also at

Vesuvius bay, Admiralty island, and the

Sucia islands.

— **minor** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 273, pl. 31,

figs. 1a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river.

— **occidentalis** (M. & H.) Meek.

(1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 271, 272,

pl. 18, figs. 11, a, b; 12a, b. Wash., 1876. F.

B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and

fifty miles above its mouth; Deer creek, near

Platte river.

— **occidentalis** (M. & H.) Whiteaves.

(1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can.

Paleont., vol. 1, pt. 1, pp. 45, 46. Montreal,

1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Blood Indian creek, north of the Red

Deer river, and twenty miles east of the Hand

hills; South Saskatchewan, opposite Swift

Current creek; Old Wives creek, township 10,

range 11, west of third principal meridian,

Canada.

— **subcylindrica** (M. & H.) Meek.

(1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 272, 273,

pl. 18 figs. 10, a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Near the mouth of Milk river, on the

Upper Missouri.

— **subcylindrica** (M. & H.) Whitfield.

(1880.)

Rep. Geol. Black Hills of Dak., p. 437, pl. 12,

fig. 24. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On Old Woman fork of the Cheyenne river, Black hills.

**Hamites (Park.) Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 44. Phila., 1834. S. G. Morton.

**— annulifer n. s. Morton. (1841.)**

Proc. Acad. Nat. Sci., Phila., vol. 1, 1841-1843, pp. 109, 110. Phila., 1843. S. G. Morton.

Formation: Cretaceous.

Location: Deep cut of the Chesapeake & Delaware canal.

**— annulifer n. s. Morton. (1842.)**

Jour. Acad. Nat. Sci., Phila., vol. 841st ser., 1839-1842, p. 213, pl. 11, fig. 4. Phila., 1839-1842. S. G. Morton.

Formation: Cretaceous.

Location: Deep cut of the Chesapeake & Delaware canal.

**— arculus n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr., U. S., pp. 44, 45, pl. 15, figs. 1, 2. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Greene county, Ala.

**— cylindraceus (?) (Defrance) Whiteaves. (1879.)**

Geol. Sur. Can.; Mes. Fos., vol. 1, pt. 2, p. 113, pl. 14, figs. 2-2a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Socia islands.

**— fremonti n. s. Marcou. (1858.)**

Geol. N. Am., p. 36, pl. 1, fig. 3. Zurich, 1858. Jules Marcou.

Formation: Cretaceous.

Location: Red river, at Preston, Tex.

**— (?) glaber n. s. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can.; Mes. Foss., vol. 1, pt. 3, pp. 213, 214, pl. 24, figs. 2, 2a-c. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: North shore of Cumshewa inlet.

**— larvatus n. s. Conrad. (1855.)**

Proc. Acad. Nat. Sci., Phila., for 1854-1855, pp. 265, 266. Phila., 1856. T. A. Conrad.

Formation: Cretaceous.

Location: Dallas county [Texas].

**— larvatus Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 165, pl. 21, fig. 8. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Leon springs, Tex.; White river, Ark.

**— leaii n. s. Troost. (1840.)**

Fifth Geol. Rep. Tenn., p. 53. Nashville, 1840. G. Troost.

Formation: Cretaceous.

Location: McNairy county, Tenn.

**— mortoni n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s. pp. 396, 397, pl. 4, figs. 3a-c. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: Near Red Cedar island, thirty-five miles below Fort Pierre.

**Hamites—Continued.****— rotundatus n. s. Conrad. (1855.)**

Proc. Acad. Nat. Sci., Phila., for 1854-1855, p. 266. Phila., 1856. T. A. Conrad.

Formation: Cretaceous.

Location: Dallas county [Texas].

**— torquatus n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 45, pl. 15, fig. 4. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Greene county, Ala.

**— ? torquatus (Morton) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 278. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.; Uniontown, Ala.

**— trabeatus n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 45, pl. 15, fig. 3. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Prairie bluff, Ala.

**— vancouverensis n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 70, 71, pl. 13, fig. 18. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Vancouver island.

**— verneullii n. s. Troost. (1840.)**

Fifth Geol. Rep. Tenn., p. 52. Nashville, 1840. G. Troost.

Formation: Cretaceous.

Location: McNairy county, Tenn.

**— (?) sp. undet. Whiteaves. (1876.)**

Geol. Sur. Can.; Mes. Foss., vol. 1, pt. 1, p. 48, pl. 9, fig. 3. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte island.

**Hamulus n. g. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 73. Phila., 1834. S. G. Morton.

**— major n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 399, pl. 68, fig. 46. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Eufaula, Ala.

**— onyx n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., pp. 73, 74, pl. 2, fig. 8; pl. 16, fig. 5. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Lynchs creek, S. C.; Erie, Ala.; New Jersey.

**— squamosus Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 398, pl. 58 [68], fig. 45. Phila., 1858-1860. W. M. Gabb.

**Haploceras beaudanti (Brong.) Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can.; Mes. Foss., vol. 1, pt. 3, pp. 205-207, pl. 26, figs. 1, 1a. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: Bear Skin bay, Skidegate inlet, Form A; north shore of Cumshewa inlet, Form B.

**Haploceras—Continued.****— cumshewaense n. s. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can.; Mes. Foss., vol. 1, pt. 3, pp. 208, 209, pl. 24, fig. 1. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: North shore of Cumshewa inlet.

**— perezianum Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can.; Mes. Foss., vol. 1, pt. 3, p. 204. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South island, Skidegate channel; north shore of Cumshewa inlet.

**— planulatum (Sow. sp.) Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can.; Mes. Foss., vol. 1, pt. 3, pp. 207, 208, pl. 28, fig. 1. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: North shore of Cumshewa inlet.

**Haplophragmium sp. Reuss. (1861.)**

Math.-Naturw. cl. Kaiserl. Akad. Wiss. Sitzungsst., 1861, Band XLIV, p. 336. Wien, 1862. A. E. Reuss.

Formation: Cretaceous.

Location: New Jersey.

**— Reuss. (1861.)**

Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsst., 1861, Band XLIV, p. 336. Wien, 1862. A. E. Reuss.

**Haploscaplia Conrad. (1875.)**

Proc. Acad. Nat. Sci., Phila., for 1875, p. 467. Phila., 1875. T. A. Conrad.

**— capax n. s. Conrad. (1874.)**

Seventh Ann. Rep. U. S. Geol. and Geogr. Sur. Ter., p. 456. Wash., 1874. T. A. Conrad.

Formation: Cretaceous.

Location: Near Denver, Colo.

**Harpago (Klein) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 331. Phila., 1855-1858. T. A. Conrad.

**— tippanus n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 331, pl. 35, fig. 25. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**Haydenia n. g. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 98. Phila., 1864. W. M. Gabb.

**— impressa n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 98, pl. 18, fig. 61. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs, Tehama county, and Pence's ranch, Butte county, Cal.

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**Helcion (Montfort) M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 68. Phila., 1857. Meek & Hayden.

**— alveolus n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 68. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, Nebr.

**— carinatus n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, pp. 68, 69. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, Nebr.

**— circularis n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 141, pl. 29, figs. 234, 234a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Martinez, Cal.

**— dichotoma n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 141, pl. 21, fig. 104. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas flat, Placer county, Cal.

**— patelliformis n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 68. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles from mouth, Nebr.

**— sexsulcatus n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 68. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone, one hundred and fifty miles from mouth, Nebr.

**— striatum n. s. Eichwald. (1871.)**

Geog. Paleont., Bemerk. Halb. Mang. Aleutischen Inseln, pp. 156, 157, Taf. 12, fig. 4. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

**— suboratus n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 68. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, Nebr.

**Helicancylus n. g. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 140, 141. Phila., 1869. W. M. Gabb.

**— æquicostatus Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 141-143, pl. 25, figs. 20a-9. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**Helicaulax n. g. Gabb. (1868.)**

Am. Jour. Conch., vol. 4, p. 145. Phila., 1868. W. M. Gabb.

**— bicarinata n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 166, 167, pl. 27, fig. 47. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Shasta county, Cal.

**Helicaulax**—Continued.— **costata** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 167, pl. 23, fig. 48. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

**Helicoceras** (d'Orb.) Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 190. Boston, 1862. B. F. Shumard.

— **angulatum** n. s. M. & H. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 176. Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: Head of the south branch of Cheyenne river, Nebr.

— **declive** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 73, pl. 28, figs. 200, 200a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Pences ranch, Butte county, Cal. (Div. A.)

— **brewerii** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 72, pl. 14, figs. 22, 22a, b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Pences ranch, twelve miles north of Oroville, Butte county, Cal.

— **pariense** n. s. White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur. West of one hundredth meridian, vol. 4, pt. 1, pp. 203, 204, pl. 19, figs. 2a, d. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Southeast of Paria, Utah.

— **mortoni** (M.) Stanton. (1887.)

Proc. Colo. Sci. Soc., vol. 2, pt. 3, for 1887, p. 187. [Denver, 1888.] T. W. Stanton.

Formation: Cretaceous.

Location: About five miles north of the town of Boulder, Colo.

— **mortoni** var. **teniucostatum** n. var. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 487-489, pl. 22, figs. 3a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri river, below Fort Pierre.

— **navarroensis** n. s. Shumard. (1861.)

Proc. Bos. Soc. Nat. Hist., vol. 8, 1861, 1862, pp. 190, 191. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Chatfield point, Navarro county, Tex.

— **stevensoni** n. s. Whitfield. (1877.)

U. S. Geogr. and Geol. Sur. Rocky Mt. Region: Prelim. Rep. Paleont., Black Hills, pp. 39, 40. Wash., 1879. R. T. Whitfield.

Formation: Cretaceous.

Location: On the west side of Beaver creek, southwest Black hills.

— **stevensoni** Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 447-449, pl. 14, figs. 5-8. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the west side of Beaver creek, Black hills.

**Helicoceras**—Continued.— **stevensoni** (Whitfield.) Stanton. (1887.)

Proc. Colo. Sci. Soc., vol. 2, pt. 3, for 1887, p. 187. [Denver, 1888.] T. W. Stanton.

Formation: Cretaceous.

Location: About five miles north of the town of Boulder, Colo.

— **teniucostatus** n. s. M. & H. (1858.)

Proc. Acad. Nat. Sci., Phila., for 1858, p. 56. Phila., 1859. Meek & Hayden.

Formation: Cretaceous.

Location: Great bend of the Missouri.

— **? tortus** n. s. M. & H. (1858.)

Proc. Acad. Nat. Sci., Phila., for 1858, pp. 54, 55. Phila., 1859. Meek & Hayden.

Formation: Cretaceous.

Location: Great bend of the Missouri.

— **? vermicularis** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 71, 72, pl. 13, figs. 19, 19a, b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Hill southwest of Martinez, in Contra Costa county, Cal.

— **vespertinus** n. s. Conrad. (1874.)

Seventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 455. Wash., 1874. T. A. Conrad.

Formation: Cretaceous.

Location: Seven miles southeast of Fairplay, Colo.

**Helisoma** (subgen. Swain) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 535. Wash., 1876. F. B. Meek.

**Helix** (Linn) White. (1876.)

Rep. Geol. Uinta Mts., p. 120. Wash., 1876. C. A. White.

## — (Linn, typical) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 549. Wash., 1876. F. B. Meek.

— **evansi** n. s. [M] & H. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 175. Phila., 1861. Meek & Hayden.

Formation: [Tertiary] Cretaceous.

Location: Mouth of Judith river, Nebr.

— **evanstonensis** n. s. White. (1878.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, p. 714. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Near Evanston, Wyo.

— **evanstonensis** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 244. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Evanston coal mines, Wyo.

— **evanstonensis** White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 48, pl. 27, figs. 29-31. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near Evanston, Wyo.

— **kanabensis** n. s. White. (1876.)

Rep. Geol. Uinta Mts., p. 120. Wash., 1876. C. A. White.

Formation: Cretaceous.

Location: Upper Kanab, Utah.



**Helix—Continued.**— **kanabensis** White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 48, pl. 25,  
figs. 12-14. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southern Utah.

— **occidentalis** n. s. M. & H. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, p. 135.  
Phila., 1858. Meek & Hayden.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Nebr.

— **vetusta** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 552, pl. 42,  
figs. 7a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Mont.

— **vetusta** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 552, pl. 42,  
figs. 7a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Judith river, on the Missouri.

— **vetusta** (M. & H.) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 88. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Mont.

— **? vetusta** (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 48, pl. 27,  
fig. 28. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

— **vitrinoides** n. s. M. & H. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, p. 135.  
Phila., 1858. Meek & Hayden.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Nebr.

— **(Patula) sepulta** n. s. White. (1880.)

Proc. U. S. Nat. Mus., vol. 3, p. 160. Wash.,  
1880. Smithsonian. Misc. Coll., vol. 22. Wash.,  
1882. C. A. White.  
Formation: Cretaceous.  
Location: Evanston, Wyo.

**Hemiaster** (Desor) d'Orb. (1853.)

Paleont. Francaise, Echinoides Irreguliers, Terr.  
Cret. 1, Sixieme, pp. 220-223. Paris, 1853-1860.  
A. d'Orbigny.

— **Desor.** (1858.)

Synop. Echinoides Foss., p. 367. Paris and Wies-  
bade, 1858. E. Desor.

— **elegans** n. s. Shumard. (1853.)

Expl. Red river Louisiana, by R. B. Marcy, p.  
210, pl. 2, figs. 4a-c. Wash., 1853. B. F. Shu-  
mard.  
Formation: Cretaceous.  
Location: Fort Washita, Ind. T.

— **? humphreysanus** n. s. (M. & H.) (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, pp. 147,  
148. Phila., 1858. Meek & Hayden.  
Formation: Cretaceous.  
Location: Yellowstone river, Nebr.

**Hemiaster—Continued.**— **humphreysanus** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 5, 6, pl. 10,  
figs. 1a-g. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Upper Missouri.

— **parastatus** (Mont.) Marcou. (1853.)

Geol. map of the U. S. and British Provinces of  
N. A., p. 47, pl. 7, fig. 8. Boston, 1853. Jules  
Marcou.  
Formation: Cretaceous.  
Location: Timber creek, N. J.

— **parastatus** (Morton sp.) Desor. (1858.)

Synop. Echinoides Foss., pp. 373, 374. Paris and  
Wiesbade, 1858. E. Desor.  
Formation: Cretaceous.  
Location: Prairie bluff, Ala.

— **stella** (Morton sp.) Desor. (1858.)

Synop. Echinoides Foss., p. 373. Paris and Wies-  
bade, 1858. E. Desor.  
Formation: Cretaceous.  
Location: Prairie bluff, Ala., and Timber creek,  
N. J.

— **texanus** n. s. Roemer. (1849.)

Texas, p. 393. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Waterfall near New Braunfels, Tex.

— **texanus** Roemer. (1852.)

Kreide von Tex., p. 85, Taf. 10, figs. 4a-c. Bonn,  
1852. F. Roemer.  
Formation: Cretaceous.  
Location: Waterfall of the Guadalupe below New  
Braunfels, Tex.

— **stella** (Desor) d'Orb. (1875.)

Paleont. Francaise, Echinoides Irreguliers, Terr.  
Cret. 1, Sixieme, pp. 245, 246, pl. 882. Paris,  
1853-1860. A. d'Orbigny.  
Formation: Cretaceous.  
Location: Prairie bluff, Ala., Timber creek, N. J.

**Hemicidaris** sp. undet. Hill. (1889.)

Geol. Sur. Tex., Bull., No. 4, p. 2, Austin, 1889.  
R. T. Hill.  
Formation: Cretaceous.  
Location: West of Austin, Tex.

**Hemifusus** subgen. (Swains.) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 86. Phila.,  
1864. W. M. Gabb.

**Hercodon** n. g. Conrad. (1875.)

Rep. Geol. Sur. N. Carolina, vol. 1. Raleigh, 1875,  
W. C. Kerr., App. A, p. 10. T. A. Conrad.

— **ellipticus** n. s. Conrad. (1875.)

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875. W. C.  
Kerr., App. A, p. 10, pl. 2, figs. 2, 8. T. A.  
A. Conrad.  
Formation: Cretaceous.  
Location: Snow hill, Greene county, N. C.

**Hercoglossa** (subgen. Conrad) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 491. Wash., 1876. F. B. Meek.

**Hercorhynchus** n. g. Conrad. (1868.)

Am. Jour. Conch., vol. 4, p. 247. Phila., 1868. T. A. Conrad.

— **tippiana** Conrad. (1868.)

Am. Jour. Conch., vol. 4, p. 247. Phila., 1868. T. A. Conrad.

Formation: Cretaceous.

**Heteroceras** (d'Orb.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 477, 478. Wash., 1876. F. B. Meek.

— ? **angulatum** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 484, 485, pl. 21, figs. 3a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Head of south branch of Cheyenne river, Dak.

— ? **cheyennense** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 483, 484, pl. 21, figs. 2a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Big Cheyenne river, Dak.

— ? **cochleatum** (H. & M.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 478, 479, pl. 22, figs. 2a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri, below Fort Pierre, Dak.

— **cochleatum** (M. & H.) Stanton. (1887.)

Proc. Colo. Sci. Soc., vol. 2, pt. 3, for 1887, p. 187. [Denver, 1888.] T. W. Stanton.

Formation: Cretaceous.

Location: About five miles north of the town of Boulder, Colo.

— **conradi** (Mort. sp.) Whiteaves. (1879.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 100-102, pl. 12. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornsby island; Trent river (above and below the falls); Bradley creek, V. I.; Salt spring or Admiralty island; Maple bay, Vancouver island.

— **cooperi** (Gabb) (sp.) Meek. (1876.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, p. 367, pl. 3, figs. 7, 7a. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Komooks, Vancouver island.

— ? **nebrascense** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 480, 481, pl. 22, figs. 1a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Near the Forks of Cheyenne river, Dak.

**Heteroceras**—Continued.— ? **nebrascense** (M. & H.) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 451, 452, pl. 15, fig. 6; pl. 14, fig. 9. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the west side of the east fork of Beaver creek, Black hills.

— **nebrascense** (M. & H.) Stanton. (1887.)

Proc. Colo. Sci. Soc., vol. 2, pt. 3, for 1887, p. 186. [Denver, 1888.] T. W. Stanton.

Formation: Cretaceous.

Location: About five miles north of the town of Boulder, Colo.

— **newtoni** n. s. Whitfield. (1879.)

U. S. Geogr. and Geol. Sur., Rocky Mountain region; Prelim. Rep. Paleont., Black Hills, pp. 40, 41. Wash., 1879. R. P. Whitfield.

Formation: Cretaceous.

Location: On the west side of Beaver creek, south-west Black hills.

— **newtoni** Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 449-451, pl. 15, figs. 1-4. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the west side of Beaver creek, Black hills.

— **tortum** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 481, 482, pl. 22, figs. 4a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri below Fort Pierre, Dak.

— **tortum** (M. & H?) Stanton. (1887.)

Proc. Colo. Sci. Soc., vol. 2, pt. 3, for 1887, pp. 186, 187. [Denver, 1888.] T. W. Stanton.

Formation: Cretaceous.

Location: About five miles north of the town of Boulder, Colo.

— ? **umbilicatum** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 482, 483, pl. 22, fig. 5. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri below Fort Pierre, Dak.

**Heterocrisina** n. g. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., 1 ser., 1858-1860, p. 404. Phila., 1858-1860. Gabb & Horn.

— **abbottii** n. s. G. & H. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 404, pl. 69, figs. 45-47. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Near Mullica hill, N. J.

**Heteroterma** n. g. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, pp. 151, 152. Phila., 1869. W. M. Gabb.

**Heteroterma**—Continued.— **trochoidea** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 152, pl. 26, figs. 30, 30a. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez, Cal.

**Hettangia americana** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, p. 274.  
Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Nebr.

**Hindsia nodulosa** Whiteaves sp. (1879.)

Geol. Sur. Cal. Mes. Foss., vol. 1, pt. 2, pp. 125-127, pl. 15, figs. 6 and 7. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Nanaimo river, two miles and a half up, Vancouver island; Protection island.

**Hinnites?** sp. undet. Ramirez. (1880.)

An. Min. Fomento Rep. Mex., Tomo 3, p. 656, Lam. 1, fig. 4. Mexico, 1880. S. Ramirez.  
Formation: Cretaceous.  
Location: Sierra Mojada, Mexico.

**Hinnites**, or **Spondylus** sp. undet. Whiteaves. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 175. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Entrance to Departure bay, Vancouver island.

**Hipponyx** [Defrance] Morton. (1841.)

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser. 1839-1842, p. 210. Phila., 1839-1842. S. G. Morton.

— **borealis** n. s. Morton. (1841.)

Jour. Acad. Nat. Sci., Phila., vol. 8, ser., 1839-1842, p. 210, pl. 11, fig. 6. Phila., 1839-1842. S. G. Morton.  
Formation: Cretaceous.  
Location: Great bend of the Missouri river (Lat. 43° 40' N.).

**Hippothoa irregularis** n. s. G. & H. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 366. Phila., 1861. Gabb & Horn.  
Formation: Cretaceous.  
Location: New Jersey.

— **n. g.** Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 400. Phila., 1858-1860. W. M. Gabb.

— **irregularis** (G. & H.) Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 400, pl. 69, figs. 18-20. Phila., 1858-1860. W. M. Gabb.  
Formation: Cretaceous.  
Location: Timber creek, N. J.

— **? G. & H.** (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 179 [pl. 21], fig. 71. Phila., 1862, 1863. Gabb & Horn.  
Formation: Cretaceous.  
Location: New Jersey.

**Hippurites** (Lam.) Barcena. (1877.)

An. Museo. Nac. Mex., Tomo 1, p. 196, Mexico, 1877-1879. M. Barcena.

— **austinensis** n. s. Roemer. (1849.)

Tex., p. 410. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Austin, Tex.

— **bioculatus** (Lam.) Urquiza. (1882.)

An. Min. Fomento Rep. Mex., Tomo 7, p. 222, figs. 1a, 2a. Mexico, 1882. M. Urquiza.  
Formation: Cretaceous.  
Location: Coalcoman district, state of Michoacan, Mexico.

— **calamitiformis** Barcena.\* (1877.)

An. Museo. Nac. Mex., Tomo 1, pp. 197, 198, fig. 15. Mexico, 1877-1879. M. Barcena.  
Formation: Cretaceous.  
Location: Caderegeta and Apasco, state of Queretaro, Mexico.

— **calamitiformis** (Barcena) Urquiza. (1882.)

An. Min. Fomento Rep. Mex., Tomo 7, pp. 222, 223, fig. 3a. Mexico, 1882. M. Urquiza.  
Formation: Cretaceous.  
Location: Road to Rincon mine, Coalcoman district, state of Michoacan, Mexico.

— **mexicana** Barcena. (1877.)

An. Museo. Nac. Mex., Tomo 1, pp. 196, 197, figs. 11-14. Mexico, 1877-1879. M. Barcena.  
Formation: Cretaceous.  
Location: Apasco, state of Mexico; Yantepec, state of Morelos; Sierra de Barbosa and Cañada Grande, state of San Luis Potosi, Mexico.

— **mexicana** (Barcena) Ramirez. (1880.)

An. Min. Fomento Rep. Mex., Tomo 3, pp. 655, 656, Lam. 1, fig. 1a. Mexico, 1880. S. Ramirez.  
Formation: Cretaceous.  
Location: Sierra Mojada, Mexico.

— **mexicana** [Barcena] Urquiza. (1882.)

An. Min. Fomento Rep. Mex., Tomo 7, p. 223, figs. 4, 5. Mexico, 1882. M. Urquiza.  
Formation: Cretaceous.  
Location: Road to Rincon mine and San Gaidro, Coalcoman district, state of Michoacan, Mexico.

— **sabinae** n. s. Roemer. (1849.)

Tex., p. 410. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Sabine creek on road from New Braunfels to Fredericksburg, Tex.

— **texana** n. s. Roemer. (1849.)

Tex., pp. 409, 410. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Upper course of Pedernales river, Tex.

— **texanus** Roemer. (1852.)

Kreide von Tex., pp. 76, 77, Taf. 5, figs. 1a-e. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Boulder in the Guadalupe near New Braunfels, Tex.

\*(n. s.?) See datos para el estudio de las arcas Mesozoicas des Mexico, etc., 1874.

**Hippurites—Continued.**

- **sp. undet. Roemer. (1849.)**  
 Tex., p. 410. Bonn, 1849. F. Roemer.  
 Formation: Cretaceous.  
 Location: Well at New Braunfels, Tex.
- **sp. undet. Roemer. (1852.)**  
 Kreide von Tex., p. 77. Bonn, 1852. F. Roemer.  
 Formation: Cretaceous.  
 Location: New Braunfels, Tex.
- **sp. undet. Urquiza. (1882.)**  
 An. Min. Fomento Rep. Mex., Tomo 7, p. 223, fig. 6. Mexico, 1882. M. Urquiza.  
 Formation: Cretaceous.  
 Location: San Isidro, Coalcoman district, state of Michoacan, Mexico.

**Holaster (Agas.) Conrad. (1850.)**

- Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 40. Phila., 1850-1854. T. A. Conrad.
- **cinctus (Mort. sp.) Credner. (1870.)**  
 Zeitsch. Deutsch. Geol. Ges., Band 22, p. 218. Berlin, 1870. H. Credner.  
 Formation: Cretaceous.  
 Location: Brownville, N. J.
- **comanchesi n. s. Marcou. (1858.)**  
 Geol. N. Am., pp. 40, 41, pl. 3, figs. 3, 3a, b. Zurich, 1858. Jules Marcou.  
 Formation: Cretaceous.  
 Location: Borders of Red river, near Preston, Tex.
- **comanchesi (Marcou) Desor. (1858.)**  
 Synop. Echinoides Foss., p. 449. Paris and Wiesbade, 1858. E. Desor.  
 Formation: Cretaceous.  
 Location: Bank of Red river, near Preston, Tex.
- **mortoni (Couper MSS.) Conrad. (1850.)**  
 Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 40, pl. 1, fig. 10. Phila., 1850-1854. T. A. Conrad.  
 Formation: Eocene [Cretaceous].  
 Location: Palmyra, Lee county, Ga.
- **simplex n. s. Shumard. (1853.)**  
 Expl. Red River, La., by R. B. Marcy, pp. 210, 211, pl. 3, fig. 2. Wash., 1853. B. F. Shumard.  
 Formation: Cretaceous.  
 Location: Fort Washita, Ind. T.
- **simplex (Shumard) Desor. (1858.)**  
 Synop. Echinoides Foss., p. 450. Paris and Wiesbade, 1858. E. Desor.  
 Formation: Cretaceous.  
 Location: Red river [Tex].

**Holactypus Desor. (1858.)**

- Synop. Echinoides Foss., pp. 168, 169. Paris and Wiesbade, 1858. E. Desor.
- **sp. Roemer. (1888.)**  
 Paleont. Abhandl. Vierter Band., Heft 4, p. 9, Taf. 1 [xxx] figs. 6a-6c. Berlin, 1888. F. Roemer.  
 Formation: Cretaceous.  
 Location: Two miles above the mouth of Bartons creek, near Austin, Tex.

**Holactypus—Continued.**

- **castilloi n. s. Cotteau. (1890.)**  
 Bull. Soc. Geol. France, 3d ser., vol. 18, No. 4, pp. 295, 296, pl. 1. Paris, 1890. Cotteau.  
 Formation: Cretaceous.  
 Location: Jalpa (Jalisco).
- **castilloi n. s. Cotteau. (1890.)**  
 Bull. Soc. Geol. France, 3d ser., vol. 18, pp. 295, 296, pt. 1. Paris, 1890. Cotteau.  
 Formation: Cretaceous.  
 Location: Jalpa (Jalisco), Mexico.
- **planatus n. s. Roemer. (1849.)**  
 Tex., p. 393. Bonn, 1849. F. Roemer.  
 Formation: Cretaceous.  
 Location: Fredericksburg and San Saba river, Tex.
- **planatus Roemer. (1852.)**  
 Kreide von Tex., p. 84, Taf. 10, figs. 2a-9. Bonn, 1852. F. Roemer.  
 Formation: Cretaceous.  
 Location: Fredericksburg and San Saba valley, fifteen miles below old Spanish fort, Tex.
- **planatus (Roem.) Shumard. (1853.)**  
 Expl. Red River, La., by R. B. Marcy, p. 211. Wash., 1853. B. F. Shumard.  
 Formation: Cretaceous.  
 Location: Cross Timbers, Tex.
- **planatus n. s.? Hall. (1854.)**  
 Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, pp. 145, 146, pl. 1, figs. 4a-f. Wash., 1857. James Hall.  
 Formation: Cretaceous.  
 Location: Leon springs, Tex.
- **planatus (Roemer) Desor. (1858.)**  
 Synop. Echinoides Foss., p. 174. Paris and Wiesbade, 1858. E. Desor.  
 Formation: Cretaceous.  
 Location: Fredericksburg and San Saba river, Tex.
- Homalina (subgen. Stoliczka) Meek. (1876.)**  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 194. Wash., 1876. F. B. Meek.
- Homomya (Agas.) Gabb. (1869.)**  
 Geol. Sur. Cal. Paleont., vol. 2, p. 179. Phila., 1869. W. M. Gabb.
- **alta n. s. Roemer. (1852.)**  
 Kreide von Tex., p. 45, Taf. 6, fig. 11. Bonn, 1852. F. Roemer.  
 Formation: Cretaceous.  
 Location: Fredericksburg, Tex.
- **concentrica Gabb. (1869.)**  
 Geol. Sur. Cal. Paleont., vol. 2, p. 179. Phila., 1869. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Tuscan springs, Cottonwood creek, and Martinez, Cal.
- **concentrica (Gabb) Whiteaves. (1879.)**  
 Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 141. Montreal, 1879. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Suciá islands.

**Homomya—Continued.**— **sp. undet. Roemer. (1849.)**

Tex. p. 408. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**Hoploparia (?) canadensis n. s. Whiteaves. (1884.)**

Proc. and Trans. Roy. Soc. Can., vol. 2, Sec. 4, pp. 237, 238. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Highwood river, Alberta, Northwest Territory.

— **? canadensis Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 87–89, pl. 11. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Highwood river (a tributary of the Bow river), ten miles west of the first fork, Canada.

**Hyalina (Ferussæ) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 545–547. Wash., 1876. F. B. Meek.

— **? evansi (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 548, 549, figs. 68–70, p. 548. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, Mont.

— **? evansi (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 46, pl. 27, fig. 26. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— **? occidentalis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 547, 548, pl. 42, figs. 6a–d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, Mont.

— **? occidentalis (M. & H.) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 87, 88. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: [Mouth of Judith river, Mont.]

— **? occidentalis (M. & H.) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 87, 88. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: [Mouth of Judith river, Mont.]

— **? occidentalis (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 46, pl. 27, fig. 27. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**Hydatina parvula Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 180, 181, pl. 24, figs. 5, 5a. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sounding creek, township 30, range 8, west of the fourth principal meridian, Northwest Territory.

**Hydrobia (Hartmann) Meek. (1876.)**

Report U. S. Geol. Sur. Terr., vol. 9, p. 571. Wash., 1876. F. B. Meek.

— **anthonyi (M. & H.) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 97. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— **anthonyi (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 571, 572, pl. 43, figs. 10a–d. Wash., 1876. F. B. Meek.

Formation: Probably Eocene. [Cretaceous.]

Location: Yellowstone river, thirty miles above its mouth.

— **anthonyi (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 59, pl. 27, fig. 38. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— **? eulimoides n. s. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 573, 574, fig. 78, p. 573. Wash., 1876. F. B. Meek.

Formation: Probably Eocene. [Cretaceous.]

Location: Clear fork of Powder river, Mont.

— **? eulimoides (M. & H.) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 97. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— **? eulimoides (Meek) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 59, pl. 27, fig. 37. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— **recta n. s. White. (1876.)**

Rep. Geol. Uinta Mts., p. 132. Wash., 1876. C. A. White.

Formation: Tertiary. [Cretaceous.]

Location: Almy coal mines, near Evanston, Wyo.

— **recta White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 245. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coal mines three miles from Evanston, Wyo.

— **recta White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 60, pl. 27, fig. 38. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near Evanston, Wyo.

**Hydrobia**—Continued.— **subconica** n. s. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 573, fig. 77,  
p. 573. Wash., 1876. F. B. Meek.  
Formation: Probably Eocene. [Cretaceous.]  
Location: Mouth of Judith river, Mont.

— **subconica** (M. & H.) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 97. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

— **subconica** (Meek) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 59, pl. 27,  
fig. 36. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

— **subcylindracea** n. s. Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 75, 76, pl. 10, fig. 8. Mont., 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Belly river, east side of Driftwood bend; north side of Milk river, five miles below Pa-kow-ki coulee, Can.

— **utahensis** n. s. White. (1876.)

Rep. Geol. Unita Mts., pp. 132, 133. Wash., 1876. C. A. White.  
Formation: Tertiary [Cretaceous].  
Location: West base of Mu-si-ni-a plateau, 1,000 feet below the summit, Utah.

— **utahensis** White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 60, pl. 27, fig. 35. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Utah.

— **warrenana** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 572, 573, pl. 43, figs. 11a-c. Wash., 1876. F. B. Meek.  
Formation: Probably Eocene [Cretaceous].  
Location: Thirty miles below Fort Clarke, Dak., from the summit of Squares butte.

— **warrenana** (M. & H.) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 97. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

— **warrenana** (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 59, pl. 27, fig. 40. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

— ? **Whiteaves**. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 23. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: North or second branch of the Milk river; Old Man river, two miles above Rye-Grass flat; Pincher creek, Canada.

**Hypogella** (Gray) Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 175. Phila., 1869. W. M. Gabb.

**Hyridella** (subgen. Swain) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 514. Wash., 1876. F. B. Meek.

**Ichthyosarcolites anguis** Roemer. (1888.)

Paleont. Abhandl. Vierter Band, Heft 4, pp. 9, 10, Taf. I [xxvi], figs. 7a, 7b; Taf. II [xxxii], figs. 2a-2d. Berlin, 1888. F. Roemer.  
Formation: Cretaceous.  
Location: Two miles above the mouth of Bartons creek, near Austin, Tex.

**Idmonea** G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 167. Phila., 1862, 1863. Gabb & Horn.

— **contortilis** n. s. Lonsdale. (1884.)

Quart. Jour. Geol. Soc., London, vol. 1, pp. 68, 69, figs. a-e, p. 68. London, 1884. William Lonsdale.  
Formation: Cretaceous.  
Location: Timber creek, N. J.

— **contortilis** (Lonsd.) G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 167. Phila., 1862, 1863. Gabb & Horn.  
Formation: Cretaceous.  
Location: Timber creek, and near Mullica hill, N. J.

**Idonearca** n. g. Conrad. (1872.)

Proc. Acad. Nat. Sci., Phila., for 1872, p. 54. Phila., 1872. T. A. Conrad.

## — (subgen. Conrad) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 84. Wash., 1876. F. B. Meek.

— **alabamensis** n. s. Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 315. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: Prairie bluffs, Ala.

— ? **antrosa** (Mort. sp.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 315. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: New Jersey.

— **antrosa** (Mort.) Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 96-98, pl. 13, figs. 6-11. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Marlboro, Monmouth county; near Holmdel; Freehold, N. J.

— **capax** Conrad. (1872.)

Proc. Acad. Nat. Sci., Phila., for 1872, p. 54, pl. 2, fig. 2. Phila., 1872. T. A. Conrad.  
Formation: Cretaceous.

— **carolinensis** [n. s.] Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 314, 315. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: Snow hill, N. C.

**Idonearca—Continued.****compressirostra n. s. Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, pp. 199, 200, pl. 26 figs. 15, 16. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Mr. J. S. Cook's pits, Tinton falls, Monmouth county, N. J.

**depressa n. s. White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of one hundredth meridian, vol. 4, pt. 1, pp. 183, 184, pl. 18, figs. 13a, b. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: East bank of Rio Puerco, six miles below Casa Salazan, N. Mex.

**littlei n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 316.

Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

**medians n. s. Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, p. 199, pl. 26, figs. 5, 6. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Cook's marl pits at Tinton falls, N. J.

**neglecta (Gabb sp.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 314.

Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey; Prairie bluff, Ala.

**quindecemradiata (—) Cook. (1868.)**

Ann. Rep. Geol. Sur. N. J., for 1868, p. 376, fig. —, p. 376. Newark, 1868. G. H. Cook.

Formation: Cretaceous.

Location: New Jersey.

**shumardi (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., pp. 405, 406, pl. 11, figs. 8-11. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Old Woman fork, Black hills.

**tippana (Con.) Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, pp. 95, 96, pl. 12, figs. 19-21. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Deep cut of the Holmdel and Keyport turnpike, Monmouth county, N. J.

**vulgaris (Mort.sp.) Cook. (1868.)**

Ann. Rep. Geol. Sur. N. J., for 1868, p. 376, fig. —. Newark, 1868. G. H. Cook.

Formation: Cretaceous.

Location: New Jersey.

**vulgaris (Morton sp.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 313. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**vulgaris (Mort.) Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, pp. 98, 99, pl. 13, figs. 1-5. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel, Freehold, Woodbury, Burlington, Mullica hill, Marshallville, N. J.

**Idonearca—Continued.****— sp. ? Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 315, 316. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**Inoceramus [Sowerby] Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 62. Phila., 1834. S. G. Morton.

**— (subgen. Sowerby) typical, Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 38, 39.

Wash., 1876. F. B. Meek.

**— altus n. s. Meek. (1871.)**

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 302, 303. Wash., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Near Medicine Bow station, Union Pacific railroad.

**— altus (Meek) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., p. 391, pl. 9, fig. 11. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Belle Fourche, ten miles west of Crow Peak, Black hills.

**— altus (Meek) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 33. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: East fork of the Milk river, Canada.

**— alveatus n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 63, pl. 17, fig. 4. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Greene county, Ala.

**— ambiguus n. s. Eichwald. (1871.)**

Geogr. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln, pp. 189-191, Taf. 20, figs. 1-5, St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

**— argenteus n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 329, pl. 34, fig. 16, Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**— aviculoides n. s. M. & H. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 181, Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: Little Blue river, Nebr.

**— balchii n. s. M. & H. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, pp. 180, 181. Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: White river above the Mamaisés Terres, Terres, Nebr.

**Inoceramus—Continued.****—barabini n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., pp. 62, 63, pl. 17, fig. 3; pl. 13, fig. 11. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Greene county, Ala.

**—barabini Morton. (1841.)**

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser., 1839-1842, p. 211. Phila., 1839-1842. S. G. Morton.

Formation: Cretaceous.

Location: Great bend of the Missouri river (Lat. 43° 40' N.).

**—barabini (Mort.) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of one-hundredth meridian, vol. 4, pt. 1, pp. 180, 181, pl. 16, fig. 4a. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: One and a quarter miles south of Boulder, Colo., and at Gallinas creek, N. Mex.

**—barabini (Morton) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 205. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Sage creek, Colo.

**—barabini (Morton) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 224. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near White River Indian agency, Colo.

**—barabini (Mort.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., pp. 398-400, pl. 7, fig. 7; pl. 9, fig. 8. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: Cheyenne river, near Boxelder creek, and on Beaver creek, two to three miles west of the Black hills.

**—barabini (Mort.) Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, pp. 75, 76, pl. 15, figs. 3-5. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel and Marlboro, N. J.

**—barabini (Mort.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Palcont., vol. 1, pt. 1, p. 33. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Twelve miles east of White Mud river (or Frenchmans creek); Elbow of South Saskatchewan, Canada.

**—brownii n. s. Cragin. (1889.)**

Bull. Washb. Coll. Lab. Nat. His., vol. 2, No. 10, pp. 67, 68. Topeka, 1889. F. W. Cragin.

Formation: Cretaceous.

Location: Fort Hays limestone, and at some ten to twenty feet above the base of the latter, at a locality, known as "Devils gap," near the post office of Tapley, in Osborne county, Kans.

**—canadensis n. s. Meek. (1859.)**

N. W. Terr., Rep. Prog. Assin. and Saskat. Expl. Exped., H. Y. Hind., pp. 183, 184, pl. 1, figs. 4 and 4. Toronto, 1859. F. B. Meek.

Formation: Cretaceous.

Location: Little Souris river, Canada.

**Inoceramus—Continued.****—capulus n. s. Shumard. (1859.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 606. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Red river, Lamar county, Tex.

**—concentricus (Parkinson) Whiteaves. (1876.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, pp. 79, 80. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**—concentricus (Parkinson) Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, p. 341. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: North shore of Cumsheewa inlet; Skidegate inlet, at Bear Skin bay; South island.

**—confertim-annulatus n. s. Roemer. (1849.)**

Tex., p. 402. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Ford near New Braunfels, Tex.

**—confertim-annulatus Roemer. (1852.)**

Kreide-von Tex., p. 59, Taf. 7, fig. 4. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Ford of the Guadalupe, New Braunfels, Tex.

**—confertim-annulatus (Roemer.) Shumard. (1853.)**

Expl. Red River, La., by R. B. Marcy, p. 206, pl. 6, fig. 2. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Camp No. 4, Cross timbers, Tex.

**—confertim-annulatus (Roem.) Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 151, pl. 5, figs. 5. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Near New Braunfels, Tex.

**—confertim-annulatus (Roemer.) Schiel. (1855.)**

Rep. Expl. and Sur. P. R. R., Mississippi river to Pacific ocean, vol. 2; Rep. Expl. forty-first parallel north latitude, p. 108, pl. 2, fig. 7. Wash., 1855. James Schiel.

Formation: Cretaceous.

Location: Upper Green river county.

**—conradi n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., pp. 387, 388, pl. 2, fig. 5a, b. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: On the Missouri river, five miles below the mouth of the Vermilion river.



**Inoceramus—Continued.****convexus n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., pp. 386, 387, pl. 2, figs. 2a, b. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: Sage creek.

**costellatus n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 329, pl. 34, fig. 12. Phila., 1855-1858.

T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**crassalatus n. s. White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, vol. 4, pt. 1, p. 166, pl. 13, figs. 4a-c. Wash., 1875. C. A. White.

Formation: Jurassic.

Location: North fork of Virgin river, Utah.

**crippsii (Mantell) Roemer. (1849.)**

Tex., p. 401. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Ford near New Braunfels, Tex.

**crippsii (Mantell) Roemer. (1852.)**

Kreide von Tex., pp. 56-58, Taf. 7, fig. 2. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Ford of the Guadalupe, New Braunfels, and crossing of the Cibolo between New Braunfels and San Antonio, Tex.

**crippsii var. barabini (Mort.) Whiteaves. (1879.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 173, 174. Montreal, 1878. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands.

**crippsii (?) var. subundatus Meek. (1876.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, pp. 358, 359, pl. 3, figs. 1, 1a and 3, 3a, [2 figs. in text.] Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Sucia island.

**crippsii var. suciensis n. var. Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 173.

Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Southwest side of Denman island.

**crippsii var. proximus (Tuomey) Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 172, 173. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Lower part of the Trent river, Nanaimo river, two miles and a quarter up, and Blunden point, Vancouver island, Sucia islands.

**crippsii (Mantell) Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pl. 2, p. 152, pl. 5, fig. 8. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: San Antonio, Tex., Green county, Ala.

**Inoceramus—Continued.****crippsii (?) (Mantell) Newberry. (1861.)**

Rep. Colorado River of the West, pt. 3, p. 119. Wash., 1861. J. S. Newberry.

Formation: Cretaceous.

Location: At the Moqui villages.

**cuneatus n. s. M. & H. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 180.

Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above the mouth, Nebr.

**cuneiformis (d'Orb) Eichwald. (1871.)**

Geog. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln, pp. 195, 195. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaskan peninsula.

**deformis (Meek) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, vol. 4, pt. 1, pp. 179, 180, pl. 15, figs. 1a-b. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Five miles above Pueblo, Colo.

**deformis Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 146-148, pl. 14, figs. 4, 4a. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: Common in Kansas, and near Pueblo and Colorado city, as well as at other places in Colorado along eastern base of Rocky mountains, and farther west; everywhere in the Benton and Niobrara groups.

**deformis (Meek) White. (1878.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear creek, near Morrison, Colo.

**dimidius n. s. White. (1874.)**

Prelim. Rep. Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, G. M. Wheeler, pp. 25, 26. Wash., 1874. C. A. White.

Formation: Cretaceous.

Location: Ojodel Pescado, N. Mex.

**dimidius n. s. White. (1874.)**

Prelim. Rep. Invert. Foss. Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, pp. 23, 26. Wash., 1874. C. A. White.

Formation: Cretaceous.

Location: Ojodel Pescado, N. Mex.

**dimidius White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, vol. 4, pt. 1, pp. 181, 182, pl. 16, figs. 2a-d. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Ojodel Pescado, N. Mex.

**elliottii n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 193, pl. 31, fig. 90a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Alcatraz island, San Francisco harbor, Cal.

**Inoceramus—Continued.****—erectus n. s. Meek. (1870.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p. 145, pl. 13, figs. 1, 1a; pl. 14, fig. 3. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: Chalk creek, near Uptown, Utah.

**—erectus (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 234. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**—eximius n. s. Eichwald. (1871.)**

Geogr. Paleont. Bernerk. Halb. Mang. Aleutischen Inseln, pp. 192-194, Taf. 18, figs. 1-4; Taf. 19, figs. 3, 4. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: South coast of Tukusitnu bay, Alaska.

**—exogyroides n. s. M. & H. (1862.)**

Proc. Acad. Nat. Sci., Phila., for 1862, pp. 26, 27. Phila., 1863. Meek & Hayden.

Formation: Cretaceous.

Location: Chippewa point, near Fort Benton, on the Missouri river.

**—flacidus White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, vol. 4, pt. 1, pp. 178, 179, pl. 16, figs. 1a, b. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Five miles above Pueblo, Colo.

**—fragilis n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 388, pl. 2, figs. 6, a, b. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: On the Missouri river, five miles below the mouth of Vermilion river.

**—fragilis (H. & M.) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, vol. 4, pt. 1, p. 178, pl. 15, fig. 3a. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Southeast of Paria, Utah.

**—fragilis (H. & M.) Meek. (1876.)**

Rep. Expl. Exped. Santa Fe, N. M., to junction of Grand and Green rivers, p. 127, pl. 1, fig. 6. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Vado del Chama.

**—fragilis (H. & M.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., pp. 390, 391, pl. 9, fig. 10. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On Beaver creek, and on the eastern fork of the same, Black hills.

**—gilberti n. s. White. (1876.)**

Rep. Geol. Uinta Mts., pp. 113, 114. Wash., 1876. C. A. White.

Formation: Cretaceous.

Location: Near Last Chance creek, southern Utah.

**Inoceramus—Continued.****—gilberti White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 285, pl. 3, figs. 1a, c. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near Last Chance creek, southern Utah.

**—howelli n. s. White. (1876.)**

Rep. Geol. Uinta Mts., pp. 114, 115. Wash., 1876. C. A. White.

Formation: Cretaceous.

Location: Lower Potato valley and Upper Pine creek, Utah.

**—howelli White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 229. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Dodd's ranch, on Ashley's fork, Utah.

**—howelli White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 284, 285, pl. 4, figs. 1a-c. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**—incurvus n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 277. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Little Bear's village, between Fort Pierre and Fort Clark, Nebr.

**—latus (Mantell) Roemer. (1849.)**

Tex., pp. 401, 402. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Ford and waterfall near New Braunfels, Tex.

**—latus (Mantell) Roemer. (1852.)**

Kreide von Tex., p. 60. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Ford of the Guadalupe, New Braunfels, Tex.

**—lerouxii n. s. Marcou. (1858.)**

Geol. N. Am., pp. 36, 37, pl. 2, fig. 3. Zurich, 1858. Jules Marcou.

Formation: Cretaceous.

Location: Ravines along the Rio Galisteo, N. Mex., precisely at the point where the road from Santa Fe to Algodones crosses the Rio.

**—lucifer n. s. Eichwald. (1871.)**

Geog. Paleont. Bernerk. Halb. Mang. Aleutischen Inseln, pp. 194, 195, Taf. 18, figs. 5-7. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: South coast of Tukusitnu bay, Alaska.

**—moresbyensis nom. prov. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 240, 241, fig. 11, p. 240. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: North shore of Cumsheewa inlet, Moresby island.

**Inoceramus—Continued.****— mytiloides (Mantell) Roemer. (1849.)**

Tex., p. 401. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Ford and waterfall near New Braunfels, Tex.

**— mytiloides (Mantell) Roemer. (1852.)**

Kreide von Tex., p. 60, Taf. 7, figs. 5. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Ford and waterfall of the Guadalupe, near New Braunfels, Tex.

**— mytilopsis n. s. Conrad. (1854.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 152, pl. 5, figs. 6a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: [Texas.]

**— mytilopsis (Con.) Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 169, 170, pl. 20, fig. 3. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo and Valdez inlet; Trent river, Vancouver island above the falls; Bradley creek.

**— nebrascensis n. s. Owen. (1852.)**

Rep. Geol. Sur. Wis., Iowa, Minn., p. 582, pl. 8, fig. 1. Phila., 1852. D. D. Owen.

Formation: Cretaceous.

Location: Sage Creek, Nebr.

**— nebrascensis' var. ' sagensis Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 172. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo and Valdez inlet, Sucia islands.

**— ? obliquus n. s. Meek. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 47, pl. 7, figs. 2, 2a. Phila., 1864. F. B. Meek.

Formation: Jurassic.

Location: Genesee valley, Plumas county, Cal.

**— oblongus (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 181. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Vicinity of Morrison, Colo.

**— oblongus (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear creek, near Morrison, Colo.

**— oblongus (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 285, 286, pl. 2, figs. 1, a, b. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Fifteen miles west of Greeley, and six miles south of Fort Collins, Colo.

**Inoceramus—Continued.****— peculiaris n. s. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 43, pl. 1, fig. 13. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Crosswicks, N. J.

**— peculiaris Conrad. (1870.)**

Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p. 76. Phila., 1871. T. A. Conrad.

Formation: Cretaceous.

**— perovalis n. s. Conrad. (1852.)**

Proc. Acad. Nat. Sci., Phila., vol. 6, 1852, 1853, p. 200. Phila., 1854. T. A. Conrad.

Formation: Cretaceous.

Location: Chesapeake & Delaware canal.

**— perovalis Conrad. (1854.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 299, pl. 27, fig. 7. Phila., 1850-1854. T. A. Conrad.

Formation: Cretaceous.

Location: Chesapeake & Delaware canal.

**— perovalis (Con.) Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, p. 80, pl. 15, figs. 6. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: New Jersey (?)

**— perplexus n. s. Whitfield. (1877.)**

U. S. Geogr. and Geol. Sur., Rocky Mt. region. Prelim. Rep. Paleont., Black Hills, p. 31. Wash., 1877. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Belle Fourche, about ten miles west of Crow peak, Black hills, Dak.

**— perplexus Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., p. 392, pl. 8, fig. 3, and pl. 10, figs. 4, 5. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Belle Fourche about ten miles west of Crow peak, Black hills, Dak.

**— pertenus n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, pp. 276, 277. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Judith river, Nebr.

**— pertentuis (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 205, 206. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Sage creek, Colo.

**— piochii n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 187, 188, pl. 25, figs. 173, 174. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North side of Mount Diablo, Tuscan springs, Cal.

**— porrectus n. s. Eichwald. (1871.)**

Geog. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln, pp. 191, 192, Taf. 19, figs. 1, 2. St. Petersburg, 1871. B. Eichwald.

Formation: Cretaceous.

Location: Entrance to Tukusitnu bay, Alaska.

**Inoceramus—Continued.****— problematicus (Schlot.) Meek. (1860.)**

Rep. Expl. Great Basin Terr., Utah, pp. 358, 359, pl. 4, figs. 1a, b, c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Bear river, near the mouth of Sulphur creek, Wyo.

**— problematicus (d'Orb) Newberry. (1861.)**

Rep. Colorado river of the West, pt. 3, p. 119. Wash., 1861. J. S. Newberry.

Formation: Cretaceous.

Location: At the crossing of Red fork of the Canadian, on the Santa Fe road.

**— problematicus (Schlot. op.) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, vol. 4, pt. 1, pp. 177, 178, pl. 16, fig. 3a. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Southeast of Paria, Utah, and also upon the west fork of Paria creek, Utah.

**— problematicus (Schlot. ?) Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 143, 144, pl. 13, figs. 2, 2a. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Sulphur creek, on Bear river, Wyo.

**— problematicus (Schlot.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear creek, near Morrison, Colo.

**— problematicus (Schlot.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 234. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— problematicus ? (Schlot.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., pp. 389, 390, pl. 7, fig. 11. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the east fork of Beaver creek, Black hills.

**— problematicus (Schlot.) Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 193, 194. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: Skidegate inlet, shore between Slate Chuck brook and Lina island; point north of Lina island in Bear Skin bay; Graham island, near Cowgitz.

**Inoceramus—Continued.****— problematicus (Schlot.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 85. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Mill creek, at mill west of Fort McLeod, Canada.

**— problematicus ? (Schlot.) Hill. (1889.)**

Geol. Sur. Tex., Bull. No. 4, p. 9. Austin, 1889. R. T. Hill.

Formation: Cretaceous.

Location: Near Austin, Tex.

**— problematicus (Schlot.) Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can., Paleont., vol. 1, pt. 2, pp. 187, 188. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Swan river and Thunder hill; Vermilion river, Riding mountain, section 7, township 24, range 20 west; Ochre river, township 22, range 17 west; Edwards creek, township 23, range 19 west; Vermilion river, township 25, range 20 west; Wilson river, township 25, range 21 west; Valley river, township 25, range 21 west, range 22 west in the same township; Rolling river two miles above the old C. P. R. crossing; Thunder hill, township 35, range 30, west. Manitoba.

**— pro-obliquus n. s. Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, pp. 80, 81, pl. 14, fig. 17. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel, N. J.

**— pseudomytiloides n. s. Schiel. (1855.)**

Rep. Expl. and Sur. P. R. R. Mississippi river to Pacific ocean, vol. 2; Rep. Expl. Forty-first Parallel, N. lat., p. 108, pl. 3, fig. 8. Wash., 1855. James Schiel.

Formation: Cretaceous.

Location: West of Fort Atkinson.

**— quatsinoensis n. s. Whiteaves. (1882.)**

Proc. and Trans. Roy. Soc. Can., vol. 1, sec. 4, p. 84, fig. 3. Montreal, 1883. J. F. Whiteaves.

Formation: Cretaceous.

Location: Forward inlet, Quatsino sound, Canada.

**— (?) rectangulus n. s. Meek. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 47, 48, pl. 7, figs. 1-1a. Phila., 1864. F. B. Meek.

Formation: Jurassic.

Location: Genesee valley, Plumas county, Cal.

**— sagensis n. s. Owen. (1852.)**

Rep. Geol. Sur. Wis., Iowa, Minn., p. 582, pl. 8, fig. 3. Phila., 1852. D. D. Owen.

Formation: Cretaceous.

Location: Sago creek, southern tributary of the Cheyenne.

**Inoceramus—Continued.**— **sagensis** (Owen) Marcou. (1853.)

Geol. Map. of the U. S. and British Provinces of N. A., pp. 46, 47, pl. 7, fig. 6. Boston, 1853. Jules Marcou.

Formation: Cretaceous.

Location: Sage creek, Nebr.

— **sagensis** (Owen) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 393, 395, pl. 7, fig. 12; pl. 8, fig. 2. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Rapid creek; also at the top of the gray shales at the mouth of Rapid creek, Black hills.

— **sagensis** (Owen) Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 76, 78, pl. 14, fig. 15; pl. 15, figs. 1, 2. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel; New Egypt; Freehold; Keyport, N. J.

— **sagensis** var. **nebrascensis** (Owen) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 34. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: St. Mary river, about ten miles from its mouth; South Saskatchewan, opposite Swift Current creek, Canada.

— **sagensis** var. **nebrascensis** (Owen) Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 174. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Mouth of Vermillion river, township 54, range 3, west of the fourth principal meridian; North Saskatchewan river, township 54, range 2, west of the fourth principal meridian; Nose creek, section 24, township 44, range 2, west of the fourth principal meridian, Northwest Territory.

— **sagensis** var. **quadrans** n. var. Whitfield. (1884.)

Mong. U. S. Geol. Sur., vol. 9, p. 79, pl. 14, fig. 16. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Near Burlington, N. J.

— **senseni** n. s. Conrad. (1852.)

Proc. Acad. Nat. Sci., Phila., vol. 6, 1852, 1853, p. 200. Phila., 1854. T. A. Conrad.

Formation: Cretaceous.

Location: Missouri river, Nebr.

— **simpsoni** n. s. Meek. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 312. Phila., 1861. F. B. Meek.

Formation: Cretaceous.

Location: North Platte, above the bridge, Nebr.

— **simpsoni** Meek. (1876.)

Rep. Expl. Great Basin Terr., Utah, p. 360, pl. 4, fig. 4. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: North Platte, above the bridge.

**Inoceramus—Continued.**— **simpsoni** Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 142, 143, pl. 13, fig. 3. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: North Platte river, above Platte bridge, in Dakota.

— **simpsoni** (Meek) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 395, 396, pl. 8, fig. 1. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: Old Womans fork; east fork of Beaver creek, three miles west of Camp Jenney, Black hills.

— **striatus** (Mantell) Roemer. (1849.)

Tex., p. 402. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall, near New Braunfels, Tex.

— **striatus** (Mantell) Roemer. (1852.)

Kreide von Tex., p. 60. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe, below New Braunfels, Tex.

— **subcompressus** n. s. M. & H. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 181. Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Judith river, Nebr.

— **sublaevis** n. s. H. & M. (1854.)

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 386, pl. 2, fig. 1a, b. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri.

— **sublaevis** (H. & M.) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., p. 393, pl. 10, figs. 1-3. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: At the forks of the Cheyenne; and about three miles east of Camp Jenney, Red-water valley, Black hills.

— **subundatus** n. s. Meek. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 315. Phila., 1862. F. B. Meek.

Formation: Cretaceous.

Location: Komooks, eastern shore of Vancouver island.

— **subquadratus** n. s. Schlüter. (1887.)

Verhandl. Naturhist. Vereines, preuss. Rheinlandr., 44 Jahrg. 1 Hälfte. Bonn, 1887. Sitzungsab., pp. 43-44. O. Schlüter.

Formation: Cretaceous.

Location: Near Austin, Tex.

— **tenuilineatus** n. s. H. & M. (1854.)

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 387, pl. 2, figs. 3a, b. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: Sage creek and Great bend of the Missouri.

**Inoceramus**—Continued.— **tenuilineatus** (H. & M.) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 400, 401, pl. 9, figs. 12, 13. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.

Location: On the Cheyenne river, near Rapid creek, Black hills, Dak.

— **tenuilineatus** (H. & M.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 34, pl. 5, figs. 1, 1a. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Blood Indian creek, longitude 110° W., also elbow of the South Saskatchewan river, Canada.

— **tenuirostratus** n. s. M. & H. (1862.)

Proc. Acad. Nat. Sci., Phila., for 1862, p. 27. Phila., 1863. Meek & Hayden.

Formation: Cretaceous.

Location: Chippewa point, near Fort Benton, on the Missouri river.

— **texanus** n. s. Conrad. (1854.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 152, pl. 5, fig. 7. T. A. Conrad.

Formation: Cretaceous.

Location: Western Texas.

— **tippanus** (Con. sp.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 312. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

— **umbonatus** n. s. M. & H. (1858.)

Proc. Acad. Nat. Sci., Phila., for 1858, p. 50. Phila., 1859. Meek & Hayden.

Formation: Cretaceous.

Location: Near Fort Benton, on the Upper Missouri.

— **undabundus** n. s. M. & H. (1862.)

Proc. Acad. Nat. Sci., Phila., for 1862, p. 26. Phila., 1863. Meek & Hayden.

Formation: Cretaceous.

Location: Chippewa point, near Fort Benton, on the Missouri river.

— **undabundus** (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 84. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Highwood river, ten miles west of the first fork; northwest branch of north fork of the Old Man river, about four miles below the mouth of Oyster creek, Canada.

— **undulato-plicatus** n. s. Roemer. (1849.)

Tex., p. 402. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

— **undulato-plicatus** Roemer. (1852.)

Kreide von Tex., p. 59, Taf. 7, fig. 1. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe below New Braunfels, Tex.

**Inoceramus**—Continued.— **undulato-plicatus** (Roemer) Whiteaves. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 168, 169, pl. 20, figs. 2, 2a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo and Valdez inlet, Sable river, Vancouver island; Blunden point and Northwest bay, Vancouver island.

— **vancouverensis** n. s. Shumard. (1858.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 122, 123. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Nanaimo river, Vancouver island.

— **vancouverensis** (Shum.) Whiteaves. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 170-172, pl. 20, figs. 4, 4a, b. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, two miles and a quarter up; Protection and Satuma islands; Vesuvius bay, on Salt spring or Admiralty island; Sucia islands.

— **vancouverensis** (Shumard) White. (1889.)

Bull. U. S. Geol. Sur. No. 51, pp. 37, 38. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Sucia and Sheep Jack islands.

— **vanuxemi** n. s. M. & H. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 180. Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: White river, above the Bad lands, Nebr.

— **vanuxemi** (M. & H.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 181. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Fossil ridge, Colo.

— **vanuxemi** (M. & H.) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 396-398, pl. 7, figs. 8, 9; pl. 8, figs. 4, 5. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Rapid creek; on Old Woman fork, and at top of gray shales, near mouth of Rapid creek, Black hills.

— **vanuxemi** (M. & H. ?) Stanton. (1887.)

Proc. Colo. Sci. Soc., vol. 2, pt. 3, for 1887, p. 185. [Denver, 1888.] T. W. Stanton.

Formation: Cretaceous.

Location: About five miles north of the town of Boulder, Colo.

**Inoceramus—Continued.****—vanuxemi (M. & H.) Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 175. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Mouth of Vermilion river, township 54, range 3, west of the fourth principal meridian; North Saskatchewan river, township 54, range 2, west of the same meridian, Northwest Territory.

**—vanuxemi var. ? Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., p. 398, pl. 7, fig. 10. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Rapid creek, Black hills, Dak.

**—ventricosus n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 87. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Judith river, Nebr.

**—whitneyi n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 193, 194, pl. 32, fig. 91. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Near Folsom, Cal.

**—(Actinoceramus) sulcatus (Park.) Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 241, 242, pl. 32, figs. 3, 3a. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: At and around Bear Skin bay, on Graham island, side of Skidegate inlet.

**—[Aucella] piochii (Gabb) White. (1888.)**

Mong. U. S. Geol. Sur., vol. 13, pp. 226-232, pl. 4, figs. 1, 2. Wash., 1888. C. A. White.

Formation: Cretaceous.

**—(Catillus) balchii (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 56, pl. 15, figs. 1a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above its mouth; Deer creek, a tributary of the North Platte.

**—(Catillus) convexus (H. & M.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 51, 52, pl. 12, figs. 5a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri, below Fort Pierre.

**—(Catillus) crispus var. subcompressus (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 48, 49, pl. 38, fig. 2, bis. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, above Fort Union.

**Inoceramus—Continued.****—(Catillus) crispus var. barabini (Mort.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 49-51, pl. 13, figs. 1a-c, pl. 12, fig. 3. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above its mouth, in Montana.

**—(Catillus) incurvus (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 61, pl. 12, figs. 4a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Little Bear's village, between Fort Pierre and Fort Clark.

**—(Catillus) pertenuis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 47, 48, pl. 37, figs. 3a, b, pl. 38, figs. 3a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, above Fort Union.

**—(Catillus) proximus (Thomley) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 53-55, pl. 12, figs. 7a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri, below Fort Pierre.

**—(Catillus) proximus ? var. subcircularis n. var. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 55, 56, pl. 12, figs. 2a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above its mouth; Deer creek, a tributary of the North Platte.

**—(Catillus) sublævis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 58, 59, pl. 12, figs. 1a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri, below Fort Pierre.

**—(Catillus) tenuilineatus (H. & M.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 57, pl. 12, fig. 6. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri; Sage creek.

**—(Catillus) tenuirostris (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 59, fig. 5. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Chippewa point, Mont.

**—(Catillus) undabundus (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 60, 61, pl. 3, figs. 2a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Chippewa point on the Missouri, near Fort Benton.

**Inoceramus—Continued.****— (Catillus) vanuxemi (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 57, 58, pl. 14, figs. 2a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri; Sage creek.

**— (Inoceramus) altus Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 43, 44, pl. 14, figs. 1a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Near Medicine Bow station, Wyo.

**— (Inoceramus) fragilis (H. & M.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 42, 43, pl. 5, fig. 5, figs. 1, 2, p. 42. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Near the mouth of Vermilion river, on the Missouri; near Fort Benton, Mont.

**— (Mytiloides) problematicus (Schlot.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 62, pl. 9, figs. 3a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Big Sioux river, six miles above its mouth; on Little Blue river, near Kansas and Nebraska line, and at many other localities in that region; also at Coalville, Utah, Fort Harker, Mont., as well as in Wyoming, Colorado, Arkansas, and southward into Texas.

**— (Mytiloides) problematicus var. aviculoides (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 63, 64, pl. 9, fig. 4. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Little Blue river, near the Kansas and Nebraska line; near Big Blue river in Nebraska; on Republican river, Kans.

**— (Volviceras) exogyroides (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 46, 47, pl. 5, figs. 3a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Chippewa point, near Fort Benton.

**— (Volviceras) umbonatus (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 44-46, pl. 3, figs. 1a, b, pl. 4, figs. 1a, b, and 2a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Twenty miles below Fort Benton, on the Upper Missouri.

**— ? Hall. (1845.)**

Rep. Expl. Exped. Rocky Mts., Oreg., and North Cal., Fremont, pp. 303, 310, pl. 4, figs. 1, 1a. Wash., 1845. James Hall.

Formation: Cretaceous.

Location: Smoky hill river, long. 98°, lat. 38°.

**— ? Hall. (1845.)**

Rep. Expl. Exped. Rocky Mts., Oreg., and North Cal., Fremont, p. 310, pl. 4, fig. 2. Wash., 1845. James Hall.

Formation: Cretaceous.

Location: Near the eastern slope of the Rocky mountains, in long. 105°, lat. 39°.

**Inoceramus—Continued.****— sp. undet. Bailey.**

Rep. Lieut. J. W. Albert, Exam. N. Mex., 1846 and 1847, Ex. Doc. No. 41, p. 547, [pl. 2], fig. 1. [No imprint.] J. W. Bailey.

Formation: Cretaceous.

Location: Rio Timpa, lat. 37° 41', long. 104° 07'.

**— sp. undet. Schiel. (1854.)**

Rep. Expl. and Sur. P. R. R., Mississippi river to Pacific ocean, vol. 2; Rep. Expl. Forty-first Parallel N. Lat., p. 108, pl. 2, fig. 6. Wash., 1855. James Schiel.

Formation: Cretaceous.

Location: Near Fort Atkinson.

**— sp. undet. Owen. (1860.)**

Second Rep. Geol. Rec. Ark., pl. 7, fig. 1. Phila., 1860. D. D. Owen.

Formation: Cretaceous.

Location: Arkansas.

**— sp. undet. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 429. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Between Denver and Cheyenne.

**— sp. undet. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 429. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Six miles east of Como station, U. P. R. R. [Wyo.].

**— sp. undet. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 429. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Medicine Bow station [Wyo.].

**— sp. undet. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 429. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Miser station, U. P. R. R. [Wyo.].

**— sp. undet. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 429. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Fountain creek, Colorado city, Colo.

**— sp. undet. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 429. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Fountain creek, Colorado city, Colo.

**— sp. undet. Meek. (1870.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p. 141, pl. 13, figs. 4, 4a. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: On Sulphur creek, near Bear river, Wyo.

**— sp. undet. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 263. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, Vancouver island, two and one-quarter and two and one-half miles up.



**Inoceramus**—Continued.— **sp. undet. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 262.  
Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, Vancouver island, ten miles up.

— **sp. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 261.  
Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest bay, Vancouver island.

— **sp. undet. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 264.  
Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Protection island.

— **(?) Meek. (1876.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2,  
No. 4, p. 359, pl. 1, fig. 6. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

— **(?) Whiteaves. (1878.)**

Geol. Sur. Can., Rep. Prog. for 1876-1877, p. 152.  
Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Falls of the Itasyouco river, British Columbia.

— **(?) Whiteaves. (1878.)**

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 403.  
Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Falls of the Itasyouco river.

— **(?) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 234. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— **sp. undet. Ramirez. (1880.)**

An. Min. Fomento Rep., Mex., Tomo 3, p. 656,  
Lam. 1, fig. 3. Mexico, 1880. S. Ramirez.

Formation: Cretaceous.

Location: Sierra Mojada, Mexico.

— **Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 167. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rocky mountains, three miles north of the east end of Devils lake, Northwest Territory.

**Inoperma n. g. Conrad. (1875.)**

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1876. W. C. Kerr. App. A, p. 5. T. A. Conrad.

— **carolinensis n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875. W. C. Kerr. App. A, p. 5, pl. 1, fig. 22. T. A. Conrad.

Formation: Cretaceous.

Location: Snow hill, Greene county, N. C.

**Irihea** (subgen. Swain) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 514. Wash., 1876. F. B. Meek.

**Isocardia** (Lam.) Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 393. Phila., 1858-1860. W. M. Gabb.

— **conradi n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 393, pl. 68, fig. 21. Phila., 1858-1860.

W. M. Gabb.

Formation: Cretaceous.

Location: Prairie bluff, Ala., and Timber creek, N. J.

— **conradi** (Gabb) Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 200, 201, pl. 26, figs. 3, 4. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Timber creek, N. J. ?

— **? hodgei n. s. Meek. (1871.)**

Proc. Acad. Nat. Sci., Phila., for 1871, pp. 183, 184. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Band of iron ore that extends along the Upper Missouri for some distance, near the Great bend.

— **washita n. s. Marcon. (1858.)**

Geol. N. Am., p. 37, pl. 3, figs. 2, 2a, b. Zurich, 1858. Jules Marcon.

Formation: Cretaceous.

Location: Borders of Red river, near Preston, Tex.

— **sp. undet. Roemer. 1849.**

Tex., p. 405. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— **sp. undet. Roemer. (1852.)**

Kreide von Tex., p. 50. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— **sp. undet. Roemer. (1852.)**

Kreide von Tex., p. 50. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**Isopleura n. g. Meek. (1864.)**

Check List Invert. Foss. N. Am., Cret. and Jur. Smithsonian. Misc. Coll., vol. 7, No. 177, p. 36. Wash., 1864. F. B. Meek.

— **curvilirata** Meek. (1864.)

Check List Invert. Foss. N. Am., Cret. and Jur., Smithsonian. Misc. Coll., vol. 7, No. 177, p. 36. Wash., 1864.

Formation: Cretaceous.

Location: Mississippi.

— **curvilirata** (Conrad.) Gabb. (1868.)

Am. Jour. Conch., vol. 4, p. 142, pl. 13, fig. 7. Phila., 1868. W. M. Gabb.

Formation: Cretaceous.

**Janira** (Schum.) Shumard. (1859.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 607. St. Louis, 1856-1860. B. F. Shumard.

**Janira**—Continued.

- **foveolata** n. s. Eichwald. (1871.)  
Geognost. Paleont. Bemerk. Halb. Mang. aleut-  
chen Inseln, pp. 197-199, Taf. 20, figs. 6-8. St.  
Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaskan peninsula.

- **wrightii** n. s. Shumard. (1859.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p.  
607. St. Louis, 1856-1860. B. F. Shumard.  
Formation: Cretaceous.  
Location: Shoal creek, near Austin, Tex.

- Kellia** (Turton) Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 280. Phila., 1858-1860. T. A. Conrad.

- **cretacea** n. s. Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 280, pl. 46, fig. 19. Phila., 1858-1860.  
T. A. Conrad.  
Formation: Cretaceous.  
Location: Eufaula, Ala.

- Lævicardium** (subgen. Swains.) Conrad.  
(1858.)  
Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-  
1858, p. 326. Phila., 1855-1858. T. A. Conrad.

- **sucieuse** n. s. Whiteaves. (1879.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 154,  
155, pl. 18, fig. 2. Montreal, 1879. J. F. White-  
aves.  
Formation: Cretaceous.  
Location: Sucia islands.

- Lagena** (subgen. H. & A. Ad.) Gabb.  
(1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 281.  
Phila., 1876. W. M. Gabb.

- Lampsilis** (subgen. Raf.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 514. Wash.,  
1876. F. B. Meek.

- Lanieria lanieri** (d'Orb.) Cotteau.  
(1890.)  
Bull. Soc. Geol. France, 3d ser., vol. 18, pp. 298,  
299. Paris, 1890. Cotteau.  
Formation: Cretaceous.  
Location: San Luis, Mexico.

- **lanieri** (d'Orb.) (Duncan) Cotteau.  
(1890.)  
Bull. Soc. Geol. France, 3d ser., vol. 18, No. 4,  
pp. 298, 299. Paris, 1880. Cotteau.  
Formation: Cretaceous.  
Location: San Luis.

- Latiarca** Conrad. (1875.)  
Rep. Geol. Sur., N. C. vol. 1, Raleigh, 1875. W.  
C. Kerr. App. A, p. 28. T. A. Conrad.

- (subgen. Conrad) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 84. Wash.,  
1876. F. B. Meek.

- Laxispira** n. g. Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 301.  
Phila., 1876. W. M. Gabb.

**Laxispira**—Continued.

- **lumbicalis** n. s. Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, pp. 301,  
302, pl. 17, figs. 6 and 7. Phila., 1876. W. M.  
Gabb.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

- Leda** (Schum.) Meek. (1859.)  
Northwest Terr., Rep. Prog. Assin. and Saskat.  
Expl. Exped., H. Y. Hind, p. 183. Toronto,  
1859. F. B. Meek.

- **angulata** n. s. Gabb. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 95.  
Phila., 1861. W. M. Gabb.  
Formation: Cretaceous.  
Location: Burlington county, N. J.

- **bisulcata** n. s. M. & H. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 440.  
Phila., 1862. Meek & Hayden.  
Formation: Cretaceous.  
Location: Deer Creek, near north branch Platte  
river, Nebr.

- **evansi** (M. & H.) Meek. (1859.)  
Northwest Terr., Rep. Prog. Assin. and Saskat.  
Expl. Exped., H. Y. Hind, p. 184. Toronto,  
1859. F. B. Meek.  
Formation: Cretaceous.  
Location: South branch of the Saskatchewan,  
Canada.

- **fibrosa** n. s. E. & S. (1857.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp.  
39, 40. St. Louis, 1856-1860. Evans & Shu-  
mard.  
Formation: Cretaceous.  
Location: Sage creek, Nebr. terr.

- **gabbii** (Con. sp.) Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, pp. 197, 198.  
Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: California.

- **hindi** n. s. Meek. (1859.)  
Northwest Terr., Rep. Prog. Assin. and Saskat.  
Expl. Exped., H. Y. Hind, p. 183, pl. 1, figs. 8,  
9. Toronto, 1859. F. B. Meek.  
Formation: Cretaceous.  
Location: Little Souris river, Canada.

- **longifrons** n. s. Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, pp. 281, 282, pl. 46, fig. 18. Phila., 1858-  
1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Eufaula, Ala.

- **pinniforma** n. s. Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 303, pl. 48, fig. 23. Phila., 1858-1860.  
W. M. Gabb.  
Formation: Cretaceous.  
Location: Burlington, county, N. J.

- **protecta** n. s. Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 303, pl. 48, fig. 24. Phila., 1858-1860.  
W. M. Gabb.  
Formation: Cretaceous.  
Location: Burlington and Gloucester counties,  
N. J.

**Leda**—Continued.— **protexta** Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 397, pl. 68, fig. 35. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Hardeman county, Tenn.

— **protexta** ? Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 199, pl. 26, fig. 185. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: From Clayton to Marsh's, Martinez, San Diego, Alizos creek, near Canada de las Uvas, and in the San Emidio canyon, near the same place, Cal.

— **slackiana** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 397, pl. 69, fig. 36. Phila., 1858-1870. W. M. Gabb.

Formation: Cretaceous.

Location: Crosswicks, N. J.

**Legumen** n. g. Conrad. (1858)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 325. Phila., 1855-1858. T. A. Conrad.

— **appressum** (Con.) Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 185, 186, pl. 25, figs. 6-8. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **appressum** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 325. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **ellipticus** n. s. Conrad. (1858)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1852-1858, p. 325, pl. 34, fig. 19. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **planulatum** (Con.) Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 184, 185, pl. 25, figs. 3, 4. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Freehold, and from the marl pits of G. C. Schancks, Monmouth county, N. J.

— **planulatus** Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 277. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Alabama and New Jersey.

— **planulatus** (Con. sp.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 304, 305. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

**Leioderma** (Con.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 292. Phila., 1876. W. M. Gabb.

— **canalis** (Conn. sp.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 292. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Clay county, Ga.

**Leiopistha** (Meek) White. (1874.)

Prelim. Rep. Invert. Foss., Geogr. and Geol.

Expl. and Sur., west of one hundredth meridian, p. 26. Wash., 1874. C. A. White.

— **elegantula** (Roem.) Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 141, 142.

Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: New Jersey. ?

— **inflata** n. s. Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, p. 142, pl. 20, figs. 4, 6. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel, N. J.

— **protexa** (Con.) Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 140, 141, pl. 20, figs. 1-3. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel and Burlington, N. J.

— **(Cymella) meeki** Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 418, 419, pl. 11, figs. 27, 28. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: Deadmans rapids, Upper Missouri.

— **(Cymella) undata** (M. & H. sp.) White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, vol. 4, pt. 1, p. 187, pl. 18, fig. 15a. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Gallinas creek, N. Mex.

— **(Psilomya) meekii** n. s. White. (1874.)

Prelim. Rep. Invert. Foss., Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, p.

26. Wash., 1874. C. A. White.

Formation: Cretaceous.

Location: Southeast of Paria, Utah.

— **(Psilomya) meekii** White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, vol. 4, pt. 1, pp. 186, 187, pl. 18, figs. 14a-d. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Southeast of Paria, Utah.

**Leioplax** (Troschel) White. (1876.)

Rep. Geol. Uinta Mts., p. 133. Wash., 1876. C. A. White.

— **? turricula** n. s. White. (1876.)

Rep. Geol. Uinta Mts., pp. 133, 134. Wash., 1876. C. A. White.

Formation: Cretaceous.

Location: Black buttes, Wyo.

**Leptaena n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 307, 308. Phila., 1858-1860. W. M. Gabb.

Formation: Triassic?

Location: Bath county, Va.

**Leptesthes subgen. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 523. Wash., 1876. F. B. Meek.

**Leptocardia subgen. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 172. Wash., 1876. F. B. Meek.

**Leptomya n. g. Conrad. (1867.)**

Am. Jour. Conch., vol. 3, p. 15. Phila., 1867. T. A. Conrad.

**— applicata Conrad. (1867.)**

Am. Jour. Conch., vol. 3, p. 15. Phila., 1867. T. A. Conrad.

Formation: Cretaceous.

**Leptosolen n. subgen. Con. (1865.)**

Proc. Acad. Nat. Sci., Phila., for 1865, p. 184. Phila., 1865. T. A. Conrad.

**— n. g. Conrad. (1867.)**

Am. Jour. Conch., vol. 3, p. 15. Phila., 1867. T. A. Conrad.

**— buplicata Con. (1867.)**

Am. Jour. Conch., vol. 3, pp. 15, 16. Phila., 1867. T. A. Conrad.

Formation: Cretaceous.

Location: North Mississippi.

**— buplicata (Con.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 304. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Clay county, Ga.

**— buplicata (Con.) Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, pp. 183, 184, pl. 25, figs. 1, 2. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Rev. G. C. Schancks, near Marlboro, N. J.

**— conradi n. s. Meek. (1871.)**

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 311, 312. Wash., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Kans.

**— conradi Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 253, 254, pl. 2, figs. 12a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Kans.

**Lima [Brug.] Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 151. Wash., 1857. T. A. Conrad.

**— appressa n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 203, pl. 31, fig. 271. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: San Luis, Gonzaga ranch, Cal.

**Lima—Continued.****— crenulicosta n. s. Roemer. (1849.)**

Tex., p. 399. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

**— crenulicosta Roemer. (1852.)**

Kreide von Tex., p. 63, Taf. 8, figs. 8a-c. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe below New Braunfels, Tex.

**— ? cuneata n. s. Meek. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 44, 45, pl. 7, figs. 6, 6a. Phila., 1864. F. B. Meek.

Formation: Jurassic.

Location: Genesee valley, Plumas county, Cal.

**— duplicata (Sow.) Whiteaves. (1878.)**

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 402. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Signatlat lake.

**— duplicata (Sow. sp.) Whiteaves. (1878.)**

Geol. Sur. Can., Rep. Prog. for 1876-1877, p. 152. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Signatlat lake, British Columbia.

**— erringtoni n. s. Gabb. (1864.)**

Proc. Cal. Acad. Nat. Sci., vol. 3, p. 173. San Francisco, 1863-1868. W. M. Gabb.

Formation: Jurassic [Cretaceous?].

Location: Mariposa estate, Mariposa county, Cal.

**— glabra n. s. Eichwald. (1871.)**

Geog. Paleont. Denmerk. Halb. Mang. aleutischen Inseln, p. 196, Taf. 16, figs. 25, 26. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

**— kimballi n. s. Gabb. (1872.)**

Proc. Acad. Nat. Sci., Phila., for 1872, p. 264, 265, pl. 11, fig. 1. Phila., 1872. W. M. Gabb.

Formation: Cretaceous.

Location: Nugal, near the center of the state of Chihuahua, Mexico.

**— leonensis n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 151, pl. 5, figs. 3a-c. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Leon springs [Tex.].

**— microtis n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 202, pl. 26, fig. 189. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Cal.

**— multiradiata n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 201, 202, pl. 33, fig. 101. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Vicinity of lower lake village, Lake county, Cal.

**Lima—Continued.****—multiradiata? (Gabb) Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 174.  
 Montreal, 1879. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Entrance to Departure bay.

**—perobliqua n. s. Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 165, pl. 22, figs. 3, 3a.  
 Montreal, 1889. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Rock mountains, three miles north of the east end of Devils lake, Northwest Territory.

**—punctum n. s. Eichwald. (1871.)**

Geogr. Paleont. Bemer. Halb. Mang. aleutischen Inseln, p. 197, Taf. 16, figs. 23, 24. St. Petersburg, 1871. E. Eichwald.  
 Formation: Cretaceous.  
 Location: Alaska.

**—recticostata n. s. Meek. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 44, pl. 7, fig. 6. Phila., 1864. F. B. Meek.  
 Formation: Jurassic.  
 Location: Genesee valley, Plumas county, Cal.

**—reticulata n. s. Forbes. (1844.)**

Quart. Jour. Geol. Soc., London, vol. 1, p. 62, figs. —, p. 62. London, 1845. Edward Forbes.  
 Formation: Cretaceous.  
 Location: New Jersey.

**—shastaensis n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 201, pl. 33, fig. 100. Phila., 1869. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Cottonwood creek, Shasta county, Cal.

**—? sinuata n. s. Meek. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 43, pl. 7, figs. 4, 4a. Phila., 1864. F. B. Meek.  
 Formation: Jurassic.  
 Location: Genesee valley, Plumas county, Cal.

**—wacoensis n. s. Roemer. (1849.)**

Tex., pp. 399, 400. Bonn, 1849. F. Roemer.  
 Formation: Cretaceous.  
 Location: [Waco camp, near New Braunfels] Tex.

**—wacoensis Roemer. (1852.)**

Kreide von Tex., pp. 63, 64, Taf. 8, figs. 7a, b. Bonn, 1852. F. Roemer.  
 Formation: Cretaceous.  
 Location: Waco camp, on the Guadalupe, above New Braunfels, Tex.

**—wacoensis (Roem.) Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 151, pl. 5, figs. 4a, b. Wash., 1857. T. A. Conrad.  
 Formation: Cretaceous.  
 Location: [Texas.]

**—wacoensis (Roem.) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of one-hundredth meridian, vol. 4, pt. 1, pp. 176, 177, pl. 17, figs. 4a-c. Wash., 1875. C. A. White.  
 Formation: Cretaceous.  
 Location: Southeast of Paria, Utah.

**Lima—Continued.****—(Limatula) erecta n. s. Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p. 130, pl. 12, fig. 2. Wash., 1877. F. B. Meek.  
 Formation: Jurassic.  
 Location: New Pass, Desatoya mountains, Nev.

**—(Plagiostoma) occidentalis n. s. H. & W. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, pp. 292, 293, pl. 7, fig. 23. Wash., 1867. Hall & Whitfield.  
 Formation: Jurassic.  
 Location: Flaming gorge, Uinta range, Utah.

**—(Plagiostoma) sp. undet. Gabb. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 15. Phila., 1870. W. M. Gabb.  
 Formation: Jurassic.

Location: Mormon station, Plumas county, Cal.

**—sp. undet. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, p. 251. Montreal, 1884. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: South side of Maud island.

**Limnæa (Lam.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 531-533. Wash., 1876. F. B. Meek.

**—(Lam. typical) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 532. Wash., 1876. F. B. Meek.

**—? accelerata n. s. White. (1886.)**

Bull. U. S. Geol. Sur., No. 29, pp. 20, 21, pl. 4, figs. 12-15. Wash., 1886. C. A. White.  
 Formation: Jurassic.  
 Location: Eight miles north of Canyon city, Colo.

**—ativuncula n. s. White. (1886.)**

Bull. U. S. Geol. Sur., No. 29, p. 20, pl. 4, figs. 10, 11. Wash., 1886. C. A. White.  
 Formation: Jurassic.  
 Location: Eight miles north of Canyon city, Colo.

**—? compactilis (Meek) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 39, pl. 26, fig. 14. Wash., 1883. C. A. White.  
 Formation: Cretaceous.  
 Location: Separation station, southern Wyoming.

**—consortis n. s. White. (1886.)**

Bull. U. S. Geol. Sur., No. 29, p. 20, pl. 4, figs. 8, 9. Wash., 1886. C. A. White.  
 Formation: Jurassic.  
 Location: Eight miles north of Canyon city, Colo.

**Limnæa nitidula Meek. (1876.)**

Rep. Expl. Great Basin Terr., Utah, pp. 363, 364, pl. 5, fig. 14. Wash., 1876. F. B. Meek.  
 Formation: Cretaceous?  
 Location: Mouth of Sulphur creek, Wyo.

**—nitidula (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 243. Wash., 1879. C. A. White.  
 Formation: Cretaceous.  
 Location: Near Mellis station, Wyo.

**Limnæa—Continued.**

- **nitidula** (Meek) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 84. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near mouth of Sulphur creek, Wyo.
- **tenuicostata** (M. & H.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 13. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Mouth of the Blind Man river, township 39, range, 27, west of fourth principal meridian, Canada.
- (**Acella**) **haldemani** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 39, pl. 6, figs. 18, 19. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming.
- (**Limnophysa** ?) **compactilis** n. s. Meek. (1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 517. Wash., 1873. F. B. Meek.  
Formation: Tertiary [Cretaceous].  
Location: Separation on the Union Pacific railroad [Wyo.].
- (**Limnophysa**) **nitidula** Meek. (1877.)  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 181, 182, pl. 17, figs. 5, 5a. Wash., 1877. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Sulphur creek, on Bear river, Wyo.
- (**Limnophysa**) **nitidula** (Meek) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 39, pl. 6, figs. 15, 16. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming.
- (**Pleurolimnæa**) **tenuicostata** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 534, pl. 44, figs. 13a-c. Wash., 1876. F. B. Meek.  
Formation: Tertiary. [Cretaceous.]  
Location: Three miles below Fort Union.
- (**Pleurolimnæa**) **tenuicostata** (M. & H.) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., Part I, p. 84. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near Fort Union, in the Upper Missouri river region.
- **tenuicostata** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 119. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Three miles below Fort Union.
- (**Pleurolimnæa**) **tenuicostata** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 39, pl. 23, fig. 24. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: [Near Fort Union.]

**Limnophysa** (subgen. Fitzinger) Meek. (1876.)

- Rep. U. S. Geol. Sur. Terr., vol. 9, p. 533. Wash., 1876. F. B. Meek.
- Limnopsis** (Sassi) Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 200. Phila., 1864. W. M. Gabb.
- **parvula** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 97, 98, pl. 28, figs. 17a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Yellowstone river, one hundred and fifty miles above its mouth.
- **striata-punctatus** n. s. E. & S. (1857.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 38. St. Louis, 1856-1860. Evans & Shumard.  
Formation: Cretaceous.  
Location: Moreau and Grand rivers, Nebr.
- **transversa** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 200, pl. 26, fig. 186. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Texas flat, Placer county, Cal.
- Linearia** n. g. Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 279. Phila., 1858-1860. T. A. Conrad.
- **contracta** n. s. Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, p. 167, pl. 23, fig. 5. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Holmdel, N. J.
- ? **formosa** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 199, 200, pl. 30, fig. 2. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Twenty miles below the mouth of Cannon ball river.
- **formosa** ? (M. & H.) Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 177, pl. 24, fig. 3. Montreal, 1889. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Sounding creek, township 30, range 8, west of the fourth principal meridian, Northwest Territory.
- **metastriata** n. s. Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 279, 280, pl. 46, fig. 7. Phila., 1858-1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Eufaula, Ala.
- **metastriata** (Con.) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, pp. 165, 166, pl. 23, figs. 6, 7. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Holmdel and Haddonfield, N. J.

**Linearia—Continued.**

- **suciensis** n. s. Whiteaves. (1879.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 146, 147, pl. 17, fig. 12. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands.

- **(Leiothyris) meekana** Whiteaves. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 147. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Gabriola island.

- **(Liothyris) carolinensis** Conrad. (1875.)

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875. W. C. Kerr. App. A, p. 9, pl. 1, fig. 26.

T. A. Conrad.

Formation: Cretaceous.

Location: Snow hill, Greene county, N. C.

- **Conrad.** (1870.)

Am. Jour. Conch., vol. 6, Phila., 1870, 1871, pp. 73, 74, pl. 3, fig. 11. Phila., 1871. T. A. Conrad.

Formation: Cretaceous.

**Lingula (Brug.) M. & H. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 443. Phila., 1862. Meek & Hayden.

- **brevirostris** n. s. M. & H. (1858.)

Proc. Acad. Nat. Sci., Phila., for 1858, p. 50. Phila., 1859. Meek & Hayden.

Formation: Jurassic.

Location: Western and southwestern base of Black hills.

- **brevirostris** M. & H. (1865.)

Paleont. Up. Missour., Smithsonian. Cont. Knowl., vol. 14, No. 172, p. 69, pl. 3, figs. 3, a, b. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of the Black hills, Idaho Territory.

- **brevirostris** (M. & H.) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 246, 247, pl. 3, figs. 4, 5. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: On the east side of Spearfish creek, near its junction with the Redwater, Black hills, Dak.

- **nitida** n. s. M. & H. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, pp. 443, 444. Phila., 1862. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth Big Horn river, Nebr.

- **nitida** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 9, 10, pl. 28, figs. 18a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of the Big Horn river.

- **nitida** (M. & H.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 205. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Sage creek, Colo.

**Lingula—Continued.**

- **nitida** (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 29. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Three miles north of Ross coulee, near Irvine station, on the Canadian Pacific railway, Old Wives creek, Township 10, Range 11, west of third principal meridian, Canada.

- **subspatulata** n. s. (H. & M.) (1854.)

Mem. Am. Acad. Arts and Sci., n. s., vol. 5, p. 380, pl. 1, figs. 2a, b. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: Near Red Cedar island, thirty-five miles below Fort Pierre.

- **subspatulata** (H. & M.) Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 19. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

- **subspatulata** (H. & M.) White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, vol. 4, pt. 1, p. 169, pl. 15, fig. 4a. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Ten miles southeast of Old Fort Wingate, N. Mex.

- **subspatulata** ? (H. & M.) Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 185, 186. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rolling river, township 35, range 26, Manitoba.

**Liocium n. g. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 174. Phila., 1869. W. M. Gabb.

- **punctatum** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 173, pl. 28, fig. 59. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: South of the road from Colusa to the Hot Sulphur springs in the first range of foot hills, Colusa county, Cal.

**Lioderma n. g. Con. (1865.)**

Proc. Acad. Nat. Sci., Phila., for 1865, p. 184. Phila., 1865. T. A. Conrad.

- **lioderma** (Con. sp.) Con. (1865.)

Proc. Acad. Nat. Sci., Phila., for 1865, p. 184. Phila., 1865. T. A. Conrad.

Formation: [Cretaceous.]

- **thoracica** n. s. Conrad. (1875.)

Rep. Geol. Sur. N. C., vol. 1, Raleigh, 1875, W. C. Kerr. App. A, p. 13, pl. 2, fig. 30. T. A. Conrad.

Formation: Cretaceous.

Location: Snow hill, Greene county, N. C.

**Liopeplum n. g. Dall. (1890.)**

Trans. Wag. Free Inst. Sci., Phila., vol. 3, p. 73.  
Phila., 1890. W. H. Dall.

**— spillmani (Tuomeysp.) Dall. (1890.)**

Trans. Wag. Free Inst. Sci., Phila., vol. 3, p. 82,  
83, pl. 6, fig. 12. Phila., 1890. W. H. Dall.

Formation: Cretaceous.

Location: Tippah county, Miss.

**— subjugosum (Gabb sp.) Dall. (1890.)**

Trans. Wag. Free Inst. Sci., Phila., vol. 3, p. 83,  
pl. 6, fig. 12a. Phila., 1890. W. H. Dall.

Formation: Cretaceous.

Location: Tippah county, Miss.

**Liopistha n. g. Meek. (1864.)**

Check List Invert. Foss. N. Am. Cret. and Jur.,  
Smithson. Misc. Coll., vol. 7, No. 177, pp. 32, 33.  
Wash., 1864. F. B. Meek.

**— (Meek) White. (1874.)**

Prelim. Rep. Geogr. and Geol. Expl. and Sur.,  
west of one-hundredth meridian, G. M. Wheeler,  
p. 26. Wash., 1874. C. A. White.

**— (Meek, typical.) (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 229. Wash.,  
1876. F. B. Meek.

**— ? elegantulum (Roem.) Meek. (1864.)**

Check List Invert. Foss. N. Am. Cret. and Jur.,  
Smithson. Misc. Coll., vol. 7, No. 177, pp. 32,  
33. Wash., 1864. F. B. Meek.

Formation: Cretaceous.

Location: Texas.

**— protexta Conrad. (1875.)**

Rep. Geol. Sur., N. C., vol. 1. Raleigh, 1875.  
W. C. Kerr. App. A, p. 28. T. A. Conrad.

Formation: Cretaceous.

Location: Ripley, Miss.

**— protexta (Con.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 227, figs.  
24-24, p. 227. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

**— undata (M. & H.) Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont.,  
vol. 1, pt. 2, p. 178. Montreal, 1889. J. F.  
Whiteaves.

Formation: Cretaceous.

Location: Nose creek, township 37, range 9, west  
of the fourth principal meridian, Northwest  
Territory.

**— (Cymella) bella (Con.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 228, figs. 25-  
30, p. 228. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

**— (Cymella) meekii n. s. Whitfield. (1877.)**

U. S. Geogr. and Geol. Sur. Rocky Mt. Region,  
Prelim. Rep. Paleont. Black Hills, pp. 35, 36.  
Wash., 1877. R. P. Whitfield.

Formation: Cretaceous.

Location: Dead Mans rapids, upper Missouri.

**Liopistha—Continued.****— (Cymella) undata (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 236, 237,  
pl. 39, figs. 1a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, on the upper  
Missouri, in Idaho Terr.

**— (Cymella) undata (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont.,  
vol. 1, pt. 1, pp. 43, 44. Montreal, 1885. J. F.  
Whiteaves.

Formation: Cretaceous.

Location: St. Mary river, near its junction with  
the Belly river; South Saskatchewan, opposite  
mouth of Swift Current creek; Bulls Head,  
about twenty-two miles west of the west end of  
the Cypress hills; Berry creek, township 25,  
range 12, and four miles south of Battle river,  
township 38, between ranges 12 and 13, both  
west of fourth meridian; three miles north of  
Ross coulee, near Irvine station, on the Canadian  
Pacific railway, Canada.

**— (Cymella) undata (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont.,  
vol. 1, pt. 1, p. 80. Montreal, 1885. J. F.  
Whiteaves.

Formation: Cretaceous.

Location: Milk river, four miles east of MacLeod  
Benton trail, Canada.

**— (Psilomya) meekii n. s. White. (1874.)**

Prelim. Rep. Geogr. and Geol. Expl. and Sur.,  
west of one-hundredth meridian, G. M. Wheeler,  
p. 26. Wash., 1874. C. A. White.

Formation: Cretaceous.

Location: Southeast of Paria, Utah.

**Lioplacodes n. g. Meek. (1864.)**

Check List Invert. Foss. N. Am. Cret. and Jur.,  
Smithson. Misc. Coll., vol. 7, No. 177, p. 40.  
Wash., 1864. F. B. Meek.

**— veterna (M. & H.) Meek. (1864.)**

Check List Invert. Foss. N. Am. Cret. and Jur.,  
Smithson. Misc. Coll., vol. 7, No. 177, p. 40.  
Wash., 1864. F. B. Meek.

Formation: Jurassic.

Location: Idaho.

**— veternus (Meek) M. & H. (1865.)**

Paleont. Up. Missouri, Smithson. Cont. Knowl.,  
vol. 14, No. 172, p. 116, fig. 2, text. Wash.,  
1865. Meek & Hayden.

Formation: Jurassic.

Location: Head of Wind river, Dak.

**— veternus (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 60, pl. 3, fig.  
9. Wash., 1883. C. A. White.

Formation: Jurassic.

Location: Near Blacks hills.



**Lioplacodes—Continued.**

- **veterus** (M. & H.) White. (1886.)  
Bull. U. S. Geol. Sur., No. 29, p. 23, pl. 4, fig. 18.  
Wash., 1886. C. A. White.  
Formation: Jurassic.  
Location: Black hills of Dak.

**Liothyris n. subgen. Conrad. (1875.)**

- Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875. W.  
C. Kerr. App. A, p. 9. T. A. Conrad.

**Liroscapha n. g. Conrad. (1869.)**

- Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p.  
100. Phila., 1870. T. A. Conrad.

— **squamosa n. s. Conrad. (1869.)**

- Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p.  
100, pl. 9, fig. 23. Phila., 1870. T. A. Conrad.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

**Lispodesthes n. g. White. (1875.)**

- Rep. Geogr. and Geol. Expl. and Sur., west of  
one-hundredth meridian, vol. 4, pt. 1, p. 191.  
Wash., 1875. C. A. White.

— **lingulifera n. s. White. (1875.)**

- Rep. Geogr. and Geol. Expl. and Sur., west of  
one-hundredth meridian, vol. 4, pt. 1, pp. 192.  
193, pl. 18, figs. 2a, b. Wash., 1875. C. A.  
White.

Formation: Cretaceous.

Location: East of Mount Taylor, one mile south  
of Pajuata, N. Mex.

— **nuptialis White. (1875.)**

- Rep. Geogr. and Geol. Expl. and Sur., west of  
one-hundredth meridian, vol. 4, pt. 1, p. 192, pl.  
18, figs. 3a, b. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Fifty miles north of Camp Apache, five  
miles west of Mineral spring, Ariz.

— **? obscurata n. s. White. (1883.)**

- Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr.,  
pt. 1, pp. 30, 31, pl. 11, figs. 7a, b. Wash.,  
1883. C. A. White.

Formation: Cretaceous.

Location: Dodson's ranch, near Pueblo, Colo.

**Lithodomus sp. Credner. (1870.)**

- Zeitsch. Deutsch. Geol. Ges., Band 22, p. 233.  
Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: New Jersey.

— **affinis** (Gabb) Whitfield. (1885.)

- Mong. U. S. Geol. Sur., vol. 9, pp. 66, 67, pl. 17,  
figs. 2, 3. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Burlington county, ? N. J.

— **maudensis n. s. Whiteaves. (1884.)**

- Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1,  
pt. 3, pp. 237, 238, pl. 32, figs. 6, 6a.

Formation: Cretaceous.

Location: East end of Maud island.

— **maudensis Whiteaves. (1884.)**

- Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1,  
pt. 3, p. 250. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Maud island.

**Lithodomus—Continued.**— **ripleyana** (Gabb) Whitfield. (1885.)

- Mong. U. S. Geol. Sur., vol. 9, pp. 67, 68, pl. 17,  
figs. 4, 5. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Near New Egypt; Mr. Ware's pits near  
Mullica hill; and at Hunt's pits at Manalapan,  
Monmouth county, N. J.

**Lithophaga** (Bolt.) Gabb. (1876.)

- Proc. Acad. Nat. Sci., Phila., for 1876, p. 311.  
Phila., 1876. W. M. Gabb.

— **ripleyana** Gabb. (1876.)

- Proc. Acad. Nat. Sci., Phila., for 1876, pp. 311, 312.  
Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

**Lithophagus** (Muhlf.) Gabb. (1861.)

- Proc. Acad. Nat. Sci., Phila., for 1861, p. 326.  
Phila., 1862. W. M. Gabb.

— **affinis n. s. Gabb. (1861.)**

- Proc. Acad. Nat. Sci., Phila., for 1861, p. 327.  
Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Burlington county, ? N. J.

— **oviformis n. s. Gabb. (1864.)**

- Geol. Sur. Cal. Paleont., vol. 1, p. 185, pl. 25,  
fig. 168. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Crow creek, Shasta county, Cal.

— **ripleyanus n. s. Gabb. (1861.)**

- Proc. Acad. Nat. Sci., Phila., for 1861, pp. 326, 327.  
Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Point where the West Jersey railroad  
crosses Big Timber creek, between Gloucester  
and Red bank, N. J.

**Littorina** (Ferussac) Gabb. (1864.)

- Geol. Sur. Cal. Paleont., vol. 1, p. 131. Phila.,  
1864. W. M. Gabb.

— **? compacta n. s. Gabb. (1864.)**

- Geol. Sur. Cal. Paleont., vol. 1, p. 131, pl. 20, fig.  
89. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas flat, Placer county, Cal.

— **compacta** (Gabb) Whiteaves (1879.)

- Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 121.  
Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Southwest side of Denman island.

**Loricula canadensis n. s. Whiteaves. (1889.)**

- Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 2, pp. 190, 191, pl. 26, figs. 4, 4a.  
Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: South Duck river, township 34, range  
23 west, Manitoba.

**Loripes** (Poli) Gabb. (1864.)

- Geol. Sur. Cal. Paleont., vol. 1, p. 177. Phila.,  
1864. W. M. Gabb.

**Loripes**—Continued.

- **dubia** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 177, pl. 24, figs. 170, 171. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Texas flat, Placer county; Chico creek, Butte county; Tuscan springs, Tehama county, Cal.

**Loxotrema** n. g. Gabb. (1868.)

Am. Jour. Conch., vol. 4, p. 147. Phila., 1868. W. M. Gabb.

— **turrita** n. s. Gabb. (1868.)

Am. Jour. Conch., vol. 4, p. 147, pl. 14, fig. 21. Phila., 1868. W. M. Gabb.  
Formation: Cretaceous.  
Location: California.

— **turrita** Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 168, pl. 28, fig. 49. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Ten miles west of Griswold's, between San Juan and New Idria, Cal.

**Lucina** [Brug.] Conrad. (1853.)

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 275. Phila., 1850-1854. T. A. Conrad.

## — (Brug. typical) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 130. Wash., 1876. F. B. Meek.

— **acute lineolata** n. s. Roemer. (1888)

Paleont. Abhandl. Vierter Band, Heft 4, p. 14, Taf. III [xxxiii], figs. 4a, 4b. Berlin, 1888. F. Roemer.

Formation: Cretaceous.

Location: Two miles above the mouth of Bartons creek, near Austin, Tex.

— **cleburni** n. s. White. (1881.)

Proc. U. S. Nat. Mus., vol. 4, p. 139, pl. 1, figs. 3 and 4. Wash., 1881. Smithsonian Misc. Coll., vol. 22. Wash., 1882. C. A. White.

Formation: Cretaceous.

Location: Vicinity of Julesburg, Colo.

— **cretacea** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 177, pl. 30, fig. 255. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: From Clayton to Marsh's, vicinity of Mount Diablo, Cal.

— **cretacea** (Con.) Whitfield. (1884.)

Mong. U. S. Geol. Sur., vol. 9, pp. 129, 130, pl. 18, figs. 23-25. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **cumulata** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 176, pl. 24, fig. 254. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon, Cal.

— **glebula** n. s. Conrad. (1875.)

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875. W. C. Kerr. App. A, p. 7, pl. 1, fig. 12. T. A. Conrad.

Formation: Cretaceous.

Location: Snow hill, Greene county, N. C.

**Lucina**—Continued.— **lenticularis** (Goldf.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 235. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Middletown, N. J.

— **nasuta** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 175, pl. 24, fig. 158. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Martinez, Cal.

— **nasuta** (Gabb) Whiteaves. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 157. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Socia islands; below Dodd narrows, Vancouver island.

— **occidentalis** (Mort. sp. ?) M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, pp. 273, 274. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Near Milk river, and eighty miles above on the Missouri; also on the Yellowstone and Moreau rivers, Nebr.

— **occidentalis** (Mort.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 134, 135, pl. 17, figs. 4a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Milk river, and on Cheyenne river; also on Moreau river.

— **occidentalis** (Mort.) Whitfield. (1880.)

Report Geol. Black Hills of Dak., pp. 409, 410, pl. 11, figs. 19-21. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On Cheyenne river, near Rapid creek, Black hills.

— **occidentalis** (Morton) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 39. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Bull Pound creek, section 3, township 26, range 14, west of fourth principal meridian; Old Vives creek, township 10, range 11, west of fourth principal meridian, Canada.

— **occidentalis** var. **ventricosa** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 135, 136, pl. 17, figs. 3a, c. Wash., 1876. F. B. Meek.

— **parvilineata** n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 204. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Near Corsicana, Navarro county, Tex.

— **pinguis** n. s. Conrad. (1853.)

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 275, pl. 24, fig. 18. Phila., 1850-1854. T. A. Conrad.

Formation: Cretaceous.

Location: New Jersey. (?)

**Lucina—Continued.**

- **postradiata** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 175, 176, pl. 24, fig. 159. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Texas flat, Placer county, Cal.
- **profunda** n. s. White. (1880.)  
Proc. U. S. Nat. Mus., vol. 3, pp. 158, 159. Wash., 1880. Smithsonian. Misc. Coll., vol. 22. Wash., 1882. C. A. White.  
Formation: Cretaceous.  
Location: Monument creek, Colo.
- **profunda** White. (1881.)  
Proc. U. S. Nat. Mus., vol. 4, p. 138, pl. 1, figs. 5, 6. Wash., 1881. Smithsonian. Misc. Coll., vol. 22. Wash., 1882. C. A. White.
- **richardsonii** n. s. Whiteaves. (1874)  
Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 262. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Nanaimo river, Vancouver island, ten miles up.
- **richardsonii** Whiteaves. (1874.)  
Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 266, pl. —, fig. 1. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Nanaimo river, Vancouver island, ten miles up.
- **smockana** n. s. Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, pp. 130, 131, pl. 18, figs. 21, 22. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Freehold, N. J.
- **subcircularis** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 176, pl. 24, fig. 160. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Texas flat, Placer county, Cal.
- **subcircularis** ? (Gabb) Whiteaves. (1879.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 157. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Sucia islands.
- **sublenticularis** n. s. Shumard. (1859.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 602. St. Louis, 1856-1860. B. F. Shumard.  
Formation: Cretaceous.  
Location: Bluffs of Red river in Lamar and Fannin counties, Tex.
- **subundata** n. s. H. & M. (1854.)  
Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 382, pl. 1, figs. 6a, b. Cambridge and Boston, 1855. Hall & Meek.  
Formation: Cretaceous.  
Location: Sage creek.
- **subundata** (H. & M.) White. (1875.)  
Rep. Geogr. and Geol. Expl. and Sur. west of one-hundredth meridian, vol. 4, pt. 1, p. 184, pl. 18, fig. 12a. Wash., 1875. C. A. White.  
Formation: Cretaceous.  
Location: Southeast of Paria, Utah.

**Lucina—Continued.**

- **subundata** (H. & M.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 133, 134, pl. 17, figs. 2a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Sage creek, on the Cheyenne.
- **translucida** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 199, 200, pl. 30, fig. 269. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Cow creek, Shasta county, Cal.
- **ventricosa** (H. & M.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 410, 411, pl. 11, figs. 14-16. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: On the Cheyenne river, near Rapid creek.
- **(Diplodonta?) subundata** (H. & M.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 411, 412, pl. 11, figs. 17, 18. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: On the Cheyenne river, near Rapid creek, Black hills, Dak.
- **sp. undet. Roemer.** (1849.)  
Tex., p. 407. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.
- **? sp. undet. Whiteaves.** (1874.)  
Geol. Sur. Can., Rep. Prog., for 1873-1874, p. 263. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Nanaimo river, Vancouver island, two and one-quarter and two and one-half miles up.
- **sp. undet. Whiteaves.** (1876.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, pp. 61, 62, pl. 9, fig. 12, fig. 6, p. 61. Montreal, 1866. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Queen Charlotte island.
- **(?) sp. undet. Whiteaves.** (1876.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, pp. 62, 63, fig. 7, p. 62. Montreal, 1876. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Queen Charlotte island.
- **? White.** (1878.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 235. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- Lunatia** (subgen. Gray) Conrad. (1858.)  
Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 334. Phila., 1855-1858. T. A. Conrad.
- **[Gray] Gabb.** (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 391. Phila., 1858-1860. W. M. Gabb.
- **altispira** n. s. Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 320. Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.  
Location: Crosswicks, N. J.

**Lunatia—Continued.**

- **avellana** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 105, 106, pl. 19, fig. 60. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Cottonwood creek, north fork, Cal.
- **carolinensis** n. s. Conrad. (1875.)  
Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875. W. C. Kerr. App. A, p. 13, pl. 2, fig. 29. T. A. Conrad.  
Formation: Cretaceous.  
Location: Snow hill, Greene county, N. C.
- **concinna** (H. & M.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 314, 315, pl. 32, figs. 11a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: On Moreau river, in Dakota.
- **concinna** (H. & M.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., p. 430, pl. 12, fig. 13. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: On the Cheyenne river, near Rapid creek.
- **concinna** (H. & M.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 48. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Elbow of the South Saskatchewan, also Blood Indian creek, north of the Red Deer river, and twenty miles east of the Hand hills, Canada.
- **concinna** (H. & M. sp.) Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 181. Montreal, 1889. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Battle river, township 46, range 3, west of the fourth principal meridian; Sound-ing creek, township 30, range 8, west of the same meridian, Northwest Territory.
- **halli** n. s. Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 391, pl. 68, fig. 11. Phila., 1858-1860. W. M. Gabb.  
Formation: Cretaceous.  
Location: New Jersey.
- **hornii** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 106, 107, pl. 29, fig. 217. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Alizos creek, near Fort Tejon, Cal.
- **nuciformis** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 107, pl. 28, fig. 218. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Alizos creek, near Fort Tejon; near Clayton; San Diego, Cal.

**Lunatia—Continued.**

- **obtusivola** (Gabb) Conrad. (1869.)  
Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 45, pl. 1, fig. 11. Phila., 1870. T. A. Conrad.  
Formation: Cretaceous.
- **occidentalis** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 315, 316, pl. 32, figs. 12a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Moreau river, Dak.
- **pedernalis** (Roem. sp.) Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, pp. 259, 260, pl. 35, fig. 3. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.
- **rectilabrum** (Con. sp.) Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 296. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: Common everywhere in the Ripley group.
- **shumardiana** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 106, pl. 19, fig. 61. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Hills southwest of Martinez, Cal.
- **shumardiana** (Gabb) White. (1889.)  
Bull. U. S. Geol. Sur. No. 51, p. 45. Wash., 1889. C. A. White.  
Formation: Cretaceous.  
Location: Socia island.
- **subcrassa** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 316, 317, pl. 39, figs. 3, a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Judith river, on the Upper Missouri.
- **subcrassa** (M. & H.) White. (1878.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 185. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: On the Cache á la Poudre, Colo.
- **subcrassa** (M. & H.) White. (1878.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear creek, near Morrison, Colo.
- **utahensis** n. s. White. (1876.)  
Rep. Geol. Uinta Mts., p. 122. Wash., 1876. C. A. White.  
Formation: Cretaceous.  
Location: Coulville, Utah.
- **(Gyrodès?) conradiana** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 107, 108, pl. 29, fig. 219. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: On the San Luis Gonzaga ranch, at the east end of Pachecos pass, Cal.

- Lunulites** [—] Morton. (1834.)  
 Synop. Org. Rem. Cret. Gr. U. S., p. 82. Phila., 1834. S. G. Morton.
- **sp. undet.** Morton. (1834.)  
 Synop. Org. Rem. Cret. Gr. U. S., p. 82. Phila., 1834. S. G. Morton.  
 Formation: Cretaceous.  
 Location: New Jersey.
- Luponia** (subgen. Gray) Gabb. (1869.)  
 Geol. Sur. Cal. Paleont., vol. 2, p. 163. Phila., 1869. W. M. Gabb.
- Lutraria** (Lam.) Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 154. Phila., 1864. W. M. Gabb.
- **truncata** n. s. Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 154, pl. 22, fig. 128. Phila., 1864. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Pence's ranch, Butte county; Chico creek, Cal.
- ? — Morton. (1834.)  
 Synop. Org. Rem. Cret. Gr. U. S., pp. 67, 68. Phila., 1834. S. G. Morton.  
 Formation: Cretaceous.  
 Location: Delaware.
- Lyonsia** [Turton] Eichwald. (1871.)  
 Geog. Paleont. Bemerk. Halb. Mang. aleutischen Inseln, p. 172. St. Petersburg, 1871. E. Eichwald.
- **alduini** (Fisch.) Eichwald. (1871.)  
 Geog. Paleont. Bemerk. Halb. Mang. aleutischen Inseln, pp. 172-174, Taf. 15, figs. 1-3. St. Petersburg, 1871. E. Eichwald.  
 Formation: Cretaceous.  
 Location: Alaska.
- Lyosoma** n. g. White. (1880.)  
 Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 152, 153. Wash., 1883. C. A. White.
- **powelli** White. (1880.)  
 Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 153, pl. 38, figs. 6a-d. Wash., 1883. C. A. White.  
 Formation: Jurassic.  
 Location: Mouth of Thistle creek, Spanish fork canyon, Utah.
- Lysis** n. g. Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 138. Phila., 1864. W. M. Gabb.
- **duplicosta** n. s. Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 138, pl. 21, fig. 98. Phila., 1864. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Texas flat, Placer county, Cal.
- **oppansus** n. s. White. (1889.)  
 Bull. U. S. Geol. Sur. No. 51, p. 17, pl. 4, figs. 14, 15. Wash., 1889. C. A. White.  
 Formation: Cretaceous.  
 Location: Near Pence's ranch, Butte county, Cal.
- Lytoceras batesi** (Trask sp.) Whiteaves. (1884.)  
 Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 202, 203, pl. 27, fig. 1. Montreal, 1884. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Bear Skin bay, Skidegate inlet.

**Lytoceras—Continued.**

- **sacya** (Forbes sp.) Whiteaves. (1884.)  
 Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, p. 203, pl. 25. Montreal, 1884. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: North shore of Cumshewa inlet; Skidegate inlet; Shingle bay; east side of Shingle point; shore one mile and three-quarters southwest of Welcome point; bay east of Alliford bay.
- **timotheanum** (Mayor sp.) Whiteaves. (1884.)  
 Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 203, 204. Montreal, 1884. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: South island; Bear Skin bay, Skidegate inlet; north shore of Cumshewa inlet.
- Macrocallista** (n. subgen. Meek.) (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 179. Wash., 1876. F. B. Meek.
- Macrocyclis spatiosa** (M. & H. ?) White. (1879.)  
 Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 244. Wash., 1879. C. A. White.  
 Formation: Cretaceous.  
 Location: Evanston coal mines, Wyo.
- Macrodon** — ? White. (1879.)  
 Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 235. Wash., 1879. C. A. White.  
 Formation: Cretaceous.  
 Location: Coalville, Utah.
- Macroscaphites** n. subgen. Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 414. Wash., 1876. F. B. Meek.
- Mactra** (Linn) Conrad. (1855.)  
 Proc. Acad. Nat. Sci., Phila., for 1854-1855, p. 269. Phila., 1856. T. A. Conrad.
- (Linn, typical) Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 204. Wash., 1876. F. B. Meek.
- **alta** n. s. M. & H. (1856.)  
 Proc. Acad. Nat. Sci., Phila., for 1856, pp. 271, 271. Phila., 1857. Meek & Hayden.  
 Formation: Cretaceous.  
 Location: Bad lands of Judith river, Nebr.
- **ashburnerii** n. s. Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 153, pl. 22, fig. 127. Phila., 1864. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Pence's ranch, Butte county; Chico creek; Texas flat, Placer county; near Martinez; Tuscan springs, Tehama county; Orestimba canyon, Stanislaus county; Benicia; San Luis Gonzaga ranch, Pacheco's pass; Martinez; Marsh's, southeast of Mount Diablo; Alizos creek, near Fort Tejon, etc., Cal.

**Mactra—Continued.**

- **ashburnerii** (Gabb) White. (1889.)  
Bull. U. S. Geol. Sur. No. 51, p. 42. Wash., 1889.  
C. A. White.

Formation: Cretaceous.

Location: Sucia and Waldron islands.

- **? cañonensis** n. s. Meek. (1871.)

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 308. Wash., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Canyon city, Colo.

- **? cañonensis** (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 297, 298, pl. 9, figs. 11a-c. Wash. 1879. C. A. White.

Formation: Cretaceous.

Location: Canyon city, Colo.

- **? emmonsii** n. s. Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p. 153, 154, pl. 15, fig. 8. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: East Canyon creek, Wasatch range, Utah.

- **formosa** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, p. 27. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Near mouth of Judith river, Nebr.

- **gibbsana** Meek. (1876.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, p. 374, pl. 2, figs. 8, 8a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous or Tertiary.

Location: Found loose on the Straits of Fuca.

- **gracilis** M. & H. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 79. Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above the mouth, Nebr.

- **holmesii** (Meek sp.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear and Ralston creeks, Colo.

- **? holmesii** (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 295-297, pl. 6, figs. 4a-c. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Ralston [Van Bibber?] creek, three or four miles north of Golden city, Colo.

- **? incompta** n. s. White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur. west of one-hundredth meridian, vol. 4, pt. 1, p. 185, pl. 17, figs. 6a, b. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Five miles above Pueblo, Colo.

- **maia** n. s. Whitfield. (1876.)

Rep. Rec. Carroll, Mont., to Yellowstone National Park, p. 144. Wash., 1876. R. P. Whitfield.

Formation: Cretaceous.

Location: Near the mouth of the Judith river.

**Mactra—Continued.**

- ? — **tenuissima** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 179, pl. 29, fig. 68. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

- **texana** n. s. Conrad. (1855.)

Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 269. Phila., 1856. T. A. Conrad.

Formation: Cretaceous. [Tertiary.]

Location: Between Laredo and Rio Grande city, Tex.

- **texana** Conrad. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 148, pl. 4, figs. 1a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous. [Tertiary.]

Location: \*Prairie between Laredo and Rio Grande city.

- **warrenana** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, p. 271. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yankton trading post, Nebr.

- **(Cymbophora) alta** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 210, pl. 37, figs. 2a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, on the Missouri, and at several localities west of Greeley.

- **(Cymbophora) alta** (M. & H.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 225. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near White river Indian agency, Colo.

- **(Cymbophora) alta** (M. & H.) Meek. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 62. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Milk river ridge, Canada.

- **(Cymbophora) formosa** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 207, pl. 39, fig. 7. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, Idaho Terr.

- **(Cymbophora ?) gracilis** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 209, pl. 17, figs. 18a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: On the Yellowstone river, Idaho Terr., one hundred and fifty miles above the mouth.

- **(Cymbophora) gracilis** (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 43. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Eastern branch of the Poplar river, on the forty-ninth parallel, Canada.

\* The region mentioned above is occupied by Tertiary rocks; therefore it must be a mistake in labeling, or identification.

**Mactra—Continued.****— Cymbophora gracilis (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 79. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Milk river, at the mouth of Pa-Kow-Ki coulee, Canada.

**— (Cymbophora ?) nitidula (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 211, 212, pl. 30, figs. 6a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Deer creek, near the north branch of Platte river.

**— (Cymbophora ?) siouxensis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 206, pl. 1, figs. 7a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: On Big Sioux river two miles above its mouth.

**— (Cymbophora ?) utahensis n. s. Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 155, 156, pl. 15, figs. 9a, b. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: East canyon creek, Wasatch range, and near Coalville, Utah.

**— (Cymbophora ?) warrenana (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 208, pl. 30, figs. 7a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river and Long lake, Dak., near Greeley, Colo.

**— (Cymbophora) warrenana (M. & H.) White. (1878.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 184. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Mouth of Saint Vrain creek and near Aaron Eaton's farm in the valley of the Cache a la Poudre; also at Fossil ridge, Colo.

**— (Cymbophora) warrenana (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 229. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Dodd's ranch on Ashley's fork, Utah.

**— (Cymbophora ?) warrenana (M. & H.) Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 142, 143, pl. 17, fig. 9; pl. 19, figs. 3, 3a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island; Gabriola island; Blunden point, Vancouver island; Protection and Sucia islands; Newcastle island; two miles and a half up the Nanaimo river, Vancouver island.

**Mactra—Continued.****— (Cymbophora) warrenana (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 43. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South Saskatchewan, five miles above Swift Current creek; Ross coulee, near Irvine station, on the Canadian Pacific railway, Canada.

**— (Trigonella ?) arenaria n. s. Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 154, 155, pl. 14, fig. 5. Wash., 1877. F. B. Meek.

Formation: Cretaceous.

Location: On Red creek, Uinta mountains; and on Chalk creek, Utah.

**— sp. undet. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog., for 1873-1874, p. 263. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, Vancouver island, two and a quarter and two and a half miles up.

**— (?) sp. undet. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog., for 1873-1874, p. 264. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Protection island.

**— sp. undet. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog., for 1873-1874, p. 265. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Gabriola island.

**Margarita (Leach) Meek. (1876)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 298. Wash., 1876. F. B. Meek.

**— mudgeana Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 300, pl. 2, figs. 9a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Kan.

**— nebrascensis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 298, 299, pl. 19, figs. 8a, b, and 9a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles from its mouth, Long Lake.

**— nebrascensis (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., p. 432, pl. 12, fig. 15. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Yellowstone river, one hundred and fifty miles above its mouth.

**— ornatissima (Gabb sp.) Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 128. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island; Sucia islands.

**Margarita**—Continued.— **ornatissima** (Gabb sp.) White. (1889.)

Bull. U. S. Geol. Sur. No. 51, p. 45. Wash., 1889.  
C. A. White.

Formation: Cretaceous.

Location: Sucia and Sheep Jack islands.

— **triassica** n. s. Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 136, 137, pl. 17, figs. 8, 8a. Montreal, 1889. J. F. Whiteaves.

Formation: Triassic.

Location: Liard river, about thirty miles below Devils Portage, Canada.

**Margaritana** (Schumacher) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 112-114. Wash., 1876. F. B. Meek.

## — (Schum., typical) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 113. Wash., 1876. F. B. Meek.

— **nebrascensis** Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 114, 115, pl. 1, figs. 5a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Opposite Sioux city on the Missouri river, in Dakota county, Nebr.

— **nebrascensis** (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 21, pl. 4, figs. 1, 2. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Southeastern Dakota.

**Margaritella** (M. & H.) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 118. Phila., 1864. W. M. Gabb.

— **angulata** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 172, pl. 28, fig. 55. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

— **crenulata** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 118, 119, pl. 20, fig. 74. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near San Diego, Cal.

— **flexistriata** (E. & S.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 302, pl. 19, figs. 11a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Cheyenne river, near the mouth of Sage creek.

— **globosa** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 119, pl. 29, fig. 225. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Benicia, Cal.

**Martesia** (Leech) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 145. Phila., 1864. W. M. Gabb.

— (?) **carinifera** n. s. Whiteaves. (1876.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, pp. 54-56, pl. 9, fig. 7. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

— **carinifera** Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, p. 219, pl. 29, figs. 2, 2a. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: Shores of Bear Skin bay, in Skidegate inlet.

— **cithara** (Mort. sp.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 304. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

— **clausa** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 145, pl. 22, fig. 115. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Pence's ranch, Butte county; Texas flat, Placer county; Tuscan springs, Tehama county, Cal.

— **clausa** Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 175. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, ten miles west of Griswold's and Tejon, Cal.

— **clausa** (Gabb) Whiteaves. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 137, 138, pl. 17, figs. 2, 2a, b. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest bay, Vancouver island.

— **cretacea** Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 304. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

— **cuneata** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 259, 260, pl. 30, figs. 8a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Long lake, near Fort Pierre, Dak.

— **tumidifrons** Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 179, 180, pl. 25, figs. 1, 1a, and 2. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: North Saskatchewan river, township 54, range 2, west of the fourth principal meridian, Northwest Territory.



**Martesia—Continued.****—(Pholas) cretacea (Gabb) Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, p. 190, pl. 25, figs. 20-23. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Raritan Bay? N. J.

**—? White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 236. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**Meekia n. g. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 191. Phila., 1864. W. M. Gabb.

**—bullata n. s. Conrad. (1874.)**

Seventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 455. Wash., 1874. T. A. Conrad.

Formation: Cretaceous.

Location: Trout creek, near Fairplay [Colo].

**—navis n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 192, 193, pl. 25, fig. 180. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Martinez; Chico creek, and Pence's ranch, Butte county, Cal.

**—radiata n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 192, pl. 25, fig. 179a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Rancho de San Luis Gonzaga, in Pacheco's pass; Orestimba canyon, Stanislaus county; Tuscan springs, Tehama county; Siskiyou mountains, Siskiyou county, Cal., Jacksonville, Oreg.

**—sella n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 191, 192, pl. 25, fig. 179. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Martinez; Tuscan springs, Tehama county; Siskiyou mountains, Cal.

**Meekoceras n. g. Hyatt. (1879.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 1, pp. 111, 112. Wash., 1880. Alpheus Hyatt.

**—aplanatum n. s. White. (1879.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 1, pp. 112, 113. Wash., 1880. C. A. White.

Formation: Jura-Trias. [Triassic.]

Location: Southeastern Idaho. Locality No. 2.

**—aplanatum White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 112, 113, pl. 31, figs. 1a-d. Wash., 1883. C. A. White.

Formation: Triassic.

Location: Locality No. 2, about fifteen miles a little east of south from locality No. 1, southeastern Idaho.

**—gracilitatis n. s. White. (1880.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 1, pp. 114-116. Wash., 1880. C. A. White.

Formation: Jura-Trias. [Triassic.]

Location: Locality No. 1, also locality No. 2, southeastern Idaho.

**Meekoceras—Continued.****—gracilitatis White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 115, 116, pl. 31, figs. 2a-d. Wash., 1883. C. A. White.

Formation: Triassic.

Location: Locality No. 1, within the limits of Idaho, about sixty-five miles north of the boundary line between that Territory and Utah, about eighteen miles west of the boundary line between Idaho and Wyoming, and about five miles west of Grays lake.

**—gracilitatis var. White. (1880.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 1, p. 116. Wash., 1880. C. A. White.

Formation: Jura-Trias. [Triassic.]

Location: Locality No. 1, southeastern Idaho.

**—gracilitatis var. White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 116. Wash. 1883. C. A. White.

Formation: Triassic.

Location: Locality No. 1, within the limits of Idaho, about sixty-five miles north of the boundary line between that Territory and Utah, about eighteen miles west of the boundary line between Idaho and Wyoming, and about five miles west of Grays lake.

**—mushbachianus n. s. White. (1880.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 1, pp. 113, 114. Wash., 1880. C. A. White.

Formation: Jura-Trias. [Triassic.]

Location: Locality No. 1. Southeastern Idaho.

**—mushbachianum White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 114. Wash. 1883. C. A. White.

Formation: Triassic.

Location: Locality No. 1. Within the limits of Idaho, about sixty-five miles north of the boundary line between that Territory and Utah, about eighteen miles west of the boundary line between Idaho and Wyoming, and about five miles west of Grays lake.

**Megistostoma n. g. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 144. Phila., 1864. W. M. Gabb.

**—striata n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 144, pl. 21, figs. 108, 108a, b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: About a mile northeast of Martinez, Cal.

**Melampus (Monfort) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 23. Wash. 1883. C. A. White.

**—antiguus n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 597. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Carleton's coal mine, near Coalville, Utah.

**—antiguus (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 236, 237. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**Melampus—Continued.**

- **? antiquus** (Meek) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 23-25, pl. 12, figs. 11a-d. Wash.,  
1883. C. A. White.  
Formation: Cretaceous.  
Location: Carleton's coal mine, near Coalville,  
Utah.
- **antiguus** (Meek) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 38, pl. 5, figs.  
13-16. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **priscus** n. s. Meek. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 315.  
Phila., 1861. F. B. Meek.  
Formation: Tertiary [Cretaceous].  
Location: Bear river, near mouth of Sulphur  
creek, lat.  $41^{\circ} 12'$  north, long.  $110^{\circ} 52'$  west.
- **?** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 25, pl. 12, fig. 6a. Wash., 1883.  
C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **?** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 38, pl. 5, fig.  
17. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming.

**Melania** (Lam.) M & H. (1861.)

- Proc. Acad. Nat. Sci., Phila., for 1861, p. 444,  
Phila., 1862. Meek & Hayden.
- **anthonyi** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p.  
124. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Yellowstone river, thirty miles above  
the mouth.
- **convexa** n. s. M & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p.  
125. Phila. 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Bad lands of the Judith.
- **convexa** M. & H. (1857.)  
Proc. Acad. Nat. Sci., Phila., for 1857, p. 138.  
Phila., 1858. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Fort Union, Nebr.
- **humerosa** n. s. Meek. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 313.  
Phila., 1861. F. B. Meek.  
Formation: Tertiary [Cretaceous].  
Location: Bear river, lat.  $40^{\circ} 12'$  north, long.  
 $110^{\circ} 52'$  west.
- **insculpta** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 215. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Rock springs, Wyo.

**Melania—Continued.**

- **insculpta** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 215. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bitter creek valley, two miles west of  
Point of Rocks station, Wyo.
- **insculpta** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 221. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Rock springs, and two miles below  
Point of Rocks, Wyo.
- **? insculpta** (Meek) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 94, 95, pl. 20, fig. 4a. Wash.,  
1883. C. A. White.  
Formation: Cretaceous.  
Location: Rock springs, Wyo.
- **? insculpta** (Meek) Whiteaves.  
(1885.)  
Geol. and Nat. Hist. Sur. Can. Cont. Can. Paleont.,  
vol. 1, pt. 1, pp. 73, 74, pl. 10, fig. 6. Montreal,  
1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Coulee "about fourteen miles north-  
eastward from the most eastern of the Three  
Buttes" and near the forty-ninth parallel;  
south Saskatchewan, six miles below the mouth  
of Bow river; north side of Milk river, five  
miles below Pu-kaw-ki coulee, and south side of  
Milk river, one mile above the mouth of Pu-  
kow-ki coulee, Canada.
- **insculpta** (Meek) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 54, pl. 26,  
figs. 4, 5. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southern Wyoming.
- **invenusta** n. s. M. & H. (1857.)  
Proc. Acad. Nat. Sci., Phila., for 1857, p. 137.  
Phila., 1858. Meek & Hayden.  
Formation: [Cretaceous].  
Location: Bad lands of Judith river, Nebr.
- **minutula** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, pp.  
123, 124. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Three miles below Fort Union.
- **multistriata** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p.  
124. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Ten miles above Fort Union.
- **nebrascensis** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, pp.  
124, 125. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Ten miles above Fort Union.
- **(?) omitta** n. s. M. & H. (1857.)  
Proc. Acad. Nat. Sci., Phila., for 1857, p. 136.  
Phila., 1858. Meek & Hayden.  
Formation: [Cretaceous].  
Location: Mouth of Judith river, Nebr.

**Melania—Continued.****— sublaevis n. s. M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, pp. 136, 137. Phila., 1858. Meek & Hayden.

Formation: [Cretaceous.]

Location: Bad lands of Judith river, Nebr.

**— subtortuosa n. s. M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, p. 136. Phila., 1858. Meek & Hayden.

Formation: [Cretaceous.]

Location: Mouth of Judith river, Nebr.

**— tenuicarinata n. s. M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, pp. 137, 138. Phila., 1858. Meek & Hayden.

Formation: [Cretaceous.]

Location: Fort Union, Nebr.

**— warrenana n. s. M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, p. 137. Phila., 1858. Meek & Hayden.

Formation: [Cretaceous.]

Location: Summit of Square butte, thirty miles below Fort Clark, on the Missouri, Nebr.

**— wyomingensis (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 171, 172. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow creek valley, Colo.

**— wyomingensis (Meek) White. 1879.**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 191. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Bijou creek, Colo.

**— wyomingensis (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 209. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Yampa valley, near Canyon park, Colo.

**— wyomingensis (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 213. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Danforth hills, Colo.

**— wyomingensis Meek. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 220, 221. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black buttes station, Wyo.

**— wyomingensis (Meek) White. (1893.)**

Third Ann. Rep. U. S. Geol. Sur., p. 54, pl. 26, figs. 1-3. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of the South Platte river, Colo., east of the Rocky mountains.

**Melania—Continued.****— wyomingensis (Meek) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 95, 96, pl. 26, figs. 6a, b. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black buttes station, Wyo.; Danforth hills, Colo., Valley of Crow creek, northern Colo.; other localities east of the Rocky mountains in Colorado.

**— wyomingensis (Meek) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 21. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Upper Belly river, twenty-two and twenty-three miles above the mouth of the Waterton, Canada.

**— (Goniobasis ?) wyomingensis n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 616. Wash., 1873. F. B. Meek.

Formation: [Cretaceous.]

Location: Black butte station, Union Pacific railroad, Wyo.

**— (potodoma) veterana n. s. M. & H. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, pp. 444, 445. Phila., 1862. Meek & Hayden.

Formation: Cretaceous.

Location: Head Wind river, Nebr.

**Melanopsis (Lamarck) White. (1882.)**

Proc. U. S. Nat. Mus., vol. 5, p. 96. Wash., 1883. C. A. White.

**— americana n. s. White. (1882.)**

Proc. U. S. Nat. Mus., vol. 5, p. 96, pl. 4, figs. 9 and 10. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of South Platte river, north-eastern Colorado.

**— americana White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 55, pl. 23, figs. 21-23. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: East of the Rocky mountains, in Colo.

**Meleagrina (Lam) Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 192. Phila., 1869. W. M. Gabb.

**— amygdaloidea n. s. Whiteaves. (1876.)**

Geol. Sur. Can. Mos. Foss., vol. 1, pt. 1, pp. 78, 79, pl. 10, fig. 4. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**— antiqua n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 192, 193, pl. 31, fig. 89. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Departure bay, Nanaimo, Vancouver island.

**Meleagrinnella n. g. Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, pp. 71, 72. Wash., 1885. R. P. Whitfield.

**— abrupta (Con.) Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, pp. 72, 73, pl. 14, figs. 11-14. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Freehold, N. J.

**Melina (?) mytiloides (?) (Lam. sp.) Whiteaves. (1876.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, pp. 80-82, fig. 8, a-d, p. 80. Montreal, 1876. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Queen Charlotte islands.

**— skidegatensis n. s. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 239. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: South side of Alliford bay, in Skidegate inlet.

**Membranipora (Blaine) G. & H. (1862.)**

Jam. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 157. Phila., 1862, 1863. Gabb & Horn.

**— abortiva n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, pp. 157, 158 [pl. 20], fig. 41. Phila., 1862, 1863. Gabb & Horn.  
Formation: Cretaceous.  
Location: Timber creek, and near Mullica Hill, N. J.

**— perampla n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 158 [pl. 20], fig. 42. Phila., 1862, 1863 Gabb & Horn.  
Formation: Cretaceous.  
Location: Near Mullica hill, N. J.

**— plebia n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, pp. 158, 159 [pl. 20], fig. 43. Phila., 1862, 1863. Gabb & Horn.  
Formation: Cretaceous.  
Location: Near Mullica hill, N. J.

**— ? White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 216. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Point of Rocks station, Wyo.

**— ? White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 217. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Point of Rocks station, Wyo.

**— ? White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 242. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, Wyo.

**Menetus (subgen. H. & A. Ad.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 536. Wash., 1876. F. B. Meek.

**Meretrix (Lam.) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 326. Phila., 1855-1858. T. A. Conrad.

**— arata n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 166, pl. 30, fig. 250. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Cottonwood creek, Shasta county; Siskiyou mountains; Orestimba canyon, Stanislaus county, Cal.

**— californiana n. s. Conrad. (1855.)**

Rep. Expl. and Sur. P. R. R. Miss. River to Pacific ocean, App. Prelim. Geol. Rep. of W. P. Blake, Pal., p. 9. Wash., 1855. T. A. Conrad.  
Formation: Tertiary [Cretaceous].  
Location: Cañada de las Uvas.

**— californiana Conrad. (1856.)**

Rep. Expl. and Sur. P. R. R. Miss. River to Pacific ocean, vol. 5. App. p. 320, pl. 2, fig. 4. Wash., 1856. T. A. Conrad.  
Formation: Tertiary [Cretaceous].  
Location: Cañada de las Uvas.

**— californica (Con.) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 166, 167. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.

**— fragilis n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 185, pl. 30, fig. 77. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez, Cal.

**— hornii n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 164, pl. 23, fig. 144. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Fort Tejon, Cal.

**— hornii Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 185, pl. 30, fig. 78. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.

**— lens n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 164, pl. 23, fig. 143. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Chico creek, Butte county, Cal.

**— longa n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 165, pl. 23, fig. 147. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Texas flat, Placer county, Cal.

**— nitida n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 165, pl. 23, figs. 145, 146. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Martinez; shores of the Straits of Carquines; Orestimba canyon; Chico and Cow creeks, Cal.

**Meretrix—Continued.**— **ovalis** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 166, pl. 30, fig. 251. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon, Cal.

— **tippiana** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 326, pl. 34, fig. 18. Phila., 1855-1858.

T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **uvasana** n. s. Conrad. (1855.)

Rep. Expl. and Sur. P. R. R. Miss. River to Pacific ocean, App. Prelim. Geol. Rep. of W. P. Blake, Pal., p. 9. Wash., 1855. T. A. Conrad.

Formation: Tertiary [Cretaceous].

Location: Cañada de las Uvas.

— **uvasana** Conrad. (1856.)

Rep. Expl. and Sur. P. R. R. Miss. River to Pacific ocean, vol. 5, App. p. 320, pl. 2, fig. 3. Wash., 1856. T. A. Conrad.

Formation: Tertiary [Cretaceous].

Location: Cañada de las Uvas.

— **uvasana** (Can.) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 163, 164, pl. 30, fig. 248. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon; near Martinez, Cal.

— **uvasana** (Conrad) White. (1889.)

Bull. U. S. Geol. Sur., No. 51, p. 42. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Sucia and Sheep Jack islands.

**Mesalia** (Gray) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 332, 333. Wash., 1876. F. B. Meek.

— **? kansasensis** Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 333, 334, pl. 2, figs. 7a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Kans.

— **obsuta** n. s. White. (1889.)

Bull. U. S. Geol. Sur., No. 51, p. 20, pl. 4, fig. 607. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Near Pence's ranch, Butte county, Cal.

**Mesorhytis** (n. subgen.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 356, Wash., 1876. F. B. Meek.

— (subgen.) **? Meek.** (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 364. Wash., 1876. F. B. Meek.

**Metacypriis forbesii** (Jones) White. (1886.)

Bull. U. S. Geol. Sur., No. 29, pp. 23, 24, pl. 4, figs. 22-24. Wash., 1886. C. A. White.

Formation: Jurassic.

Location: Canyon city, Colo.

**Metacypriis—Continued.**— **forbesii** (Jones) White. (1886.)

Bull. U. S. Geol. Sur., No. 29, p. 24, pl. 4, figs. 25, 26. Wash., 1886. C. A. White.

Formation: Jurassic.

Location: Canyon city, Colo.

— **? (Jones) White.** (1886.)

Bull. U. S. Geol. Sur. No. 29, p. 24. Wash., 1886. C. A. White.

Formation: Jurassic.

Location: Canyon city, Colo.

**Metaptera** (subgen. Raf.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 515. Wash., 1876. F. B. Meek.

**Metis** (subgen. H. & A. Ad.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 194. Wash., 1876. F. B. Meek.

**Microbacia** (Edwards & Haine) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 1. Wash., 1876. F. B. Meek.

— **americana** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 1, 2, pl. 28, figs. 1a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river.

**Micropyrgus** Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 574. Wash., 1876. F. B. Meek.

— **minutulus** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 575, pl. 43, figs. 18a, b. Wash., 1876. F. B. Meek.

Formation: Probably Eocene. [Cretaceous.]

Location: Three miles below Fort Union, Dak.

— **minutulus** (M. & H.) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 98. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near Fort Union, on the Upper Missouri river.

— **minutulus** (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 59, pl. 26, fig. 20. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Fort Union beds.

**Microstizia** n. g. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 4. Wash., 1876. F. B. Meek.

— **millepunctata** n. s. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 4, pl. 28, figs. 2a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, Nebr.

**Miliola ? bursa** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 1. Leipzig, 1854. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

**Miliola**—Continued.

- *laevis* Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 2a. Leipzig, 1854.  
C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.

- *striata* Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 1. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.

**Milthea** (subgen. *H. & A. Ad.*) Meek. (1876.)

- Rep. U. S. Geol. Sur. Terr., vol. 9, p. 131. Wash., 1876. F. B. Meek.

**Mitra** [Lam.] Conrad. (1850.)

- Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850–1854, p. 39. Phila., 1850–1854. T. A. Conrad.

- *cretacea* n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 103, pl. 28, fig. 215. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez, Cal.

- *cretacea* Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 158. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.

- *georgiana* n. s. Conrad. (1850.)  
Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850–1854, p. 39, pl. 1, fig. 4. Phila., 1850–1854. T. A. Conrad.  
Formation: Eocene [Cretaceous?].  
Location: Georgia.

**Modiola** (Lam.) Gabb. (1860.)

- Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858–1860, p. 395. Phila., 1858–1860. W. M. Gabb.

— *attenuata* (M. & H.) Whiteaves. (1885.)

- Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 36. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: St. Mary river, near its confluence with the Belly river; three miles north of Ross coulee, near Irvine station, Canada.

— *burlingtonensis* n. s. Whitfield. (1885.)

- Mong. U. S. Geol. Sur., vol. 9, pp. 65, 66, pl. 17, figs. 8, 9. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Burlington county, N. J.

— *concentrico-costellata* n. s. Roemer. (1849.)

- Tex., p. 403. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg and San Saba river, Tex.

— *concentrico-costellata* Roemer. (1852.)

- Kreide von Tex., p. 54, Taf. 7, figs. 10, a-c. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg and San Saba valley, Tex.

**Modiola**—Continued.

- *cylindrica* n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 185, pl. 25, fig. 167. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Pence's ranch, Butte county; Tuscan springs; Martinez, Cal.

— *formosa* (M. & H.) Whiteaves. (1878.)

- Geol. Sur. Can., Rep. Prog. for 1876, 1877, p. 153. Montreal, 1878. J. F. Whiteaves.  
Formation: Jurassic.  
Location: Sigutlat lake, British Columbia.

— *formosa* (M. & H.) Whiteaves. (1878.)

- Canadian Naturalist, vol. 8, n. ser., No. 7, p. 403. Montreal, 1878. J. F. Whiteaves.  
Formation: Jurassic.  
Location: Sigutlat lake.

— *granulata-cancellata* n. s. Roemer. (1852.)

- Kreide von Tex., pp. 54, 55, Taf. 7, figs. 12a-c. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Ravine, three miles from New Braunfels, on road to Seguin, Tex.

— *juliae* n. s. Lea. (1861.)

- Proc. Acad. Nat. Sci., Phila., for 1861, p. 149. Phila., 1862. Isaac Lea.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

— *julia* (Lea) Whitfield. (1885.)

- Mong. U. S. Geol. Sur., vol. 9, pp. 64, 65, pl. 17, figs. 6, 7. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

— *johnsoni* n. s. Whitfield. (1885.)

- Mong. U. S. Geol. Sur., vol. 9, p. 207, pl. 28, figs. 8, 9. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Farmingdale, N. J.

— *major* n. s. Gabb. (1869.)

- Geol. Sur. Cal. Paleont., vol. 2, pp. 191, 192, pl. 31, fig. 88. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: East of Knoxville, Lake county; Morgan valley, south of Clear lake, and at Hot Sulphur springs, east of Clear lake, Colusa county, Cal.

— *ornata* n. s. Gabb. (1864.)

- Geol. Sur. Cal. Paleont., vol. 1, pp. 184, 185, pl. 24, fig. 166. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez and Marsh's, Cal.

— *ornata* (Gabb) Whiteaves. (1879.)

- Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 167. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest side of Hornby island, Suci islands.

**Modiola—Continued.**

- **ovata** n. s. Gabb. (1860.)  
 Jour. Acad. Nat. Sci., Phila., vol. 4, 2d. ser., 1858–1860, p. 396, pl. 68, fig. 31. Phila., 1858–1860.  
 W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Timber creek, N. J.
- **ovata** (Gabb) Whitfield. (1885.)  
 Mong. U. S. Geol. Sur., vol. 9, p. 197, pl. 26, figs. 13, 14. Wash., 1885. R. P. Whitfield.  
 Formation: Cretaceous.  
 Location: Timber creek, N. J.
- **pedernalis** n. s. Roemer. (1849.)  
 Tex., p. 403, Bonn, 1849. F. Roemer.  
 Formation: Cretaceous.  
 Location: Fredericksburg and San Saba river, Tex.
- **pedernalis** Roemer. (1852.)  
 Kreide von Tex., pp. 53, 54, Taf. 7, figs. 11a, b. Bonn, 1852. F. Roemer.  
 Formation: Cretaceous.  
 Location: Fredericksburg and San Saba valley, Tex.
- **pertenuis** (M. & H.) Whiteaves. (1878.)  
 Can. Nat., vol. 8, n. ser., No. 7, pp. 403, 404. Montreal, 1878. J. F. Whiteaves.  
 Formation: Jurassic.  
 Location: Itasyouco river and Sigutlat lake.
- **pertenuis** (M. & H.) Whiteaves. (1878.)  
 Geol. Sur. Can., Rep. Prog. for 1876–1877, p. 153. Montreal, 1878. J. F. Whiteaves.  
 Formation: Jurassic.  
 Location: Itasyouco river, Sigutlat lake, British Columbia.
- **saffordi** n. s. Gabb. (1860.)  
 Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858–1860, pp. 395, 396, pl. 68, fig. 30. Phila., 1858–1860. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Hardeman county, Tenn.
- **siskiyouensis** n. s. Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 184, pl. 30, fig. 260. Phila., 1864. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Siskiyou mountains, Cal. and Oreg.; Jacksonville, Oreg.
- **subimbricata** (Meek) Whiteaves. (1884.)  
 Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, p. 237. Montreal, 1884. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: East end of Maud island.
- **tenuisculpta** n. s. Whiteaves (1889.)  
 Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 188, 189, pl. 26, figs. 2, 2a. Montreal, 1889. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Swan river, township 37, range 26 west; Tolling river, township 35, range 26 west, Manitoba.

**Modiola—Continued.**

- (**Brachydontes**) **dichotoma** n. s. Whiteaves. (1885.)  
 Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 37, pl. 4, figs. 3, 3a. Montreal, 1885. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: St. Mary river near its confluence with the Belly river, Canada.
- (**Brachydontes**) **multilinigera** n. s. Meek. (1873.)  
 Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 492, 493. Wash., 1873. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Near Conville, Utah.
- (**Lithodomus** ?) **inflata** n. s. Whitfield. (1885.)  
 Mong. U. S. Geol. Sur., vol. 9, pp. 197, 198, pl. 26, figs. 1, 2. Wash., 1885. R. P. Whitfield.  
 Formation: Cretaceous.  
 Location: Mr. Ware's pits, near Mullica hill, N. J.
- (**Mytilus**) **dufrenoyi** (d'Orb.) Eichwald. (1871.)  
 Geog. Paleont. Bamerk. Halb. Mang. Aleufischen Inseln, p. 128. St. Petersburg, 1871. E. Eichwald.  
 Formation: Cretaceous.  
 Location: Kadiak and Unga islands, Alaska.
- (**Perna**) **formosa** n. s. M. & H. (1861.)  
 Proc. Acad. Nat. Sci., Phila., for 1861, p. 439. Phila., 1862. Meek & Hayden.  
 Formation: Jurassic.  
 Location: Big Horn mountains, Nebr.
- **sp. undet.** Roemer. (1849.)  
 Tex., p. 403, Bonn, 1849. F. Roemer.  
 Formation: Cretaceous.  
 Location: Waterfall near New Braunfels, Tex.
- **sp. undet.** Roemer. (1852.)  
 Kreide von Tex., p. 54, Bonn, 1852. F. Roemer.  
 Formation: Cretaceous.  
 Location: Waterfall of the Guadalupe below New Braunfels, Tex.
- (**sp. undet.**) Whiteaves. (1876.)  
 Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, pp. 73, 74. Montreal, 1876. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Queen Charlotte islands.
- (**sp. undet.**) Hill. (1888.)  
 Ann. Rep. Geol. Sur. Ark., for 1888, vol. 2, p. 133, pl. 2, figs. 18, 18a, 19, 19a. Little Rock, 1888. R. T. Hill.  
 Formation: Cretaceous.  
 Location: Arkansas.
- Modiolaria** (subgen. Beck) Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 75. Wash., 1876. F. B. Meek.
- Modiomorpha** ? (H. & W.) Meek. (1877.)  
 Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p. 103. Wash., 1877. F. B. Meek.

**Modiomorpha**—Continued.— **? lata** n. s. Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1.  
pp. 103, 104, pl. 10, fig. 2. Wash., 1877. F. B.  
Meek.

Formation: Triassic.

Location: North fork of Buena Vista canyon,  
West Humboldt range.

— **? ovata** n. s. Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p.  
103, pl. 10, figs. 1, 1a. Wash., 1877. F. B.  
Meek.

Formation: Triassic.

Location: North fork of Buena Vista canyon,  
West Humboldt range.

**Moera** (subgen. H. & A. Ad.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 193. Wash.,  
1876. F. B. Meek.

**Molopophorus** n. subgen. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, pp. 156, 157.  
Phila., 1869. W. M. Gabb.

**Monopleura** (Matheson) White. (1884.)

Bull. U. S. Geol. Sur. No. 4, p. 8. Wash., 1884.  
C. A. White.

— **pinguiscula** n. s. White. (1884.)

Bull. U. S. Geol. Sur. No. 4, pp. 8, 9, pl. 5. Wash.,  
1884. C. A. White.

Formation: Cretaceous.

Location: Vicinity of Austin, Tex.

— **pinguiscula** (White) Roemer. (1888.)

Palcont. Abhandl., Vierter Band, Heft 4, pp. 11,  
12, Taf. III [xxxiii], figs. 2a-2c. Berlin, 1888.  
F. Roemer.

Formation: Cretaceous.

Location: Two miles above the mouth of Bartons  
creek, near Austin, Tex.

— **marcida** n. s. White. (1884.)

Bull. U. S. Geol. Sur., No. 4, p. 8, pls. 3 and 4,  
Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Vicinity of Austin, Tex.

— **marcida** (White) Roemer. (1888.)

Palcont. Abhandl., Vierter Band, Heft 4, pp. 10,  
11, Taf. III [xxxiii], figs. 1a-1d. Berlin, 1888.  
F. Roemer.

Formation: Cretaceous.

Location: Two miles above the mouth of Bartons  
creek, near Austin, Tex.

— **subtriquetra** n. s. Roemer. (1852.)

Kreide von Tex., p. 81, Taf. 5, figs. 5a, b. Bonn,  
1852. F. Roemer.

Formation: Cretaceous.

Location: San Saba valley and upper course of  
Pedernales river, Tex.

— **texana** n. s. Roemer. (1852.)

Kreide von Tex., p. 81, Taf. 5, figs. 3a, b. Bonn,  
1852. F. Roemer.

Formation: Cretaceous.

Location: Waco camp, on the Guadalupe above  
New Braunfels, Tex.

**Monotis** (Brown) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 31. Phila.,  
1864. W. M. Gabb.

— **circularis** n. s. Gabb. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, pp.  
15, 16, pl. 7, figs. 14, 14a, Phila., 1870. W. M.  
Gabb.

Formation: Triassic.

Location: New pass, near Austin [Nev.].

— **ovalis** n. s. Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 2, pp. 132, 133, pl. 17, fig. 4.  
Montreal, 1889. J. F. Whiteaves.

Formation: Triassic.

Location: Liard river, about twenty-five miles  
below Devil's Portage, Canada.

— **salinaria** n. s. Fischer. (1872.)

Comptes Rend., 1872, vol. LXV, p. 2785. Paris,  
1872. P. Fischer.

Formation: Triassic.

Location: Alaska.

— **salinaria** (Brown) Fischer. (1872.)

Voyages à la Côte Nord-ouest de l'Amérique, pp.  
33, 34, pl. 4, fig. 2, par Alph. L. Pinart. Paris,  
1875. P. Fischer.

Formation: Triassic.

Location: Alaska.

— **septentrionalis** n. s. Haughton. (1856.)

Jour. Roy. Dublin Soc., vol. 1, No. 4, p. 245, pl.  
9, figs. 6, 7. Dublin, 1858. S. Haughton.

Formation: Jurassic.

Location: Point Wilkie, Prince Patrick's land.

— **subcircularis** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 31, pl. 6, figs.  
29, 29a. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: Gifford's ranch, Plumas county, Cal.;  
Star district, Humboldt county, Nev.

— **subcircularis** (Gabb) Whiteaves. (1877.)

Geol. Sur. Can., Rep. Prog. for 1875, 1876, App.  
II., p. 97. Montreal, 1877. J. F. Whiteaves.

Formation: Triassic.

Location: A few miles above Fossil point, Peace  
river.

— **subcircularis** (Gabb) Whiteaves. (1887.)

Geol. and Nat. Hist. Sur. Can., vol. 2, n. ser., 1886,  
App. I, p. 108, B. Montreal, 1887. J. F. Whit-  
caves.

Formation: Triassic.

Location: A few miles above Fossil point, on the  
Peace river, lat. 56° 10' long. 122° 10'; Fossil  
ridge, Upper Pine river, lat. 55° 30' long. 122°;  
south side of Houston Stewart channel, Queen  
Charlotte islands, nearly opposite Rose harbor;  
Section cove, north end of Barnby island, Q. C. I.;  
south side of Skidegate channel, Q. C. I.; a mile  
and a half west of Log point.



**Monotis—Continued.**— **subcircularis** (Gabb) Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 131, 132, pl. 17, figs. 3, 3a. Montreal, 1889. J. F. Whiteaves.

Formation: Triassic.

Location: A few miles above Fossil point on the Peace river, in lat.  $56^{\circ} 10'$  and long.  $122^{\circ} 10'$ ; Fossil ridge, Upper Pine river, in lat.  $55^{\circ} 30'$  and long.  $120^{\circ}$ ; Whipsaw creek, headwaters of the Similkameen; south side of Skidegate channel, Q. C. I., a mile and a half west of Long point, Canada.

**Montivaltia attantica** (Mort. sp.) Lonsdale. (1844.)

Quart. Jour. Geol. Soc., London, vol. 1, pp. 65-67, figs. a, b, p. 65. London, 1845. William Lonsdale.

Formation: Cretaceous.

Location: Timber creek, N. J.

**Morea** n. g. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 290. Phila., 1858-1860. T. A. Conrad.

## — (subgen. Con.) Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 301. Phila., 1858-1860. W. M. Gabb.

— **cancellaria** n. s. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 290, pl. 46, fig. 30. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala., and Tippah county, Miss.

**Morio** (Montf.) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 104. Phila., 1864. W. M. Gabb.

— (**Sconsia**) **tuberculatus** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 104, 105, pl. 19, fig. 57. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Bulls Head point, Martinez; Clayton, Contra Costa county; near San Diego, Cal.

**Mortoniceras** n. g. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 448, 449. Wash., 1876. F. B. Meek.

— **shoshonense** n. s. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 449, 450, pl. 6, figs. 3a, c and 6a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Head of Wind river valley, Wyo.

— ? **vermillionense** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 450-452, pl. 7, figs. 2a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Vermilion river, Nebr.

**Multicresis** (d'Orb.) Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 401. Phila., 1858-1860. W. M. Gabb.

— **parvicella** n. s. G. & H. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 367. Phila., 1861. Gabb & Horn.

Formation: Cretaceous.

Location: New Jersey.

**Multicresis parvicella** (G. & H.) Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 401, pl. 69, figs. 36-38. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

— **parvicella** G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 178 [pl. 21], fig. 70. Phila., 1862, 1863. Gabb & Horn.

Formation: Miocene [Cretaceous].

Location: Timber creek and near Mullica hill, N. J.

**Mya** (Linn.) Eichwald. (1871.)

Geog. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln, p. 124. St. Petersburg, 1871. E. Eichwald.

— **crassa** (Grew.) Eichwald. (1871.)

Geog. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln, p. 124. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaskan peninsula and Unga island.

— **sp. undet.** Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 285. New Haven, 1830. S. G. Morton.

Formation: [Cretaceous.]

**Myacites** (Schlot.) Conrad. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, p. 166. Phila., 1858. T. A. Conrad.

— **depressus** n. s. Meek. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 51, 52, pl. 8, figs. 6, 6a. Phila., 1864. F. B. Meek.

Formation: Jurassic.

Location: Genesee valley, Plumas county, Cal.

— **depressus** (Meek) Gabb. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 11. Phila., 1870. W. M. Gabb.

Formation: Jurassic.

Location: Volcano, about thirty miles southeast of Walkers lake, Nev.

— **inconspicuus** n. s. Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p. 137, pl. 12, fig. 10. Wash., 1877. F. B. Meek.

Formation: Jurassic.

Location: Weber canyon, Wasatch range, Utah.

— **nebrascensis** n. s. M. & H. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 182. Phila., 1861. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of Black hills, Nebr.

**Myacites**—Continued.— **nebrascensis** M. & H. (1865.)

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, pp. 100, 101, pl. 4, fig. 5. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of the Black hills.

— **pennsylvanicus** n. s. Conrad. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, p. 166. Phila., 1858. T. A. Conrad.

Formation: Black shale. [Triassic?]

Location: Phoenixville, Penn.

— **pertenuis** n. s. M. & H. (1858.)

Proc. Acad. Nat. Sci., Phila., for 1858, p. 51. Phila., 1859. Meek & Hayden.

Formation: Jurassic.

Location: West base of Black hills.

— **subcompressus** (Meek) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1., pp. 151, 152, pl. 38, figs. 5a-e. Wash., 1883. C. A. White.

Formation: Jurassic.

Location: Near lower canyon of Yellowstone river, Mont.

— **subellipticus** M. & H. (1865.)

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, p. 101, pl. 4, figs. 6, a-c. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of the Black hills.

— **(Panopoea ?) humboldtensis** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 28, pl. 5, fig. 22. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: Buena Vista district, Humboldt mining region, Nev.

— **(Pleuromya) subcompressa** Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 136, 137, pl. 12, figs. 6, 6a. Wash., 1877. F. B. Meek.

Formation: Jurassic.

Location: Weber canyon, Wasatch range, Utah.

— **(Pleuromya) weberensis** n. s. Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 127, 138, pl. 12, figs. 11, 11a. Wash., 1877. F. B. Meek.

Formation: Jurassic.

Location: Weber canyon, Wasatch range, Utah.

**Myalina** (De Koninck) Whitfield. (1876.)

Rep. Rec. Carroll, Mont., to Yellowstone National Park, p. 143. Wash., 1876. R. P. Whitfield.

— **? (Gervillia) perplana** n. s. Whitfield. (1876.)

Rep. Rec. Carroll, Mont., to Yellowstone National Park, p. 143, pl. 1, fig. 8. Wash., 1876. R. P. Whitfield.

Formation: Jurassic.

Location: Bridger mountains, Mont.

**Myophoria** (Brown) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 33. Phila., 1864. W. M. Gabb.

— **alta** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 33, pl. 6, fig. 33. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: Dun glen, Sierra district, Humboldt county, Nev.

— **ambilineata** n. s. White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur. west of one-hundredth meridian, vol. 4, pt. 1, pp. 166, 167, pl. 13, figs. 5a, b. Wash., 1875. C. A. White.

Formation: Jurassic.

Location: Camp Cottonwood, old Mormon road, Nev.

— **lineata** (Münster ?) Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 133, 134, pl. 12, figs. 3, 3a. Wash., 1877. F. B. Meek.

Formation: Jurassic.

Location: Weber canyon, Wasatch range, Utah.

**Myrtea** (subgen. Turton) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 130. Wash., 1876. F. B. Meek.

**Mysia** (Leach) Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 278. Phila., 1858-1860. T. A. Conrad.

— **gibbosa** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 302, pl. 48, fig. 18 [17]. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Delaware & Chesapeake canal, and N. J.

— **parilis** n. s. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 278, pl. 46, fig. 8. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

— **? polita** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 178, pl. 30, fig. 256. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez; Clayton, Cal.

**Mytiloides** (subgen. Brong.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 39. Wash., 1876. F. B. Meek.

**Mytilus** (Linn.) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 29. Phila., 1864. W. M. Gabb.

## — (Linn. typical.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 68. Wash., 1876. F. B. Meek.

— **attenuatus** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, p. 86. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau trading post, Nebr.

**Mytilus—Continued.**

- **ascia** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 183, pl. 30, fig. 259. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Fort Tejon, Cal.
- **condecoratus** n. s. Conrad. (1875.)  
Rep. Geol. Sur., N. C., vol. 1. Raleigh, 1875.  
W. C. Kerr. App. A, p. 5, pl. 1, fig. 10. T. A. Conrad.  
Formation: Cretaceous.  
Location: Snow hill, Greene county, N. C.
- **homfrayi** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 29, pl. 6, fig. 25. Phila., 1864. W. M. Gabb.  
Formation: Triassic.  
Location: Dun glen, Seirra district, Humboldt county, Nev.
- **humerus** n. s. Conrad. (1855.)  
Rep. Expl. and Sur. P. R. R. Mississippi River to Pacific Ocean, App., Prelim. Geol. Rep. of W. P. Blake, pal., p. 10. Wash., 1855. T. A. Conrad.  
Formation: Tertiary [Cretaceous].  
Location: Cañada de las Uvas.
- **humerus** Conrad. (1856.)  
Rep. Expl. and Sur. P. R. R. Mississippi River to Pacific Ocean, vol. 5, App. p. 321, pl. 2, fig. 10. Wash., 1856. T. A. Conrad.  
Formation: Tertiary [Cretaceous].  
Location: Cañada de las Uvas.
- **humerus** (Con.) Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 184. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.
- **lanceolatus** (J. Sowerby) Whiteaves. (1884.)  
Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 236, 237, pl. 31, fig. 7, 7a. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Shingle bay, Skidegate inlet.
- **meekii** n. s. E. & S. (1857.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 40. St. Louis, 1856-1860. Evans & Shumard.  
Formation: Cretaceous.  
Location: Moreau river.
- **multistriatus** n. s. Meek. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 49, pl. 7, figs. 7, 7a. Phila., 1864. F. B. Meek.  
Formation: Jurassic.  
Location: Genesee valley, Plumas county, Cal.
- **nasutus** n. s. Conrad. (1875.)  
Rep. Geol. Sur., N. C., vol. 1. Raleigh, 1875. W. C. Kerr. App. A, p. 5, pl. 1, fig. 9. T. A. Conrad.  
Formation: Cretaceous.  
Location: Snow hill, Greene county, N. C.
- **oblivius** n. s. Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, p. 64, pl. 17, fig. 1. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Pits of the Rev. G. C. Schanck, near Marlboro, N. J.

**Mytilus—Continued.**

- **pauperculus** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 183, pl. 25, fig. 165. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: West of Martinez, Cal.
- **pauperculus** (Gabb) Whiteaves. (1879.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 167. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Sucia islands.
- **pauperculus** (Gabb?) White. (1889.)  
Bull. U. S. Geol. Sur. No. 51, p. 38. Wash., 1889. C. A. White.  
Formation: Cretaceous.  
Location: Sheep Jack island.
- **quadratus** n. s. Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 191, pl. 31, fig. 87. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez and Tuscan Springs, Cal.
- **semiplicatus** n. s. Roemer. (1849.)  
Tex., pp. 402, 403. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Ravine on the Guadalupe, three miles below New Braunfels, Tex.
- **semiplicatus** Roemer. (1852.)  
Kreide von Tex., p. 55, Taf. 7, fig. 3. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Ravine, three miles from New Braunfels on road to Seguin, Tex.
- **subarcuatus** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 276. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Dog river, near mouth of Judith river, Nebr.
- **subarcuatus** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 69, pl. 38, fig. 2a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Dog river, near the mouth of Judith river.
- **subarcuatus** (M. & H.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 56. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Saskatchewan, eight miles below the Red Deer river, Canada.
- **subrectus** n. s. Eichwald. (1861.)  
Geog. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln, pp. 184, 185, Taf. 16, figs. 1, 2. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaska.

**Mytilus—Continued.**

- **tenuitesta** n. s. Roemer. (1849.)  
 Tex., p. 403. Bonn, 1849. F. Roemer.  
 Formation: Cretaceous.  
 Location: Fredericksburg, Tex.
- **tenuitesta** Roemer. (1852.)  
 Kreide von Tex., pp. 55, 56, Taf. 7, figs. 13a, b.  
 Bonn, 1852. F. Roemer.  
 Formation: Cretaceous.  
 Location: Fredericksburg, Tex.
- **whitei** n. s. Whitfield. (1877.)  
 U. S. Geogr. and Geol. Sur. Rocky Mt. region;  
 Prelim. Rep. Paleont. Black Hills, p. 18. Wash.,  
 1877. R. P. Whitfield.  
 Formation: Jurassic.  
 Location: Near Sun Dance hills, northwestern  
 Black hills, Wyo.
- **whitei** Whitfield. (1880.)  
 Rep. Geol. Black Hills of Dak., pp. 360, 361,  
 pl. 5, figs. 9-12. Wash., 1880. R. P. Whitfield.  
 Formation: Jurassic.  
 Location: Near Sun Dance hills, Black hills.
- **whitei** (Whitfield) White. (1880.)  
 Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
 Terr., pt. 1, p. 147, pl. 37, fig. 9a. Wash., 1883.  
 C. A. White.  
 Formation: Jurassic.  
 Location: Near Fontanelle canyon, upon the west  
 side of Green river basin, western Wyoming.
- ? — Say. (1820.)  
 Am. Jour. Sci., 1st ser., vol. 2, p. 45. New Haven,  
 1820. Thomas Say.  
 Formation: Alluvium [Cretaceous].  
 Location: Mullica hill, N. J.
- Naidea** (subgen. Swain.) Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 514. Wash.,  
 1876. F. B. Meek.
- Nassa** (Lam.) Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 97. Phila.,  
 1864. W. M. Gabb.
- **antiquata** n. s. Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 97, pl. 18, fig.  
 50. Phila., 1864. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Bulls Head point, near Martinez, Cal.
- **cretacea** n. s. Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 97, pl. 18, fig.  
 49. Phila., 1864. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Bulls Head point, near Martinez, Cal.
- **globosa** n. s. Gabb. (1876.)  
 Proc. Acad. Nat. Sci., Phila., for 1876, p. 282.  
 Phila., 1876. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: North Carolina and Pataula creek, Ga.
- Natica** [Lam.] Morton. (1834.)  
 Synop. Org. Rem. Cret. Gr. U. S., p. 48, Phila.,  
 1834. S. G. Morton.
- (Adanson) Meek. (1859.)  
 Northwest Terr. Rep. Prog. Assin. and Saskat.  
 Expl. Exped., H. Y. Hind, p. 184. Toronto,  
 1859. F. B. Meek.

**Natica—Continued.**

- **abyssina** n. s. Morton. (1834.)  
 Synop. Org. Rem. Cret. Gr. U. S., p. 49, pl. 13,  
 fig. 13. Phila., 1834. S.-G. Morton.  
 Formation: Cretaceous.  
 Location: Prairie bluff, Ala.
- **acutispira** n. s. Shumard. (1859.)  
 Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp.  
 597, 598. St. Louis, 1856-1860. B. F. Shu-  
 mard.  
 Formation: Cretaceous.  
 Location: Parker county, near Brazos river, Tex.
- **acutispira** (Shum.) Gabb. (1861.)  
 Proc. Acad. Nat. Sci., Phila., for 1861, pp. 363,  
 364. Phila., 1862. W. M. Gabb.  
 Formation: Cretaceous.
- **alveata** n. s. Conrad. (1855.)  
 Rep. Expl. and Sur., P. R. R. Mississippi River to  
 Pacific Ocean; App. Prelim. Geol. Rep. of W.  
 P. Blake, pal. p. 10. Wash., 1855. T. A. Con-  
 rad.  
 Formation: Tertiary [Cretaceous].  
 Location: Cañada de las Uvas.
- **alveata** Conrad. (1856.)  
 Rep. Expl. and Sur. P. R. R. Mississippi River to  
 Pacific Ocean, vol. 5, App., p. 321, pl. 2, figs. 8,  
 8a. Wash., 1856. T. A. Conrad.  
 Formation: Tertiary [Cretaceous].  
 Location: Cañada de las Uvas.
- ? **ambigua** n. s. M. & H. (1856.)  
 Proc. Acad. Nat. Sci., Phila., for 1856, p. 64.  
 Phila., 1857. Meek & Hayden.  
 Formation: Cretaceous.  
 Location: Moreau trading post, Nebr.
- **collina** n. s. Conrad. (1857.)  
 Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2,  
 p. 157, pl. 13, figs. 2a, b. Wash., 1857. T. A.  
 Conrad.  
 Formation: Cretaceous.  
 Location: Between Rio San Pedro and Rio Puer-  
 cos.
- **concinna** n. s. H. & M. (1854.)  
 Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p.  
 389, pl. 3, figs. 2a-d. Cambridge and Boston,  
 1855. Hall and Meek.  
 Formation: Cretaceous.  
 Location: Sage creek.
- **gibbosa** (Lea) Conrad. (1855.)  
 Rep. Expl. and Sur. P. R. R. Mississippi River to  
 Pacific Ocean, App. Prelim. Geol. Rep. of W.  
 P. Blake, Pal., p. 10. Wash., 1855. T. A.  
 Conrad.  
 Formation: Tertiary [Cretaceous].  
 Location: Cañada de las Uvas.
- **gibbosa** (Lea) Conrad. (1856.)  
 Rep. Expl. and Sur. P. R. R. Mississippi River to  
 Pacific Ocean, vol. 5, App., p. 321. Wash.,  
 1856. T. A. Conrad.  
 Formation: Tertiary [Cretaceous].  
 Location: Cañada de las Uvas.

**Natica—Continued.**

- **infracarinata** n. s. Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, pp. 319, 320.  
Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.  
Location: Crosswicks, N. J.
- **? leilia** n. s. H. & W. (1877.)  
Rep. Geol. Expl., Fortieth Parallel, vol. 4, pt. 2,  
pp. 298, 299, pl. 7, figs. 19-21. Wash., 1877.  
Hall & Whitfield.  
Formation: Triassic? [Jurassic].  
Location: Northwest of Rawlins station, Wyo.,  
and on the east fork of Duchesne river, Uinta  
range, Utah.
- **moreauensis** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 64.  
Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Moreau trading post, Nebr.
- **obliquata** n. s. H. & M. (1854.)  
Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p.  
389, pl. 3, fig. 1, a, b. Cambridge and Boston,  
1855. Hall & Meek.  
Formation: Cretaceous.  
Location: Great bend of the Missouri.
- **obliquata** (H. & M.) Meek. (1859.)  
Northwest Terr., Rep. Prog. Assin. and Saskat.  
Expl. Exped., H. Y. Hind, p. 184. Toronto,  
1859. F. B. Meek.  
Formation: Cretaceous.  
Location: Two creeks on the Assiniboine, Canada.
- **occidentalis** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 64.  
Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Moreau trading post, Nebr.
- **oetites?** Conrad. (1855.)  
Rep. Expl. and Sur. P. R. R. Mississippi River to  
Pacific Ocean. App. Prelim. Geol. Rep. of W.  
P. Blake, Pl. p. 10. Wash., 1855. T. A. Conrad.  
Formation: Eocene [Cretaceous].  
Location: Cañada de las Uvas.
- **oetites?** Conrad. (1856.)  
Rep. Expl. and Sur. P. R. R. Mississippi River  
to Pacific Ocean, vol. 5, App. p. 321, pl. 2, fig. 7.  
Wash., 1856. T. A. Conrad.  
Formation: Eocene [Cretaceous].  
Location: Cañada de las Uvas.
- **paludinæformis** n. s. H. & M.  
(1854.)  
Mem. Am. Acad. Arts and Sci., vol. 5, n. s., pp.  
389, 390, pl. 3, figs. 3a-c. Cambridge and Bos-  
ton, 1855. Hall & Meek.  
Formation: Cretaceous.  
Location: Great bend of the Missouri river and  
Sage creek.
- **? pedernalis** n. s. Roemer. (1849.)  
Tex., p. 410. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Locality: Fredericksburg, Tex.

**Natica—Continued.**

- **pedernalis** Roemer. (1852.)  
Kreide von Tex., pp. 43, 44, Taf. 4, figs. 1a, b.  
Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.
- **petrosa** n. s. Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., pp. 48, 49, pl.  
19, fig. 6. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Prairie bluff, Ala.
- **? prægrandis** n. s. Roemer. (1849.)  
Tex., pp. 410, 411. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.
- **prægrandis** Roemer. (1852.)  
Kreide von Tex., p. 44. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: On the upper course of Pedernales  
river, Tex.
- **subcrassa** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 87.  
Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Nebr.
- **texana** n. s. Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p.  
157, pl. 13, fig. 1, a, b. Wash., 1857. T. A.  
Conrad.  
Formation: Cretaceous.  
Location: Between Rio San Pedro and Rio  
Puercos.
- **tuomeyana** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 270.  
Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Nebr.
- **(Amauropsis) avellana** n. s. Roemer. (1888.)  
Paleont. Abhandl. Vierter Band, Heft. 4, p. 14,  
15, Taf. I [xxx], fig. 15. Berlin, 1888. F.  
Roemer.  
Formation: Cretaceous.  
Location: Two miles above the mouth of Bartons  
creek, near Austin, Tex.
- **(Lunatia) rectilabrum** n. s. Conrad.  
(1858.)  
Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-  
1858, p. 334, pl. 35, fig. 28. Phila., 1855-1858.  
T. A. Conrad.  
Formation: Cretaceous.  
Location: Owl creek, three miles north of the  
town of Ripley, Miss.
- [Lam.] Say. (1820.)  
Am. Jour. Sci., 1st ser., vol. 2, p. 46. New Haven,  
1820. Thomas Say.  
Formation: [Cretaceous].  
Location: Mullica hill, N. J.
- **sp. undet.** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 282. New  
Haven, 1830. S. G. Morton.  
Formation: Ferruginous sand. [Cretaceous].  
Location: [New Jersey. ?]

**Natica—Continued.**

- **sp. undet. Troost. (1840.)**  
Fifth Geol. Rep. Tenn., p. 56. Nashville, 1840.  
G. Troost.

Formation : Cretaceous.

Location : McNairy county, Tenn.

- **Forbes. (1844.)**

Quart. Jour. Geol. Soc. London, vol. 1, p. 63, fig. b, p. 63. London, 1845. Edward Forbes.

Formation : Cretaceous.

Location : New Jersey.

- **sp. undet. Roemer. (1849.)**

Tex., p. 411. Bonn, 1849. F. Roemer.

Formation : Cretaceous.

Location : Fredericksburg, Tex.

- **sp. undet. Roemer. (1852.)**

Kreide von Tex., p. 44. Bonn, 1852. F. Roemer.

Formation : Cretaceous.

Location : Fredericksburg, Tex.

- **sp. undet. Owen. (1860.)**

Second Rep. Geol. Rec. Ark., pl. 8, fig. 3. Phila., 1860. D. D. Owen.

Formation : Cretaceous.

Location : Arkansas.

- **sp. undet. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 263.

Montreal, 1874. J. F. Whiteaves.

Formation : Cretaceous.

Location : Nanaimo river, Vancouver island, two and a fourth and two and a half miles up.

- **sp. undet. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog. for 1873, 1874, p. 264.

Montreal, 1874. J. F. Whiteaves.

Formation : Cretaceous.

Location : Gabriola island.

- **(Adanson) White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 45. Wash., 1889.

C. A. White.

Formation : Cretaceous.

Location : Sheep Jack island.

**Naticina (Gray) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 109. Phila.,

1864. W. M. Gabb.

- **obliqua n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 109, pl. 21, fig.

112. Phila., 1864. W. M. Gabb.

Formation : Cretaceous.

Location : Northeast of Martinez; Cañada de las Uvas and vicinity, Cal.

**Nautilus [Linn] Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 33. Phila.,

1834. S. G. Morton.

- **(Linn, typical) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 490. Wash.,

1876. F. B. Meek.

- **alabamensis n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 33, pl. 18,

fig. 3. Phila., 1834. S. G. Morton.

Formation : Newer Cretaceous [Tertiary.]

Location : Near Claiborne, Ala.

**Nautilus—Continued.**

- **bryani n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 277.

Phila., 1876. W. M. Gabb.

Formation : Cretaceous.

Location : Vincenttown, N. J.

- **campbelli n. s. Meek. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 318.

Phila., 1862. F. B. Meek.

Formation : Cretaceous.

Location : Komooks, eastern shore of Vancouver island.

- **campbelli Meek. (1876.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No.

4, p. 273, pl. 6, figs. 2, 2a. Wash., 1876. F. B. Meek.

Formation : Cretaceous.

Location : Komooks, Vancouver island.

- **campbelli (Meek) Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 99, pl. 11, figs. 2, 2a, b. Montreal, 1879. J. F. Whiteaves.

Formation : Cretaceous.

Location : Comox, Vancouver island; northwest side of Hornsby island; Sucia islands.

- **dekayi n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 291, pl. 8, fig.

4. New Haven, 1833. S. G. Morton.

Formation : [Cretaceous.]

- **dekayi Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 33, pl. 8, fig.

4, pl. 13, fig. 4. Phila., 1834. S. J. Morgan.

Formation : Cretaceous.

Location : Monmouth and Burlington counties, N. J.; Prairie bluff, Ala.

- **dekayi (Mort.) Meek. (1859.)**

Northwest Terr., Rep. Prog. Assin. and Saskat.

Expl. Exped., H. Y. Hind., p. 185, pl. 2, figs. 9,

10. Toronto, 1859. F. B. Meek.

Formation : Cretaceous.

Location : South branch of the Saskatchewan, Canada.

- **dekayi (Morton) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 277.

Phila., 1876. W. M. Gabb.

Formation : Cretaceous.

Location : Pataula creek, Ga.

- **dekayi (Mort.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 496-498, pl.

27, figs. 1a, e, fig. 67, p. 496. Wash., 1876. F. B. Meek.

Formation : Cretaceous.

Location : Sage creek and Yellowstone river.

- **dekayi var. montanaensis n. var. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 8, p. 498, pl. 27,

figs. 2a-e. Wash., 1876. F. B. Meek.

Formation : Cretaceous.

Location : Yellowstone river, Mont., one hundred and fifty miles from its mouth.

**Nautilus—Continued.****—dekayi var. montanaensis (Meek)**

Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 439, 440, pl. 16, figs. 10, 11. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Rapid creek, Black hills, Dak.

**—elegans (Sow.) Roemer. (1849.)**

Tex., p. 418. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

**—elegans (Sow.) Roemer. (1852.)**

Kreide von Tex., p. 37. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe, below New Braunfels, Tex.

**—elegans (Sow.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 499-501, pl. 8, figs. 2a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Chippewa point, Mont.

**—elegans (Sow.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 278. Phila., 1876. W. M. Gabb.

Formation: Cretaceous

**—elegans var. nebrascensis n. var.****M. & H. (1862.)**

Proc. Acad. Nat. Sci., Phila., for 1862, p. 25. Phila., 1863. Meek &amp; Hayden.

Formation: Cretaceous.

Location: Chippewa point, near Fort Benton, on the upper Missouri.

**—liardensis n. s. Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 137, 138, pl. 18, figs. 1, 1a. Montreal, 1889. J. F. Whiteaves.

Formation: Triassic.

Location: Liard river, about twenty-five miles below Devils Portage, Canada.

**—multicameratus n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 20, pl. 3, figs. 4, 5. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: Dun glen, near the Auld Lang Syno mine, Sierra district, Humboldt county, Nev.

**—simplex (Sow.) Roemer. (1849.)**

Tex., p. 418. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

**—simplex (Sow.) Roemer. (1852.)**

Kreide von Tex., p. 37. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe below New Braunfels, Tex.

**—suciensis n. s. Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 97-99, pl. 11, figs. 1, 1a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands.

**Nautilus—Continued.****—suciensis Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 197, 198, pl. 21. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: Skidegate inlet, one mile and three-quarters southwest of Welcome point; Bay east of Alliford bay.

**—texanus n. s. Shumard. (1859.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 590. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Near Austin and Bluffs of Red river, in Grayson county, Tex.

**—texanus? (Shum.) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 59, pl. 9, figs. 3a, b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Aldersons gulch, Shasta county; near Mount Diablo, Cal.

**—whitneyi n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 19, 20, pl. 3, figs. 2, 3. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: Buena Vista district, Humboldt mining region.

**—n. s. Hill. (1889.)**

Geol. Sur. Tex. Bull, No. 4, p. 21. Austin, 1889. R. T. Hill.

Formation: Cretaceous.

Location: Austin, Tex.

**—sp. Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog., for 1873-1874, p. 261. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest bay, Vancouver island.

**—sp. undet. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 277. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Near Vincenttown, N. J.

**—sp. undet. Whiteaves. (1876.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, pp. 14-19. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**Neæra (Gray) Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 203. Boston, 1862. B. F. Shumard.

**—aleformis n. s. Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861-1862, p. 203. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Bluffs of Red river, Fannin county, Tex.

**—dolabræformis n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 153, pl. 22, fig. 125. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: East of Martinez, Cal.

**Neæra**—Continued.

- **gibba** n. s. Eichwald. (1871.)  
Geog. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln, pp. 169, 170, Taf. 16, figs. 13, 14. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaska.
- **longirostra** n. s. Whitfield. (1877.)  
U. S. Geogr. and Geol. Sur., Rocky Mt. region. Prelim. Rep. Paleont. Black Hills, pp. 24, 25. Wash., 1877. R. P. Whitfield.  
Formation: Jurassic.  
Location: Redwater valley, Black hills Dak.
- **longirostra** Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., p. 376, pl. 5, fig. 35. Wash., 1880. R. P. Whitfield.  
Formation: Jurassic.  
Location: Redwater valley, Black hills.
- **moreauensis** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 239, 240, pl. 17, fig. 11a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Moreau river, Dak., and on the Yellowstone river.
- **moreauensis** (M. & H.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., p. 420, pl. 11, fig. 31. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: At the forks of the Cheyenne river, Black hills.
- **moreauensis** (M. & H.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 44. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Old Wives creek, township 10, range 11, west of third principal meridian, Canada.
- **? pumila** n. s. Eichwald. (1871.)  
Geog. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln, pp. 170, 171, Taf. 16, figs. 15, 16. St. Petersburg 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaska.
- **striata** n. s. Eichwald. (1871.)  
Geog. Paleont. Bemerk. Halb. Mang. Aleutischen Inseln. p. 170, Taf. 16, figs. 11, 12. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaska.
- **ventricosa** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 238, 239, pl. 30, figs. 3, a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Moreau river, Dak.

**Neithea** (Drouet) Conrad. (1855.)

Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 269. Phila., 1856. T. A. Conrad.

**Neithea**—Continued.

- **complexicostata** n. s. Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 319. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: Uniontown, Ala.
- **grandicosta** n. s. Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 200, pl. 33, figs. 99, a. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Cottonwood creek, Shasta county, Cal.
- **mortoni** Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, pp. 365, 366. Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.  
Location: New Jersey, Alabama, and Tennessee.
- **occidentalis** n. s. Conrad. (1855.)  
Proc. Acad. Nat. Sci., Phila., for 1854-1855, p. 269. Phila., 1856. T. A. Conrad.  
Formation: Cretaceous.  
Location: [Texas].
- **occidentalis** Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, pp. 150, 151, pl. 5, figs. 1a, b. Wash., 1857. T. A. Conrad.  
Formation: Cretaceous.  
Location: Between El Paso and Frontera, Tex.
- **quinquecostata** (Sow.) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, pp. 56, 57, pl. 8, figs. 12-14. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Burlington, Holmdel, Freehold, Mullica hill, N. J.
- **texana** (Roem.) Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 151, pl. 5, figs. 2a, b. Wash., 1857. T. A. Conrad.  
Formation: Cretaceous.  
Location: Between El Paso and Frontera.
- Nemoarca** n. g. Conrad. (1869.)  
Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 97. Phila., 1870. T. A. Conrad.
- **cretacea** n. s. Conrad. (1869.)  
Am. Jour. Conch., vol. 3, Phila., 1869-1870, p. 97, pl. 9, fig. 21. Phila., 1870. T. A. Conrad.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.
- **cretacea** (Con.) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, pp. 86, 87, pl. 12, figs. 8-10. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield, and near Keyport, N. J.
- Nemocardium** (n. subgen. Meek.) (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 167. Wash., 1876. F. B. Meek.
- Nemodon** n. g. Conrad. (1869.)  
Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 97. Phila., 1870. T. A. Conrad.



**Nemodon—Continued.**— **angulatum** Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 316.  
Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

— **angulatum** (Gabb.) Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 84, 85, pl. 12,  
figs. 6, 7. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Burlington county, N. J.

— **brevifrons** n. s. Conrad. (1875.)

Rep. Geol. Sur., N. C., vol. 1. Raleigh, 1875. W.  
C. Kerr. App. A, p. 4, pl. 1, fig. 15. T. A. Con-  
rad.

Formation: Cretaceous.

Location: Snow hill, Greene county, N. C.

— **brevifrons** (Con.) Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 85, 86, pl. 12,  
figs. 1, 2. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **eufalensis** n. s. Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 97,  
pl. 9, fig. 16. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **eufalensis** (Gabb) Whitfield. (1885.)

Mong. U. S. Geol. Sur., vol. 9, pp. 83, 84, pl. 12,  
figs. 3-5. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel and Haddonfield, N. J.

— **fischeri** (d'Orb. sp.) Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol.  
1, pt. 3, p. 234, pl. 31, fig. 5. Montreal, 1884.  
J. F. Whiteaves.

Formation: Cretaceous.

Location: East end of Maud island.

— **fischeri** (d'Orb. sp.) Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1,  
pt. 3, p. 250. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Maud island.

— **sulcatus** (E. & S. sp.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 82, 83, pl.  
15, figs. 6a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and  
fifty miles above its mouth.

— **vancouverensis** (Meek sp.) Whiteaves. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 163,  
164, pl. 19, figs. 1, 1a. Montreal, 1879. J. F.  
Whiteaves.

Formation: Cretaceous.

Location: Southwest side of Hornby island, south-  
east end and southwest side of Denman island,  
Sable river and Blunden point, Vancouver  
island.

**Neptunea** (Bolton) Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 389. Phila., 1858-1860. W. M. Gabb.

— **curvirostris** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 88, pl. 18, fig.  
37. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Cow creek Shasta county, Cal.

— **gracilis** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 90, pl. 18, fig.  
42. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Bulls Head point, northeast of Mar-  
tinez, Cal.

— **gracilis** Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 149. Phila.,  
1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

— **hoffmannii** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 90, pl. 18, fig.  
41. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, Cal.

— **impressa** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, pp. 389, 390, pl. 68, fig. 5. Phila., 1858-  
1860. W. M. Gabb.

Formation: Cretaceous.

Location: Hardeman county, Tenn.

— **mucronata** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 147, pl. 26, fig.  
25. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

— **perforata** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 89, pl. 18, fig.  
39. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, Cal.

— **ponderosa** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 88, pl. 18, fig. 38.  
Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs (Lick springs), Pence's  
ranch, above Orville, Butte county, Cal.

— **? supraplicata** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 89, pl. 18, fig.  
40. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: San Diego; Clayton (?) Contra Costa  
county, Cal.

— **(Tritonofusus) cretacea** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, pp. 146, 147, pl.  
26, fig. 24. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

**Neptunella** n. subgen. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 344. Wash.  
1876. F. B. Meek.

**Nerinea** (Defrance) Conrad. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 158. Wash., 1857. T. A. Conrad.

— **acus n. s. Roemer.** (1849.)

Tex., p. 412. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— **acus Roemer.** (1852.)

Kreide von Tex., p. 42, Taf. 4, figs. 10a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— **? anguillina** (Castillo and Barcena.) (1877.)

Ann. Museo. Nac. Mex., Tomo 1, pp. 201, 202, figs. 25, 26. Mexico, 1877-1879. M. Barcena.

Formation: Cretaceous.

Location: Huetamo, state of Michoacan; cavern of Cacahuamilpa, Mexico.

— **austinensis n. s. Roemer.** (1888.)

Paleont. Abhandl. Vierter Band, Heft 4, p. 17, Taf. I [xxx], fig. 8. Berlin, 1888. F. Roemer.

Formation: Cretaceous.

Location: Two miles above the mouth of Bartons creek, near Austin, Tex.

— **castilli Barcena.** (1877.)

Ann. Museo. Nac. Mex., Tomo 1, pp. 200, 201, figs. 18, 22. Mexico, 1877-1879. M. Barcena.

Formation: Cretaceous.

Location: State of Queretaro, Morelos, Hidalgo, Michoacan, Mexico.

— **castilli** (Barcena) Urquiza. (1882.)

Ann. Min. Fomento Rep. Mex., Tomo 7, p. 224, figs. 9, 11. Mexico, 1882. M. Urquiza.

Formation: Cretaceous.

Location: Astalan and Rincon, Coalcoman district, state of Michoacan, Mexico.

— **cultrispira n. s. Roemer.** (1888.)

Paleont. Abhandl. Vierter Band, Heft 4, pp. 17, 18, Taf. I [xxx], fig. 9. Berlin, 1888. F. Roemer.

Formation: Cretaceous.

Location: Two miles above the mouth of Bartons creek, near Austin, Tex.

— **dispar n. s. Gabb.** (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 113, pl. 19, figs. 66, 66a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, Shasta county, Cal.

— **goodhallii ? Barcena.** (1877.)

Ann. Museo. Nac. Mex., Tomo 1, p. 201, fig. 24. Mexico, 1877-1879. M. Barcena.

Formation: Cretaceous.

Location: Near Orizaba, Mexico.

— **hieroglifica ? Barcena.** (1877.)

Ann. Museo. Nac. Mex., Tomo 1, p. 201, fig. 23. Mexico, 1877-1879. M. Barcena.

Formation: Cretaceous.

Location: Cavern of Cacahuamilpa, in Barranca Leca, and near Orizaba, Mexico.

**Nerinea**—Continued.— **hieroglifica** (Barcena) Urquiza. (1882.)

Ann. Min. Fomento Rep. Mex., Tomo 7, p. 224, figs. 10, 12. Mexico, 1882. M. Urquiza.

Formation: Cretaceous.

Location: Cerro de los Guzmanes, and road to Rincon, Coalcoman district, state of Michoacan, Mexico.

— **maudenses n. s. Whiteaves.** (1884.)

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 214, 215, pl. 27, figs. 2, 2a-d. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: East end of Maud island, opposite Leading island, in Skidegate inlet.

— **schottii n. s. Conrad.** (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, pp. 158, 159, pl. 14, figs. 3a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Oak creek, near mouth of Puercos river.

— **subula n. s. Roemer.** (1888.)

Paleont. Abhandl. Vierter Band, Heft 4, p. 18, Taf. I [xxx], fig. 10. Berlin, 1888. F. Roemer.

Formation: Cretaceous.

Location: Two miles above the mouth of Bartons creek, near Austin, Tex.

— **texana Roemer.** (1852.)

Kreide von Tex., p. 41, Taf. 4, fig. 7. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, and on the upper course of the Pedernales river, Tex.

— **sp. undet. (?) Roemer.** (1849.)

Tex., pp. 411, 412. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Upper course of Pedernales river, Tex.

— **sp. undet. Roemer.** (1852.)

Kreide von Tex., p. 41, Taf. 4, fig. 8. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: On the upper course of the Pedernales river, Tex.

— **sp. undet. Roemer.** (1852.)

Kreide von Tex., pp. 41, 42, Taf. 4, fig. 9. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: On the upper course of the Pedernales river, Tex.

**Nerita** (Linn) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 137. Phila., 1864. W. M. Gabb.

— **cuneata n. s. Gabb.** (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 137, 138, pl. 21, fig. 97. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs, Tehama county, Cal.

— **deformis n. s. Gabb.** (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 137, pl. 21, fig. 96. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, Cal.

**Nerita—Continued.****— (Theliostyla) triangulata n. s.**  
Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 170, pl. 28. figs.  
52, 52a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: New Idria, Cal.

**— ? White. (1885.)**

Bull. U. S. Geol. Sur., No. 22, p. 12, pl. 5, figs. 7, 8.  
Wash., 1885. C. A. White.

Formation: Cretaceous, Wallala group.

Location: Shore of Todos Santos bay, Lower California.

**Neritella (Hump.) M. & H. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 444.  
Phila., 1862. Meek & Hayden.

**— nebrascensis n. s. M. & H. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 444.  
Phila., 1862. Meek & Hayden.

Formation: Cretaceous.\*

Location: Head of Wind river, Nebr.

**— nebrascensis M. & H. (1865.)**

Paleont. Up. Missouri, Smithsonian. Cont. Knowl.,  
vol. 14, No. 172, pp. 109, 110, fig. 3 text.  
Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Head of Wind river, Dak.

**Neritina (Lam.) White. (1874.)**

Prelim. Rep. Geogr. and Geol. Expl. and Sur.  
west of one-hundredth meridian, G. M.  
Wheeler, p. 24. Wash., 1874. C. A. White.

**— (Lam.) White. (1874.)**

Prelim. Rep. Invert. Foss., Geogr. and Geol.  
Expl. and Sur. west of one-hundredth meridian,  
p. 24. Wash., 1874. C. A. White.

**— bannisteri (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 237. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— bannisteri (Meek) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., part 1, pp. 25, 26, pl. 12, figs. 10a-c.  
Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Carleton coal mine, Coalville, Utah.

**— bannisteri (Meek) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 52, pl. 5, figs.  
11, 12. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— bruneri n. s. White. (1882.)**

Proc. U. S. Nat. Mus., vol. 5, pp. 95, 96, pl. 4,  
figs. 7, 8. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of South Platte river, north-  
eastern Colorado.

**Neritina—Continued.****— bruneri White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 53, pl. 23,  
figs. 12, 13. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: East of the Rocky mountains in north-  
ern Colorado.

**— incompta n. s. White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 250. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Hilliard station, Wyo.

**— incompta White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 308, 309, pl. 7, figs. 6a-c. Wash.,  
1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Sulphur creek, near Hilliard  
station, Wyo.

**— naticiformis n. s. White. (1878.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4,  
No. 3, p. 715. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Bear river valley, near the mouth of  
Sulphur creek, Wyo.

**— naticiformis White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 244. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near Nellis station, Wyo.

**— naticiformis White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 89, pl. 30, figs. 3a, b. Wash.,  
1883. C. A. White.

Formation: Cretaceous.

Location: Near mouth of Sulphur creek, valley  
of Bear river, Wyo.

**— naticiformis White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 52, pl. 7, figs.  
5, 6. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— nebrascensis (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 51, pl. 3, figs.  
10, 11. Wash., 1883. C. A. White.

Formation: Jurassic.

Location: Vicinity of the Black hills.

**— nebrascensis (M. & H.) White. (1886.)**

Bull. U. S. Geol. Sur., No. 29, p. 23, pl. 4, fig. 16.  
Wash., 1886. C. A. White.

Formation: Jurassic.

Location: Black hills of Dakota.

**— nebrascensis ? (M. & H.) Hill. (1888.)**

Ann. Rep. Geol. Sur. Ark., for 1888, vol. 2, p. 129.  
Little Rock, 1888. R. T. Hill.

Formation: Cretaceous?

Location: Arkansas.

[\*Referred to the Jurassic by Mr. Meek in 1865.  
See Meek, F. B., Pal. Up. Missouri, pp. 109, 110.

The true geological age of the strata is yet in doubt.  
Wash., 1865.]

**Neritina—Continued.**

- **phaseolaris n. s. White.** (1874.)  
Prelim. Rep. Geogr. and Geol. Expl. and Sur.  
west of one-hundredth meridian. G. M.  
Wheeler, p. 24. Wash., 1874. C. A. White.  
Formation: Jurassic.  
Location: Salt creek, near Nephi, Utah.
- **phaseolaris n. s. White.** (1874.)  
Prelim. Rep. Invert. Foss., Geogr. and Geol. Expl.  
and Sur. west of one-hundredth meridian, p.  
24. Wash., 1874.  
Formation: Jurassic.  
Location: Salt creek, near Nephi, Utah.
- **? phaseolaris White.** (1875.)  
Rep. Geogr. and Geol. Expl. and Sur. of one  
hundredth meridian, vol. 4, pt. 1, pp. 167, 168,  
pl. 13, figs. 1a-c. Wash., 1875. C. A. White.  
Formation: Jurassic.  
Location: Salt creek, near Nephi, Utah.
- **pisiformis n. s. Meek.** (1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr.,  
pp. 500, 501. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **pisiformis (Meek) White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 237. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **pisiformis (Meek) White.** (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 26, 27. Wash., 1883. C. A.  
White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **pisum (Meek) White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 308, pl. 7, figs. 11a-c. Wash., 1879.  
C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **pisum (Meek) White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 237. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **? powelli n. s. White.** (1876.)  
Rep. Geol. Uinta Mts., pp. 110, 111. Wash.,  
1876. C. A. White.  
Formation: Jurassic.  
Location: Mouth of Thistle creek, Spanish fork  
canyon, Utah.
- **volvineata n. s. White.** (1876.)  
Rep. Geol. Uinta Mts., p. 131. Wash., 1876. C.  
A. White.  
Formation: Tertiary [Cretaceous].  
Location: Black buttes, Wyo.
- **volvineata White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 209. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Yampa valley, near Canyon park, Colo.

**Neritina—Continued.**

- **volvineata White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 220. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Black buttes station, Wyo.
- **volvineata White.** (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 88, 89, pl. 21, figs. 6a, b. Wash.,  
1883. C. A. White.  
Formation: Cretaceous.  
Location: Black buttes station, Wyo.
- **volvineata White.** (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 52, pl. 23,  
figs. 12, 13. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Black buttes, Wyo.
- **(dostia ?) bellatula n. s. Meek.**  
(1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 497, 498. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Carleton's coal mine, Coalville, Utah.
- **(dostia ?) carditoides n. s. Meek.**  
(1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 499. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Carleton's coal mine, Coalville, Utah.
- **(dostia ?) patelliformis n. s. Meek.**  
(1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 498, 499. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **(Neritella) bannisteri n. s. Meek.**  
(1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 499, 500. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Carleton's coal mine, Coalville, Utah.
- **(Neritella) pisum n. s. Meek.** (1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 500. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **(Velatella) baptista n. s. White.**  
(1878.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4,  
No. 3, pp. 715, 716. Wash., 1878. C. A. White.  
Formation: Cretaceous.  
Location: Black buttes station, Union Pacific rail-  
road, Wyo.
- **(Velatella) baptista White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 220. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Black buttes station, Wyo.

**Neritina—Continued.**— (**Velatella**) **baptista** White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 89, 90, pl. 29, figs. 6a, b. Wash.,  
1883. C. A. White.

Formation: Cretaceous.

Location: Black buttes station, Wyo.

— (**Velatella**) **baptista** White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 52, pl. 23,  
figs. 16–20. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black buttes, Wyo.

— (**Velatella**) **bellatula** (Meek) White.  
(1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 237. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— (**Velatella**) **bellatula** (Meek) White.  
(1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 52, pl. 5,  
figs. 8, 9. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— (**Velatella**) **bellatula** (Meek) White.  
(1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 27, 28, pl. 12, figs. 8a, b. Wash.,  
1883. C. A. White.

Formation: Cretaceous.

Location: Carleton's coal mine, Coalville, Utah.

— (**Velatella**) **carditoides** (Meek)  
White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur. west of  
one hundredth meridian, vol. 4, pt. 1, pp. 189,  
190, pl. 18, figs. 7a–c. Wash., 1875. C. A.  
White.

Formation: Cretaceous.

Location: South of Last bluff, Utah.

— (**Velatella**) **carditoides** (Meek)  
White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 237. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— (**Velatella**) **carditoides** (Meek)  
White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 52, pl. 5,  
fig. 10. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— (**Velatella**) **carditoides** (Meek)  
White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 28, 29, pl. 12, fig. 7a. Wash.,  
1883. C. A. White.

Formation: Cretaceous.

Location: Carleton's coal mine, Coalville, Utah.

— (**Velatella**) **patelliformis** (Meek)  
White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 237. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**Neritina—Continued.**— (**Velatella**) **patelliformis** (Meek)  
White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 309, pl. 7, figs. 7a–d. Wash., 1879.

C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— (**Nelatella**) **patelliformis** var. **web-**  
**erensis** n. var. White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 237. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— (**Velatella**) **patelliformis** var. **web-**  
**erensis** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 309, 310, pl. 7, figs. 8a, b. Wash.,  
1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

## — ? White. (1889.)

Bull. U. S. Geol. Sur., No. 51, p. 62, pl. 10, fig. 12.  
Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Palace camp, Wash.

**Neritopsis** (Gratel.) Shumard. (1859.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856–1860, p.  
598. St. Louis, 1856–1860. B. F. Shumard.

— **biangulatus** n. s. Shumard. (1859.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856–1860, p.  
598. St. Louis, 1856–1860. B. F. Shumard.

Formation: Cretaceous.

Location: Alexander's bend, Grayson county,  
Tex.

**Neverita** (Risso) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 108. Phila.,  
1864. W. M. Gabb.

— **globosa** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 161, pl. 27, fig.  
39. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Ten miles west of Griswold's on the  
road from San Juan to New Idria, and south-  
east of the "Sheep well," Cal.

— **secta** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 108, 109, pl.  
220, 220a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Alizos creek, near Fort Tejon, Cal.

**Nisæa** (subgen. Swain) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 514. Wash.,  
1876. F. B. Meek.

**Niso** (Risso) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 116. Phila.,  
1864. W. M. Gabb.

— **polita** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 116, pl. 21, fig.  
113. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Northeast of Martinez, Cal.

**Nodosaria (Lam.) Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur. vol. 1, pt. 2, p. 159. Wash., 1857. T. A. Conrad.

**— acus Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 3. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

**— ampla Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 6. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**— sulcata nils. (1870.)**

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 214. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Brownville and Turtle mill, N. J.

**— texana n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 159, pl. 14, figs 4a-c. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Between El Paso and Frontera.

**— tumescens Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 4. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**— vulgaris Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 2. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

**— vulgaris Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 5. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**— sp. Reuss. (1861.)**

Math. Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsb., 1861. Band XLIV, p. 334. Wien., 1862. A. E. Reuss.

Formation: Cretaceous.

Location: New Jersey.

**— (d'Orb.) Reuss. (1861.)**

Math. Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsb., 1861. Band XLIV, p. 334. Wien., 1862. A. E. Reuss.

**Nucleolites (Lam.) Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 75. Phila., 1834. S. G. Morton.

**— crucifer Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 294. New Haven, 1833. S. G. Morton.

Formation: [Cretaceous.]

Location: United States.

**— crucifer Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 75, pl. 3, fig. 15. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**Nucleolites—Continued.****— crucifer (Morton) Desor. (1858.)**

Synop. Echinoides Foss., p. 262. Paris and Wiesbaden, 1858. E. Desor.

Formation: Cretaceous.

Location: New Jersey.

**— crucifer (Morton) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges., Band 22, pp. 217, 218. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Brownville, N. J.

**— lyelli (Couper MSS.) Conrad. (1850.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 40, pl. 1, fig. 14. Phila., 1850-1854. T. A. Conrad.

Formation: Tertiary [Cretaceous?].

Location: Baker county, Ga.

**— mortoni (Couper MSS.) Conrad. (1850.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 40, pl. 1, fig. 11. Phila., 1850-1854. T. A. Conrad.

Formation: Tertiary [Cretaceous?].

Location: Palmyra, Lee county, Ga.

**Nucula [Lam.] Morton. (1834.)**

Synop. Org. Rem. Cret. Gr., U. S., p. 65. Phila., 1834. S. G. Morton.

**— (Lam. typical) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 98. Wash., 1876. F. B. Meek.

**— bellastrata n. s. Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, pp. 202, 203. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Red river bluffs, Fannin county, Tex.

**— bellastrata (Shumard) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 38, pl. 18, figs. 5a-c. Wash., 1883. C. A. White.

**— cancellata n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 85. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebr.

**— cancellata (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 102, 103, pl. 28, figs. 13a-e. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, Long lake, Deer creek, on the North Platte.

**— cancellata (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 181. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of the Cache à la Poudre, near Golden city, Colo.

**— cancellata (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near Golden city, Colo.

**Nucula—Continued.****— cancellata (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 37, 38. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: St. Mary river, eleven miles above its mouth, Canada.

**— cancellata (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 79. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Milk river, at the mouth of Pa-Kow-Ki coulee and Milk river, four miles east of the crossing of MacLeod Benton trail, Canada.

**— cuneifrons n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 281, pl. 46, fig. 33. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

**— distorta n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 396, 397, pl. 68, fig. 34. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Cut on the Memphis and Charleston R. R., where it crosses the Tennessee and Mississippi State line.

**— eufalensis n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 397, pl. 68, fig. 35. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Eufaula, Ala.

**— equilateralis n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, pp. 84, 85. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebr.

**— ermani (Gir.) Eichwald. (1871.)**

Geogr. Paleont., Bemerck. Halb. Mang. aleutischen Inseln, pp. 126, 127. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Atcha island, Alaska.

**— evansi n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 84. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebr.

**— haydeni n. s. Shumard. (1859.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 602, 603. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Red river, Fannin county, Tex.

**— haydeni (Shumard) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 38, pl. 18, figs. 6a, b. Wash., 1883. C. A. White.

**Nucula—Continued.****— monmouthensis n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 102, 103, pl. 11, fig. 1. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Marlboro and Haddonfield, N. J.

**— obsoletastriata n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 275. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Great bend of the Missouri, Nebr.

**— obsoletistriata (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 100, 101, pl. 15, figs. 10c, d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri.

**— pectinata (?) (Sow.) Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 161, pl. 18, fig. 8. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Lower part of the Trent river.

**— percrassa n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 327, pl. 35, fig. 4. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**— percrassa (Con.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 318. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

**— percrassa (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, p. 102, pl. 11, figs. 4-6. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Near Burlington, (?) N. J.

**— perequalis n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 281. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

**— perequalis (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 104, 105. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: New Jersey (?).

**— planimarginata (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 101, 102, pl. 15, fig. 8a, b, pl. 28, fig. 16. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, Long lake, Butte au Gros, etc.

**Nucula—Continued.****—planimarginata (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 182. Wash., 1879. O. A. White.

Formation: Cretaceous.

Location: Valley of the Cache à la Poudre, the mouth of the Saint Vrain creek, and near Golden city, Colo.

**—planimarginata (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. O. A. White.

Formation: Cretaceous.

Location: Near Golden city, Colo.

**—planimarginata (M. & H.) White. (1869.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 206. Wash., 1879. O. A. White.

Formation: Cretaceous.

Location: Sage creek, Colo.

**—planimarginata (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., pp. 406, 407, pl. 11, figs. 5, 6. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, ten miles west of the mouth of Beaver creek, Black hills.

**—planomarginata n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 85. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebr.

**—scitula n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 84. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebr.

**—serrata n. s. Shumard. (1859.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 603. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Bluffs of Red river, Lamar county, Tex.

**—slackiana Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 318. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**—slackiana (Gabb) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 103, 104, pl. 11, figs. 2, 3. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Rev. G. C. Schauck's pits, near Marlboro, N. J.

**—soltaria n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 197, pl. 32. fig. 94. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Texas flat, Placer county, Cal.

**Nucula—Continued.****—solitaria (Gabb) Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 232, 233, pl. 31, figs. 3, 3a. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Alliford bay.

**—subnasuta n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., pp. 384, 385, pl. 1, figs. 10, a-c. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: Sage creek.

**—subplana n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 85. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above mouth, Nebr.

**—subplana (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 99, 100, pl. 17, figs. 7a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles from its mouth.

**—traskana n. s. Meek. [\*1858.]**

Trans. Albany Inst., vol. 4, p. 39. Albany, 1858-1864. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

**—traskana Meek. (1876.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, p. 356. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

**—truncata n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 198, 199, pl. 26, figs. 184, 184a, b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Pence's ranch, Butte county; Tuscan springs, Tehama county; Ranch of San Luis Gonzaga, east of Pacheco pass, Martinez, Cal.

**—ventricosa n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 385, pl. 1, figs. 11a, b. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: Sage creek.

**—(Acila) truncata Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 197. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Almost every locality of the Chico, Martinez, and Tejon groups, Cal.

**—(Acila) truncata (Gabb) Whiteaves. (1874.)**

Geol. Sur. Can., Rep. Prog. for 1873-1874, pp. 264, 265. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Gabriola island.

\*The date of this paper has been given by Meek as 1856 and 1857; by White as 1856, and by Marcou as 1857; 1858 is the earliest date of imprint on the volume.



**Nucula**—Continued.— (*Acila*) *truncata* (Gabb) Whiteaves. (1879.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 162. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island; Gabriola island; southwest side of Denman island; Nanaimo river, Vancouver island, two miles and a quarter up, and Protection island.

— (*Acila*) *truncata* (Gabb) Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 232. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: Bear Skin bay and bay east of Alliford bay, in Skidegate inlet.

## — sp. undet. Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 23, p. 292. New Haven, 1833. S. G. Morton.

Formation: [Cretaceous.]

Location: Near Bordentown, N. J.

## — sp. undet. Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 65. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Vicinity of Bordentown, N. J.

## — sp. undet. Whiteaves. (1874.)

Geol. Sur. Can., Rep. Prog. for 1873-1874, p. 263. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, Vancouver island, two and one-quarter and two and one-half miles up.

## — sp. undet. Whiteaves. (1876.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, p. 73. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

## — ? White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 248. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear river valley, Wyo.

**Nuculana** (Link) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 103, 104. Wash., 1876. F. B. Meek.

— *bisulcata* (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 104, 105, pl. 15, fig. 4a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Deer creek, near north branch of Platte river.

— *bisulcata* (M. & H.) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 407, 408, pl. 11, fig. 7. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Boxelder creek, and on the east fork of Beaver creek, Black hills.

**Nuculana**—Continued.— *compressifrons* (Con.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 109, pl. 11, fig. 9. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— ? *equilateralis* (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 106, pl. 15, figs. 7a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river.

— *gabbana* n. s. Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 106, 107, pl. 11, figs. 11-13. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Freshold, N. J.

— *inclara* n. s. White. (1878.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4 No. 3, pp. 708, 709. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Danforth hills, near White River Indian agency, Colo.

— *inclara* White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 212. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Danforth hills, Colo.

— *inclara* White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 60, 61, pl. 25, fig. 7a. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Danforth hills, near White River Indian agency, northwestern Colorado.

— *longifrons* (Con.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 107, 108, pl. 11, figs. 16, 17. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— *pinnaformis* (Gabb) Whitfield. (1884.)

Mon. U. S. Geol. Sur., vol. 9, pp. 108, 109, pl. 11, figs. 7, 8. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— *protexta* Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 318. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

— *protexta* (Gabb) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 105, 106, pl. 11, fig. 10. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Crosswicks and Mullica hill, N. J.

— *subequilatera* n. s. Whitfield. (1877.)

U. S. Geogr. and Geol. Sur., Rocky Mt. Region; Prelim. Rep. Paleont., Black Hills, p. 33. Wash., 1877. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near French creek.

**Nuculana**—Continued.

- **subequilatera** Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., p. 408, pl. 11, figs. 3, 4. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: On the Cheyenne river, near French creek, Black hills.
- **subnasuta** (H. & M.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 105, 106, pl. 15, fig. 9. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Great bend of the Missouri, below Fort Pierre.

**Nucularia n. g.** Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 44.  
Phila., 1870. T. A. Conrad.

- **papyria n. s.** Conrad. (1869.)  
Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 44, pl. 1, fig. 7. Phila., 1870. T. A. Conrad.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.
- **papyria** Conrad. (1869.)  
Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 98, pl. 9, fig. 25. Phila., 1870. T. A. Conrad.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

- **papyria** (Con.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 111, 112, pl. 11, figs. 18-20. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

**Nummulites** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 45. Phila., 1834. S. G. Morton.

- **mantelli n. s.** Morton. (1833.)  
Am. Jour. Sci., 1st. ser., vol. 23, p. 291, pl. 5, fig. 9. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: Near Claiborne, Ala.
- **mantelli** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., pp. 45, 46, pl. 5, fig. 9. Phila., 1834. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: Near Claiborne, Ala.

- Obovaria** (subgen. Raf.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 514. Wash., 1876. F. B. Meek.

**Odontobasis** ? n. g. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 351, 352. Wash., 1876. F. B. Meek.

- **buccinoidea n. s.** White. (1876.)  
Rep. Geol. Uinta Mts., p. 124. Wash., 1876. C. A. White.  
Formation: Cretaceous.  
Location: Two miles west of Point of Rocks, Wyo.

- **buccinoides** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 215. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bitter creek valley, two miles west of Point of Rocks station, Wyo.

**Odontobasis**—Continued.

- **buccinoides** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 222. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Two miles west of Point of Rocks, Wyo.

- **buccinoides** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 102, 103, pl. 20, figs. 3a, b. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Two miles west of Point of Rocks station, Wyo.

— **constricta** (H. & M. sp.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 352-354, figs. 41, 42, p. 353. Wash., 1876. F. B. Meek.

Formation: Cretaceous.  
Location: Deer creek, on the north branch of Platte river.

— **? formosa n. s.** White. (1878.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, pp. 718, 719. Wash., 1878. C. A. White.  
Formation: Cretaceous.

Location: Danforth hills, northwestern Colorado.

— **? formosa** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 213. Wash., 1879. C. A. White.  
Formation: Cretaceous.

Location: Danforth hills, Colo.

— **? formosa** White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 103, pl. 28, fig. 7a. Wash., 1883. C. A. White.  
Formation: Cretaceous.

Location: Danforth hills, near White river Indian agency, northwestern Colorado.

— **ventriosa n. s.** Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 354, pl. 19, figs. 1a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.

Location: Cherry creek, near the mouth of Sage creek, Dak.

**Cene n. g.** Conrad. (1875.)

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875.  
W. C. Kerr. App. A, p. 9. T. A. Conrad.

— **plana n. s.** Conrad. (1875.)

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875.  
W. C. Kerr. App. A, p. 9, pl. 1, fig. 17. T. A. Conrad.

Formation: Cretaceous.  
Location: Snow hill, Greene county, N. C.

**Olcostephanus quatsinoensis n. s.** Whiteaves. (1882.)

Proc. and Trans. Roy. Soc. Can., vol. 1, sec. 4, p. 82, fig. 1. Montreal, 1883. J. F. Whiteaves.  
Formation: Cretaceous.

Location: Forward inlet, Quatsino sound, Canada.

— **loganianus** Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 211, 212, pl. 23, figs. 1, 1a. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.

Location: South side of Alliford bay, in Skidegate inlet.

**Oligoptych[a] subgen. Meek. (1876.)**

Rep. U. S. Geol. Terr., vol. 9, p. 283. Wash., 1876. F. B. Meek.

**Olivella (Swains) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 100. Phila., 1864. W. M. Gabb.

**— mathewsonii n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 100, pl. 18, fig. 53. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Northeast of Martinez; also at Alizos creek, near Fort Tejon, Cal.

**Omphalophacus? tenellus Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 34. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**Omphiscola (subgen. Raf.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 533. Wash., 1876. F. B. Meek.

**Ophioderma White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 8. Wash., 1883. C. A. White.

**—? briderensis (Meek) White. (1882.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 8, 9, pl. 12, fig. 12a. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: "Last foot of Bridge peak, four miles north of Fort Ellis, Mont."

**Opis (Defr.) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 327. Phila., 1855-1858. T. A. Conrad.

**— (Defr.?) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 311. Phila., 1876. W. M. Gabb.

**— bella n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 327. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**— bicarinata n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 327. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**— conradi Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 311. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

**— vancouverensis n. s. Whiteaves. (1879.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 158-160, pl. 18, figs. 4, 4a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Southwest side of Denman island.

**Opis—Continued.****— vancouverensis Whiteaves. (1887.)**

Geol. and Nat. Hist. Sur. Can., vol. 2, n. ser., 1886, App. I, p. 112 B. Montreal, 1887. J. F. Whiteaves.

Formation: Cretaceous.

Location: West end of Lasqueti island (in the strait of Georgia) near False bay.

**— vancouverensis Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 155. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: West end of Lasqueti island (in the strait of Georgia) near False bay.

**Orbitulites texanus n. s. Roemer. (1849.)**

Tex. p. 392. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: On road from New Braunfels to Fredericksburg, Tex.

**— texanus Roemer. (1852.)**

Kreide von Tex. p. 86, Taf. 10, figs. 7a-d. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Wasp creek, on road from New Braunfels to Fredericksburg, and upper course of the Pedernales river, Tex.

**Orthoceras (Brug.) Gabb. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 6. Phila., 1870. W. M. Gabb.

**— blakei Gabb. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 6. Phila., 1870. W. M. Gabb.

Formation: Triassic.

Location: Nevada.

**— blakei (Gabb?) Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 104, 105, pl. 10, fig. 11. Wash., 1877. F. B. Meek.

Formation: Triassic.

Location: Ridge above Cottonwood canyon, West Humboldt range.

**Orthoceratites (Brey.) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 19. Phila., 1864. W. M. Gabb.

**— blakei n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 19, pl. 3, fig. 1. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: Buena Vista district, Humboldt mining region.

**Ostrea [Linn.] Say. 1820.**

Am. Jour. Sci., 1st ser., vol. 2, p. 42. New Haven, 1820. Thomas Say.

**— acuticosta n. s. N. & G. (1840.)**

Bull. Roy. Acad. Sci. Bruxelles, Tome 7, pt. 2, pp. 213, 214, fig. 2. Bruxelles, 1840. Nyst & Galeotti.

Formation: Jurassic.

Location: Tehuacau, Mexico.

**Ostrea—Continued.****— acutirostris (Nilsson) Troost. (1840.)**

Fifth Geol. Rep. Tenn., p. 46. Nashville, 1840.  
G. Troost.

Formation: Cretaceous.

Location: McNairy county, Tenn.

**— acutirostris (Nils.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 227.  
Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Near Woodbury, N. J.

**— acutirostris (Nils.) n. var. Eichwald. (1871.)**

Geogr.-Paleont. Bemerk. Halb. Mang. aleutischen Inseln, pp. 134, 135. St. Petersburg, 1871.  
E. Eichwald.

Formation: Cretaceous.

Location: Alaskan peninsula.

**— americana (Deshayes) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 291. Wash., 1884. C. A. White.

Formation: Cretaceous.

**— anomiaeformis n. s. Roemer. (1849.)**

Tex. p. 394. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Ford and waterfall near New Braunfels, Tex.

**— anomiaeformis Roemer. (1852.)**

Kreide von Tex. p. 75, Taf. 9, figs. 7a-d. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Ford and waterfall of the Guadalupe near New Braunfels, Tex.

**— anomiaeformis (Roemer) Coquand. (1869.)**

Monog. Genre Ostrea Terrain Crétacé, p. 31, pl. 4, figs. 9-13. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: New Braunfels, Tex.

**— anomiaeformis (Roemer) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 291. Wash., 1884. C. A. White.

Formation: Cretaceous.

**— anomioides n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 488. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Missouri river, below Gallatin city, Mont.

**— anomioides (Meek) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 10, 11, pl. 11, figs. 4, a, b. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Missouri river, below Gallatin city, Mont.

**Ostrea—Continued.****— anomioides (Meek) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 291, pl. 39, figs. 4, 5. Wash., 1884. C. A. White.

Formation: Cretaceous.

**— appressa n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 203, 204, pl. 34, fig. 104, 104a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: One of the branches of Eel river, at the mouth of Salt creek, southwest of Round valley, Mendocino county, Cal.

**— appressa (Gabb) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., pp. 291, 292, pl. 39, fig. 9. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: California.

**— arietina (d'Orb.) Coquand. (1869.)**

Monog. Genre Ostrea Terrain Crétacé, p. 42, pl. 5, figs. 10-13. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Waco camp, Mission hills, New Braunfels, and Leon springs, Tex.

**— barrandei n. s. Coquand. (1869.)**

Monog. Genre Ostrea Terrain Crétacé, p. 47, pl. 12, figs. 1-4. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: New Jersey.

**— barrandei (Coquand) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., pp. 292, 293, pl. 44, figs. 1, 2; pl. 45, fig. 2, pl. 46, fig. 1. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: New Jersey?

**— bella n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 156, pl. 10, figs. 4a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Western Texas.

**— bella (Con.) Coquand. (1869.)**

Monog. Genre Ostrea Terrain Crétacé, p. 61, pl. 32, figs. 7, 8. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Canada, Texas, and Mexico.

**— bella (Con.) White. (1884)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 292, pl. 39, fig. 6. Wash., 1884. C. A. White.

Formation: Cretaceous.

**— bellaplicata n. s. Shumard. (1859.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 608, 609, St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Near Sherman, in the bluffs of Post Oak creek, and various other localities in Grayson county, Tex.

**— belliplicata (Shum.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 292, pl. 47, figs. 1-3. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Texas.

**Ostrea—Continued.****— (Alectryonia) belliplicata (Shum.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 276, 277, pl. 4, figs. 3a, b; pl. 8, figs. 2a, b. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near Sherman, in the bluffs of Post Oak creek, and various other localities in Grayson county (Tex.), Denison, Tex.

**— bellarugosa (Shum.) White. (1883.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 292. Wash., 1884. C. A. White.

Formation: Cretaceous.

**— blackii White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 292, pl. 45, fig. 1; pl. 46, fig. 2. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Texas.

**— brewerii n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 204, pl. 26, fig. 191. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Cow creek, Shasta county, Cal.

**— brewerii (Gabb) Coquand. (1869.)**

Monog. Genre Ostrea Terrain Crétacé, pp. 61, 62, pl. 32, fig. 10. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Cow creek, Shasta county, Cal.

**— brewerii (Gabb) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 293. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: California.

**— bryani n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 321, Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Near Vincenttown, N. J.

**— bryani (Gabb) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 293. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: New Jersey.

**— carinata (Lam.) Roemer. (1849.)**

Tex., p. 394, Bonn., 1849. F. Roemer.

Formation: Cretaceous.

Location: Waco camp, near New Braunfels, Tex.

**— carinata (Lam.) Roemer. (1852.)**

Kreide von Tex., p. 76, Taf. 9, fig. 5. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waco camp, on the Guadalupe above New Braunfels, Tex.

**— carinata (Lam.) Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 156, pl. 10, fig. 6. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Turkey creek; Las Minas, New Braunfels.

**Ostrea—Continued.****— carinata (Lam.) (Roemer.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 293, pl. 43, figs. 1-4. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Texas.

**— coalvillensis (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 233. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— coalvillensis (Meek) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 293, pl. 36, figs. 1-4. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— confragosa n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 329, pl. 34, fig. 4. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**— confragosa (Con.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 293. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Mississippi.

**— congesta n. s. Conrad. (1843.)**

Rep. Hydrog. Basin Upper Mississippi river, I. N. Nicollot. App. C, p. 169. Wash., 1843. T. A. Conrad.

Formation: Cretaceous.

Location: On the Missouri river.

**— congesta (Con.) Hall. (1856.)**

Rep. Expl. and Sur. R. R. Mississippi river to Pacific ocean, vol. 3, pt. 4, p. 100, pl. 1, fig. 11. Wash., 1856. James Hall.

Formation: Cretaceous.

Location: Three miles north of Galisteo; from marls on the Missouri; Missouri river, twenty-six miles above the mouth of l'Eau qui Court.

**— congesta (Con.) Coquand. (1869.)**

Monog. Genre Ostrea Terrain Crétacé, p. 49, pl. 17, fig. 5. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Arkansas, New Mexico, and on the Missouri.

**— congesta (Con.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 13, 14, pl. 9, figs. 1a-f. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: At numerous places along the Missouri between the Big Sioux and the Great bend; also on Little Blue river, near the Kansas and Nebraska line, and near the Black hills, on Cheyenne river, as well as on the North Platte, in the Niobrara group. It likewise occurs at several localities in New Mexico and Colorado.

**Ostrea—Continued.**

- **congesta** (Conrad) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 197. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear creek, near Morrison, Colo.
- **congesta** (Conrad.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 233, 234. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **congesta** (Con.) White. 1884.  
Fourth Ann. Rep. U. S. Geol. Sur., p. 294, pl. 39,  
figs. 11, 13. Wash., 1884. C. A. White.  
Formation: Cretaceous.
- **congesta** (Con.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, pp. 78, 79. Montreal, 1885. J.  
F. Whiteaves.  
Formation: Cretaceous.  
Location: Rocky Spring ridge, near MacLeod  
Benton trail; west flank of West butte, in the  
Sweet Grass hills, and close to the international  
boundary line.
- **congesta** (Con.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, p. 83. Montreal, 1885. J. F.  
Whiteaves.  
Formation: Cretaceous.  
Location: Waterton river, a few miles below the  
lake, Canada.
- **congesta** (Con.) Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 2, pp. 186, 187. Montreal, 1889.  
J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Swan river; Ocre river, township 23,  
range 17, west; and township 22 in the same  
range; Vermilion river, township 24, range 17,  
west; and township 25 in the same range; Roll-  
ing river, two miles above the old C. P. R.  
crossing, and Swan river, township 35, range 29,  
west; Thunder hill, township 35, range 30,  
west; Assiniboine river, section 36, township 8,  
range 11, west, Manitoba.
- **convexa** n. s. Say. (1820.)  
Am. Jour. Sci., 1st ser., vol. 2, pp. 42, 43. New  
Haven, 1820. Thomas Say.  
Formation: [Cretaceous.]  
Location: Near Burlington, N. J., and at Mullica  
hill, same State.
- **convexa** (Say) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 294. Wash.,  
1884. C. A. White.  
Formation: Cretaceous.
- **cortex** (Con.) Coquand. (1869.)  
Monog. Genre Ostrea Terrain Crétacé, pp. 64, 65,  
pl. 34, figs. 11–14. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.  
Location: Dry creek, Mexico.

**Ostrea—Continued.**

- **cortex** (Con.) White. (1875.)  
Rep. Geogr. and Geol. Expl. and Sur. west of one  
hundredth meridian, vol. 4, pt. 1, p. 170, pl. 15,  
figs. 2a–c. Wash., 1875. C. A. White.  
Formation: Cretaceous.  
Location: Colob plateau, southwest of Kanara,  
and also at the North fork of Virgin river, Utah.
- **cortex** (Con.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 294, pl. 37,  
figs. 3, 4. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Dry creek, Mexico.
- **crenulata** (Tuomey) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 294. Wash.,  
1884. C. A. White.  
Formation: Cretaceous.
- **crenulimarginata** n. s. Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858–  
1860, p. 398, pl. 68, figs. 40, 41. Phila., 1858–  
1860. W. M. Gabb.  
Formation: Cretaceous.  
Location: Two miles east of Middleton, Tenn.
- **crenulimarginata** (Gabb) Coquand.  
(1869.)  
Monog. Genre Ostrea Terrain Crétacé, p. 51, pl.  
17, figs. 12, 13. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.  
Location: Tennessee.
- **crenulimarginata** (Gabb) White.  
(1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 294, pl. 40,  
fig. 2. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Tennessee.
- **crenulimarginata** (Gabb) Whitfield.  
(1885.)  
Mon. U. S. Geol. Sur., vol. 9, p. 30, pl. 3, figs.  
10, 11. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Marlboro, N. J.
- **crenulimargo** n. s. Roemer. (1852.)  
Kreide von Tex., p. 76, Taf. 9, figs. 6a, b. Bonn,  
1852. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.
- **crenulimargo** (Roemer) Coquand.  
(1869.)  
Monog. Genre Ostrea Terrain Crétacé, pp. 55, 56,  
pl. 25, figs. 7, 8. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.
- **crenulimargo** (Roemer) White.  
(1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 294, pl. 33,  
figs. 8, 9. Wash. 1884. C. A. White.  
Formation: Cretaceous.  
Location: Texas.

**Ostrea—Continued.****—cretacea n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 52, pl. 19, fig. 3. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Erie, Greene county, Ala.; South Carolina.

The South Carolina specimen is probably Tertiary, but the Alabama specimen is undoubtedly Cretaceous.

**—cretacea (Mort.) Owen. (1860.)**

Second Rep. Geol. Rec. Ark., pl. 8, fig. 8. Phila., 1860. D. D. Owen.

Formation: Cretaceous.

Location: Arkansas.

**—cretacea ? (Mort.) Owen. (1860.)**

Second Rep. Geol. Rec. Ark., pl. 7, fig. 7. Phila., 1860. D. D. Owen.

Formation: Cretaceous.

Location: Arkansas.

**—cretacea (Mort.) Owen. (1860.)**

Second Rep. Geol. Rec. Ark., pl. 7, figs. 3a, b. Phila., 1860. D. D. Owen.

Formation: Cretaceous.

Location: Arkansas.

**—cretacea (Morton) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 328. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Mullica hill, N. J.

**—cretacea (Morton) Coquand. (1869.)**

Monog. Genre Ostrea Terrian Crétacé, p. 52, pl. 23, figs. 4, 5. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Greene county, and Prairie bluff, Ala.; Erie, Ark.

**—cretacea (Morton) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., pp. 294, 295. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Arkansas.

**—cristagalli ? [Schlot.] Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 284. New Haven, 1830. S. G. Morton.

Formation: [Cretaceous.]

Location: [St. Georges, Del.]

**—cristagalli ? [Schlot.] Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 18, pl. 3, fig. 22. New Haven, 1830. S. G. Morton.

**—denticulifera n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 330, pl. 34, figs. 1, 8. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Itipley, Miss.

**—denticulifera (Con.) Coquand. (1869.)**

Monog. Genre Ostrea Terrain Crétacé, p. 50, pl. 17, figs. 8, 9. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Alabama, Missouri, and Tennessee.

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**Ostrea—Continued.****—denticulifera (Con.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 295. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Mississippi.

**—denticulifera (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, p. 29, pl. 3, figs. 8, 9. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**—diluviana (Linn.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 295, pl. 40, fig. 1, pl. 41, figs. 1, 2. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Bell county, Tex.

**—elegantula (Newberry) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 295, pl. 36, figs. 5-7. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Valley of Canadian river.

**—engelmanni n. s. Meek. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 311. Phila., 1861. F. B. Meek.

Formation: Jurassic.

Location: Red buttes, on the North Platte, latitude  $42^{\circ} 50'$ , longitude  $106^{\circ} 40'$  west.

**—engelmanni Meek. (1876.)**

Rep. Expl. Great Basin Terr., Utah, pp. 355, 356, pl. 3, fig. 6. Wash., 1876. F. B. Meek.

Formation: Jurassic.

Location: Red buttes, on the North Platte, latitude  $42^{\circ} 50'$ , longitude  $106^{\circ} 40'$  west.

**—engelmanni (Meek) M. & H. (1865.)**

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, pp. 73, 74, figs. A and B. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Red buttes, on north branch of Platte river, Dak. Ter., latitude  $42^{\circ} 50'$ , longitude  $106^{\circ} 40'$  west.

**—engelmanni (Meek) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 289, pl. 34, figs. 3, 4. Wash., 1884. C. A. White.

Formation: Jurassic.

Location: Eastern portion of Wyoming.

**—exogyrella n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 322, 323. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek and Georgetown, Ga.

**—exogyrella (Gabb) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 296. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Georgia.

**Ostrea—Continued.**

- **falcata n. s. Morton.** (1827.)  
Journ. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 50, 51, pl. 1, fig. 2. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.  
Location: Delaware and Chesapeake canal, near St. Georges.
- **falcata Morton.** (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 284. New Haven, 1830. S. G. Morton.  
Formation: Cretaceous.  
Location: St. Georges, Delaware; many parts of New Jersey.
- **falcata Morton.** (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, pl. 3, figs. 19, 20. New Haven, 1830. S. G. Morton.
- **falcata Morton.** (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., pp. 50, 51, pl. 3, fig. 5; pl. 9, figs. 6, 7. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: St. Georges, Del.; Catawba, Ala.; Prairie bluff, on the Alabama river; Shrewsbury, N. J.
- **falcata ? (Mort.) Troost.** (1840.)  
Fifth Geol. Rep. Tenn., pp. 45, 46. Nashville, 1840. G. Troost.  
Formation: Cretaceous.  
Location: Near Purdy, McNairy county, Tenn.
- **falcata (Mort.) Owen.** (1860.)  
Second Rep. Geol. Rec. Ark., pl. 7, fig. 5. Phila., 1860. D. D. Owen.  
Formation: Cretaceous.  
Location: Arkansas.
- **falcata (Morton) White.** (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 296. Wash., 1884. C. A. White.  
Formation: Cretaceous.
- **falcata var. mesenterica n. var. Morton.** (1833.)  
Am. Jour. Sci., 1st ser., vol. 24, pl. 9, fig. 7. New Haven, 1833. S. G. Morton.
- **falcata var. nasuta n. var. Morton.** (1833.)  
Am. Jour. Sci., 1st ser., vol. 24, pl. 9, fig. 6. New Haven, 1833. S. G. Morton.
- **ferdinandi n. s. Coquand.** (1869.)  
Monog. Genre Ostrea Terrain Crétacé, pp. 33, 34, pl. 5, figs. 14, 15. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.  
Location: Leon springs and New Braunfels, Tex.
- **flabellula (Lam.) Troost.** (1840.)  
Fifth Geol. Rep. Tenn., p. 46. Nashville, 1840, G. Troost.  
Formation: Cretaceous.  
Location: McNairy county, Tenn.
- **fragosa (Con. sp.) Coquand.** (1869.)  
Monog. Genre Ostrea Terrain Crétacé, p. 53, pl. 23, figs. 6, 7. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.  
Location: Between El Paso and Frontera, Tex.

**Ostrea--Continued.**

- **franklini n. s. Coquand.** (1869.)  
Monog. Genre Ostrea Terrain Crétacé, p. 53, pl. 23, figs. 8-10. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.  
Location: Arkansas.
- **franklini (Coquand) White.** (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 296, pl. 39, figs. 1-3. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Arkansas.
- **franklini (Coquand) Hill.** (1888.)  
Ann. Rep. Geol. Sur. Ark., for 1888, vol. 2, pp. 131-133, pl. 5, figs. 1-18a; pl. 6, figs. 19-25; pl. 7, figs. 28-30. Little Rock, 1888. R. T. Hill.  
Formation: Cretaceous.  
Location: Vicinity of Murfreesboro, Pike county, Ark., junction of Little Missouri river and the Muddy fork.
- **gabbana n. s. M. & H.** (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 440. Phila., 1862. Meek & Hayden.  
Formation: Cretaceous.  
Location: Head of Gros Ventre river, Nebr.
- **gabbana (M. & H.) White.** (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 296. Wash., 1884. C. A. White.  
Formation: Cretaceous.
- **glabra n. s. M. & H.** (1857.)  
Proc. Acad. Nat. Sci., Phila. for 1857, pp. 146, 147. Phila., 1858. Meek & Hayden.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Nebr.
- **glabra (M. & H.) Meek.** (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 509, 510, pl. 40, figs. 2a-d. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Mont.
- **glabra (M. & H.) White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 167, 168. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Crow creek valley, Colo.
- **glabra (Meek) White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 190. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Bijou creek, Colo.
- **glabra (M. & H.) White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 208. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Yampa valley near Canyon park, Colo.
- **glabra (M. & H.) White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 215. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Rock springs, Wyo.



**Ostrea—Continued.**

- **glabra** (M. & H.?) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 215. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bitter creek valley, two miles west of Point of Rocks station, Wyo.
- **glabra** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 216. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Point of Rocks station, Wyo.
- **glabra** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 217, 218. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Point of Rocks and Black buttes station, Wyo.; eastern Colorado, Bear river valley.
- **glabra** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 15, pl. 10, figs. 1-5. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Valley of the South Platte, Colo.
- **glabra** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 15, pl. 11, figs. 1-4. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Point of Rocks, Wyo.
- **glabra** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 15, pl. 12, fig. 1. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Point of Rocks, Wyo.
- **glabra** (M. & H.) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 56. Wash., 1883. C. A. White.  
Formation: Cretaceous.
- **glabra** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 15, pl. 9, figs. 1-4. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Valley of the South Platte, Colo.
- **glabra** (M. & H.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., pp. 307, 308, pls. 58-60. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.
- **glabra** (M. & H.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, p. 64. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: South Saskatchewan, one mile below the mouth of the Bow river; also South Saskatchewan, six miles below the mouth of the Bow river, and north bank of the Milk river, five miles below Pa-Kow-Ki coulee, and south bank of Milk river, above Pa-Kow-Ki coulee, Canada.

**Ostrea—Continued.**

- **glabra** (M. & H.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 56. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Near Bull's head; Saskatchewan coal mines, near Medicine hat, Canada.
- **glabra** (M. & H.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 5. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Bow river, mouth of East Arrowwood creek; Upper Belly river, twenty-three miles above the mouth of the Waterton; forks of Devil's Pine and Three Hills creeks; also Red Deer river, near eighth correction line; Oyster creek, northwest branch of the north fork of the Old Man river.
- **glandiformis** n. s. Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 205, 206, pl. 27, figs. 1-5. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Farmingdale; Squankum; Shark river, near New Egypt; near Vincentown, N. J.
- **idraensis** n. s. Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 203, pl. 33, figs. 103, b-d; pl. 34, figs. 103, 103a. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: About two miles east of the Hacienda at New Idria, Cal.
- **idriaensis** (Gabb?) Meek. (1872.)  
Fifth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 375. Wash., 1872. F. B. Meek.  
Formation: Cretaceous.  
Location: Point of Rocks, Wyo.
- **idriaensis** (Gabb) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 296, pl. 34, figs. 7, 8. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: California.
- **inornata** n. s. M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, pp. 181, 182. Phila., 1861. Meek & Hayden.  
Formation: Cretaceous.  
Location: Great bend of the Missouri, below Fort Pierre, Nebr.
- **inornata** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 14, pl. 10, fig. 4. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Great bend of the Missouri, below Fort Pierre.
- **inornata** (Meek) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 296. Wash., 1884. C. A. White.  
Formation: Cretaceous.

**Ostrea—Continued.**

- **inornata** (M. & H.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont.,  
vol. 1, pt. 1, p. 30. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: St. Mary river, near its confluence with the Belly river, Canada.

- **insecura** n. s. White. (1876.)

Rep. Geol. Uinta Mts., pp. 112, 113. Wash., 1876. C. A. White.

Formation: Cretaceous.

Location: Two miles west of Point of Rocks, Wyo.

- **larva** (Lam.) Troost. (1840.)

Fifth Geol. Rep. Tenn., p. 46. Nashville, 1840. G. Troost.

Formation: Cretaceous.

Location: McNairy county, Tenn.

- **larva** (Lam.) Cook. (1868.)

Ann. Rep. Geol. Sur., New Jersey, for 1868, p. 375. fig. on p. 375. Newark, 1868. G. H. Cook.

Formation: Cretaceous.

Location: New Jersey.

- **larva** (Lam.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, pp. 226, 227. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Woodbury, Marlboro, Nutswamp, N. J.

- **larva** (Lam.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 320. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Georgetown, Quitman county, Ga.

- **larva** (Lam.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 34-36, pl. 3, figs. 3-7. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Throughout New Jersey.

- **larva** (Lam.) Hill. (1889.)

Geol. Sur. Tex., Bull. No. 4, p. 6. Austin, 1889. R. T. Hill.

Formation: Cretaceous.

Location: Manor, Travis county, Tex.

- **lateralis** (Nilsson) Troost. (1840.)

Fifth Geol. Rep. Tenn., p. 46. Nashville, 1840. G. Troost.

Formation: Cretaceous.

Location: McNairy county, Tenn.

- **lateralis** (Nils. sp.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 228. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Eatontown and Timber creek, N. J.

- **lateralis** (Nilsson) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 297. Wash., 1884. C. A. White.

Formation: Cretaceous.

**Ostrea—Continued.**

- **littlei** n. s. Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 321, 322. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek and Georgetown, Ga.

- **littlei** (Gabb) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 297. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Georgia.

- **lugubris** n. s. Conrad. (1857.)

Rep. U. S. Mex. Bound. Sur., vol. 1, pt. 2, p. 156, pl. 10, fig. 5. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: East of Red river (Canadian), N. Mex., Santa Fe road.

- **lugubris** (Con.) Coquand. (1869.)

Monog. Genre Ostrea Terrain Crétacé, p. 66, pl. 36, figs. 22, 23. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Texas, east of Red river; and New Mexico.

- **lugubris** (Con.) Meek. (1876.)

Rep. Expl. Exped. Santa Fe, N. Mex., to junction, of Grand and Green rivers, pp. 123, 124, pl. 1, figs. 1a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Banks of the Canadian, Va do del Chama, Galisteo, Pagosa, N. Mex.

- **lugubris** (Con.) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 297, pl. 41, fig. 3. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Colorado and New Mexico.

- **lunata** (Nils.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 227. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Near Eatontown, N. J.

- **lyoni** n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, pp. 200, 201. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Pine bluff, Red river county, Tex.

- **lyoni** (Shum.) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 297. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Texas.

- **malleiformis** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 204, pl. 31, fig. 272. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Siskiyou mountains, in California and Oregon; Jacksonville, Oregon.

- **malleiformis** (Gabb) Coquand. (1869.)

Monog. Genre Ostrea Terrain Crétacé, p. 60, pl. 32, fig. 4. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Siskiyou mountains, Jacksonville, Oregon; and California.

**Ostrea—Continued.****— malleiformis (Gabb) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 297, pl. 50, fig. 7. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: California.

**— marshii (Sow.) Marcou. (1858.)**

Geol. N. Am., pp. 43, 44, pl. 4, fig. 4. Zurich, 1858. Jules Marcou.

Formation: Jurassic [Cretaceous?].

Location: Pyramid mount.

**— mesenterica (Mort.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 297. Wash., 1884. C. A. White.

Formation: Cretaceous.

**— mortoni (Gabb) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 297. Wash., 1884. C. A. White.

Formation: Cretaceous.

**— multilirata (Con.) Coquand. (1869.)**

Monog. Genre Ostrea Terrain Crétacé, p. 63, pl. 33, figs. 1-4. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Dry creek, Mexico; and Texas.

**— multiradiata (Con.) White. (1883.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 298, pl. 33, figs. 1, 2. Wash., 1884. C. A. White.

Formation: Cretaceous.

**— nasuta (Mort.) White. (1883.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 298. Wash., 1884. C. A. White.

Formation: Cretaceous.

**— owenana n. s. Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 200. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Chatfield Point, Navarro county, Tex.

**— owenana (Shum.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 298. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Texas.

**— panda n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 293. New Haven, 1833. S. G. Morton.

Formation: [Cretaceous].

Location: New Jersey.

**— panda Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., pp. 51, 52, pl. 3, fig. 6; pl. 19, fig. 10. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: St. Georges, Del.; South Carolina; Alabama.

**— panda (Morton) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, pp. 328, 329. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Tennessee.

**Ostrea—Continued.****— panda (Morton) Coquand. (1869.)**

Monog. Genre Ostrea Terrain Crétacé, pp. 57, 58, pl. 30, figs. 8, 9. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: New Jersey and Alabama.

**— panda (Mort.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 298. Wash., 1884. C. A. White.

Formation: Cretaceous.

**— panda (Mort.) Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, p. 30. Wash., 1885. R. P. Whitfield.

Formation: Tertiary [Cretaceous?].

**— pandæformis n. s. Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 328. Phila., 1862. W. M. Gabb.

Formation: Cretaceous?

Location: "Seven miles below Yazoo," Miss.

**— pandæformis (Gabb.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 298. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Mississippi.

**— patina n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 277. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Two hundred miles above the mouth of Milk river, Nebr.

**— (Gryphæa ?) patina (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 16-18, pl. 10, figs. 2a, b, (bis.) and 3e, f; also pl. 11 (varieties). Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Two hundred miles above the mouth of Milk river on the Missouri.

**— patina (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 180. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Fossil ridge, Colo.

**— patina (M. & H.) White. (1884.)**

Fourth Ann. Rep. U. S. Geol. Sur., p. 298, pl. 47, figs. 4-6. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**— patina (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 30. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: White Mud river (sometimes called Frenchman's creek), near the forty-ninth parallel and south of Woody mountain, Canada.

**— pellucida (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 15, pl. 28, figs. 4a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Long lake and Moreau river.

**Ostrea—Continued.**

- **pellucida** (M. & H.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 299, pl. 50,  
figs. 6, 7. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.
- **pectinata** (Lam.) Coquand. (1869.)  
Monog. Genre *Ostrea* Terrain Crétacé, pp. 76-79, pl.  
29, figs. 1-7. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.  
Location: Turkey creek, Las Minas, and New  
Braunfels, Tex.
- **peculiaris** n. s. Conrad. (1858.)  
Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-  
1858, p. 329, pl. 34, fig. 7. Phila., 1855-1858. T.  
A. Conrad.  
Formation: Cretaceous.  
Location: Owl creek, three miles north of the  
town of Ripley, Miss.
- **peculiaris** (Con.) Coquand. (1896.)  
Monog. Genre *Ostrea* Terrain Crétacé, pp. 49, 50,  
pl. 17, figs. 6, 7. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.  
Location: Alabama.
- **peculiaris** (Con.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 298. Wash.,  
1884. C. A. White.  
Formation: Cretaceous.  
Location: Mississippi.
- **pitcheri** [Morton sp.] Coquand.  
(1869.)  
Monog. Genre *Ostrea* Terrain Crétacé, p. 40, pl. 9,  
figs. 9-12; pl. 12, figs. 5, 6. Marseilles, 1869. H.  
Coquand.  
Formation: Cretaceous.  
Location: New Braunfels, Leon springs, and Cross  
timbers, Tex., Fort Washita, Preston, and in  
Arkansas and New Mexico.
- **planovata** n. s. Shumard. (1861.)  
Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 201.  
Boston, 1862. B. F. Shumard.  
Formation: Cretaceous.  
Location: Navarro county, near Dresden, Tex.
- **planovata** (Shum.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 299. Wash.,  
1884. C. A. White.  
Formation: Cretaceous.  
Location: Texas.
- **plumosa** n. s. Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 23, p. 293. New Haven,  
1833. S. G. Morton.  
Formation: [Cretaceous].  
Location: New Jersey.
- **plumosa** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 51, pl. 3,  
fig. 9. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Arnetown, N. J.
- **plumosa** (Morton) Coquand. (1869.)  
Monog. Genre *Ostrea* Terrain Crétacé, p. 61, pl.  
32, fig. 9. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.  
Location: New Jersey, Alabama, and Missouri.

**Ostrea—Continued.**

- **plumosa** (Morton) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 299, pl.  
37, figs. 5, 6. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: New Jersey.
- **plumosa** (Morton) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, pp. 31, 32, pl. 3,  
figs. 12, 13. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Arnetown, N. J.
- **prudentia** n. s. White. (1875.)  
Rep. Geogr. and Geol. Expl. and Sur. west of one  
hundredth meridian, vol. 4, pt. 1, p. 171, pl. 14,  
figs. 2a-d. Wash., 1875. C. A. White.  
Formation: Cretaceous.  
Location: East of Impracticable ridge, Utah.
- **prudentia** White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 299, pl. 40,  
figs. 5, 6. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Southern Utah.
- **pusilla** (Nils.) Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 321.  
Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: Georgetown, Pataula creek, and five  
miles north of Lumpkin, Stewart county, Ga.
- **quadruplicata** n. s. Shumard. (1859.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p.  
608. St. Louis, 1856-1860. B. F. Shumard.  
Formation: Cretaceous.  
Location: Upper part of the bluffs of Red river,  
Lamar county, and ten miles above the mouth  
of Kianesha creek, Tex.
- **quadruplicata** (Shumard) White.  
(1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 275, 276, pl. 5, fig. 6a; pl. 8, figs.  
3a, b. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bluffs of Red river, Lamar county, Tex.;  
Denison, Tex.
- **quadruplicata** (Shumard) White.  
(1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., pp. 299, 300,  
pl. 43, figs. 5-7. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Texas.
- **radians** (Conrad) Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 24, p. 130. New  
Haven, 1833. S. G. Morton.  
Formation: Cretaceous [Tertiary?].  
Location: Southern States.
- **robusta** n. s. Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2,  
pp. 156, 157, pl. 11, figs. 3a, b. Wash., 1857.  
T. A. Conrad.  
Formation: Cretaceous [Tertiary].  
Location: \* Jacun, three miles below Laredo.

\* Mistake. This locality is Tertiary.

**Ostrea—Continued.**— **robusta** (Conrad) Coquand. (1869.)

Monog. Genre Ostrea Terrain Crétacé, p. 62, pl. 32, figs. 11, 12. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous [Tertiary].

Location: \*Jacun, three miles from Laredo, Tex.

— **robusta** (Conrad). (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 300, pl. 40, figs. 3, 4. Wash., 1884. C. A. White.

Formation: Cretaceous [Tertiary].

Location: Near Laredo, Tex. [?]

— **sandalina** (Goldf.) Troost. (1840.)

Fifth Geol. Rep. Tenn., p. 46. Nashville, 1840. G. Troost.

Formation: Cretaceous.

Location: McNairy county, Tenn.

— **sellæformis** (Conrad) Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 24. New Haven, 1833. S. G. Morton.

Formation: Cretaceous [Tertiary].

Location: Southern States.

— **sellæformis n. s.** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 62. Phila., 1834. S. G. Morton.

Formation: Cretaceous [Tertiary].

Location: Alabama and South Carolina.

— **serrata** (Defr.) Coquand. (1869.)

Monog. Genre Ostrea Terrain Crétacé, pp. 79, 80, pl. 17, fig. 3; pl. 30, fig. 1-5. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: New Jersey.

— **similis n. s.** N. & G. (1840.)

Bull. Roy. Acad. Sci. Bruxelles, Tome 7, pt. 2, p. 214, fig. 5. Bruxelles, 1840. Nyst & Galeotti.

Formation: Jurassic.

Location: Tehuacan, Mexico.

— **skidegatensis** nom. prov. Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mess. Foss., vol. 1, pt. 2, pp. 243, 244, pl. 32, fig. 1; pl. 12, p. 242. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: Skidegate inlet, south side of Alliford bay; Skidegate inlet, west side of Alliford bay.

— **skidegatensis** Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 165. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rocky mountains, three miles north of the east end of Devil's lake, Northwest Territory.

— **soleniscus n. s.** Meek. (1870.)

Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 430. Phila., 1871. F. B. Meek.

Formation: Tertiary [Cretaceous].

Location: With coal-bed, Bear River city.

**Ostrea—Continued.**— **soleniscus** Meek. (1873.)

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 487, 488. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Near Coalville, Utah; Bear River city, Wyo.

— **soleniscus** (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 233. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— **soleniscus** (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 249. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Hilliard station, Wyo.

— **soleniscus** (Meek) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 9, 10, pl. 11, figs. 2a, b. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near Coalville, Utah; Bear River city, Wyo.; a few miles east of Bear River city, Wyo.

— **soleniscus** (Meek) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 300, pl. 42, fig. 1. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Southern Wyoming and adjacent parts of Utah and Colorado.

— **strigilecula n. s.** White. (1875.)

Rep. Geogr. and Geol. Expl. and Sur. west of one-hundredth meridian, vol. 4, pt. 1, pp. 163, 164, pl. 13, figs. 3a, d. Wash., 1875. C. A. White.

Formation: Jurassic.

Location: Two miles south of Dirty Devil river, Utah.

— **strigilecula** (White) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 348, 349, pl. 3, figs. 8, 12. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: East of the Belle Fourche river; Sun Dance hill, and near Beaver creek, Black hills.

— **strigilecula** White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., pp. 289, 290, pl. 35, figs. 9, 11. Wash., 1884. C. A. White.

Formation: Jurassic.

Location: Wyoming, Colorado, Utah, Idaho.

— **subalata** (Meek) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 300, pl. 39, fig. 10. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— **subovata n. s.** Shumard. (1853.)

Expl. Red River, La., by R. B. Marey, pp. 205, 206, pl. 5, fig. 2. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Fort Washita, Ind. Terr.

\* Mistake. This locality is Tertiary.

**Ostrea—Continued.**— **subovata** (Shum.) Coquand. (1869.)

Monog. Genre *Ostrea* Terrain Crétacé, pp. 48, 49, pl. 17, fig. 4. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.

Location: Texas, Arkansas, and Fort Washita.

— **subovata** (Shum.) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 301. Wash., 1884. C. A. White.

Formation: Cretaceous.

— **subfimbriata n. s.** Coquand. (1869.)

Monog. Genre *Ostrea* Terrain Crétacé, p. 60, pl. 32, figs. 5, 6. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Texas.

— **subspatulata n. s.** Forbes. (1844.)

Quart. Jour. Geol. Soc. London, vol. 1, pp. 61, 62, figs. on pp. 61, 62. London, 1845. Edward Forbes.

Formation: Cretaceous.

Location: Lewis creek; south Washington; North Carolina.

— **subspatulata** (Lyell Sow.) Conrad.

(1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, pp. 155, 156, pl. 10, figs. 3a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Western Texas.

— **subspatulata** (Sow.) Coquand.

(1869.)

Monog. Genre *Ostrea* Terrain Crétacé, p. 43, pl. 15, fig. 3. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Lewis creek; North Carolina; Texas Alabama; New Jersey; and Missouri.

— **subspatulata** (Fbs.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 320. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Five miles north of Lumpkin, Stewart county, and near Fort Gaines, Ga.

— **subspatulata** (Forbes) White.

(1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 301, pl. 37, figs. 1, 2. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: New Jersey.

— **subspatulata** (L. & S.) Whitfield.

(1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 32, 33, pl. 3, fig. 14. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Shrewsbury, N. J.

— **subtrigonalis n. s.** E. & S. (1857.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 40. St. Louis, 1856-1860. Evans & Shumard

Formation: Cretaceous.

Location: Vicinity of Owl butte, between Moreau and Grand rivers.

**Ostrea—Continued.**— **subtrigonalis** (E. & S.?) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 510, pl. 40, figs. 1a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, Mont.

— **subtrigonalis** (E. & S.) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 308, pl. 61, figs. 4-7. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— **subtrigonalis** (E. & S.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 15, pl. 12, figs. 2-5. Wash., 1883. C. A. White.

Formation: Cretaceous.

— **subtrigonalis** (E. & S.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 83. Montreal, 1885.

J. F. Whiteaves.

Formation: Cretaceous or Laramie.

Location: Middle Fork of the Old Man river, about two miles above the mouth of the North fork, Canada.

— **subtrigonalis** (E. & S.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 56. Montreal, 1885.

J. F. Whiteaves.

Formation: Cretaceous.

Location: Woodworth Mine, Medicine Hat, Canada.

— **subtrigonalis** (E. & S.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 30. Montreal, 1885.

J. F. Whiteaves.

Formation: Cretaceous.

Location: Banks of the Belly river at the mouth of the St. Mary river; Milk River ridge, Canada.

— **subtrigonalis** (E. & S.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 5, 6. Montreal, 1885.

J. F. Whiteaves.

Formation: Cretaceous.

Location: Rye Grass flat, Old Man river; Upper Belly river, twenty-two miles above the mouth of the Waterton, Canada.

— **tecticosta n. s.** Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 403, pl. 63, figs. 47, 48. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Tennessee and New Jersey.

**Ostrea—Continued.**— **tecticosta** (Gabb) Coquand. (1869.)

Monog. Genre Ostrea Terrain Crétacé, p. 50, pl. 17, figs. 10, 11. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.

Location: New Jersey and Tennessee.

— **tecticostata** (Gabb) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 301, pl. 50, figs. 4, 5. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Tennessee and New Jersey.

— **tecticosta** (Gabb) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 33, 34, pl. 3, figs. 1, 2. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Vicinity of Trenton, N. J.?

— **texana** [Roem. sp.] Coquand. (1869.)

Monog. Genre Ostrea Terrain Crétacé, p. 42, pl. 9, figs. 4-8. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: New Braunfels, Tex., between El Paso and Frontera, Mexico.

— **torosa** n. s. Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 24, p. 130, pl. 10, fig. 1. New Haven, 1833. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

— **torosa** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 52, pl. 10, fig. 1. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Mullica hill, N. J.

— **torosa** (d'Orb.) Coquand. (1869.)

Monog. Genre Ostrea Terrain Crétacé, pp. 38, 39, pl. 9, figs. 1-3; pl. 14, figs. 1-4; pl. 15, figs. 1, 2. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: New Braunfels, Tex.; Delaware, New Jersey, Alabama, South Carolina, Tennessee, Arkansas, and Missouri.

— **torosa** (Morton) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 301. Wash., 1884. C. A. White.

Formation: Cretaceous.

— **translucida** n. s. M. & H. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, p. 147. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Long lake on the Missouri, Nebr.

— **translucida** (M. & H.) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 301. Wash., 1884. C. A. White.

Formation: Cretaceous.

— **tuomeyi** n. s. Coquand. (1869.)

Monog. Genre Ostrea Terrain Crétacé, p. 68. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Alabama.

— **tuomeyi** (Coquand) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., pp. 301, 302. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Alabama.

**Ostrea—Continued.**— **uniformis** (Meek) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 302, pl. 48, figs. 6-7. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: New Mexico.

— **ungulata** (Schlot.) Coquand. (1869.)

Monog. Genre Ostrea Terrain Crétacé, pp. 58, 60, pl. 31, figs. 4-15. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: Delaware, Alabama, New Jersey, Missouri.

— **urticosa** n. s. Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 23, p. 293. New Haven. S. G. Morton.

Formation: [Cretaceous].

Location: New Jersey.

— **urticosa** Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 24, pl. 10, fig. 2. New Haven, 1833. S. G. Morton.

— **vellicata** n. s. Conrad. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 156, pl. 11, figs. 2a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Rio Grande, between El Paso and Frontera.

— **vellicata** (Con.) White. (1884.)

Fourth Ann. Rep. U. S. Geol. Sur., p. 302. Wash., 1884. C. A. White.

Formation: Cretaceous.

— **vesicularis** (Lam.) Owen. (1860.)

Second Rep. Geol. Rec., Ark., pl. 8, fig. 6. Phila., 1860. D. D. Owen.

Formation: Cretaceous.

Location: Arkansas.

— **vesicularis** (Lam.) Coquand. (1869.)

Monog. Genre Ostrea Terrain Crétacé, pp. 35, 36, pl. 13, figs. 2-10. Marseilles, 1869. H. Coquand.

Formation: Cretaceous.

Location: New Braunfels, Tex., and New Jersey.

— **vesicularis** (Lam.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, pp. 225, 226. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: New Jersey.

— **vesicularis** var. **aucella** n. var. Roemer. (1852.)

Kreide von Tex., pp. 74, 75, Taf. 9, figs. 4a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Ford of the Guadalupe, New Braunfels, Tex.

— **vesicularis** var. **Troost**. (1840.)

Fifth Geol. Rep. Tenn., p. 45. Nash., 1840. G. Troost.

Formation: Cretaceous.

Location: Near Purdy, McNairy county, Tenn.

— **vesicularis** var. **Troost**. (1840.)

Fifth Geol. Rep. Tenn., p. 45. Nash., 1840. G. Troost.

Formation: Cretaceous.

Location: Near Purdy, McNairy county, Tenn.

**Ostrea—Continued.**

- **villicata** (Con.) Coquand. (1869.)  
Monog. Genre *Ostrea* Terrain Crétacé, p. 65, pl. 36, figs. 20, 21. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.  
Location: Rio Grande, between El Paso and Frontera, Tex.
- **vomer** (d'Orb.) Coquand. (1869.)  
Monog. Genre *Ostrea* Terrain Crétacé, p. 39, pl. 16, figs. 13–15. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous[?].  
Location: New Jersey.
- **vomer** (Mort.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 302, pl. 48, figs. 8–10. Wash., 1884. C. A. White.  
Formation: Cretaceous.
- **washingtoni** n. s. Coquand. (1869.)  
Monog. Genre *Ostrea* Terrain Crétacé, pp. 63, 64, pl. 33, figs. 5–9. Marseilles, 1869. H. Coquand.  
Formation: Cretaceous.  
Location: Texas flat, Folsom, Cottonwood creek, Shasta county, Cal.
- **wyomingensis** n. s. Meek. (1872.)  
Fifth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 375. Wash., 1872. F. B. Meek.  
Formation: Cretaceous.  
Location: Point of Rocks, Wyo.
- **wyomingensis** Meek. (1873.)  
Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 508, 509. Wash., 1873. F. B. Meek.  
Formation: Cretaceous.  
Location: Point of Rocks, Wyo.
- (**Alectryonia**) **blackii** n. s. White. (1879.)  
Proc. U. S. Nat. Mus., vol. 2, pt. 2, p. 293, pl. 4, figs. 1, 2. Wash., 1880. Smithsonian Misc. Coll., vol. 19. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Collin county, Tex.
- (**Alectryonia**) **blackii** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 11, 12, pl. 14, figs. 1a, b, pl. 17, fig. 4a. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Collin county, Tex.
- (**Alectryonia**) **dilleri** n. s. White. (1889.)  
Bull. U. S. Geol. Sur., No. 51, pp. 14, 15, pl. 1, figs. 1, 2; pl. 2, figs. 1, 2. Wash., 1889. C. A. White.  
Formation: Cretaceous.  
Location: Half a mile south of the falls of Clover creek, Shasta county, Cal.
- (**Alectryonia**) **larva** (Lam.) White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 296, pl. 42, figs. 2–9. Wash., 1884. C. A. White.  
Formation: Cretaceous.

**Ostrea—Continued.**

- (**Alectryonia**) **procumbens** White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 290, pl. 35, figs. 6–8. Wash., 1884. C. A. White.  
Formation: Jurassic.  
Location: Northwestern Colorado.
- (**Alectryonia**) **sannionis** n. s. White. (1876.)  
Rep. Geol. Uinta Mts., p. 112. Wash., 1876. C. A. White.  
Formation: Cretaceous.  
Location: Weber valley, near Coalville, Utah.
- (**Alectryonia**) **sannionis** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 234. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- (**Alectryonia**) **sannionis** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 277, 278, pl. 2, figs. 2a–e. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Weber river, near Coalville, Utah.
- (**Alectryonia**) **sannionis** White. (1884.)  
Fourth Ann. Rep. U. S. Geol. Sur., p. 300, pl. 45, figs. 3–7. Wash., 1884. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- (**Gryphæa**?) **uniformis** n. s. Meek. (1876.)  
Rep. Expl. Exped. Santa Fe, N. Mex., to junction of Grand and Green rivers, p. 124, pl. 1, figs. 2a–c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Pagosa, N. Mex.
- (**Gryphæostrea**?) **subalata** n. s. Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 15, 16, pl. 28, figs. 5. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Moreau river.
- **sp. undet.** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, p. 245. New Haven, 1830. S. G. Morton.  
Formation: Cretaceous.  
Location: Near Arnetown, N. J.
- **sp. undet.** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 284. New Haven, 1830. S. G. Morton.  
Formation: Cretaceous.  
Location: Mullica hill, N. J.
- **sp. undet.** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 284. New Haven, 1830. S. G. Morton.  
Formation: Cretaceous.  
Location: [New Jersey?]



**Ostrea—Continued.**

- **sp. undet. Roemer. (1849.)**  
Texas, p. 394. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg and Waco camp near New Braunfels, Tex.
- **sp. undet. Roemer. (1852.)**  
Kreide von Tex., p. 76. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.
- **sp. undet. Roemer. (1852.)**  
Kreide von Tex., p. 76. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Waco camp on the Guadalupe above New Braunfels, Tex.
- **sp. undet. Gabb. (1869.)**  
Geol. Sur. Cal. Paleont., vol. 2, p. 275. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Sierra de las Conchas, near Arivachi, Sonora, Mexico.
- **sp. undet. Meek. (1870.)**  
Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 430. Phila., 1871. F. B. Meek.  
Formation: Cretaceous.  
Location: Near Coalville [Utah].
- **sp. undet. Meek. (1876.)**  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 12, 13, pl. 2, figs. 8a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Twelve miles southwest of Salina, Saline county, Kans.
- **sp. undet. Whiteaves. (1876.)**  
Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, p. 83. Montreal, 1876. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Queen Charlotte islands.
- **sp. undet. Meek. (1877.)**  
Rep. Geol. Expl., Fortieth Parallel, vol. 4, pt. 1, pp. 140, 141, pl. 15, figs. 10a-c. Wash., 1877. F. B. Meek.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **sp. undet. Whiteaves. (1879.)**  
Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 175. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Entrance to Departure bay, Vancouver island.
- **sp. ? H. & W. (1877.)**  
Rep. Geol. Expl., Fortieth Parallel, vol. 4, pt. 2, pp. 285, 286, pl. 7, fig. 12. Wash., 1877. Hall & Whitfield.  
Formation: Jurassic.  
Location: Northwest of Rawlins station, Wyo.
- **? White. (1879.)**  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 242. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, Wyo.

**Ostrea—Continued.**

- **? White. (1879.)**  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 248. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, Wyo.
- **? White. (1889.)**  
Bull. U. S. Geol. Sur., No. 51, p. 39. Wash., 1889. C. A. White.  
Formation: Cretaceous.  
Location: Waldron island.
- Ovulina clava Ehrenberg. (1854.)**  
Mikrogeologie, Taf. 32, fig. 2b. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.
- Oxystele (Phillippi) White. (1885.)**  
Bull. U. S. Geol. Sur., No. 22, p. 12. Wash., 1885. C. A. White.
- Oxytoma mucronata (Meek) Whiteaves. (1884.)**  
Geol. and Nat. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 238, 239, pl. 31, fig. 9. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: East side of Alliford bay; south side of Maud island.
- **mucronata (M. & H.) Whiteaves. (1884.)**  
Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 251, pl. 33, figs. 6, 6a, b. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: South side of Maud island.
- **n. subgen. Meek. (1864.)**  
Check List Invert. Foss. N. Am. Cret. and Jur., Smithson. Misc. Coll., vol. 7, No. 177, p. 39. Wash., 1864. F. B. Meek.
- Pachycardium n. g. Conrad. (1869.)**  
Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 96. Phila., 1870. T. A. Conrad.
- **(subgen. Conrad) Meek. (1876.)**  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 172. Wash., 1876. F. B. Meek.
- **burlingtonense n. s. Whitfield. (1885.)**  
Mon. U. S. Geol. Sur., vol. 9, p. 138, pl. 21, figs. 6, 7. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Near Burlington, ? N. J.
- **spillmani n. s. Conrad. (1869.)**  
Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 96. Phila., 1870. T. A. Conrad.  
Formation: Cretaceous.  
Location: Mississippi.
- Pachymya [Sow.] Shumard. (1859.)**  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 604. St. Louis, 1856-1860. B. F. Shumard.

**Pachymya**—Continued.

- **austinensis** n. s. Shumard. (1859.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 604, 605. St. Louis, 1856-1860. B. F. Shumard.  
Formation: Cretaceous.  
Location: Shoal creek, near Austin, Tex.

- **austinensis** (Shum.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 298, pl. 8, figs. 1a, b; pl. 5, figs. 7a, b. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Shoal creek, near Austin [Tex.]. Salado, Bell county, Tex.

- **? compacta** n. s. White. (1879.)  
Proc. U. S. Nat. Mus., vol. 2, pt. 2, p. 297, pl. 6, figs. 3, 4. Wash., 1880. Smithsonian. Misc. Coll., vol. 19. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Bell county, Tex.

- **compacta** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 22, 23, pl. 17, figs. 4a, b. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Bell county, Tex.

- **? herseyi** n. s. White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 184. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of Saint Vrain creek, and in the valley of the Cache à la Poudre; also in the valley of Bear creek, near Morrison, Colo.

- **? herseyi** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear creek, near Morrison, Colo.

- **? herseyi** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 298, 299, pl. 5, figs. 6a, b. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Near the confluence of the Saint Vrain with the South Platte, northern Colorado.

- **? truncata** n. s. Meek. (1871.)  
Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 301, 302. Wash., 1871. F. B. Meek.  
Formation: Cretaceous.  
Location: Vicinity of Salt Lake.

- Pachyodon** (subgen. Gabb) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 241. Wash., 1876. F. B. Meek.

- Pachytherus** n. g. Conrad. (1869.)  
Am. Jour. Conch., vol. 5, Phila., 1869-1870, p. 47. Phila., 1870. T. A. Conrad.

- subgen. Conrad. (1872.)  
Proc. Acad. Nat. Sci., Phila., for 1872, p. 50. Phila., 1872. T. A. Conrad.

**Palæastacus** (?) **ornatus** Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 183, 184, pl. 25, fig. 3. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sounding creek, Township 30, Range 8, west of the fourth principal meridian, Northwest Territory.

**Palæatractus** n. g. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, pp. 148, 149. Phila., 1869. W. M. Gabb.

— **crassus** n. s. Gabb. (1869.)

Geol. Sur. Cal., Paleont., vol. 2, p. 148, pl. 26, fig. 26. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Canyon in the foothills, a mile south of the road from Colusa to the Sulphur springs, near the eastern margin of the Coast Range, Colusa county, Cal.

**Palæocera** (subgen. Stoliczka) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 193. Wash., 1876. F. B. Meek.

**Paliurus** n. g. Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 324. Phila., 1876. W. M. Gabb.

— **pentangulatus** n. s. White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 302, 303, pl. 4, figs. 4a, b. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Monument creek, near Colorado springs [Colo.].

— **triangularis** n. s. Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 324. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Vincentown, N. J.

**Palmula** n. g. Lea. (1833.)

Cont. Geol., p. 219. Phila., 1833. Isaac Lea.

— **sagittaria** n. s. Lea. (1833.)

Cont. Geol., pp. 219, 220, pl. 6, fig. 228. Phila., 1833. Isaac Lea.

Formation: Cretaceous.

Location: Timber creek, N. J.

**Paludina conradi** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 122. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Bad lands of the Judith.

— **leidyi** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 123. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Ten miles below Fort Union.

— **leai** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 121, 122. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Fort Union.

**Paludina—Continued.**— **multilineata** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, pp. 120, 121. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Fort Clark.

— **peculiaris** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 122. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Fort Clark.

— **retusa** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 122. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Three miles below Fort Union.

— **trochiformis** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, pp. 122, 123. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Ten miles below Fort Union.

— **vetula** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 121. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Bad lands of the Judith.

**Panopæa** [Ménard] Conrad. (1853.)

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 275. Phila., 1850-1854. T. A. Conrad.

— **ædilis** n. s. Eichwald. (1871.)

Geog. Paleont. Bermerk. Halb. Mang. aleutischen Inseln, pp. 162, 163, Taf. 12, figs. 14, 15. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

— **alata** n. s. Eichwald. (1871.)

Geog. Paleont. Bermerk. Halb. Mang. aleutischen Inseln, p. 162, Taf. 13, figs. 3, 4. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

— **aleutica** n. s. Eichwald. (1871.)

Geog. Paleont. Bermerk. Halb. Mang. aleutischen Inseln, p. 159, Taf. 12, figs. 7, 8. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

— **concentrica** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 148, pl. 22, fig. 119. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek and Martinez, Cal.

— **curta** n. s. Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 12, 13, pl. 2, fig. 3. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Forks of Devil's Pine and Three hills creeks, Canada.

**Panopæa—Continued.**— **decisa** n. s. Conrad. (1853.)

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 275, pl. 24, fig. 19. Phila., 1850-1854.

T. A. Conrad,

Formation: Cretaceous.

Location: Burlington county, N. J.; Chesapeake and Delaware canal.

**Panopæa decisa** (Con.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 181, 182, pl. 24, figs. 5-8. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holland, Monmouth county and near Burlington and elsewhere in New Jersey.

**Panopæa dilatata** n. s. Eichwald. (1871.)

Geog. Paleont. Bermerk. Halb. Mang. aleutischen Inseln, pp. 159, 160, Taf. 12, figs. 9, 11. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

**Panopæa elliptica** n. s. Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 219, 220, pl. 28, figs. 24, 25. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Near New Egypt, N. J.

**Panopæa inflata** n. s. Eichwald. (1871.)

Geog. Paleont. Bermerk. Halb. Mang. aleutischen Inseln, p. 158, Taf. 12, figs. 5-6. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

— **occidentalis** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, pp. 270, 271. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Near mouth of Judith river, Nebr.

— **newberryi** n. s. Shumard. (1859.)

Trans. Acad. Sci. St. Louis, vol. 1, 1856-1860, p. 605. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Parker county and Comanche peak, Johnson county, Tex.

— **protracta** n. s. Eichwald. (1871.)

Geog. Paleont. Bermerk. Halb. Mang. aleutischen Inseln, pp. 160, 161, Taf. 13, figs. 8-9. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

— **retracta** n. s. Eichwald. (1871.)

Geog. Paleont. Bermerk. Halb. Mang. aleutischen Inseln, pp. 161, 162, Taf. 13, figs. 5-7. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

— **rustica** n. s. Eichwald. (1871.)

Geog. Paleont. Bermerk. Halb. Mang. aleutischen Inseln, p. 164, Taf. 12, figs. 12, 13. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

**Panopæa—Continued.**— **simulatrix** n. s. Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pl. 11, 12, pl. 2, fig. 2, 2a Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South bank of Knee hills creek, in township 29, range 22, west of the fourth meridian; Rye Grass flat on the Old Man river; mouth of East Arrowwood creek, on the Bow river; Belly river, twenty-three miles above the mouth of the Waterton, Canada.

— **subovalis** n. s. Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 44, 45, pl. 6, figs. 6, 6a. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Four miles south of Battle river, township 38, between ranges 12 and 13, west of fourth meridian, Canada.

— **subparallela** n. s. Shumard. (1859.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 605, 606. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Red river, Fannin county, Tex.

— **subplicata** n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861-1862, pp. 199, 200. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Chatfield Point, Navarro county, Tex.

— **texana** Shumard. (1853.)

Expl. Red River, La., by R. B. Marcy, p. 207, pl. 6, fig. 1. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Camp No. 4, Cross Timbers, Tex.

— (**Myacites**) **subelliptica** n. s. M. & H. (1858.)

Proc. Acad. Nat. Sci., Phila., for 1858, pp. 52, 53. Phila., 1859. Meek & Hayden.

Formation: Jurassic.

Location: Western and southwestern base Black hills.

— ? **sp. undet.** Roemer. (1849.)

Texas, p. 407. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Upper course of Pedernales river, Tex.

— **sp. undet.** Roemer. (1852.)

Kreide von Tex., p. 45. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: On the upper course of Pedernales river, Tex.

**Paramelania** (Smith) White. (1882.)

Proc. U. S. Nat. Mus., vol. 5, p. 98. Wash., 1883. C. A. White.

**Paramithrax** (Milne-Edwards) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 37. Wash., 1883. C. A. White.

**Paramithrax—Continued.**— ? **walkeri** (Whitfield) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 37, 38, pl. 16, fig. 1a; pl. 17, fig. 1a. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near San Antonio, Tex.

— **n. g.** Conrad. (1867.)

Am. Jour. Conch., vol. 3, p. 8. Phila., 1867. T. A. Conrad.

**Paranomina** n. subgen. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 290. Phila., 1858-1860. T. A. Conrad.

— **lineata** (Con.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 45, pl. 9, fig. 10. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Upper Freehold, N. J.

— **saffordi** (Conrad sp.) Conrad. (1867.)

Am. Jour. Conch., vol. 3, p. 8. Phila., 1867. T. A. Conrad.

Formation: Cretaceous.

— **saffordi** (Con.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 320. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

— **scabra** (Mort.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 44, pl. 10, fig. 10. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: New Jersey.

**Parapholas** (Conrad) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 300. Wash., 1879. C. A. White.

— **sphenoideus** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 300-302, pl. 5, figs. 1a-d. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Upper Kanab, southern Utah.

**Parasmilia austinensis** n. s. Roemer. (1888.)

Paleont., Abhandl. Vierter Band., Heft. 4, p. 6, Taf. 1 [xxxii], figs. 1a, 1b. Berlin, 1888. F. Roemer.

Formation: Cretaceous.

Location: Two miles above the mouth of Bartons creek, near Austin, Tex.

— **balanophylloides** n. s. Bölsche. (1870.)

Zeitsch. Deutsch. Geol. Ges. Band 22, pp. 215, 216. Berlin, 1870. Wilh. Bölsche.

Formation: Cretaceous.

Location: Woodbury, N. J.

**Patella (Lam.) Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 50. Phila., 1834. S. G. Morton.

**— tentorium n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 291. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous.

**— tentorium Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 50, pl. 1, fig. 11. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Near Arneytown, N. J.

**— traskii n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 140, pl. 21, fig. 103. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Texas flat, Placer county, Cal.

**— sp. undet. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 18, p. 244. New Haven, 1830. S. G. Morton.  
Formation: Cretaceous.

**Patoceras n. subgen. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 485. Wash., 1876. F. B. Meek.

**Patula subgen. (Haldeman) White. (1880.)**

Proc. U. S. Nat. Mus., vol. 3, p. 160. Wash., 1880. Smith-on. Misc. Coll., vol. 22. Wash., 1880. C. A. White.

**— angulifera n. s. Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 18, pl. 2, figs. 6, 6a, b. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Pincher creek, Canada.

**— obtusata n. s. Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 18, 19, pl. 2, figs. 7, 7a, b. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Old Man river, twelve miles below Fort McLeod, and two miles above Rye Grass flat; Belly river, seven miles above the mouth of the Old Man river, Canada.

**Papyridea (Swains.) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 326. Phila., 1855-1858. T. A. Conrad.

**— bella n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 326. Phila., 1855-1858. T. A. Conrad.  
Formation: Cretaceous.  
Location: Owl creek, three miles north of the town of Ripley, Miss.

**Pecten (Linn.) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 285. New Haven, 1830. S. G. Morton.

**— acutiplicatus n. s. Meek. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 46, pl. 8, fig. 3. Phila., 1864. F. B. Meek.  
Formation: Jurassic.  
Location: Genesee valley, Plumas county, Cal.

**Pecten—Continued.****— æquicostatus (Lam.) Roemer. (1819.)**

Texas, pp. 398, 399. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Upper Brazos river and crossing of the Cibolo between New Braunfels and San Antonio, Tex.

**— anatipes n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 293, pl. 5, fig. 4. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: Claiborne, Ala.

**— anatipes Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 53, pl. 5, fig. 4. Phila., 1834. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: Claiborne, Ala.

**— argillensis n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser. 1858-1860, p. 283. Phila., 1858-1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Tippah county, Ala. [Miss.].

**— asper (Lam.) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 328. Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.  
Location: Tennessee. ?

**— bellistriata n. s. Meek. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 311. Phila., 1861. F. B. Meek.  
Formation: Jurassic.  
Location: Red buttes on the North Platte (lat. 42° 50', long. 106° 40' W.).

**— burlingtonensis n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 304, pl. 48, fig. 26. Phila., 1858-1860. W. M. Gabb.  
Formation: Cretaceous.  
Location: Burlington county, N. J.

**— californicus n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 201, 202, pl. 31, fig. 270. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Cottonwood creek, Shasta county, Cal.

**— calvatus n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., pp. 53, 59, pl. 10, fig. 3. Phila., 1834. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: Near the Eutaw springs, S. C.

**— calvatus n. s. Morton.**

Am. Jour. Sci., 1st ser., vol. 24, p. 130, pl. 10, fig. 3. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: South Carolina.

**— carlottensis n. s. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can.; Mes. Foss., vol. 1, pt. 3, p. 251, pl. 33, fig. 7. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: South side of Maud island.

## Pecten—Continued.

- **complexicosta** n. s. Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 199, pl. 33, figs. 97, 97a. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Morgan valley, south of Clear lake, Cal.
- **craticula** n. s. Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 23, p. 293. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.
- **craticula** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., pp. 57, 58. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Near Arneytown, New Jersey.
- **deformis** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 33, 34, pl. 6, fig. 34. Phila., 1864. W. M. Gabb.  
Formation: Triassic.  
Location: Gifford's ranch, Plumas county, Cal.
- **duplicosta** n. s. Roemer. (1849.)  
Texas, p. 398. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Upper course of Pedernales river, Tex.
- **duplicosta**. Roemer. (1852.)  
Kreide von Tex., pp. 65, 66, Taf. 8, figs. 2a-b. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: On the upper course of Pedernales river, Tex.
- **extenuatus** n. s. (M. & H.). (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 184. Phila., 1861. Meek & Hayden.  
Formation: Jurassic.  
Location: Southwest base of Black hills, Nebr.
- **interradiatus** n. s. Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, pp. 199, 200, pl. 33, figs. 98, 98a. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: East of New Idria, Cal.
- **martinezensis** n. s. Gabb. (1869.)  
Geol. Sur. Cal., Paleont., vol. 2, pp. 198, 199, pl. 33, fig. 96. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez, Cal.
- **membranosus** n. s. Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 24, p. 130, pl. 10, fig. 4. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: South Carolina.
- **membranosus** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 59, pl. 10, fig. 4. Phila., 1834. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: South Carolina.
- **mississippiensis** n. s. Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 283. Phila., 1858-1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Tippah county, Miss.

## Pecten—Continued.

- **nebrascensis** n. s. (M. & H.). (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 87. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Yellowstone river, one hundred and fifty miles from its mouth, Nebr.
- **newberryi** n. s. Whitfield. (1877.)  
U. S. Geogr. and Geol. Sur., Rocky Mt. Region; Prelim. Rept. Paleont. Black hills, pp. 16, 17. Wash., 1877. R. P. Whitfield.  
Formation: Jurassic.  
Location: T— Spring, west of the Black hills of Dakota.
- **newberryi** Whitfield. (1880.)  
Rep. Geol. Black Hills of Dakota, pp. 350, 351, pl. 4, figs. 12-15. Wash., 1880. R. P. Whitfield.  
Formation: Jurassic.  
Location: T— Springs, west of the Black hills of Dakota.
- **nilssoni** (Goldfuss) Roemer. (1852.)  
Kreide von Tex., p. 67, Taf. 8, fig. 6. Bonn., 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Ravine three miles from New Braunfels, on road to Seguin, Tex.
- **nilssonii** (Roem.) Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 365. Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.
- **operculiformis** n. s. Gabb. (1864.)  
Geol. Sur. Cal., Paleont., vol. 1, p. 201, pl. 26, fig. 188. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Cottonwood and Huling creeks, Shasta county; Curry's, south of Mount Diablo, Cal.
- **? perisphinctes payeri** n. s. Toulia. (1874.)  
Die Zweite Deutsche Nordpolarfahrt Zweiter Band, pp. 498, 499, Taf. 1, figs. 1a-c. Leipzig, 1874. Franz Toulia.  
Formation: Jurassic [Cretaceous?].  
Location: Kuhn island, east coast of Greenland.
- **perplanus** n. s. Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 23, p. 293, pl. 5, fig. 5. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: Claiborne, Ala.
- **perplanus** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 58, pl. 5, fig. 5; pl. 15, fig. 8. Phila., 1834. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: Claiborne, Ala.
- **planicostatus** n. s. Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 48, 49, pl. 8, figs. 10, 11. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: G. C. Schanck's pits, near Marlboro, N. J.
- **poulsoni** n. s. Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 59, pl. 19, fig. 2. Phila., 1834. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: Near Claiborne, Ala.

**Pecten—Continued.****— quadricostatus (Sow.) Roemer. (1849.)**

Texas, p. 398. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Ford near New Braunfels, Fredericksburg, and Waco camp, Tex.

**— quadricostatus (Sow.) Roemer. (1852.)**

Kreide von Tex., p. 64. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Ford of the Guadalupe, New Braunfels, Tex.

**— quadricostatus (Sow.) Shumard. (1853.)**

Expl. Red river, La., by R. B. Marcy, p. 204, pl. 3; fig. 6; pl. 2, figs. 2a, b. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Fort Washita, Ind. Ter.

**— quadricostatus (Sow.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges. Band 22, p. 232. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Middletown, N. J.

**— quadricostatus var. Roemer. (1852.)**

Kreide von Tex., p. 64, Taf. 8, figs. 4a-c. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**— quinquecostatus (Sow.) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 18, pl. 3, fig. 5. New Haven, 1830. S. G. Morton.

**— quinquecostatus (Sow.) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 235. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: United States.

**— quinquecostatus (Sow.) Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 57, pl. 19, fig. 1. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

**— quinquecostatus (Sow.) Bronn. (1838.)**

Lethaea Geognostica, Zweiter Band, pp. 678-680, Taf. 30, fig. 17. Stuttgart, 1838. H. G. Bronn.

Formation: Cretaceous.

Location: New Jersey.

**— quinquenaria n. s. Conrad. (1853.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 275, pl. 24, fig. 10. Phila., 1850-1854. T. A. Conrad.

Formation: Cretaceous.

Location: Chesapeake and Delaware canal.

**Pecten—Continued.****— quinquenarius (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, p. 47, pl. 7, figs. 13-16. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: G. C. Schanck's pits, Marlboro, N. J.

**— rhodani (Pict. & Camp.) Eichwald. (1871.)**

Geog. Paleont. Bemerk. Halb. Mang. aleutischen Inseln, pp. 135-137. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaskan peninsula.

**— rigida n. s. H. & M. (1854.)**

Mem. Am. Acad. Arts and Sci.; n. ser., vol. 5, p. 381, pl. 2, figs. 4a-c. Cambridge and Boston, 1855. Hall & Meek.

Formation: Cretaceous.

Location: Sage creek, Nebr.

**— simplicius n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 283, 284, pl. 46, fig. 44. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

**— tenuitesta n. s. Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, pp. 327, 328. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Burlington and adjoining counties, N. J.

**— tenuitestus (Gabb) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 47, 48, pl. 7, figs. 5, 6. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel, G. C. Schanck's pits, near Marlboro and Burlington, N. J.

**— texanus n. s. Roemer. (1852.)**

Kreide von Tex., p. 65, Taf. 8, figs. 3a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: River drift at crossing of Cibola between New Braunfels and San Antonio, Tex.

**— texanus n. s. Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 365. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey and Alabama.

**— traskii n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 200, 201, pl. 26, figs. 186, 187, a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas flat, Placer county, Cal.

**— traskii Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 198, pl. 32, fig. 95. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Texas flat, Placer county, Cal., north shore of Departure bay, near Nanaimo, Vancouver island.

**Pecten—Continued.**

- **venustus** n. s. Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 23, p. 293, pl. 5, fig. 7. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.
- **venustus** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 58, pl. 5, fig. 7. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Near Arneytown, N. J.
- **venustus** (Mort.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 45, 46, pl. 8, figs. 1-4. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Monmouth, Freehold, Burlington, Arneytown, etc., N. J.
- **virgatus** (Nilsson) Roemer. (1849.)  
Texas, p. 399. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Waterfall, near New Braunfels, and Fredericksburg, Tex.
- **virgatus** (Nilsson) Roemer. (1852.)  
Kreide von Tex., pp. 66, 67, Taf. 8, figs. 5a, b. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Ravine, three miles from New Braunfels, on road to Seguin, Waterfall of the Guadalupe and Fredericksburg, Tex.
- (**Chlamys**) **craticulus** (Mort.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 49, 50, pl. 7, figs. 17, 18. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Arneytown and Vincentown [?], N. J.
- (**Syncyclonema**?) **perlamellosus** (Con.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 50, 51, pl. 7, fig. 7. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.
- **sp. undet.** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, p. 245. New Haven, 1830. S. G. Morton.  
Formation: Cretaceous.
- **sp. undet.** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 18, p. 245. New Haven, 1830. S. G. Morton.  
Formation: Cretaceous.
- **sp. undet.** Roemer. (1849.)  
Texas, p. 399. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Ravine, on the Guadalupe, three miles below New Braunfels, Tex.
- **sp. undet.** Roemer. (1849.)  
Texas, p. 399. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Waco camp, near New Braunfels, Tex.

**Pecten—Continued.**

- [**sp. undet.**] Gabb. (1869.)  
Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 16. Phila., 1870. W. M. Gabb.  
Formation: Jurassic.  
Location: Volcano, about thirty miles southeast of Walker's lake, Nev.
- **sp. undet.** Urquiza. (1882.)  
An. Min. Fomento Rep. Mex., Tomo 7, p. 225, figs. 17, 18. Mexico, 1882. M. Urquiza.  
Formation: Cretaceous.  
Location: Canada de la Guayabilla, Coalcoman district, state of Michoacan, Mexico.
- Pectunculina parvula** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 85. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Yellowstone river, Nebr.
- Pectunculus** [Lam.] Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 64. Phila., 1834. S. G. Morton.
- (subgen. **Adan.**) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 166. Wash., 1876. F. B. Meek.
- **australis** n. s. Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 64. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.
- **globulus** n. s. Eichwald. (1871.)  
Geog. Paleont. Bemerk. Halb. Mang. aleutischen Inseln, pp. 124, 125, Taf. 15, figs. 9, 10. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Kadiak island, Alaska.
- **hamula** n. s. Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 64, pl. 15, fig. 7. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Prairie bluff, Ala.
- **siouxensis** n. s. H. & M. (1854.)  
Mem. Am. Acad. Arts and Sci., vol. 5, n. s. p. 384, pl. 1, fig. 12. Cambridge and Boston, 1855. Hall & Meek.  
Formation: Cretaceous.  
Location: Mouth of Big Sioux, on the Missouri river.
- **subimbricatus** n. s. M. & H. (1857.)  
Proc. Acad. Nat. Sci., Phila., for 1857, p. 146. Phila., 1858. Meek & Hayden.  
Formation: Cretaceous.  
Location: Heart river, Nebr.
- (**Cardium**) **aleuticus** (Gir.) Eichwald. (1871.)  
Geog. Paleont. Bemerk. Halb. Mang. aleutischen Inseln., pp. 125, 126. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaskan peninsula and Kadiak, Unga, and Atcha islands.



**Pectunculus—Continued.**

- **sp. undet. Morton.** (1830.)  
 Am. Jour. Sci., 1st ser., vol. 17, p. 286. New Haven, 1830. S. G. Morton.  
 Formation: Cretaceous.
- **sp. undet. Morton.** (1834.)  
 Synop. Org. Rem. Cret. Gr. U. S., p. 64. Phila., 1834. S. G. Morton.  
 Formation: Cretaceous.  
 Location: New Jersey.

**Pentacrinites (Mille.) Meek.** (1860.)

Rep. Expl. Great Basin Terr. Utah, p. 355.  
 Wash., 1876. F. B. Meek.

- **asteriscus M. & H.** (1865.)  
 Paleont. Up. Missouri, Smithson. Cont. Knowl., vol. 14, No. 172, p. 67, pl. 3, figs. 2, a, b, and wood cut. Wash., 1865. Meek & Hayden.  
 Formation: Jurassic.  
 Location: Southwest base of the Black hills, and opposite Red buttes, North Platte river.
- **asteriscus? (M. & H.) H. & W.** (1877.)  
 Rep. Geol. Expl., Fortieth Parallel, vol. 4, pt. 2, pp. 280, 281, pl. 6, fig. 16. Wash., 1877. Hall & Whitfield.  
 Formation: Triassic.  
 Location: Near Dun Glen pass, Pah-Ute range, Nev.

— **asteriscus (M. & H.) Whitfield.** (1880.)

Rep. Geol. Black Hills of Dakota, p. 345, pl. 3, figs. 1, 2. Wash., 1880. R. P. Whitfield.  
 Formation: Jurassic.  
 Location: Big Horn mountains.

- **(sp. undet.) Meek.** (1866.)  
 Rep. Expl. Great Basin Terr. Utah, p. 355. Wash., 1876. F. B. Meek.  
 Formation: Jurassic.  
 Location: Near Red buttes, on the North Platte.

**Pentacrinus asteriscus n. s. M. & H.** (1858.)

Proc. Acad. Nat. Sci., Phila., for 1858, pp. 49, 50. Phila., 1859. Meek & Hayden.  
 Formation: Jurassic.  
 Location: South and southwest base of Black hills; Stone butte.

- **asteriscus (M. & H.) White.** (1875.)  
 Rep. Geogr. and Geol. Expl. and Sur., west of one-hundredth meridian, vol. 4, pt. 1, pp. 162, 163, pl. 13, figs. 6a, b. Wash., 1875. C. A. White.  
 Formation: Jurassic.  
 Location: Salt creek near Nephi, and Diamond valley near St. George, Utah; also in Utah.

- **bryani n. s. Gabb.** (1876.)  
 Proc. Acad. Nat. Sci., Phila., for 1876, p. 178, pl. 5, figs. 1, 1a, b. Phila., 1876. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Neighborhood of Vincenttown, N. J.

**Periaster (d'Orb.) Desor.** (1858.)

Synop. Echinoides Foss., p. 382. Paris and Wiesbaden, 1858. E. Desor.

**Periaster—Continued.**

- **texanus (Roemer sp.) Desor.** (1858.)  
 Synop. Echinoides Foss., pp. 384, 385. Paris and Wiesbaden, 1858. E. Desor.  
 Formation: Cretaceous.  
 Location: Waterfall of the Guadalupe below New Braunfels, Tex.

**Periploma (Schum.) Con.** (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d. ser., 1855-1858, p. 324. Phila., 1855-1858. T. A. Conrad.

— **applicata n. s. Conrad.** (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d. ser., 1855-1858, p. 324. Phila., 1855-1858. T. A. Conrad.  
 Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **applicata Conrad.** (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 276, pl. 46, fig. 3. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **cuspidatum n. s. Whiteaves.** (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 220, 221, pl. 29, figs. 4, 4a, b. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: North side of Maud island.

— **suborbiculatum n. s. Whiteaves.** (1879.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 138, 139, pl. 17, fig. 6. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, Vancouver island, two miles and a quarter up.

— **sp. undet. Conrad.** (1870.)

Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p. 76, pl. 3, fig. 10. Phila., 1871. T. A. Conrad.

**Periplomya (Con.) Gabb.** (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 305. Phila., 1876. W. M. Gabb.

— **elliptica (Gabb.) Whitfield.** (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 177, 178, pl. 23, figs. 14-15. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Mullica hill and Holmdel, N. J.

— **elliptica Gabb.** (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 305. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

— **truncata n. s. Whitfield.** (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 220, 221, pl. 28, figs. 20, 21. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Near New Egypt, N. J.

**Perisphinctes anceps? (Reinecke sp.) Whiteaves.** (1878.)

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 407. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Iltsayonco river.

**Perisphinctes**—Continued.— **anceps** ? (Reinecke sp.) Whiteaves. (1878.)

Geol. Sur., Can.; Rep. Prog., for 1876, 1877, p. 157.  
Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river, British Columbia.

— **operculiformis** (Gabb) Eichwald. (1871.)

Geol. Paleont., Bemerk. Halb. Mang. aleutischen Inseln, p. 199, Taf. 19, figs. 5, 6. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: North shore of Katschemak bay, Alaska.

— **skidegatensis** Whiteaves. (1884.)

Geol. and Nat. Hist. Sur., Can.; Mes. Foss., vol. 1, pt. 3, p. 210. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: East end of Maud island.

**Perna** (Brug.) White. (1889.)

Bull. U. S. Geol. Sur., No. 51, p. 37. Wash., 1889. C. A. White.

— **excavata** n. s. White. (1889.)

Bull. U. S. Geol. Sur., No. 51, p. 37, pl. 7, fig. 1. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Sucia island, Sheep Jack island and Waldron island.

**Pernites** sp. undet. Ramirez. (1880.)

An. Min. Fomento Rep. Mex., Tomo. 3, p. 657, Lam. 1, fig. 5. Mexico, 1880. S. Ramirez.

Formation: Cretaceous.

Location: Sierra Mojado, Mexico.

**Peronæa** (subgen. Poli) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr. vol. 9, p. 194. Wash., 1876. F. B. Meek.

**Peronæoderma** (Poli) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 308. Phila., 1876. W. M. Gabb.

## — (subgen. Poli) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 193. Wash., 1876. F. B. Meek.

— **georgiana** n. s. Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 308. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pitaula creek, Ga.

**Perrisonota** n. g. Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 98. Phila., 1870. T. A. Conrad.

— **protecta** n. s. Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 98, pl. 9, fig. 24. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **protecta** (Con.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 110, pl. 11, figs. 14, 15. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**Perissolax** n. g. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 91. Phila., 1864. W. M. Gabb.

— **blakei** (Con.) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 92, pl. 21, fig. 110. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Martinez; near the coal mines at Clayton, Cochran's east of Mount Diablo, and near the Cañada de las Uvas, Los Angeles county, Cal.

— **blakei** (Con. sp.) Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, pp. 149, 150. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

— **brevirostris** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 91, pl. 19, fig. 43. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs, Martinez, Pence's ranch etc., Cal.

— **brevirostris** (Gabb) Whiteaves. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 121. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands.

— **brevirostris** (Gabb) White. (1889.)

Bull. U. S. Geol. Sur., No. 51, p. 46. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Sheep Jack islands.

**Petricola** (Lam.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 216. Wash., 1885. R. P. Whitfield.

— **nova-ægyptica** n. s. Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 216, 217, pl. 28, fig. 22. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Near New Egypt, N. J.

**Phanerostomum asperum** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 24. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

— **asperum** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 42. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

— **dilatatum** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, figs. 16, 30. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

— **globulosum** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 44. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**Phanerostomum**—Continued.— **hexacyclus** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 31. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

— **hexaleptum** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 22. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

— **hispidulum** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, figs. 22, 29. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

— **lacerum** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, figs. 17, 18. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

— **laeve** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 19. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

— **porulosum** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 15. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

— **senarium** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 25. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

— **quaternarium** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 20. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

— **quaternarium** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 46. Leipzig, 1854.

C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**Pharella** (Gray) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 147. Phila., 1864.

W. M. Gabb.

— **alta** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 147, pl. 22, fig. 118. Phila., 1864.

W. M. Gabb.

Formation: Cretaceous.

Location: Hills west of Martinez, Cal.

— **? dakotaensis** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 251, 252, pl. 1, fig. 3. Wash., 1876.

F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Vermilion river, Nebr.

**Pharella**—Continued.— **? pealei** n. s. Meek. (1873.)

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 496. Wash., 1873.

F. B. Meek.

Formation: Cretaceous.

Location: Missouri river, below Gallatin, Mont.

— **? pealei** (Meek) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 21, 22, pl. 11, figs. 6a, b. Wash., 1883.

C. A. White.

Formation: Cretaceous.

Location: Missouri river, below Gallatin, Mont.

**Phasianella** [Lam.] Shumard. (1859.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 597.

St. Louis, 1856-1860. B. F. Shumard.

— **ervina** (d'Orb.) Eichwald. (1871.)

Geog. Paleont. Bemerk. Halb. Meerk. aleutischen Inseln, p. 118. St. Petersburg, 1871.

E. Eichwald.

Formation: Cretaceous.

Location: Kadiak island, Alaska.

— **perovata** n. s. Shumard. (1859.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 597.

St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Comanche peak, and in Parker county, near Brazos river, Tex.

— **punctata** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 299, pl. 48, fig. 3.

Phila., 1858-1860.

W. M. Gabb.

Formation: Cretaceous.

Location: Mullica hill, N. J.

— **sp. undet.** Roemer. (1849.)

Texas, p. 414. Bonn, 1849.

F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

— **? sp. undet.** Roemer. (1852.)

Kreide von Tex., p. 38. Bonn, 1852.

F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

**Pholadomya** [Sow.] Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 68. Phila., 1834.

S. G. Morton.

## — (Sow. typical) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 214. Wash., 1876.

F. B. Meek.

— **anteradiata** n. s. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 276, pl. 46, fig. 3.

Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

— **borealis** n. s. Meek. (1858.)

Trans. Albany Inst., vol. 4, pp. 40, 41. Albany, 1858-1864.

F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

**Pholadomya—Continued.**— **brewerii** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 152, pl. 22, fig. 123. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Pence's ranch, Butte county, Cal.

— **humilis** n. s. M. & H. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 182. Phila., 1861. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of the Black hills, Nebr.

— **humilis** M. & H. (1865.)

Paleont. Up. Missouri, Smithson. Cont. Knowl., vol. 14. No. 172, p. 104, pl. 4, figs. 3, a, b. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of the Black hills.

— **kingii** (Meek) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 150, 151, pl. 38, figs. 3a, b. Wash., 1883. C. A. White.

Formation: Jurassic.

Location: Near the lower canyon of the Yellowstone river, Mont.

— **lincecumii** n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 199. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Corsicana, Navarro county, Tex.

— **littlei** n. s. Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 305, 306. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Clay county, Ga.

— **multilineata** n. s. Gabb. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 10, pl. 5, fig. 6. Phila., 1870. W. M. Gabb.

Formation: Jurassic.

Location: Volcano, about thirty miles southeast of Walker's lake, Nev.

— **nasuta** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 152, pl. 30, fig. 124. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Shore of the Straits of Carquines, two miles west of Martinez, Cal.

— **nevadana** n. s. Gabb. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 10, pl. 5, fig. 7 [9]. Phila., 1870. W. M. Gabb.

Formation: Jurassic.

Location: Volcano, about thirty miles southeast of Walker's lake, Nev.

— **occidentalis** n. s. Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 23, p. 292, pl. 8, fig. 3. New Haven, 1833. S. G. Morton.

Formation: Cretaceous.

— **occidentalis** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 68, pl. 8, fig. 3. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Chesapeake and Delaware canal.

**Pholadomya—Continued.**— **occidentalis** (Mort.) Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 276, 277. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

— **occidentalis** (Mort.) Owen. (1860.)

Second Rep. Geol. Rec. Ark. pl. 8, fig. 9. Phila., 1860. D. D. Owen.

Formation: Cretaceous.

Location: Arkansas.

— **occidentalis** (Mort.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 175, 176, pl. 24, figs. 1-3. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Monmouth, Burlington, and other localities in the lower green marls of New Jersey.

— **orbiculata** n. s. Gabb. (1864.)

Proc. Cal. Acad. Nat. Sci., vol. 3, p. 173. San Francisco, 1863-1868. W. M. Gabb.

Formation: Jurassic [Cretaceous?].

Location: Mariposa estate, Mariposa county, Cal.

— **[?] orbiculata** (Gabb) Meek (1865.)

Geol. Sur. Cal. Geol., vol. 1, p. 481, pl. 1, fig. 4. Phila., 1865. F. B. Meek.

Formation: Jurassic [Cretaceous?].

Location: Mariposa estate, Cal.

— **oregonensis** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 178, pl. 29, fig. 65. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Near the toll house at the summit of the Siskiyou mountains, near the southern boundary of Oregon.

— **ovuloides** n. s. Whiteaves. (1876.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 59, 60, pl. 9, fig. 9. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

— **panderi** n. s. Eichwald. (1871.)

Geogr. Paleont. Bemerk. Halb. Mang. aleutischen Inseln, pp. 165, 166, Taf. 13, figs. 10, 11. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

— **papyracea** n. s. M. & H. (1862.)

Proc. Acad. Nat. Sci., Phila., for 1862, p. 28. Phila., 1863. Meek & Hayden.

Formation: Cretaceous.

Location: Chippewa point, near Fort Benton, on the Missouri river.

— **papyracea** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 217, pl. 5, figs. 4a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Chippewa point on the upper Missouri.

**Pholadomya—Continued.****—papyracea (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 85. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest branch of North fork of the Old Man river about four miles below the mouth of Oyster creek, Canada.

**—papyria n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 276. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

**—pedernalis n. s. Roemer. (1852.)**

Kreide von Tex., pp. 45, 46, Taf. 6, figs. 4, a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**—postsulcata n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 276. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

**—roemeri n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 176, 177, pl. 24, fig. 4. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Rev. G. C. Schanck's pits, near Marlboro, Monmouth county, N. J.

**—royana (d'Orb.) Whiteaves. (1879.)**

Geol. Sur. Can., Mex. Foss., vol. 1, pt. 2, pp. 140, 141. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Gabriola island; Sucia islands.

**—sancti-sabæ (Roemer.) Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 164, pl. 21, fig. 4. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: New Braunfels, Tex.

**—scaphæformis n. s. Eichwald. (1871.)**

Geogr. Paleont. Bemerk. Halb. Mang., aleutischen Inseln, pp. 164, 165, Taf. 13, figs. 1, 2. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

**—sonorensis n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 265, pl. 36, fig. 12. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Mexico.

**—subelongata n. s. Meek. (1858.)**

Trans. Albany Inst., vol. 4, p. 42. Albany, 1858-1864. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

**Pholadomya—Continued.****—subelongata Meek. (1876.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, p. 362, pl. 2, figs. 1, 1a. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island, also on New Castle island.

**—subelongata (Meek.) White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, pp. 42, 43. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Waldron island.

**—subventricosa n. s. M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, p. 142. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Judith river, Nebr.

**—subventricosa (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 217, 218, pl. 39, figs. 8, a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, Idaho Ter.

**—subventricosa (M. & H.) Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 178. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: North Saskatchewan river, at Fort Pitt, and in township 64, range 2, west of the fourth principal meridian, Northwest Territory.

**—texana n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 152, pl. 19, fig. 3. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Turkey creek, Leon and Eagle pass roads.

**—tippana n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, pl. 34, fig. 9, p. 324. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**—undata n. s. M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 81. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Judith river, Nebr.

**—vancouverensis n. s. Whiteaves. (1882.)**

Proc. and Trans. Roy. Soc., Can., vol. 1, sec. 4, p. 83, fig. 2. Montreal, 1883. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northeast slope of Jackass mountain, in the valley of the Lower Fraser, Canada.

**—(Protocardia)hodgii Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 219, pl. 13, figs. 3a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Near the great bend of the Missouri, below Fort Pierre.

**Pholadomya—Continued.**

- *sp. undet.* Roemer. (1849.)  
Texas, p. 408. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.
- *sp. undet.* Meek. (1870.)  
Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 428.  
Phila., 1871. F. B. Meek.  
Formation: Jurassic.  
Location: Salinas creek, Hot springs.
- Fischer. (1872.)  
Comptes Rend., 1872, vol. 65, p. 1785. Paris, 1872.  
P. Fischer.  
Formation: Jurassic? [Cretaceous?].  
Location: Alaska.
- *sp. undet.* Whiteaves. (1874.)  
Geol. Sur. Can., Rep. Prog. for 1873, 1874, p. 263.  
Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Nanaimo river, Vancouver island, two and one-fourth and two and one-half miles up.
- *sp. undet.* Whiteaves. (1874.)  
Geol. Sur. Can., Rep. Prog. for 1873, 1874, p. 265.  
Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Gabriola island.
- Fischer. (1875.)  
Voyages a la Cote Nord-Quest de l'Amerique, p. 34, pl. A, figs. 3, 3a, par Alph. L. Pinart. Paris, 1875. P. Fischer.  
Formation: Jurassic [Cretaceous?].  
Location: Alaska.
- ? White. (1878.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur., Terr., p. 184. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of Saint Vrain creek, Colo.

**Pholas (Linn.) Morton. (1834.)**

- Synop. Org. Rem. Cret. Gr., U. S., p. 68. Phila., 1834. S. G. Morton.
- *cithara n. s.* Morton. (1834.)  
Synop. Org. Rem. Cret. Gr., U. S., p. 98, pl. 9, fig. 10. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Monmouth county, N. J.
- *cithara* (Mort.) Whitfield. (1885.)  
Mong. U. S. Geol. Sur., vol. 9, pp. 187, 188, pl. 25, figs. 14-16. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Mr. G. C. Schanck's marl pits, near Marlboro, N. J.
- *cretacea n. s.* Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 393, pl. 68, fig. 18. Phila., 1858-1860. W. M. Gabb.  
Formation: Cretaceous.  
Location: Raritan bay, N. J.
- *cretacea* Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 324. Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.  
Location: Burlington county, N. J.

**Pholas—Continued.**

- *cuneata n. s.* M. & H. (1858.)  
Proc. Acad. Nat. Sci., Phila., for 1858, p. 53. Phila., 1859. Meek & Hayden.  
Formation: Cretaceous.  
Location: Long lake.
- (?) *lata n. s.* Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 189, 190, pl. 25, fig. 17. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Marlboro, N. J.
- *pectorosa n. s.* Conrad. (1852.)  
Proc. Acad. Nat. Sci., Phila., vol. 6, 1852, 1853, p. 200. Phila., 1854. T. A. Conrad.  
Formation: Cretaceous.  
Location: Tinton Falls, Monmouth county, N. J.
- *pectorosa* Conrad. (1854.)  
Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser. 1850-1854, p. 299, pl. 27, fig. 9. Phila., 1850-1854. T. A. Conrad.  
Formation: Cretaceous.  
Location: Tinton Falls, Monmouth county, N. J.
- *sp. undet.* Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 23, p. 292. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous.  
Location: Monmouth county, N. J.
- Phylloceras (Suess) Meek. (1876.)**  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 458. Wash., 1876. F. B. Meek.
- ? *halli* (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 458-462, pl. 24, figs. 3a-c, fig. 64, p. 458. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: One hundred and fifty miles above the mouth of Milk river, on the Missouri, in Mont.
- ? *ramosus* Meek. (1876.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, pp. 371-373, pl. 5, figs. 1, 1a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Komooks, Vancouver island; also in the lower division of the California Cretaceous, at Cottonwood creek, Shasta county, Cal.
- Phylloda (subgen. Schumacher) Meek. (1876.)**  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 193. Wash., 1876. F. B. Meek.
- Phylloteuthis n. g. M. & H. (1860.)**  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 176. Phila., 1861. Meek & Hayden.
- *subovatus n. s.* M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860 p. 176. Phila., 1861. Meek & Hayden.  
Formation: Cretaceous.  
Location: Moreau river, Nebr.
- *subovata* (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 505, 506, pl. 33, fig. 3. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Moreau river, Dak.

**Phymosoma (Haime) Desor. (1858.)**

Synop. Echinoides Foss., p. 86. Paris and Wiesbade, 1858. E. Desor.

**— texanum (Roemers sp.) Desor. (1858.)**

Synop. Echinoides Foss., p. 90. Paris and Wiesbade, 1858. E. Desor.

Formation: Cretaceous.

Location: Fredericksburg, and San Saba river, Tex.

**Physa (Draparnaud) White. (1876.)**

Rep. Geol. Uinta Mts., p. 119. Wash., 1876. C. A. White.

**— atavus n. s. White. (1877.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 3, No. 3, pp. 601, 602. Wash., 1877. C. A. White.

Formation: Cretaceous.

Location: Dog creek, a tributary of the Upper Missouri river, Mont.

**— carletoni n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 508. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Carleton's coal mine, near Coalville, Utah.

**— carletoni (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 237. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— carletoni (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 306, 309, pl. 7, fig. 12a. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Carleton's coal mine, near Coalville, Utah.

**— carletoni (Meek) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 43, pl. 5, fig. 18. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— copei n. s. White. (1877.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 3, No. 4, p. 602. Wash., 1877. C. A. White.

Formation: Cretaceous.

Location: South side of the Missouri river, near Cow island, Mont.

**— copei White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 85, pl. 24, figs. 4a, b. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near Cow island, Upper Missouri river, Mont.

**— copei White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 44, pl. 25, figs. 1, 2. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**Physa—Continued.****— copei (White) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 14, pl. 2, figs. 4, 4a. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Bow river, eight miles west of Blackfoot crossing; Gooseberry canyon, St. Mary river, and St. Mary river, three miles north of the forty-ninth parallel; Pincher creek, crossing of Mill creek and Fort McLeod trail; High river, one mile below the forks; mouth of Blind Man river, Canada.

**— copei (White) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 63. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South Saskatchewan, eight miles above the mouth of the Red Deer river; near Bull's head, Canada.

**— copei (White) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 71. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Belly river, near its junction with the Bow river; south Saskatchewan, six miles below the mouth of the Bow river; South Saskatchewan, one mile below the mouth of the Bow river, Canada.

**— copei var. canadensis n. var. Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 14-16, pl. 2, figs. 5, 5a, b. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Pincher creek, crossing of Mill creek and Fort McLeod trail; Gooseberry canyon, St. Mary river; second or north branch of the Milk river, Canada.

**— felix n. s. White. (1878.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, p. 714. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Crow creek, Colo., ten miles above its confluence with the Platte.

**— felix White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 171. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow creek valley, Colo.

**— felix White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 84, 85; pl. 22, fig. 1a. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of Crow creek, northern Colo.

**— felix White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 44, pl. 25, fig. 3. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Crow creek valley, Colo., east of the Rocky mountains.

**Physa—Continued.**

- **kanabensis** n. s. White. (1876.)  
Rep. Geol. Uinta Mts., p. 119. Wash., 1876. C. A. White.  
Formation: Cretaceous.  
Location: Upper Kanab, Utah.
- **longinscula** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 119. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Three miles above Fort Union.
- **nebrascensis** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, pp. 119, 120. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Three miles below Fort Union.
- **rhomboidea** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 119. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Three miles above Fort Union.
- **subelongata** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 120. Phila., 1857. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Bad lands of the Judith.
- ? White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 237. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- ? White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 307, 308, pl. 7, fig. 13a. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Just northeastward from Coalville, Utah.
- ? White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 38, pl. 4, fig. 5. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- ? White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 43, pl. 6, fig. 17. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming.
- ? White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., Part 1, p. 85, pl. 30, fig. 11a. Wash., 1883. C. A. White.  
Formation: Cretaceous.
- Piestochilus** n. subgen. Meek. (1864.)  
Check List Invert., Fos. N. Am. Cret. and Jur., Smithsonian. Misc. Coll., vol. 7, No. 177, p. 37. Wash., 1864. F. B. Meek.
- Pinna** [Linn] Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 63. Phila., 1834. S. G. Morton.

**Pinna—Continued.**

- **aleutica** n. s. Eichwald. (1871.)  
Geogr. Paleont. Bemerk. Halk. Mang. aleutischen Inseln, pp. 183, 184, Taf. 15, figs. 11, 12. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaska.
- **brewerii** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 188, pl. 25, figs. 175, 175a. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Curry's, south of Mount Diablo; Martinez; and Siskiyou mountains, Cal.
- **brewerii** Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 195, pl. 32, fig. 93. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.
- **calamitoides** n. s. Shumard. (1858.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 124. St. Louis, 1856-1860. B. F. Shumard.  
Formation: Cretaceous.  
Location: Nanaimo river, Vancouver island.
- **calamitoides** (Shum.) Whiteaves. (1879.)  
Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 167, 168, pl. 20, figs. 1, 1a, b. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Suckia islands.
- **kingii** n. s. Meek. (1877.)  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 131, 132, pl. 12, figs. 9, 9a. Wash., 1877. F. B. Meek.  
Formation: Jurassic.  
Location: Weber canyon, Wasatch range.
- **lakesi** n. s. White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 181. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Fossil ridge, Col.
- **lakesi** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 17, 18, pl. 11, figs. 1a, b. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Fossil ridge, about sixteen miles westward from Greeley, and about six miles southward from Fort Collins, Colo.
- **lakesii** (White) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 84. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: South branch of the south fork of the Old Man river, Canada.
- **laquata** n. s. Conrad. (1858.)  
Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 328. Phila., 1855-1858. T. A. Conrad.  
Formation: Cretaceous.  
Location: Owl creek, three miles north of the town of Ripley, Missa.



## Pinna—Continued.

- **laqueata** (Con.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 81, 82, pl. 16,  
figs. 1, 2. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Burlington and Haddonfield, N. J.

- ? **lingula n. s.** Newberry. (1861.)  
Rep. Colo. River of the West, pt. 3, pp. 119, 120.  
Wash., 1861. J. S. Newberry.  
Formation: Cretaceous.  
Location: At Oraybe, one of the Moqui villages.

- **petrina n. s.** White. (1874.)  
Prelim. Rep. Geogr. and Geol. Expl. and Sur.  
west of one-hundredth meridian, G. M. Wheeler,  
pp. 24, 25. Wash., 1874. C. A. White.  
Formation: Cretaceous.  
Location: East of Mount Taylor, one mile south  
of Pajuata, N. Mex.

- **petrina** White. (1875.)  
Rep. Geogr. and Geol. Expl. and Sur. west of one-  
hundredth meridian, vol. 4, pt. 1, pp. 182, 183,  
pl. 13, figs. 7a, b. Wash., 1875. C. A. White.  
Formation: Cretaceous.  
Location: East of Mount Taylor, one mile south  
of Pajuata, N. Mex.

- **rostriformis n. s.** Morton. (1841.)  
Proc. Acad. Nat. Sci., Phila., vol. 1, 1841-1843,  
p. 132. Phila., 1843. S. G. Morton.  
Formation: Cretaceous.  
Location: Timber creek, Gloucester county, N. J.

- **rostriformis** Morton. (1842.)  
Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser., 1839-  
1842, p. 214, pl. 10, fig. 5. Phila., 1839-1842.  
S. G. Morton.  
Formation: Cretaceous.  
Location: Timber creek, Gloucester county, N. J.

- **rostriformis** (Morton) Whitfield.  
(1885.)  
Mon. U. S. Geol. Sur., vol. 9, p. 198, pl. 16, figs.  
3, 4. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Timber creek, N. J.

- **stevensoni n. s.** White. (1880.)  
Proc. U. S. Nat. Mus., vol. 3, pp. 47, 48. Wash.,  
1880. Smithsonian Misc. Coll., vol. 22. Wash.,  
1882. C. A. White.  
Formation: Cretaceous.  
Location: One and one-half miles southwestward  
from Fort Wingate, N. Mex.

- **subcancellata n. s.** Whiteaves.  
(1878.)  
Canadian Naturalist, vol. 8, n. ser., No. 7, p. 403.  
Montreal, 1878. J. F. Whiteaves.  
Formation: Jurassic.  
Location: Falls of the Itasyouco river.

- **subcancellata** Whiteaves. (1878.)  
Geol. Sur. Can., Rep. Prog. for 1876, 1877, p. 153.  
Montreal, 1878. J. F. Whiteaves.  
Formation: Jurassic.  
Location: Falls of the Itasyouco river, British  
Columbia.

## Pinna—Continued.

- **sp. undet.** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 286. New  
Haven, 1830. S. G. Morton.  
Formation: Cretaceous.  
Location: United States.

- **sp. undet.** Morton. (1834.)  
Synop. Org. Rem. Crét. Gr. U. S., p. 63. Phila.,  
1834. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey and Alabama.

- **sp. undet.** Roemer. (1849.)  
Texas, p. 402. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.

- **sp. undet.** Roemer. (1852.)  
Kreide von Tex., p. 56. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Ravine three miles from New Braun-  
fels, on road to Seguin, Tex.

- **sp. undet.** Roemer. (1852.)  
Kreide von Tex., p. 56. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.

- **sp. undet.** Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 268. Phila.,  
1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Sierra de la Conchas, near Arivechi,  
Sonora, Mex.

- **sp. undet.** Gabb. (1869.)  
Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 14.  
Phila., 1870. W. M. Gabb.  
Formation: Jurassic.  
Location: Mormon station, Plumas county, Cal.

- ? **White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 234. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

- **sp. undet.** Hill. (1889.)  
Geol. Sur. Tex., Bull. No. 4, p. 10. Austin, 1889.  
R. T. Hill.  
Formation: Cretaceous.  
Location: Fort Worth, Tex.

- **sp. undet.** Hill. (1889.)  
Geol. Sur. Tex., Bull. No. 4, p. 10. Austin, 1889.  
R. T. Hill.  
Formation: Cretaceous.  
Location: Austin, Tex.

- Pirenella** (subgen. Gray) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 558. Wash.,  
1876. F. B. Meek.

- Pisidium** (Pfeiffer) White. (1876.)  
Rep. Geol. Uinta Mts., p. 128. Wash., 1876. C.  
A. White.

**Pisidium—Continued.**

- **saginatium** n. s. White. (1876.)  
Rep. Geol. Unita Mts., p. 128. Wash., 1876. C. A. White.

Formation: Tertiary [Cretaceous].

Location: Almy coal mines, near Evanston, Wyo.

- **saginatium** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 242. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear river valley, Wyoming, Evanston coal mines.

- **saginatium** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 34, pl. 20, figs. 14, 15. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near Evanston, Wyo.

- Pitar** (subgen. Roem.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 179. Wash., 1873. F. B. Meek.

- Placenticerias** Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 462-464. Wash., 1876. F. B. Meek.

- **Meek typical.** (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 463. Wash., 1876. F. B. Meek.

- **glabrum** n. s. Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 172-174, pl. 24, figs. 1, 1a, b. Montreal, 1889. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Peace river, a few miles below Fort Vermilion, Northwest Territory.

- **lenticulare** (Owen) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 186. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Fossil ridge, at the mouth of the Saint Vrains, and in the valleys of the Cache à la Poudre, and Little Thompson creek, Colo.

- **occidentale** u. s. Whiteaves. (1887.)  
Geol. and Nat. Hist. Sur. Can., vol. 2, n. ser., 1886. App. I, p. 113 B. Montreal, 1887. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: K-uk river, coast of British Columbia.

- **occidentale** Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 155, 156, pl. 21, fig. 1. Montreal, 1889. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: K-uk river, coast of British Columbia.

- **perezianum** Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 156, 158. Montreal, 1889. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Liard river, below 'Old Fort Halkett, latitude 59° 26' N., longitude 124° 48' W., Canada.

**Placenticerias—Continued.**

- (**perezianum** ? var.) **liardense** n. var. Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 158, pl. 20, figs. 1, 2. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Liard river, near Old Fort Halkett, Canada.

- **placenta** (DeKay sp.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 465-468, pl. 24, figs. 2a, b, fig. 65, p. 466. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Cheyenne river, Dak., Bear creek, a small tributary of Cheyenne river; North Red river, Minn.

- **placenta** var. White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear creek, near Morrison, Colo.

- **placenta** (DeKay sp.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 53, 54. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South Branch of the Saskatchewan, White Mud river (or Frenchman's creek) on the forty-ninth Parallel; Blood Indian creek, longitude 111° west; St. Mary river, near its mouth; Belly river, west of St. Mary river; St. Mary river, west of MacLeod, Benton trail; lakesouth of Milk river; South Saskatchewan, opposite Swift Current creek, Red Deer river, above crossing of Lord Lorne trail, Canada.

- **placenta** (DeKay sp.) Stanton. (1887.)

Proc. Colo. Sci. Soc., vol. 2, pt. 3, for 1887, p. 185. [Denver, 1888.] T. W. Stanton.

Formation: Cretaceous.

Location: About five miles north of the town of Boulder, Colo.

- **placenta** (DeKay sp.) Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 183. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Battle river, township 40, range 13, west of the fourth principal meridian; Sounding creek, township 30, range 8, west of the same meridian, Northwest Territory.

- **placenta** var. **intercalare** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 468-472, pl. 23, figs. 1a-c, fig. 66, p. 471. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Cheyenne river, at the mouth of Sage creek, Dak., Tarrant county, Tex.

**Placenticeræ—Continued.**— **placenta** var. **intercalare** (Meek)

Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 54. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: St. Mary river; Berry creek, township 25, range 12, west of the fourth principal meridian, Canada.

— **? vancouverense** Meek. (1876.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, pp. 370, 371, pl. 6, figs. 1, 1a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Komooks, Vancouver island.

— (**Sphenodiscus**) **lenticularis** (Owen) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 473, 476, pl. 34, figs. 1a-c, fig. 66, p. 473. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river.

**Placento** [i] **ceru** [a] s. n. g. Meek. (1870.)

Proc. Am. Philos. Soc., vol. 11, 1869-1870, p. 429. Phila., 1871. F. B. Meek.

**Placuna** (Lam.) Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 62. Phila., 1834. S. G. Morton.

— **scabra** n. s. Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 62. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

**Placunanomia** (Brod.) Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 290. Phila., 1858-1860. T. A. Conrad.

— **lineata** n. s. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 291, pl. 46, fig. 20. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tennessee.

— **saffordi** n. s. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 290, 291, pl. 46, fig. 21. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tennessee.

**Placunopsis** (Morris & Lycett) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 278. Wash., 1879. C. A. White.

— **hilliardensis** n. s. White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 249. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Hilliard station, Wyo.

**Placunopsis—Continued.**— **hilliardensis** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 278, 279, pl. 7, fig. 14. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near Hilliard station, Wyo.

**Plagiarcæ** n. subgen. Conrad. (1875.)

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875. W. C. Kerr. App. A, p. 4. T. A. Conrad.

**Plagiptychus** (?) **cordatus** n. s. Roemer. (1888.)

Paleont. Abhandl. Vierter Band, Heft 4, pp. 13, 14, Taf. II, [xxxii], figs. 2a-2e. Berlin, 1888. F. Roemer.

Formation: Cretaceous.

Location: Two miles above the mouth of Bartons creek, near Austin, Tex.

**Plagiostoma** [Sowerby] Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 59. Phila., 1834. S. G. Morton.

— **annulatus** n. s. Trask. (1856.)

Proc. Cal. Acad. Nat. Sci., vol. 1, 1st ed., p. 86, pl. 3, fig. 2. San Francisco, 1854-1857. J. B. Trask.

Formation: Cretaceous.

Location: San Pedro, Cal.

— **dumosum** n. s. Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., pp. 59, 60, pl. 16, fig. 8, p. 60. Phila., 1834. S. G. Morton.

Formation: Cretaceous [Tertiary].

Location: Bluff at St. Stephens, on the Tombeckbe river [Alabama].

— **gregalis** n. s. Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 23, pp. 292, 293, pl. 5, fig. 6. New Haven, 1833. S. G. Morton.

Formation: [Cretaceous].

Location: New Jersey.

— **gregale** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., pp. 60, 61, pl. 5, fig. 6. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Burlington county, N. J.

— **pedroana** n. s. Trask. (1856.)

Proc. Cal. Acad. Nat. Sci., vol. 1, 1st ed., p. 86, pl. 3, fig. 1. San Francisco, 1854-1857. J. B. Trask.

Formation: Cretaceous.

Location: San Pedro, Cal.

— **pelagica** n. s. Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 23, p. 293, pl. 5, fig. 2. New Haven, 1833. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

— **pelagicum** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 61, pl. 5, fig. 2. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

**Plagiostoma—Continued.**— **truncata** n. s. Trask. (1856.)

Proc. Cal. Acad. Nat. Sci., vol. 1, 1st ed., p. 86, pl. 3, fig. 3. San Francisco, 1854-1857. J. B. Trask.

Formation: Cretaceous.

Location: San Pedro, Cal.

— **sp. undet.** Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 18, p. 245. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

**Planorbella** (subgen. Hald.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 536. Wash., 1876. F. B. Meek.

**Planorbis** (Müller) M. & H. (1865.)

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, pp. 106, 107. Wash., 1865. Meek & Hayden.

## — (Müller typical) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 535. Wash., 1876. F. B. Meek.

— **amplexus** n. s. M. & H. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, pp. 135, 136. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Judith river, Nebr.

— **convolutus** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 120. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Little Horn river.

— **convolutus** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 536, 537, pl. 42, figs. 12a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Little Horn and Powder rivers, Mont.

— **convolutus** (M. & H.) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 83. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— **convolutus** (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 41, pl. 27, fig. 16. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— **convolutus** var. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 538, pl. 42, figs. 11a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Little Horn and Powder rivers, Mont.

— **fragilis** n. s. M. & H. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, p. 136. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Fort Berthold, on the Missouri river, Nebr.

**Planorbis—Continued.**— **paucivolvis** n. s. Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 71, pl. 10, fig. 5. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Belly river, near its junction with the Bow river; South Saskatchewan, six miles below the mouth of Bow river, Canada.

— **subumbilicatus** n. s. (M. & H.) (1856.)

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 120. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Three miles below Fort Union.

— **tenuivolvis** n. s. M. & H. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, p. 135. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Judith river, Nebr.

— **veternus** (M. & H.) (1865.)

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, p. 107, pl. 4, figs. 1, a, b. Wash., 1865. Meek & Hayden.

Formation: Jurassic? [Jurassic].

Location: Southwest base of the Black hills.

— **veternus** (M. & H.) Whiteaves. (1878.)

Geol. Sur. Can., Rep. Prog., for 1876-1877, p. 156. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Ilitsayauco river, British Columbia.

— **veternus** (M. & H.) Whiteaves. (1878.)

Canadian Naturalist, vol. 8, n. ser., No. 7, pp. 406, 407. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Ilitsayouco river.

— **veternus** (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 40, pl. 3, fig. 6. Wash., 1883. C. A. White.

Formation: Jurassic.

Location: Vicinity of the Black hills.

— **veternus** (M. & H. ?) White. (1886.)

Bull. U. S. Geol. Sur., No. 29, p. 21, pl. 4, figs. 20, 21. Wash., 1886. C. A. White.

Formation: Jurassic.

Location: Eight miles north of Canyon city, Colo.

— (**Bathyomphalus**) **amplexus** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 539, pl. 42, figs. 16a, b, d, e. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Near the mouth of Judith river, on the Missouri in Montana.

— (**Bathyomphalus**) **amplexus** (M. & H.) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 83. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**Planorbis—Continued.****— (Bathymophalus) amplexus (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 41, pl. 27, figs. 19, 20. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Judith river beds.

**— (Bathymophalus) kanabensis n. s. White. (1876.)**

Rep. Geol. Uinta Mts., p. 119. Wash., 1876. C. A. White.

Formation: Cretaceous.

Location: Upper Kanab, Utah.

**— (Bathymophalus) kanabensis White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 41, pl. 27, figs. 21, 23. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Southern Utah.

**— (Gyraulus) militaris n. s. White (1880.)**

Proc. U. S. Nat. Mus., vol. 3, pp. 159, 160, Wash., 1880, Smithsonian. Misc. Coll., vol. 22. Wash., 1882. C. A. White.

Formation: Cretaceous.

Location: Head of Soldier's fork, Utah.

**— (Bathymophalus) planoconvexus (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 538, 539, pl. 44, figs. 9a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Fort Berthold, Dak., on the Missouri river.

**— (Bathymophalus) planoconvexus (M. & H.) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 83. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**— (Bathymophalus) planoconvexus (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 41, pl. 27, figs. 17, 18. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Fort Union beds.

**— ? White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 243. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near Mellis station, Wyo.

**Planorbulina ariminensis (d'Orb. sp.) Dawson. (1874.)**

Canadian Naturalist, vol. 7, n. ser., p. 255, fig. 1, d, p. 253. Montreal, 1875. G. M. Dawson.

Formation: Cretaceous.

Location: About twenty miles north of the forty-ninth parallel, on the escarpment called Pembina mountain, Manitoba.

**Planorbulina—Continued.****— farcata var. ariminensis (d'Orb.)**

Dawson. (1875.)

British and N. Am. Bound. Com., Rep. Geol. and Res. 49th par., p. 79, pl. 17, fig. 2c. Montreal, 1875. G. M. Dawson.

Formation: Cretaceous.

Location: Boyne river, Manitoba, Canada.

**Planularia Morton. (1842.)**

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser., 1839-1842, p. 214. Phila., 1839-1842. S. G. Morton.

**— cuneata n. s. Morton. (1842.)**

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser., 1839-1842, pp. 214, 215, pl. 11, fig. 5. Phila., 1839-1842. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**— elongata Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 10. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**Planulina globigerina Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 26. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

**— mississippiica Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 41. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**— nebulosa Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 35. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**— oligosticta Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 43. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**— suboctoraria Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 48. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**Platytrochus Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 399. Phila., 1858-1860. W. M. Gabb.

**— speciosus (G. & H.) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 399, 400, pl. 69, figs. 15-17. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Hardeman county, N. J.

**Pleurites ? americanus Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 20. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**Pleurocera coalescens n. s. Roemer.** (1888.)

Paleont. Abhandl. Vierter Band. Heft. 4, pp. 7, 8, Taf. 1 [xxx], fig. 3. Berlin, 1888. F. Roemer.  
Formation: Cretaceous.

Location: Two miles above the mouth of Barton's creek, near Austin, Tex.

**— strombiformis (Schloth.) Hill.** (1888.)

Ann. Rep. Geol. Sur. Arkansas, for 1888, vol. 2, pp. 129, 130, pl. 2, figs. 1-7, 7a, 7b, 8-12, 12a; pl. 3, figs. 6, 6a, 6b, 6c. Little Rock, 1888. R. T. Hill.

Formation: Cretaceous.

Location: Gypsum bluff, Little Missouri river, Pike county, Ark.

**— texana n. s. Roemer.** (1888.)

Paleont. Abhandl. Vierter Band. Heft. 4, p. 7, Taf. 1 [xxx], fig. 2. Berlin, 1888. F. Roemer.  
Formation: Cretaceous.

Location: Two miles above the mouth of Barton's creek, near Austin, Tex.

**Pleurolimnæa n. subgen. Meek.** (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 533. Wash., 1876. F. B. Meek.

**Pleuromya (Agas.) Gabb.** (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 178. Phila., 1869. W. M. Gabb.

**— (?) carlottensis n. s. Whiteaves.** (1876.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 57-59, pl. 9, fig. 8. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte island.

**— carlottensis Whiteaves.** (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 170. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rocky Mountains, three miles north of the east end of Devil's lake, Northwest Territory.

**— lævigata n. s. Whiteaves.** (1887.)

Geol. and Nat. Hist. Sur. Can., vol. 2, n. ser., 1886, app. I, p. 113 B. Montreal, 1887. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nookneamish river, northwest end of Vancouver island.

**— lævigata Whiteaves.** (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 155. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nookneamish river, northwest end of Vancouver island.

**— newtoni n. s. Whitfield.** (1877.)

U. S. Geogr. and Geol. Sur. Rocky Mt. Region; Prelim. Rep. Paleont., Black Hills, pp. 20, 21. Wash., 1877. R. P. Whitfield.

Formation: Jurassic.

Location: Two miles south of Belle Fourche, Black hills, Dak.

**Pleuromya—Continued.****— newtoni Whitfield.** (1880.)

Rep. Geol. Black Hills of Dakota, pp. 367, 368, pl. 5, figs. 19, 20. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: On top of the highest hills two miles south of the Belle Fourche river, near Bear Lodge butte, Black hills.

**— papyracea n. s. Gabb.** (1869.)

Geol. Sur. Cal. Paleont., vol. 2, pp. 178, 179, pl. 29, fig. 66. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Cal.

**— subcompressa (Meek) Whiteaves.** (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 222, pl. 29, fig. 6. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Alliford bay.

**— subcompressa var. carlottensis Whiteaves.** (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 223, pl. 29, figs. 7, 7a. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Alliford bay; east end of Maud island; Felsites of Sigutlat lake and the Itasyouco river, mainland of British Columbia.

**— (subcompressa ? var.) lævigata n. var. Whiteaves.** (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 224, 225, pl. 30, figs. 1, 1a-c. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Alliford bay; east end of Maud island.

**— subcompressa var. lævigata Whiteaves.** (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 249, pl. 33, fig. 3. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Maud island.

**— subelliptica (M. & H.) Whiteaves.** (1878.)

Can. Nat., vol. 8, n. ser. No. 7, p. 406. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river.

**— subelliptica (M. & H.) Whiteaves.** (1878.)

Geol. Sur. Can.; Rep. Prog. for 1876-1877, p. 155. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river, British Columbia.

**— unionides (Roemer sp.) Whiteaves.** (1878.)

Can. Nat., vol. 8, n. ser. No. 7, p. 406. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Sigutlat lake and Itasyouco river.

**Pleuromya—Continued.****— unionides (Roemer sp.) Whiteaves. (1878.)**

Geol. Sur. Can., Rep. Prog. for 1876-1877, pp. 155, 156. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Sigutlat lake and Iltasyouco river, British Columbia.

**Pleurotoma (Lam.) Shumard., (1861.)**

Proc. Bost. Soc. Nat. Hist., vol. 8, 1861-1862, p. 197. Boston, 1862. B. F. Shumard.

**— minor n. s. E. & S. (1857.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 40, 41. St. Louis, 1856-1860. Evans & Shumard.

Formation: Cretaceous.

Location: Moreau and Grand rivers.

**— mullicaensis n. s. Gabb. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 95, pl. 2, fig. 8. Phila., 1861. W. M. Gabb.

Formation: Cretaceous.

Location: Mullica hill, N. J.

**— texana n. s. Shumard. (1861.)**

Proc. Bost. Soc. Nat. Hist., vol. 8, 1861-1862, p. 197. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Near Red river, Lamar county, Tex.

**Pleurotomaria (Def.) Shumard. (1861.)**

Proc. Bost. Soc. Nat. Hist., vol. 8, 1861-1862, p. 198. Boston, 1862. B. F. Shumard.

**— austinensis n. s. Shumard. (1861.)**

Proc. Bost. Soc. Nat. Hist., vol. 8, 1861-1862, p. 198. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Near Austin, Tex.

**— rhodani (d'Orb.) Eichwald. (1871.)**

Geogr. Paleont. Bemerkt. Halb. Mang. aleutischen Inseln, p. 119. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Kadiak island, Alaska.

**— skidegatensis n. s. Whiteaves. (1876.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 51-53, pl. 9, figs. 6, 6a. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**— skidegatensis Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 249. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Maud island.

**— sp. undet. Roemer. (1849.)**

Texas, p. 414. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waco camp, near New Braunfels, Tex.

**— sp. undet. Roemer. (1852.)**

Kreide von Tex., p. 39. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Ford of the Guadalupe, near New Braunfels, Tex.

**Pleurotomaria—Continued.****— sp. undet. Roemer. (1852.)**

Kreide von Tex., p. 39. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waco camp, on the Guadalupe, above

New Braunfels, Tex.

**— sp. undet. Haughton. (1856.)**

Jour. Roy. Dublin Soc., vol. 1, No. 4, p. 245, pl. 9, fig. 8. Dublin, 1858. S. Haughton.

Formation: Jurassic.

Location: Point Wilkie, Prince Patrick's land.

**— ? Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 307, pl. 48, fig. 28. Phila., 1858-1860. W. M. Gabb.

Formation: Triassic?

Location: Bath county, Va.

**Plicatula (Lam.) Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 62. Phila., 1834. S. G. Morton.

**— arenaria n. s. Meek. (1876.)**

Rep. Expl. Exped. Santa Fe, N. Mex., to junction of Grand and Green rivers, pp. 126, 127, pl. 1, figs. 5a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Covero.

**— hydrotheca n. s. White. (1876.)**

Rep. Geol. Uinta Mts., p. 113. Wash., 1876. C. A. White.

Formation: Cretaceous.

Location: Head of Water pocket canyon, southern Utah.

**— hydrotheca White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 279, pl. 6, figs. 3a, b. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Head of Water pocket canyon, southern Utah.

**— incongrua n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 153, pl. 6, figs. 10a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: [Texas.]

**— perimbricata n. s. Gabb. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, pp. 16, 17, pl. 6, fig. 15 a. Phila., 1870. W. M. Gabb.

Formation: Jurassic.

Location: Volcano, about thirty miles southeast of Walker's lake, Nev.

**— placunea ? (d'Orb.) Hill. (1889.)**

Geol. Sur. Tex., Bull. No. 4, p. 7. Austin, 1889. R. T. Hill.

Formation: Cretaceous.

Location: Washita beds from Fort Worth to Denison, Tex.

**— saffordi n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 283, pl. 46, fig. 34. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tennessee.

**Plicatula**—Continued.

- **tetrica** n. s. Conrad. (1860.)  
 Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 283, pl. 46, fig. 26. Phila., 1858-1860.  
 T. A. Conrad.  
 Formation: Cretaceous.  
 Location: Tippah county, Miss.
- **urticosa** n. s. Morton. (1834.)  
 Synop. Org. Rem. Cret. Gr. U. S.; p. 62, pl. 10, fig. 2. Phila., 1834. S. G. Morton.  
 Formation: Cretaceous.  
 Location: New Jersey and Alabama.
- **urticosa** (Mort.) Whitfield. (1885.)  
 Mon. U. S. Geol. Sur., vol. 9, p. 61, pl. 9, figs. 1, 2. Wash., 1885. R. P. Whitfield.  
 Formation: Cretaceous.  
 Location: Freehold and Holmdel, N. J.
- **variata** n. s. Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 203, pl. 26, fig. 190. Phila., 1864. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Battle creek, Shasta county, Cal.
- Pliophloe** n. g. G. & H. (1862.)  
 Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 150. Phila., 1862-1863. Gabb & Horn.
- **sagena** n. s. G. & H. (1862.)  
 Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, pp. 150, 151, [pl. 20], fig. 34. Phila., 1862, 1863. Gabb & Horn.  
 Formation: Cretaceous.  
 Location: Timber creek, and near Mullica hill, N. J.
- **sagena** (G. & H.) Cook. (1868.)  
 Ann. Rep. Geol. Sur., New Jersey, for 1868, p. 376, fig. —. Newark, 1868. G. H. Cook.  
 Formation: Cretaceous.  
 Location: New Jersey.
- Pollicipes maximus** (Sow.) Credner. (1870.)  
 Zeitsch. Deutsch. Geol. Ges., Band 22, p. 241. Berlin, 1870. H. Credner.  
 Formation: Cretaceous.  
 Location: Turtle hill, N. J.
- Polorthus** n. g. Gabb. (1861.)  
 Proc. Acad. Nat. Sci., Phila., for 1861, pp. 366, 367. Phila., 1862. W. M. Gabb.
- **americana** Gabb. (1861.)  
 Proc. Acad. Nat. Sci., Phila., for 1861, p. 367. Phila., 1862. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: Alabama and Mississippi, Timber creek, N. J.
- **americanus** Gabb. (1872.)  
 Proc. Acad. Nat. Sci., Phila., for 1872, pp. 260-262, pl. 8, fig. 8. Phila., 1872. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: [New Jersey.]
- **tibialis** (Morton sp.) Gabb. (1872.)  
 Proc. Acad. Nat. Sci., Phila., for 1872, pp. 259-262, pl. 8, figs. 1-7. Phila., 1872. W. M. Gabb.  
 Formation: Cretaceous.  
 Location: New Jersey.

**Polymorphina** (d'Orb.) Reuss. (1861.)  
 Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsab., 1861, Band XLIV, p. 338. Wien, 1862. A. E. Reuss.

— **subrhombica** n. s. Reuss. (1861.)  
 Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsab., 1861, Band XLIV, p. 339, Taf. VII, fig. 3. Wien, 1862. A. E. Reuss.  
 Formation: Cretaceous.  
 Location: New Jersey.

**Polynema** n. subgen. Conrad. (1875.)  
 Rep. Geol. Sur., N. C., vol. 1, Raleigh, 1875. W. C. Kerr. App. A, p. 4. T. A. Conrad.

**Polyrhytis** n. subgen. Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 532. Wash., 1876. F. B. Meek.

**Popanoceras mcconnelli** n. s. Whiteaves. (1889.)  
 Geol. and Nat.-Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 138-140, pl. 18, figs. 2, 2a, b, 3, 3a. Montreal, 1889. J. F. Whiteaves.  
 Formation: Triassic.  
 Location: Liard river, about twenty-five miles below Devil's Portage, Canada.

**Portlandia** (subgen. Murch.) Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 107. Wash., 1876. F. B. Meek.

**Posidonia ovata** n. s. Lea. (1856.)  
 Proc. Acad. Nat. Sci., Phila., for 1856, p. 78. Phila., 1857. Isaac Lea.  
 Formation: [Triassic].  
 Location: Phoenixville, Pa.

— **parva** n. s. Lea. (1856.)  
 Proc. Acad. Nat. Sci., Phila., for 1856, p. 78. Phila., 1856. Isaac Lea.  
 Formation: [Triassic].  
 Location: Phoenixville, Pa.

**Posidonomya blatchleyi** n. s. Gabb. (1869.)  
 Am. Jour. Conch., vol. 5, Phila., 1869-1870, pp. 13, 14, pl. 6, fig. 12. Phila., 1870. W. M. Gabb.  
 Formation: Triassic.  
 Location: New pass, west of Austin [Nev.].

— **daytonensis** n. s. Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, pp. 32, 33, pl. 6, fig. 32. Phila., 1864. W. M. Gabb.  
 Formation: Triassic.  
 Location: Eldorado canyon, Nev., near Dayton.

— **stalla** n. s. Gabb. (1864.)  
 Geol. Sur. Cal. Paleont., vol. 1, p. 32, pl. 6, fig. 31. Phila., 1864. W. M. Gabb.  
 Formation: Triassic.  
 Location: Star canyon, Humboldt mining region, Nev.

— ? — Lyell. (1847.)  
 Quart. Jour. Geol. Soc. Lond., vol. 3, p. 275, fig. 6a. London, 1847. C. Lyell.  
 Formation: Jurassic? [Triassic].  
 Location: Near Blackheath, Va.



**Posidonomya—Continued.**

— (Bronn.) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 32. Phila., 1864. W. M. Gabb.

— *sp. undet.* Ramirez. (1880.)

An. Min. Fomento Rep. Mex., Tomo 3, p. 656, Lam. 1, fig. 2. Mexico, 1880. S. Ramirez.

Formation: Cretaceous. [?]

Location: Sierra Mojada, Mexico.

**Potamides (Brongn.) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 130. Phila., 1864. W. M. Gabb.

— *diadema n. s.* Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 130, pl. 20, fig. 85. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, Cal.

— *tenuis n. s.* Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 130, 131, pl. 20, fig. 86. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Pence's ranch, twelve miles north of Oroville, Butte county, Cal.

— *tenuis* (Gabb) Whiteaves. (1879.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 121, pl. 15, figs. 8, 8a, b. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Denman island, southwest side of Denman island, Suva islands.

— *tenuis var. nanaimoensis n. var.* Whiteaves. (1879.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 121, 122, pl. 15, figs. 9, 9a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island, Nanaimo river, Vancouver island.

**Prionocyclus n. g.** Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 452-455. Wash., 1876. F. B. Meek.

— *typical* Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 453. Wash., 1876. F. B. Meek.

— ? *macombi n. s.* Meek. (1876.)

Rep. Expl. Exped. Santa Fe, N. Mex., to junction of Grand and Green rivers, pp. 132, 133, pl. 2, figs. 3a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Banks of Canadian.

— *wyomingensis* (Meek) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 440, 441, pl. 14, figs. 1-3. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the east fork of Beaver creek, near Camp Jenney, Black hills.

— *wyomingensis* (Meek) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 35, 36, pl. 15, figs. 1a-c. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Valley of Medicine Bow river, Wyo.

**Prionocyclus—Continued.**— (*Prionotropis*) *woolgari* (Mant. sp.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 455-457, pl. 7, figs. 1a-h, pl. 6, fig. 2. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Southwest base of the Black hills, Dak.; northeastern Nebraska; Drift of northwestern Iowa; New Mexico; eight miles north of Fort Lyon, Colo.

**Prionotropis n. subgen.** Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 453. Wash., 1876. F. B. Meek.

**Proropercus obtusus** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, figs. 23, 24 ? Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**Protocardia subgen.** Conrad. (1855.)

Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 266. Phila., 1856. T. A. Conrad.

— (subgen. *Beyrich*) Conrad. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 149. Wash., 1857. T. A. Conrad.

— (*Beyrich* typical) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 172. Wash., 1876. F. B. Meek.

— *subgen.* Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 215. Wash., 1876. F. B. Meek.

— *borealis n. s.* Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 41, 42, pl. 6, figs. 1, 1a, 2, 2a, 3. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: St. Mary river, near its junction with the Belly river; St. Mary river, west of McLeod Benton trail; South Saskatchewan, opposite Swift Current creek; three miles north of Ross coulee, near Irvine station, on the Canadian Pacific railway, Canada.

— *borealis* Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 177. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: "The Nose," township 27, range 8, west of the fourth principal meridian, Northwest Territory.

— *n. s. carolinensis* Conrad. (1875.)

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875. W. C. Kerr. App. A., p. 7, pl. 2, fig. 21. T. A. Conrad.

Formation: Cretaceous.

Location: Snow hill, Greene county, N. C.

— *hillana* (?) var. Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 169. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rocky mountains, three miles north of the east end of Devil's lake, Northwest Territory.

**Protocardia—Continued.**— *rara* (E. & S.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 183. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Little Thompson creek, Colo.

— *shumardi* M. & H. (1865.)

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, pp. 98, 99, figs. A and B, text. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of Black hills.

— *subquadrata* (E. & S. sp.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 183. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Little Thompson creek; mouth of Saint Vrain creek, Colo.

— *subquadrata* (E. & S.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 41, pl. 5, figs. 4, 4a. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South Saskatchewan, opposite Swift Current creek; Bull's head, about twenty-two miles west of the west end of the Cypress hills; three miles north of Ross coulee, near Irvine station, on the Canadian Pacific; four miles south of Battle river, township 38, between ranges 12 and 13, west of fourth meridian, Canada.

— *subquadrata* (E. & S.) Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 177. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sounding creek, township 30, range 8, west of the fourth principal meridian, Northwest Territory.

— *subscitula* Meek. (1876.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, pp. 360, 361, pl. 3, figs. 4, 4a. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Komooks, Vancouver island.

— (*Leptocardia* ?) *pertenuis* (M. & H.) Meek (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 176, 177, figs. 13, 14, p. 176. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Deer creek, on the North Platte.

— (*Leptocardia*) *rara* (E. & S. sp.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 176, pl. 17, figs. 1a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: On the Yellowstone river, one hundred and fifty miles above its mouth.

**Protocardia—Continued.**— (*Leptocardia*) *subquadrata* (E. & S. sp.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 175, pl. 29, figs. 8a-e. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, Long lake, Fox hills, etc.

— (*Protocardia*) *salinaensis* Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 174, pl. 2, figs. 13a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Kans.

**Protocardium** (Beyrich) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 136. Wash., 1885. R. P. Whitfield.

— *hillanum* (Sow. sp.) Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 228, pl. 30, fig. 5. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: East end of Maud island.

— *scitulum* (Meek sp.) Whiteaves. (1879.)

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 155. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Blunden point, Vancouver island, two miles and a quarter and two miles and a half up the Nanaimo river; Socia islands.

## — sp. undet. Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 250, pl. 33, fig. 5. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Maud island.

**Psammobia** (Lam.) Whitfield. (1877.)

U. S. Geogr. and Geol. Sur. Rocky Mt. Region; Prelim. Rep. Paleont. Black Hills, p. 24. Wash., 1877. R. P. Whitfield.

— *cancellato-sculpta* n. s. Roemer. (1852.)

Kreide von Tex., p. 46, Taf. 6, figs. 10, a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe below New Braunfels, Tex.

— *obscura* n. s. White. (1889.)

Bull. U. S. Geol. Sur., No. 51, p. 61, pl. 10, figs. 4-6. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Palace camp and Carbonado, Wash.

— ? *prematura* n. s. Whitfield. (1877.)

U. S. Geogr. and Geol. Sur. Rocky Mt. Region; Prelim. Rep. Paleont. Black Hills, p. 24. Wash., 1877. R. P. Whitfield.

Formation: Jurassic.

Location: East of the Belle Fourche, Black hills, Dak.

**Psammobia—Continued.**
**— ? *prematura* Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., p. 374, pl. 5, fig. 31. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: East of the Belle Fourche river, near Bear lodge butte, Black hills.

**— *sp. undet.* Roemer. (1849.)**

Tex., p. 407. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

***Pseudobuccinum* n. g. M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, p. 140. Phila., 1858. Meek & Hayden.

**— *nebrascense* (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 350, 351, pl. 31, figs. 5a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river.

**— *nebrascensis* M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, pp. 140, 141. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau trading post and Fox hills, Nebr.

**— *nebrascense* (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 185. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Little Thompson creek, Colo.

***Pseudocardia* n. g. Conrad. (1866.)**

Am. Jour. Conch., vol. 2, p. 103. Phila., 1866. T. A. Conrad.

***Pseudocidaritis saussurei* (de Loriol) Cotteau. (1890.)**

Bull. Soc. Geol., France, 3d ser., vol. 18, p. 294.

Paris, 1890. Cotteau.

Formation: Cretaceous.

Location: San-Juan-Raya (Puebla), Mexico.

***Pseudodiadema* n. g. Desor. (1858.)**

Synop. Echinoides Foss., pp. 63, 64. Paris and Wiesbade, 1858. E. Desor.

**— *diatretum* (Morton sp.) Desor. (1858.)**

Synop. Echinoides Foss., p. 73. Paris and Wiesbade, 1858. E. Desor.

Formation: Cretaceous.

Location: Gloucestershire, N. J.

**— *texanum* (Roemer sp.) Desor. (1858.)**

Synop. Echinoides Foss., p. 72. Paris and Wiesbade, 1858. E. Desor.

Formation: Cretaceous.

Location: Fredericksburg and San Saba valley, Tex.

***Pseudoliva* (Swains.) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 99. Phila., 1864. W. M. Gabb.

***Pseudoliva*—Continued.**
**— *lineata* n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 99, pl. 18, fig. 52. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Northeast of Martinez, Cal.

**— *volutæformis* n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 99, pl. 28, fig. 212. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon, Cal.

***Pseudomelania* (?) sp. undet. Whiteaves. (1876.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 49, 50. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte island.

***Pseudomonotis* (Bronn.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., p. 354. Wash., 1880. R. P. Whitfield.

**— (*Eumicrotis*) *curta* (Hall) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., pp. 354-356, pl. 3, figs. 20-25. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Two miles south of the Belle Fourche river, near Bear Lodge butte; on Beaver creek; on Red canyon creek, near the Cheyenne; and in Redwater valley, Black hills.

**— (*Eumicrotis*) *orbiculata* n. s. Whitfield. (1877.)**

U. S. Geogr. and Geol. Sur. Rocky Mt. region; Prelim. Rep. Paleont., Black Hills, p. 17. Wash., 1877. R. P. Whitfield.

Formation: Jurassic.

Location: Redwater Valley, Black hills, Dak.

**— (*Eumicrotis*) *orbiculata* Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., pp. 356, 357, pl. 3, figs. 17-19. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Redwater valley, Black hills.

***Pseudonautilus* n. subgen. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 491. Wash., 1876. F. B. Meek.

***Pseudoptera* n. subgen. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 8, p. 29. Wash., 1876. F. B. Meek.

***Psilomya* (subgen. Meek) White. (1874.)**

Prelim. Rep. Geogr. and Geol. Expl. and Sur. west of one-hundredth meridian. G. M. Wheeler, p. 26. Wash., 1874. C. A. White.

***Pteria* (Scopoli) M. & H. (1865.)**

Paleont. Up. Missouri, Smithson. Cont. Knowl., vol. 14, No. 172, p. 79. Wash., 1865. Meek & Hayden.

**— *gastrodes* (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 234. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**Pteria**—Continued.

- **haydeni** (H. & M.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 33, 34, pl. 16, figs. 2a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Great bend of the Missouri, below Fort Pierre.
- **haydeni** (H. & M.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 180. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of Saint Vrain creek, Colo.
- **laripes** (Mort.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 69, 70, pl. 14, fig. 9. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Delaware?
- **linguiformis** (E. & S. sp.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 32, 33, pl. 16, figs. 1a–d. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Great bend of the Missouri, below Fort Pierre, Sage creek, Fox hills, Long lake, etc.
- **linguiformis** (E. & S.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 180. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Fossil ridge, Colo.
- **linguiformis** (E. & S.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. G. A. White.  
Formation: Cretaceous.  
Location: Bear creek, near Morrison, Colo.
- **linguiformis** (E. & S.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Sage creek, Colo.
- **linguiformis** (E. & S.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 384, 385, pl. 7, figs. 2, 3. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: On the South fork of the Cheyenne river, near French creek, and on Old Woman fork, Black hills.
- **linguiformis** (E. & S. sp.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 31. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Elbow of South Saskatchewan; South Saskatchewan, fifteen miles west of Swift Current creek; Bull's head, about twenty-two miles west of the west end of the cypress hills; three miles north of Ross coulee, near Irvine station, on the Canadian Pacific railway, Canada.

**Pteria**—Continued.

- **linguiformis** var. **subgibbosa** n. var. Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 33, pl. 28, fig. 12. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Long lake.
- **linguiformis** var. **subgibbosa** (Meek) Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 174. Montreal, 1889. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Battle river, township 46, range 4, west of the fourth principal meridian, Northwest Territory.
- **navicula** n. s. Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 70, 71, pl. 14, fig. 8. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.
- **parkensis** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 279, 280, pl. 3, fig. 3a. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: South of Grand river, Middle park, Colo.
- **petrosa** (Con.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 68, 69, pl. 14, fig. 10. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: At or near Keyport, N. J.
- **? stabilitatis** n. s. White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 15, pl. 17, fig. 3a. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Collin county, Tex.
- (**Oxytoma**) **corneuiliana** (d'Orb.) Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 166, 167, pl. 23, figs. 1, 1a, b. Montreal, 1889. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Rocky mountains, three miles north of the east end of Devil's lake, Northwest Territory.
- (**Oxytoma**) **erecta** n. s. White. (1880.)  
Proc. U. S. Nat. Mus., vol. 3, pp. 157, 158. Wash., 1880. Smithsonian. Misc. Coll., vol. 22. Wash., 1882. C. A. White.  
Formation: Cretaceous.  
Location: Lower Potato valley, Southern Utah.
- (**Oxytoma**) **erecta** White. (1881.)  
Proc. U. S. Nat. Mus., vol. 4, p. 139, pl. 1, figs. 7, 8. Wash., 1881. Smithsonian. Misc. Coll., vol. 22. Wash., 1882. C. A. White.
- (**Oxytoma** ?) **gastrodes** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 280, 281, pl. 10, fig. 1a. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.

**Pteria—Continued.****—(Oxytoma) munsteri (Broun) Meek. (1864.)**

Check List Invert. Foss. N. Am. Cret. and Jur.  
Smithson. Misc. Coll., vol. 7, No. 177, p. 39  
Wash., 1864. F. B. Meek.

Formation: Jurassic.

Location: Dakota; Idaho.

**—(Oxytoma) munsteri (Goldf.) M. & H. (1865.)**

Paleont. Up. Missouri, Smithson. Cont. Knowl.,  
vol. 14, No. 172, pp. 80, 81, figs. A and B, text.  
Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Wind river valley, Dak.

**—(Oxytoma) nebrascana (E. & S.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 34-36, pl.  
16, 3a, b; and pl. 28, fig. 11. Wash., 1876. F.  
B. Meek.

Formation: Cretaceous.

Location: Fox hills, Moreau river, South Fork  
of the Cheyenne, Milk river above Fort Union,  
and on the Yellowstone.

**—(Oxytoma) nebrascana (E. & S.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 180. Wash., 1879. C. A. White.

**—(Oxytoma) nebrascana (E. & S.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., pp. 385, 386, pl.  
7, fig. 4. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: Sage creek, Black hills.

**—(Oxytoma) nebrascana (E. & S.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, p. 31. Montreal, 1885. J.  
F. Whiteaves.

Formation: Cretaceous.

Location: "South Branch of the Saskatchewan,"  
South Saskatchewan opposite Swift Current  
creek, Canada.

**—(Oxytoma) nebrascana (E. & S. sp.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can.  
Paleont., vol. 1, pt. 2, p. 56. Montreal, 1885.  
J. F. Whiteaves.

Formation: Cretaceous.

Location: Milk river ridge, Canada.

**—(Oxytoma) nebrascana (E. & S.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, p. 79. Montreal, 1885. J.  
F. Whiteaves.

Formation: Cretaceous.

Location: Rocky spring ridge, near MacLeod-  
Benton trail; Milk river, about three miles  
west of crossing of MacLeod-Benton trail; and  
west flank of West Butte, Mont., in the sweet  
grass hills, near to the international boundary-  
line.

**Pteria—Continued.****—(Oxytoma) salinensis n. s. White. (1879.)**

Proc. U. S. Nat. Mus., vol. 2, pt. 2, pp. 296, 297,  
pl. 5, figs. 1, 2, Wash., 1880, Smithson. Misc.  
Coll., vol. 19. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Saline county, Kans.

**—(Oxytoma) salinensis White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 15, 16, pl. 16, figs. 2a, b. Wash.,  
1883. C. A. White.

Formation: Cretaceous.

Location: Saline county, Kans.

**—(Pseudoptera) fibrosa (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 36, 37, pl.  
17, figs. 17a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Forks of Cheyenne river; on North  
Platte river, near the mouth of Deer creek.

**—(Pseudoptera) fibrosa (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 197, Wash., 1879, C. A. White.

Formation: Cretaceous.

Location: Bear creek, near Morrison, Colo.

**—(Pseudoptera) fibrosa (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., p. 386, pl. 7, fig. 5.  
Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Rapid  
creek.

**—(Pseudoptera) fibrosa (M. & H.) var. Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, pp. 32, 33, pl. 4, fig. 1. Mont-  
real, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Bow river, below Horseshoe bend,  
Canada.

**—(Pseudoptera) propleura (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pp. 281-284, pl. 10, figs. 2a-c. Wash., 1879.  
C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**—(Pseudoptera) propleura (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 234. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**—(Pseudoptera) rhytophora (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 234. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**Pteria**—Continued.— (*Pseudoptera*) *sublævis* n. s. Whitfield. (1877.)

U. S. Geogr. and Geol. Sur. Rocky Mt. Region;  
Prelim. Rep. Paleont. Black Hills, p. 29. Wash.,  
1877. R. P. Whitfield.

Formation: Cretaceous.

Location: Old Woman's fork, Black hills, Dak.

— (*Pseudoptera*) *sublævis* Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., p. 387, pl. 7,  
fig. 6. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: Old Woman fork, Black hills.

**Pterocerella** n. g. Meek. (1864.)

Check List Invert. Foss. N. Am. Cret. and Jur.,  
Smithson. Misc. Coll., vol. 7, No. 177, p. 36.  
Wash., 1864. F. B. Meek.

— *tippana* (Con.) Meek. (1864.)

Check List Invert. Foss. N. Am. Cret. and Jur.,  
Smithson. Misc. Coll., vol. 7, No. 177, p. 36.  
Wash., 1864. F. B. Meek.

Formation: Cretaceous.

Location: Mississippi.

— *tippana* (Conrad) Gabb. (1868.)

Am. Jour. Conch., vol. 4, p. 147, pl. 14, fig. 20.  
Phila., 1868. W. M. Gabb.

Formation: Cretaceous.

**Pterodonta inflata** (d'Orb.) Ramirez. (1880.)

An. Min. Fomento Rep. Mex., Tomo 3, p. 657,  
Lam. 2-4. Mexico, 1880. S. Ramirez.

Formation: Cretaceous.

Location: Sierra Mojada, Mexico.

— ? *sp. undet.* Urquiza. (1882.)

An. Min. Fomento Rep. Mex., Tomo 7, p. 224,  
fig. 13. Mexico, 1882. M. Urquiza.

Formation: Cretaceous.

Location: Cerro de los Guzmanes, Coalcoman district, state of Michoacan, Mexico.

**Pteroperna** — ? Whiteaves. (1878.)

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 403.  
Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river.

## — (?) Whiteaves. (1878.)

Geol. Sur. Can.; Rep. Prog. for 1876-1877, p. 153.  
Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river, British Columbia.

**Ptiloteuthis** n. g. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 128. Phila.,  
1869. W. M. Gabb.

— *foliatus* n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, pp. 128, 129, pl. 19,  
fig. 4. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Shasta county, Cal.

**Ptychoceras** (d'Orb.) Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861-1862,  
p. 190. Boston, 1862. B. F. Shumard.

**Ptychoceras**—Continued.— *æquicostatus* n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 74, pl. 13, fig.  
20. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, Aldersons gulch, and Eagle creek, Shasta county, Cal.

— *aratus* n. s. Conrad. (1874.)

Seventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 455. Wash., 1874. T. A. Conrad.

Formation: Cretaceous.

Location: Trout creek, near Fairplay [Colo.].

— *crassum* n. s. Whitfield. (1877.)

U. S. Geogr. and Geol. Sur. Rocky Mt. Region;  
Prelim. Rep. Paleont. Black Hills, pp. 45, 46.  
Wash., 1877. R. P. Whitfield.

Formation: Cretaceous.

Location: On Old Woman's fork, Black hills.

— *crassum* Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., p. 459, pl. 16,  
figs. 3-5. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On Old Woman fork, Black hills.

— *crassum* (Whitfield) Stanton. (1887.)

Proc. Colorado Sci. Soc., vol. 2, pt. 3, for 1887, pp.  
185, 186. [Denver, 1888.] T. W. Stanton.

Formation: Cretaceous.

Location: About five miles north of the town of Boulder, Colo.

— *meekanum* n. s. Whitfield. (1877.)

U. S. Geogr. and Geol. Sur., Rocky Mt. region,  
Prelim. Rep. Paleont. Black Hills, pp. 44, 45.  
Wash., 1877. R. P. Whitfield.

Formation: Cretaceous.

Location: On Beaver creek, Black hills.

— *meekanum* Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 457, 458, pl.  
16, figs. 1, 2. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On Beaver Creek, Black hills.

— *mortoni* n. s. M. & H. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, p. 134.  
Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Great bend of the Missouri, Nebr.

— *mortoni* (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 412, 413, pl.  
20, figs. 4a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri river, below Fort Pierre.

— *mortoni* (M. & H.) Stanton. (1887.)

Proc. Colo. Sci. Soc., vol. 2, pt. 3, for 1887, p.  
186. [Denver, 1888.] T. W. Stanton.

Formation: Cretaceous.

Location: About five miles north of the town of Boulder, Colo.

— *texasus* n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p.  
190. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Near Chatfield point and Corsicana, Navarro county, Tex.

**Ptychoceras—Continued.****—vancouverense n. s. Whiteaves. (1879.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, pp. 113, 114, pl. 14, figs. 3, 3a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Banks of the Trent river, Vancouver island.

**—(? Hamites) quadratus n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 74, 75, pl. 15, fig. 21, pl. 14, figs. 21, a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Pence's ranch, Butte county, Cal.

**Ptychosyca n. g. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 294. Phila., 1876. W. M. Gabb.

**—inornata n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 295, pl. 17, figs. 2-4. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

**Ptygostomum senarium Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 27. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

**—quinarium Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 28. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

**Pugnellus n. g. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 284. Phila., 1858-1860. T. A. Conrad.

**—densatus Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 284. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

**—hamulus n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 124, 125, pl. 20, fig. 81; pl. 18, fig. 48. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Southwest of Martinez, Cal.

**—hamulus Gabb. (1868.)**

Am. Jour. Conch., vol. 4 p. 139, pl. 13, figs. 1-3. Phila., 1868. W. M. Gabb.

Formation: Cretaceous.

**—hamulus Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 162, 163, pl. 27, figs. 42, 42a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**—manubriatus n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 125, 126, pl. 29, fig. 229. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Cottonwood creek, Siskiyou county, Cal.

**Pugnellus—Continued.****—typicus n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 298. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

**—(Gymnarus) manubriatus Gabb. (1868.)**

Am. Jour. Conch., vol. 4, p. 139, pl. 13, figs. 4, 5. Phila., 1868. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**—(Gymnarus) Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 163, Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**Pulvinites (Defrance) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 330. Phila., 1855-1858. T. A. Conrad.

**—argentea n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 330, pl. 34, fig. 5. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**—argentea Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 298, pl. 46, fig. 51. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

**—argentea Conrad. (1867.)**

Am. Jour. Conch., vol. 3, pp. 9, 10. Phila., 1867. T. A. Conrad.

Formation: Cretaceous.

**Pupa helicoides n. s. (M. & H.) (1856.)**

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, pp. 118, 119. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Three miles above Fort Union.

**Purpura (Brug.) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 301. Phila., 1858-1860. W. M. Gabb.

**—(Morea) naticella n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 301, pl. 48, fig. 15. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**Purpuroidea (Lycett) Gabb. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 94. Phila., 1861. W. M. Gabb.

**—? dubia n. s. Gabb. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 94, pl. 2, fig. 11. Phila., 1861. W. M. Gabb.

Formation: Cretaceous.

Location: Mullica hill, N. J.

**Pycnodonta vesicularis** (Lam.) Cook. (1868.)

Ann. Rep. Geol. Sur. New Jersey for 1868, p. 374, fig. —. Newark, 1868. G. H. Cook.  
Formation: Cretaceous.  
Location: New Jersey.

— **vesicularis** n. var. Cook. (1868.)

Ann. Rep. Geol. Sur. N. J. for 1868, p. 374, fig. —. Newark, 1868. G. H. Cook.  
Formation: Cretaceous.  
Location: New Jersey.

**Pyrgulifera** Meek. (1876.)

Rep. Expl. Great Basin, Terr. Utah, p. 363. Wash., 1876. F. B. Meek.

— **humerosa** Meek. (1876.)

Rep. Expl. Great Basin, Terr. Utah, p. 363, pl. 5, figs. 6a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous?  
Location: Bear river, near the mouth of Sulphur creek.

— **humerosa** Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 176-178, pl. 17, figs. 19, 19a; fig. 6. p. 177. Wash., 1877. F. B. Meek.  
Formation: Cretaceous.  
Location: Sulphur creek, near Bear river, Wyo.

— **humerosa** (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 245. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, Wyo.

— **humerosa** (Meek) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 96. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Near the mouth of Sulphur creek, Wyo.

— **humerosa** (Meek) White. (1882.)

Proc. U. S. Nat. Mus., vol. 5, p. 98, pl. 3, figs. 10-12. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming; and Utah.

— **humerosa** (Meek) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 54, pl. 6, figs. 4-6. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming and adjacent parts of Utah.

**Pygurus** (d'Orb.) Desor. (1858.)

Synop. Echinoides Foss., pp. 309, 310. Paris and Wiesbade, 1858. E. Desor.

— **geometricus** (Morton sp.) Desor. (1858.)

Synop. Echinoides Foss., p. 313. Paris and Wiesbade, 1858. E. Desor.  
Formation: Cretaceous.  
Location: Delaware.

— **geometricus** (Agas.) d'Orb.

Paleont. Francaise, Echinoides Irreguliers, Terr. Cret. t. Sixieme, pp. 313, 314, pl. 920, fig. 4. Paris, 1853-1860. A. d'Orbigny.  
Formation: Cretaceous.  
Location: Delaware canal.

**Pyrifusus** n. g. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 332. Phila., 1855-1858. T. A. Conrad.

## — (Conrad typical) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 344. Wash., 1876. F. B. Meek.

— **newberryi** (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 81. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: West flank of West butte, Mont., in the Sweet Grass hills, and near the forty-ninth parallel.

— **subdensatus** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 332, pl. 35, fig. 12. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— (**Neptunella**) **intertextus** (M. & H. sp.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 348, 349, pl. 19, figs. 14a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles above its mouth.

— (**Neptunella**) **newberryi** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 346, 347, pl. 31, figs. 6a-f and fig. 39, p. 346. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Fox hills, Moreau trading post, and Long lake, Dak.; also on the Yellowstone river, one hundred and fifty miles above its mouth.

— (**Neptunella**) **subturritus** (M. & H. sp.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 347, 348, pl. 32, figs. 3a, b, and fig. 40, p. 347. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Grand river.

**Pyrina** (Desmoul.) Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 276. Phila., 1869. W. M. Gabb.

— **parryi** n. s. Hall. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, pp. 144, 145, pl. 1, figs. 1a-d. Wash., 1857. James Hall.

Formation: Cretaceous.

Location: Leon springs, El Paso road [Tex.].

— **parryi** (Hall) Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 276. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Cónchas, near Arivechi, Sonora, Mex.



***Pyripora* (d'Orb.) G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 157. Phila., 1862, 1863. Gabb & Horn.

**— *irregularis* G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 157 [pl. 20], fig. 40. Phila., 1862, 1863. Gabb & Horn.

Formation: Cretaceous.

Location: Timber creek and near Mullica hill, N. J.

***Pyropsis* (Conrad) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 368, 369. Wash., 1876. F. B. Meek.

**— *alabamensis* Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 285, 286. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Mississippi; Vincentown, N. J.

**— *bairdi* (M. & H. sp.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 369-371, pl. 31, figs. 10a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Fox hills and other localities near Moreau river.

**— *bairdi* (M. & H. sp.) (Meek) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 284. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

**— *bairdi* var. *rotula* n. var. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 371, 372, pl. 31, figs. 10c, 47, p. 371. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Fox hills and other localities near Moreau river.

**— *elevata* Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 284. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Burlington county, N. J.

**— *richardsonii* (Tuomey sp.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 284. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey; Prairie bluff, Ala.; Pataula creek, Ga.

**— *septemlivata* Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 285. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**— ? *trochiformis* (Tuomey sp.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 285. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey; Uniontown, Ala.

***Pyrula bairdi* n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 66. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river and Fox hills, Nebr.

**— *glabra* n. s. Shumard. (1858.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 125. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Nanaimo river, Vancouver island.

**— sp. undet. Roemer. (1849.)**

Texas, p. 415. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall, near New Braunfels, Tex.

**— sp. undet. Roemer. (1852.)**

Kreide von Tex., p. 37. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe, below New Braunfels, Tex.

***Quadrula* (subgen. Raf.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 514. Wash., 1876. F. B. Meek.

***Radioconcha* n. g. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 47. Phila., 1870. T. A. Conrad.

***Radiolites* (Lam.) Barcena. (1877.)**

Am. Museo Nac. Mex., Tomo 1, p. 198, Mexico, 1877-1879. M. Barcena.

**— *austinensis* Roemer. (1852.)**

Kreide von Tex., pp. 77-79, Taf. 6, figs. a-d. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Austin, Tex.

**— *foliaceus* ? (Lam.) Urquiza. (1882.)**

An. Min. Fomento Rep. Mex., Tomo 7, p. 223, fig. 8. Mexico, 1882. M. Urquiza.

Formation: Cretaceous.

Location: Road to Rincon, Coalcoman district, State of Michoacan, Mexico.

**— *mendozæ* n. s. ? Barcena. (1877.)**

An. Museo Nac. Mex., Tomo 1, pp. 198, 199, figs. 16, 17. Mexico, 1877-1879. M. Barcena.

Formation: Cretaceous.

Location: States of Queretaro, Michoacan, Vera Cruz, Guerrero, and San Luis Potosi, Mexico.

**— *turbيناتus* (Lam.) Urquiza. (1882.)**

An. Min. Fomento Rep. Mex., Tomo 7, p. 223, fig. 7. Mexico, 1882. M. Urquiza.

Formation: Cretaceous.

Location: Road to Rincon, Coalcoman district, State of Michoacan, Mexico.

**— sp. undet. Roemer. (1852.)**

Kreide von Tex., p. 77. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Sabine creek between New Braunfels and Fredericksburg, Tex.

***Radix* (subgen. Montfort) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 532. Wash., 1876. F. B. Meek.

**Radula (Klein) Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 99.  
Phila., 1870. T. A. Conrad.

**— acutilineata (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 62, 63, pl. 9,  
figs. 6, 7. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**— denticuticosta (Gabb sp.) Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 99,  
pl. 9, fig. 17. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**— oxypleura n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. C., vol. 1, Raleigh, 1875.  
W. C. Kerr. App. A, p. 2, pl. 1, fig. 5. T. A.  
Conrad.

Formation: Cretaceous.

Location: Snow hill, Greene county, N. C.

**— pelagica (Mort.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 61, 62, pl. 9,  
figs. 3-5. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel and Freehold, N. J.

**— reticulata (L. & F.) Whitfield. (1885.)**

Mong. U. S. Geol. Sur., vol. 9, pp. 63, 64, pl. 9,  
figs. 8, 9. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Upper Freehold, N. J.

**Rapa (Klein) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-  
1858, p. 332. Phila., 1855-1858. T. A. Conrad.

**— elevata n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 301, pl. 48, fig. 12. Phila., 1858-1860.  
W. M. Gabb.

Formation: Cretaceous.

Location: Near Burlington, N. J.

**— pyruloidea n. s. Gabb. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 94, pl.  
2, fig. 4. Phila., 1861. W. M. Gabb.

Formation: Cretaceous.

Location: Burlington county, N. J.

**— supraplicata n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-  
1858, p. 332, pl. 35, fig. 20. Phila., 1855-1858.  
T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the  
town of Ripley, Miss.

**Remondia n. g. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 270. Phila.,  
1869. W. M. Gabb.

**— ferrissii n. s. Cragin. (1889.)**

Bull. Washb. Col. Lab. Nat. Hist., vol. 2, No. 10,  
p. 68. Topeka, 1889. F. W. Cragin.

Formation: Cretaceous.

Location: Kiowa county, near Belvidere, Kans.

**Remondia—Continued.****— furcata n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 270, 271, pl. 36.  
figs. 17, 17a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi,  
Sonora, Mex.

**Reptescharellina (d'Orb.) G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, p. 146. Phila., 1862, 1863. Gabb & Horn

**— prolifera n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, pp. 146, 147 [pl. 20], fig. 28. Phila., 1862,  
1863. Gabb & Horn.

Formation: Cretaceous.

Location: Near Mullica hill, N. J.

**Reptescharipora (d'Orb.) G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, p. 151. Phila., 1862, 1863. Gabb & Horn.

**— marginata n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, pp. 151, 152 [pl. 20], fig. 35. Phila., 1862,  
1863. Gabb & Horn.

Formation: Cretaceous.

Location: Near Mullica hill, N. J.

**Reptocelleporaria (d'Orb.) G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, p. 131. Phila., 1862, 1863. Gabb & Horn.

**— aspera n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, pp. 131, 132 [pl. 19], fig. 14. Phila., 1862,  
1863. Gabb & Horn.

Formation: Cretaceous.

Location: Timber creek and near Mullica hill,  
N. J.

**Reptoflustrella (d'Orb.) G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, pp. 161, 162. Phila., 1862, 1863. Gabb &  
Horn.

**— ? heteropora n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862,  
1863, p. 162 [pl. 20], fig. 50. Phila., 1862, 1863.  
Gabb & Horn.

Formation: Cretaceous.

Location: Near Mullica hill and Timber creek,  
N. J.

**Reptomulticava (d'Orb.) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 401. Phila., 1858-1860. W. M. Gabb.

**— cepularis ? (Mort. sp.) G. & H. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 367.  
Phila., 1861. Gabb & Horn.

Formation: Cretaceous.

Location: New Jersey.

**— cepularis (G. & H.) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 401, pl. 68, figs. 33-35. Phila., 1858-  
1860. W. M. Gabb.

Formation: Cretaceous.

Location: Timber creek, N. J.

**Reptomulticava**—Continued.— **cepuraris** G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 177. Phila., 1862, 1863. Gabb & Horn.

Formation: Cretaceous.

Location: Timber creek, N. J.

**Requienia** (Math.) Conrad. (1854.)

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 299. Phila., 1850-1854. T. A. Conrad.

— **patagiata** n. s. White. (1884.)

Bull. U. S. Geol. Sur., No. 4, pp. 6, 7, pl. 1, figs. 1-8, pl. 2, figs. 1-4. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Vicinity of Austin, Tex.

— **patagiata** (White) Roemer. (1888.)

Paleont. Abhandl. Vierter Band, Heft 4, pp. 12, 13, Taf. I [xxx1], fig. 16; Taf. III, [xxx11], figs. 5a-c. Berlin, 1888. F. Roemer.

Formation: Cretaceous.

Location: Two miles above the mouth of Barton's creek, near Austin, Tex.

— **senseni** Conrad. (1854.)

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 299, pl. 27, fig. 8. Phila., 1850-1854. T. A. Conrad.

Formation: Cretaceous.

Location: Missouri river, Nebr.

— **texana** (Roem.) White. (1884.)

Bull. U. S. Geol. Sur., No. 4, p. 7, pl. 2, figs. 5-7. Wash., 1884. C. A. White.

Formation: Cretaceous.

Location: Vicinity of Austin, Tex.

**Reteelea** (d'Orb.) G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 164. Phila., 1862, 1863. Gabb & Horn.

— **ovalis** n. s. G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 164, [pl. 21], fig. 52. Phila., 1862, 1863. Gabb & Horn.

Formation: Cretaceous.

Location: Near Mullica hill, N. J.

**Retepora** (Lam.) Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 288. New Haven, 1830. S. G. Morton.

## — (Lam.) Morton. (1829.)

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 124. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Big Timber creek, Gloucester county, N. J.

— **sp. undet.** Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 288. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: Gloucester county, N. J.

— **sp. undet.** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., pp. 79, 80. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

**Reticulipora** Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 400. Phila., 1858-1860. W. M. Gabb.

— **dichotoma** n. s. G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 173 [pl. 21], fig. 64. Phila., 1862, 1863. Gabb & Horn.

Formation: Cretaceous.

Location: Timber creek, N. J.

— **sagena** n. s. G. & H. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 366. Phila., 1861. Gabb & Horn.

Formation: Cretaceous.

Location: New Jersey.

— **sagena** (G. & H.) Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 400, 401, pl. 69, figs. 30-32. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Timber creek, N. J.

— **sagena** G. & H. (1862.)

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 173. Phila., 1862, 1863. Gabb & Horn.

Formation: Cretaceous.

Location: Timber creek, N. J.

**Rhodea** (subgen. H. & A. Ad.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 555. Wash., 1876. F. B. Meek.

**Rhynchonella** (Fischer) Meek. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 39. Phila., 1864. F. B. Meek.

— **æquiplicata** n. s. Gabb. (1864.)

Geol. Sur. Paleont., vol. 1, p. 35, pl. 6, figs. 37, 37a, b. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: Cinnabar district, in the range east of the Humboldt mountains.

— **gnathophora** n. s. Meek. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 39, 40, pl. 8, figs. 1a-f. Phila., 1864. F. B. Meek.

Formation: Jurassic.

Location: Genesee valley, Plumas county, Cal.

— **gnathophora** ? (Meek) H. & W. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, pp. 284, 285, pl. 7, fig. 6. Wash., 1877. Hall & Whitfield.

Formation: Jurassic.

Location: Flaming gorge, Unita range, Utah.

— **halli** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 308, pl. 48, figs. 29a-c. Phila., 1858-1860. W. M. Gabb.

Formation: Triassic.

Location: Bath county, Va.

— **lingulata** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 34, pl. 6, figs. 36, 36a, b. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: Star canyon, Humboldt county, Nev.

**Rhynchonella—Continued.**

- **maudensis** n. s. Whiteaves. (1884.)  
Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1,  
pt. 3, p. 252, pl. 33, figs. 8, 8a, b. Montreal,  
1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Maud island.

- **myrina** n. s. H. & W. (1877.)  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2,  
p. 284, pl. 7, figs. 1-5. Wash., 1877. Hall &  
Whitfield.

Formation: Jurassic.

Location: Flaming Gorge, Uinta range, Utah.

- **myrina** (H. & W.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., p. 247, pl. 3,  
figs. 6, 7. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Red canyon, Black hills, Dak.

- **plicatilis** (Sow.) Eichwald. (1871.)  
Geog. Paleont. Bemerk. Halb. Mang. aleutischen  
Inseln, p. 200. St. Petersburg, 1871. Eich-  
wald.

Formation: Cretaceous.

Location: Alaska.

- **whitneyi** Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, pp. 204, 205, pl.  
34, figs. 105a, b. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

- **M. & H.** (1865.)  
Paleont., Up. Missouri, Smithsonian. Cont. Knowl.,  
vol. 14, No. 172, pp. 71, 72, pl. 3, fig. 4. Wash.,  
1865. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of Black hills, Dakota  
Territory.

- **sp. undet.** Whiteaves. (1879.)  
Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 177.  
Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Socia islands.

- **? White.** (1889.)  
Bull. U. S. Geol. Sur., No. 51, p. 36. Wash.,  
1889. C. A. White.

Formation: Cretaceous.

Location: Socia islands.

- Rhynchopterus** n. g. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 31, 32. Phila.,  
1864. W. M. Gabb.

- **obesus** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 32, pl. 5, figs.  
30, a, b. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: Rattlesnake point, near Humboldt  
city, Nev.

**Rhytophorus Meek. (1876.)**

Rep. Expl. Great Basin, Terr. Utah, p. 364.  
Wash., 1876. F. B. Meek.

**Rhytophorus—Continued.**

- **(?) glaber** n. s. Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, pp. 69, 70, pl. 10, figs. 4,  
4a-c. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Belly river, east side of Driftwood  
bend, and Belly river near its junction with the  
Bow river; south side of the Milk river, one  
mile above Pa-kow-ki coulee; south Saskatche-  
wan, one mile below the mouth of the Bow  
river; Driftwood bend, Canada.

- **meekii** n. s. White. (1876.)  
Rep. Geol. Uinta Mts., pp. 118, 119. Wash., 1876.  
C. A. White.

Formation: Cretaceous.

Location: Bear river valley, near Mellis station,  
Wyo.

- **meekii** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 243. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear river valley, Wyo.

- **meekii** White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 82, 83, pl. 30, figs. 8a, b. Wash.,  
1883. C. A. White.

Formation: Cretaceous.

Location: Near the mouth of Sulphur creek,  
Bear river valley, Wyo.

- **meekii** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 38, pl. 8,  
figs. 4, 5. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Southwestern Wyoming.

- **priscus** Meek. (1876.)  
Rep. Expl. Great Basin Terr. Utah, p. 364, pl. 5,  
figs. 4a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous?

Location: Bear river, near mouth of Sulphur  
creek.

- **priscus** Meek. (1877.)  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1,  
pp. 175, 176, pl. 17, figs. 6, 6a. Wash., 1877. F.  
B. Meek.

Formation: Cretaceous.

Location: Mouth of Sulphur creek, on Bear river,  
Utah.

- **priscus** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 243. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear river valley, Wyo.

- **priscus** (Meek) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 82. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Near the mouth of Sulphur creek, in  
the valley of Bear river, Wyo.

**Rhytophorus**—Continued.— **priscus** (Meek) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 38, pl. 8, figs. 2, 3. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming.

**Rimella** ? (Agas.) Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 331. Phila., 1855-1858. T. A. Conrad.

## — (subgen. Agas.) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 123. Phila., 1864. W. M. Gabb.

— **curviliratus** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 331, pl. 35, fig. 9. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **macilenta** n. s. White. (1889.)

Bull. U. S. Geol. Sur. No. 51, pp. 19, 20, pl. 3, figs. 10-12. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: About two miles northward from New Idria, Fresno county, Cal.

**Ringicula** (Deshayes) Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 192. Boston, 1862. B. F. Shumard.

— **acutispira** n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, pp. 193, 194. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Red river, Lamar county, Tex.

— **pulchella** n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, pp. 192, 193. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Chatfield point, Navarro county, Tex.

— **subpellucida** n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 193. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Bluffs of Red river, Lamar county, Tex.

**Ringinella** (d'Orb.) Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 174. Phila., 1869. W. M. Gabb.

— **pinguis** Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 175. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

— **polita** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, pp. 174, 175, pl. 28, fig. 60. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: South of the road from Colusa to the Hot sulphur springs in the first range of foothills, Colusa county, Cal.

**Risso cretacea** n. s. Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, pp. 100, 101, pl. 9, fig. 15. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**Robulina** ? **denaria** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 39. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

— **ocellus** Ehrenberg. (1854.)

Mikrogeologie, Taf. 32, fig. 47. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**Rosalina** (d'Orb.) Reuss. (1861.)

Math.-Naturw. Cl. Kaiserl. Akad. Wiss., Sitzungsber., 1861, Band XLIV, p. 337. Wien., 1862. A. E. Reuss.

— **bosqueti** n. s. Reuss. (1861.)

Math.-Naturw. Cl. Kaiserl. Akad. Wiss., Sitzungsber., 1861, Band XLIV, p. 337 [Taf. III, fig. 1].

Wien., 1862. A. E. Reuss.

Formation: Cretaceous.

Location: New Jersey.

**Rostellaria** (Lam.) Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 48. Phila., 1834. S. G. Morton.

— **sp. Credner.** (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 237. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: New Jersey.

— **americana** n. s. E. & S. (1857.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 42. St. Louis, 1856-1860. Evans & Shumard.

Formation: Cretaceous.

Location: Moreau and Grand rivers.

— **americana** (E. & S.) Meek. (1859.)

Northwest Terr. Rep. Prog. Assin. and Saskat. Expl. Exped., H. Y. Hind, p. 184. Toronto, 1859. F. B. Meek.

Formation: Cretaceous.

Location: South branch of the Saskatchewan, Canada.

— **arenarum** n. s. Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 23, p. 292, pl. 5, fig. 8. New Haven, 1833. S. G. Morton.

Formation: Cretaceous.

— **arenarum** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 48, pl. 5, fig. 8. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

— **biangulata** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, p. 65. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles from its mouth, Nebr.

— **? collina** n. s. Conrad. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 157, pl. 13. figs. 3a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Between Rio San Pedro and Rio Puerco.

**Rostellaria**—Continued.

- **fusiformis** n. s. H. & M. (1854.)  
Mem. Am. Acad. Arts and Sci., vol. 5, n. s., p. 393,  
pl. 3, figs. 10a, b. Cambridge and Boston, 1855.  
Hall & Meek.  
Formation: Cretaceous.  
Location: Sage creek.
- **macrodactyla** n. s. Troost. (1840.)  
Fifth Geol. Rep. Tennessee, p. 56. Nashville,  
1840. G. Troost.  
Formation: Cretaceous.  
Location: Near Purdy, McNairy county, Tenn.
- **monopleurophila** n. s. Roemer. (1888.)  
Paleont. Abhandl. Vierter Band. Heft. 4, p. 16,  
Taf. III [xxxiii], figs. 3a, 3b. Berlin, 1888. F.  
Roemer.  
Formation: Cretaceous.  
Location: Two miles above the mouth of Barton's  
creek, near Austin, Tex.
- **pennata** n. s. Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 48, pl. 19,  
fig. 9. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Prairie bluff, Ala.
- **rostrata** n. s. Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 390, pl. 68, fig. 7. Phila., 1858-1860.  
W. M. Gabb.  
Formation: Cretaceous.  
Location: Burlington county, N. J., and Prairie  
bluff, Ala.
- **rostrata** (Mort.) Conrad. (1875.)  
Rep. Geol. Sur. N. C., vol. 1, Raleigh, 1875. W.  
C. Kerr, App. A, pp. 12, 13. T. A. Conrad.  
Formation: Cretaceous.  
Location: Snow hill, Greene county, N. C.
- **? texana** n. s. Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p.  
158, pl. 13, figs. 4a, b. Wash., 1857. T. A.  
Conrad.  
Formation: Cretaceous.  
Location: Between Rio San Pedro and Rio Puer-  
cos [Tex.].
- (**Rimella**) **canalifera** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 123, 124, pl.  
29, fig. 228. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez, and near Fort Tejon, Cal.
- (**Rimella**) **simplex** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 124, pl. 20,  
fig. 80. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: San Diego; Clayton, Cal.
- **sp. undet.** Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 282. New  
Haven, 1830. S. G. Morton.  
Formation: Cretaceous.  
Location: Chesapeake and Delaware canal; Mul-  
lica hill and other places in New Jersey.

**Rostellaria**—Continued.

- **sp. undet.** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 48. Phila.,  
1834. S. G. Morton.  
Formation: Cretaceous.  
Location: Delaware.
- **sp. undet.** Roemer. (1849.)  
Texas, p. 414. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.
- **sp. undet.** Roemer. (1849.)  
Texas, p. 414. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Waterfall near New Braunfels, Tex.
- **sp. undet.** Roemer. (1852.)  
Kreide von Tex., p. 38. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Waterfall of the Guadalupe below New  
Braunfels, Tex.
- **sp. undet.** Roemer. (1852.)  
Kreide von Tex., p. 38. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Fredericksburg, Tex.
- Rostellites** n. g. Conrad. (1855.)  
Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p.  
268. Phila., 1856. T. A. Conrad.
- (**Con.**) Dall. (1890.)  
Trans. Wag. Free Inst. Sci., Phila., vol. 3, p. 71.  
Phila., 1890. W. H. Dall.
- **nasutus** Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 294.  
Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: Pataula creek, Clay county, Ga.
- **texana** Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p.  
158, pl. 14, figs. 2a, b. Wash., 1857. T. A.  
Conrad.  
Formation: Cretaceous.  
Location: Eagle Pass [Tex.].
- **texana** (Con.) Dall. (1890.)  
Trans. Wag. Free Inst. Sci., Phila., vol. 3, pp.  
71-73. Phila., 1890. W. H. Dall.  
Formation: Cretaceous.  
Location: Eagle Pass, Tex.
- **texanus** n. s. Conrad. (1855.)  
Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 268.  
Phila., 1856. T. A. Conrad.  
Formation: Cretaceous.  
Location: Eagle Pass, Tex.
- Rotalia** (Lam.) Reuss. (1861.)  
Math.-Naturw. Cl. Kaiserl. Akad. Wiss., Sitz-  
ungsb., 1861, Band XLIV, p. 336. Wien., 1862.  
A. E. Reuss.
- **calcipara** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 33. Leipzig, 1854.  
C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.

**Rotalia**—Continued.

- **globulosa** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, figs. 31 and 45. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.
- **globulosa** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 21. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Missouri region.
- **heptas** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 40. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.
- **lenticulina** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 32. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Missouri region.
- **leptospira** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 32. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.
- **mortoni** n. s. Reuss. (1861.)  
Math.-Naturw. Cl. Kaiserl. Akad. Wiss., Sitzungsab., 1861, Band XLIV, p. 337, Taf. VIII, fig. 1. Wein., 1862. A. E. Reuss.  
Formation: Cretaceous.  
Location: New Jersey.
- **nonas** ? Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 36. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.
- **senaria** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 30. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.

**Rotalina** — Lyell. (1844.)

- Quart. Jour. Geol. Soc., London, vol. 1, p. 64, figs. a, d, p. 64. London, 1845. Charles Lyell.  
Formation: Cretaceous.  
Location: Timber creek, N. J.

**Rotundaria** (subgen. Raf.) Meek. (1876.)

- Rep. U. S. Geol. Sur. Terr., vol. 9, p. 514. Wash., 1876. F. B. Meek.

**Sagrina longirostris** Ehrenberg. (1854.)

- Mikrogeologie, Taf. 32, fig. 22. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.

**Salenia mexicana** n. s. Schlüter. (1887.)

- Verhandl. Naturhist. Vereines, Preuss. Rheinlande, 44 Jahrg. 1 Hälfte. Bonn, 1887. Sitzungsab., pp. 41, 42.  
Formation: Cretaceous.  
Location: Gold placers of Guadalupe, seventy-five miles east of Chihuahua, Mexico.

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**Salenia**—Continued.

- **prestensis** (Desor) Cotteau. (1890.)  
Bull. Soc. Geol. France, 3d ser., vol. 18, No. 4, pp. 294, 295. Paris, 1890. Cotteau.  
Formation: Cretaceous.  
Location: Placers de Guadalupe (Chihuahua).
- **prestensis** (Desor) Cotteau. (1890.)  
Bull. Soc. Geol. France, 3d ser., vol. 18, pp. 294, 295. Paris, 1890. Cotteau.  
Formation: Cretaceous.  
Location: Placers de Guadalupe (Chihuahua), Mexico.
- Sanguinolaria** (Lam.) Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 277. Phila., 1858-1860. T. A. Conrad.
- ? **caudata** n. s. White. (1889.)  
Bull. U. S. Geol. Sur. No. 51, p. 61, pl. 10, figs. 1-3. Wash., 1889. C. A. White.  
Formation: Cretaceous.  
Location: Carbonado, Wash.
- **cretacensis** n. s. Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 277, pl. 46, fig. 11. Phila., 1858-1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Tippah county, Miss.
- **oblata** n. s. Whitfield. (1876.)  
Rep. Rec. Carroll Mont to Yellowstone National Park, p. 144, pl. 2, figs. 3, 4. Wash., 1876. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Near the mouth of the Judith river.
- Saxicava** [Bellevue] Eichwald. (1871.)  
Geog. Paleont. Bernerk. Halb. Mang. aleutischen Inseln, p. 127. St. Petersburg, 1871. E. Eichwald.
- **jurassica** n. s. Whitfield. (1877.)  
U. S. Geogr. and Geol. Sur. Rocky Mt. Region; Prelim. Rep. Paleont., Black Hills, pp. 25, 26. Wash., 1877. R. P. Whitfield.  
Formation: Jurassic.  
Location: Redwater valley, Black hills, Dak.
- **jurassica** Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 376, 377, pl. 5, figs. 25-30. Wash., 1880. R. P. Whitfield.  
Formation: Jurassic.  
Location: Redwater valley, Black hills.
- **ungana** (Grew.) Eichwald. (1871.)  
Geog. Paleont. Bernerk. Halb. Mang. aleutischen Inseln, p. 127. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Unga island, Alaska.
- Scala** (Klein) Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 206. Phila., 1876. W. M. Gabb.
- (**Opalia**) **annulata** (Morton) Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 298. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.

**Scala—Continued.****—(Opalia) cyclostoma n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 297-298. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

**—(Opalia) thomasi n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 296, 297. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**Scalaria [Lam.] Morton. (1830.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 196. Phila., 1827-1831. S. G. Morton.

**—albensis (??) (d'Orb.) Whiteaves. (1876.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 50, 51, pl. 9, fig. 5. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

**—annulata n. s. Morton. (1830.)**

Am. Jour. Sci. 1st ser., vol. 18, pl. 3, fig. 6. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

**—annulata Morton. (1830.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 196, 197. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Gloucester county, N. J.

**—annulata Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., pp. 47, 48, pl. 3, fig. 10. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Gloucester county, N. J.

**—cerethiformis n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 63. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau trading post, Nebr.

**—forsheyi n. s. Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, pp. 195, 196. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Chatfield point, Navarro county, Tex.

**—mathewsoni (Gabb) White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 45. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Sheep Jack island.

**—sillimani n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 47, pl. 13, fig. 9. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Prairie bluff, Ala.

**—sillimani? (Mort.) Owen. (1860.)**

Second Rep. Geol. Rec. Ark., pl. 8, fig. 7. Phila., 1860. D. D. Owen.

Formation: Cretaceous.

Location: Arkansas.

**Scalaria—Continued.****—texana Roemer. (1852.)**

Kreide von Tex., pp. 39, 40, Taf. 4, figs. 11a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe, below New Braunfels, Tex.

**—(Opalia) mathewsonii (Gabb) Whiteaves. (1879.)**

Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 128. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Socia islands.

**—(Scala) bicarinifera n. s. Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 1861, 1862, pp. 197, 198. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Bluffs of Red river, Lamar county, Tex.

**—(Scala) lamarensis n. s. Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 197. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Bluffs of Red river, Lamar county, Tex.

**—? Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, pp. 281, 282. New Haven, 1830. S. G. Morton.

Formation: [Cretaceous].

Location: Gloucester county, N. J.

**—sp. undet. Roemer. (1849.)**

Texas, p. 413. Bonn., 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

**—sp. undet. Hill. (1889.)**

Geol. Sur. Tex., Bull. No. 4, p. 17. Austin, 1889. R. T. Hill.

Formation: Cretaceous?

Location: North of Webberville, Tex.

**Scalpellum (Leach) Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 199. Boston, 1862. B. F. Shumard.

**—conradi n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 179, pl. 5, figs. 3, 3a, b, 4. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Neighborhood of Vincentown, N. J.

**—inaequiplicatum n. s. Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 199. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Near Chatfield point, Navarro county, Tex.

**Scambula n. g. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 48. Phila., 1870. T. A. Conrad.



**Scambula—Continued.**

- **perplana** n. s. Conrad. (1869.)  
Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 48, pl. 9, figs. 7, 8. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

- **perplana** (Con.) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 123, 124, pl. 18, figs. 8-10. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**Scaphites** (Park.) Morton. (1828.)

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 109. Phila., 1827-1831. S. G. Morton.

- **abyssinus** (Morton sp.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 51. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: White Mud river, about twenty miles west of the crossing of Wood mountains and Cypress hills trails, Canada.

- **conradi** (Morton sp.) Meek. (1859.)

Northwest Terr., Rep. Prog. Assin. and Saskat. Expl. Exped., H. Y. Hind., p. 185. Toronto, 1859. F. B. Meek.

Formation: Cretaceous.

Location: South branch of the Saskatchewan, Canada.

- **conradi** (Morton) Meek. (1870.)

Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 429. Phila., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Fountain creek, Colorado city, Colo.

- **cuvieri** n. s. Morton. (1828.)

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 109-115, pl. 7, fig. 1. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Deep cut of the Chesapeake and Delaware canal.

- **cuvieri** Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, pp. 280, 281. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: [Deep cut of the Chesapeake and Delaware canal?]

- **hippocrepis** (DeKay sp.) Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., pp. 41, 42, pl. 7, fig. 1. Phila., 1834. S. G. Morgan.

Formation: Cretaceous.

Location: Deep cut of the Chesapeake and Delaware canal.

- **iris** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 335, pl. 35, fig. 23. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**Scaphites—Continued.**

- **larvæformis** n. s. M. & H. (1858.)

Proc. Acad. Nat. Sci., Phila., for 1858, p. 58. Phila., 1859. Meek & Hayden.

Formation: Cretaceous.

Location: East base of the Black hills.

- **larvæformis** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 418, 419, pl. 6, figs. 6a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Eastern base of the Black hills.

- **mandanensis** (Morton sp.) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 197. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear and Ralston creeks, Colo.

- **nicolleti** (Morton sp.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 61, 62. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Creek twelve miles east of White Mud river (or Frenchman's creek), Old Wives creek, township 10, range 11, west of third principal meridian, Canada.

- **nodosus** (Owen) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 186. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Fossil ridge, Colo.

- **nodosus** (Owen) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 187. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear creek, near Morrison, Colo.

- **nodosus** (Owen) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 206, 207. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Sage creek, Colo.

- **nodosus** (Owen) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 441-443, pl. 13, fig. 12. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Rapid creek, Black hills, Dak.

- **nodosus** (Owen) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 52. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South branch of the Saskatchewan; elbow of the South Saskatchewan; South Saskatchewan, mouth of Swift Current creek; west end of the Cypress hills, Canada.

- **nodosus** (Owen) Stanton. (1887.)

Proc. Colo. Sci. Soc., vol. 2, pt. 3, for 1887, p. 187. [Denver, 1888.] T. W. Stanton.

Formation: Cretaceous.

Location: About five miles north of the town of Boulder, Colo.

**Scaphites—Continued.**

- **nodosus** (Owen) Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont.,  
vol. 1, pt. 2, pp. 182. Montreal, 1889. J. F.  
Whiteaves.

Formation: Cretaceous.

Location: North Saskatchewan river, near the  
mouth of Moose Hill creek, Northwest Territory.

- **nodosus** var. **brevis** n. var. Meek.  
(1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 426-428, pl.  
25, figs. 1a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, Mont., one hundred  
and fifty miles above its mouth.

- **nodosus** var. **brevis** (Meek) Whit-  
field. (1880.)

Rep. Geol. Black Hills of Dak., p. 443, pl. 13,  
figs. 8, 9. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: Cheyenne river, near Rapid creek,  
Black hills, Dak.

- **nodosus** var. **plenus** n. var. M. & H.  
(1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, pp. 177, 178.  
Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and  
fifty miles above the mouth, Nebr.

- **nodosus** var. **plenus** (M. & H.) Meek.  
(1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 429, 430,  
pl. 26, figs. 1a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and  
fifty miles from its mouth.

- **nodosus** var. **quadrangularis** (M. &  
H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 428, 429, pl.  
25, figs. 3a-c; 2a-c, and fig. 4. Wash., 1876. F.  
B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, Mont., one hundred  
and fifty miles above its mouth.

- **nodosus** var. **quadrangularis** (Meek)  
Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 443, 444, pl.  
13, figs. 10, 11. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Rapid and  
French creeks, and also from Old Woman fork,  
Black hills.

- **nodosus** ? var. Meek. (1859.)

N. W. Terr., Rep. Prog. Assin and Saskat. Expl.  
Exped., H. Y. Hind, p. 185, pl. 2, figs. 7, 8.  
Toronto, 1859. F. B. Meek.

Formation: Cretaceous.

Location: South branch of the Saskatchewan,  
Canada.

**Scaphites—Continued.**

- **quatsinoensis** Whiteaves. (1887.)  
Geol. and Nat. Hist. Sur. Can., vol. 2, n. ser.  
1886, App. 1, p. 114 B. Montreal, 1887. J. F.  
Whiteaves.

Formation: Cretaceous.

Location: East side of Winter harbor, Forward  
inlet, Quatsino sound, Vancouver island.

- **quatsinoensis** Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 2, pp. 158, 159, pl. 21, fig. 2.  
Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: East side of Winter harbor, Forward  
inlet, Quatsino sound, Vancouver island.

- **reniformis** n. s. Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 23, p. 291. New Ha-  
ven, 1833. S. G. Morton.

Formation: Cretaceous.

Location: United States.

- **reniformis** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 42, pl. 2, fig. 6.  
Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Near Bordentown, N. J.

- **semicostatus** n. s. Roemer. (1852.)

Kreide von Tex., p. 35, Taf. 1, fig. 5, a, b. Bonn,  
1852. F. Roemer.

Formation: Cretaceous.

Location: Ford of Guadalupe, New Braunfels,  
Tex.

- **subglobosus** n. s. Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, pp. 52, 53, pl. 7, fig. 3, and pl. 8.  
Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: East branch of the Poplar river on the  
forty-ninth parallel, Old Wives creek, town-  
ship 10, range 11, west of third principal me-  
ridian, Canada.

- **texanus** n. s. Roemer. (1852.)

Kreide von Tex., p. 35, Taf. 1, figs. 4a-c. Bonn,  
1852. F. Roemer.

Formation: Cretaceous.

Location: Ford of the Guadalupe, New Braunfels,  
Tex.

- **ventricosus** n. s. H. & M. (1862.)

Proc. Acad. Nat. Sci., Phila., for 1862, p. 22.  
Phila., 1863. Meek & Hayden.

Formation: Cretaceous.

Location: Chippewa point, near Fort Benton, on  
the Upper Missouri.

- **ventricosus** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 425, 426, pl.  
6, figs. 7a, b, 8a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Chippewa point, near Fort Benton, on  
the Upper Missouri.

## Scaphites—Continued.

- **vermiculus** n. s. Shumard. (1859.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 591, 595. St. Louis, 1856-1860. B. F. Shumard.  
Formation: Cretaceous.  
Location: Grayson county, about four miles north of Sherman, Tex.
- **vermiculus** (Shumard) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 39, pl. 18, fig. 8a. Wash., 1883. C. A. White.
- **vermiformis** n. s. M. & H. (1862.)  
Proc. Acad. Nat. Sci., Phila., for 1862, pp. 22, 23. Phila., 1863. Meek & Hayden.  
Formation: Cretaceous.  
Location: Chippewa point, near Fort Benton, on the Upper Missouri.
- **vermiformis** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 423-425, pl. 6, figs. 4a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Chippewa point, near Fort Benton, on the Upper Missouri.
- **vermiformis** ? (M. & H.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 86. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest branch of north fork of the Old Man river; entrance to the North Kootanie pass, Canada.
- **verrucosus** n. s. Shumard. (1861.)  
Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, pp. 189, 190. Boston, 1862. B. F. Shumard.  
Formation: Cretaceous.  
Location: Near Dresden, Navarro county, Tex.
- **warreni** n. s. M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 177. Phila., 1861. Meek & Hayden.  
Formation: Cretaceous.  
Location: Near the Black hills, Nebr.
- **warreni** (M. & H.) White. (1875.)  
Rep. Geogr. and Geol. Expl. and Sur. west of one-hundredth meridian, vol. 4, pt. 1, pp. 200, 201, pl. 19, fig. 3a. Wash., 1875. C. A. White.  
Formation: Cretaceous.  
Location: Three miles southwest of San Mateo, N. Mex.
- **warreni** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 420-423, pl. 6, fig. 5, figs. 61-63, p. 421. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Medicine Bow river, and east of Fort Steele, Wyo.
- **warreni** (M. & H.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 444-446, pl. 13, figs. 1-4. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Outer edge of Camp Jenney, east fork of Beaver creek, Black hills, Wyo.

## Scaphites—Continued.

- **warreni** (M. & H.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 86. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Highwood river, ten miles west of first fork; entrance to Kootanie pass; northwest branch of north fork of the Old Man river, about four miles below Oyster creek, Canada.
- **warreni** (M. & H.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 82. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: West flank of West Butte, Montana, near the forty-ninth parallel; Rocky Spring ridge, near MacLeod, Benton trail, Canada.
- **wyomingensis** (M. & H.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 446, 447, pl. 13, figs. 5-7. Wash., 1880. R. P. Whitfield.  
Formation: Cretaceous.  
Location: On the Belle Fourche, and on the east fork of Beaver creek, Black hills.
- **(Ammonites?) nodosus** n. s. Owen. (1852.)  
Rep. Geol. Sur. Wis., Iowa, Minn., p. 581, pl. 8, fig. 4. Phila., 1852. D. D. Owen.  
Formation: Cretaceous.  
Location: Sage creek, a southern tributary of the Cheyenne.
- **(Ammonites?) comprimus** n. s. Owen. (1852.)  
Rep. Geol. Sur. Wis., Iowa, Minn., p. 580, pl. 8, fig. 4. Phila., 1852. D. D. Owen.  
Formation: Cretaceous.  
Location: Fox hills, Nebr.
- **(Discoscaphites) abyssinus** (Mort. sp.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 441-443, pl. 35, figs. 2a, b, and 4. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Moreau river, Dak.
- **(Discoscaphites) cheyennensis** (Owen sp.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 437-441, pl. 35, figs. 3a-i. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Fox hills, Moreau and Cheyenne rivers, Dak.
- **(Discoscaphites) conradi** (Mort. sp.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 430-432, pl. 36, figs. 2a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Fox hills, Long lake, Moreau river, and near the eastern base of the Black hills, Dak.

**Scaphites—Continued.****(Discoscaphites) conradi var. gu-  
losus (Mort.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 432, 433,  
pl. 36, fig. 1. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Fox hills, Long lake, Moreau river, etc.

**(Discoscaphites) conradi var. in-  
termedius n. var. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 433-435,  
pl. 34, figs. 3a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, Dak.

**(Discoscaphites) mandanensis  
(Mort. sp.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 443, 444,  
pl. 35, figs. 1a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, Dak.

**(Discoscaphites) nicolletii (Mort.  
sp.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 435, 436,  
pl. 34, figs. 4a-c, 2a, b. Wash., 1876. F. B.  
Meek.

Formation: Cretaceous.

Location: Moreau river, Fox hills, Long lake,  
etc., Dak., and Yellowstone river, Mont.

**— sp. undet. Roemer. (1849.)**

Texas, pp. 415, 416, Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Ford near New Braunfels, Tex.

**— sp. undet. Roemer. (1849.)**

Texas, p. 416. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Ford near New Braunfels, Tex.

**Schizodesma (Gray) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 306.  
Phila., 1876. W. M. Gabb.

**— (subgen. Gray) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 204. Wash.,  
1876. F. B. Meek.

**— ? appressa n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 306, 307.  
Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

**Schloenbachia borealis n. s. ? Whit-  
eaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 2, pp. 160-162, pl. 21, fig. 5.  
Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rink rapids, on the Lewis river, a tribu-  
tary of the Yukon, latitude 60° 20', longitude  
136° 30', Northwest Territory.

**— borealis Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 2, p. 170. Montreal, 1889. J.  
F. Whiteaves.

Formation: Cretaceous.

Location: Rocky mountains, three miles north of  
the east end of Devil's lake, Northwest Terri-  
tory.

**Schloenbachia—Continued.****— gracilis n. s. Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 2, p. 171, pl. 23, figs. 2, 2a. Mont-  
real, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rocky mountains, three miles north of  
the east end of Devil's lake, Northwest Ter-  
ritory.

**— inflata (Sow. sp.) Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol.  
1, pt. 3, p. 200. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: Bear Skin bay, Skidegate inlet.

**— propinqua n. s. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1,  
pt. 3, pp. 247, 248, pl. 33, figs. 2, 2a-c. Montreal,  
1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Maud island; east side of  
South bay, in Skidegate inlet.

**Scobinella (Conrad) White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 25. Wash., 1889.  
C. A. White.

**— dilleri n. s. White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, pp. 25, 26, pl. 4, figs.  
1-3. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Little Cow creek valley eighteen miles  
east of Redding, Shasta county, Cal., also  
Curry's Canada, south of Mount Diablo, Cal.

**Sconsia (Gray) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 301, pl. 48, fig. 13. Phila., 1858-1860.  
W. M. Gabb.

**— (subgen. Gray) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 104. Phila.,  
1864. W. M. Gabb.

**— alabamensis n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 301, pl. 48, fig. 13. Phila., 1858-1860.  
W. M. Gabb.

Formation: Cretaceous.

Location: Prairie bluff, Ala.

**Scutella (Lam.) Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 77. Phila.,  
1834. S. G. Morton.

**— caroliniana n. s. Ravenel. (1841.)**

Proc. Acad. Nat. Sci., Phila., vol. 1, 1841-1843, p.  
81. Phila., 1843. E. Ravenel.

Formation: Cretaceous [Tertiary].

Location: Cooper river, in St. Thomas parish,  
about seventeen miles from Charleston [S. C.].

**— crustuloides n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 24, p. 131, pl. 10, fig. 8.  
New Haven, 1833. S. G. Morton.

Formation: Cretaceous [Tertiary].

Location: Southern States.

**— crustuloides Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 77, pl. 15, fig.  
10. Phila., 1834. S. G. Morton.

Formation: Cretaceous [Tertiary].

Location: South Carolina.

**Scutella—Continued.****—lyelli (Conrad) Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 77, pl. 10, fig. 8.  
Phila., 1834. S. G. Morton.

Formation: Cretaceous [Tertiary].

**—macrophora n. s. Ravenel. (1841.)**

Proc. Acad. Nat. Sci., Phila., vol. 1, 1841-1843,  
pp. 81, 82. Phila., 1843. E. Ravenel.

Formation: Cretaceous [Tertiary].

Location: Cooper river, in St. Thomas parish,  
about seventeen miles from Charleston, [S. C.].

**—rogersi n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 77, pl. 13, fig. 3.  
Phila., 1834. S. G. Morton.

Formation: Cretaceous [Tertiary].

Location: Monroe county, Ala.

**—rogersi (Mort.) Agas. (1838.)**

Mong. d'Echinodermes Vivans et Fossiles, pp. 83,  
84, pl. 19a, figs. 1-4. Neuchatel, 1838. L. Agassiz.

Formation: Cretaceous [Tertiary].

Location: Alabama.

**Seila (subgen. A. Adams) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 335. Wash.,  
1876. F. B. Meek.

**Sepia [Linn.] Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 32. Phila.,  
1834. S. G. Morton.

Formation: Cretaceous.

**Septifer (Recluz) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1 p. 186. Phila.,  
1864. W. M. Gabb.

**—dichotomus n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 186, pl. 30, fig.  
261. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Fort Tejon, Cal.

**Septocardia n. g. H. & W. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2,  
pp. 294, 295, Wash., 1877. Hall & Whitfield.

**—carditoidea n. s. H. & W. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2,  
pp. 296, 297, pl. 7, fig. 25. Wash., 1877. Hall  
& Whitfield.

Formation: Jurassic.

Location: Shoshone springs, Augusta mountains,  
Nev.

**—typica n. s. H. & W. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2,  
pp. 295, 296, pl. 7, figs. 26-29. Wash., 1877.  
Hall & Whitfield.

Formation: Jurassic.

Location: Shoshone springs, Augusta mountains,  
Nev.

**Serpula [Linn.] Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 73, Phila.,  
1834. S. G. Morton.

**—barbata n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 73, pl. 15,  
fig. 12. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Alabama.

**Serpula—Continued.****—habrogramma n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-  
1860, p. 398, pl. 68, fig. 16. Phila., 1858-1860.

W. M. Gabb.

Formation: Cretaceous.

Location: Long Branch, N. J.

**—intrica n. s. White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of  
one-hundredth meridian, vol. 4, pt. 1, p. 205, pl.  
15, fig. 5a. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Southeast of Paria, Utah.

**—semicoalita n. s. Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont.,  
vol. 1, pt. 2, p. 185, pl. 26, fig. 1. Montreal,  
1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Vermilion river, township 25, range 20  
W.; Swan river, township 35, range 29 W., Man-  
itoba.

**—?tenuicarinata (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 507, 508, pl.  
6, fig. 1. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Vermilion river, Dak., on  
the Missouri.

**—?tenuicarinatus n. s. M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, p. 134.  
Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Vermilion river, on the Mis-  
souri, Nebr.

**—triangularis (Munst.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges. Band 22, p. 240. Ber-  
lin, 1870. H. Credner.

Formation: Cretaceous.

Location: New Jersey.

**—rotula (Mort. sp.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges. Band 22, p. 241. Ber-  
lin, 1870. H. Credner.

Formation: Cretaceous.

Location: Timber creek, N. J.

**—sp. undet. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 282. New  
Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: Two miles west of Long Branch.

**—sp. undet. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 73. Phila.,  
1834. S. G. Morton.

Formation: Cretaceous.

Location: Near Deal, N. J.

**—sp. undet. M. & H. (1865.)**

Paleont. Up. Missouri, Smithsonian. Cont. Knowl.,  
vol. 14, No. 172, p. 128, pl. 5, fig. 4. Wash., 1865.  
Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of the Black hills.

**Serpula**—Continued.— ? **Gabb.** (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 276, pl. 36, fig. 11. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

— — ? **Whiteaves.** (1878.)

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 408. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river.

— ? **Whiteaves.** (1878.)

Geol. Sur. Can., Rep. Prog. for 1876, 1877, pp. 157, 158. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river, British Columbia.

— **sp. undet. Urquiza.** (1882.)

An. Min. Fomento Rep. Mex., Tomo 7, p. 225, fig. 19. Mexico, 1882. M. Urquiza.

Formation: Cretaceous.

Location: Road to Rincon, Coalcoman district, State of Michoacan, Mexico.

— **sp. undet. Hill.** (1888.)

Ann. Rep. Geol. Sur. Ark. for 1888, vol. 2, p. 135. Little Rock, 1888. R. T. Hill.

Formation: Cretaceous?

Location: Arkansas.

**Serrifusus** subgen. **Meek.** (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 373. Wash., 1876. F. B. Meek.

— **dakotensis** var. **vancouverensis** n. var. **Whiteaves.** (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 119, 120, pl. 15, fig. 5. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest side of Hornby island.

**Siliqua** (Mühlf.) **Gabb.** (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 147. Phila., 1864. W. M. Gabb.

— **cretacea** (Gabb) **Whitfield.** (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 186, 187, pl. 25, figs. 9, 10. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Burlington county, N. J.

— **oregonensis** n. s. **Gabb.** (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 147, pl. 29, fig. 237. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North side of the Siskiyou mountains, Oregon, near the toll house on the stage road.

**Siliquaria** (Schum.) **Conrad.** (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 324. Phila., 1855-1858. T. A. Conrad.

— **biplicata** n. s. **Conrad.** (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, pp. 324, 325, pl. 34, fig. 17. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**Sincyclonema** ? (**Meek**) **Conrad.** (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 99. Phila., 1870. T. A. Conrad.

— **simplicius** (**Con.**) **Gabb.** (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 319. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

**Sinistralia** (subgen. **H. & A. Ad.**) **Meek.** (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 373. Wash., 1876. F. B. Meek.

**Smilotrochus** (**E. & H.**) **Gabb.** (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 205. Phila., 1869. W. M. Gabb.

— ? **curtus** n. s. **Gabb.** (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 205, pl. 34, figs. 106, 106a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Near Martinez, Cal.

— (?) **vancouverensis** n. s. **Whiteaves.** (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 178, pl. 20, figs. 7, 7a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Southwest side of Hornby island.

**Solarium** (**Lam.**) **Gabb.** (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 94. Phila., 1861. W. M. Gabb.

— **abyssinus** n. s. **Gabb.** (1860.)

Proc. Acad. Nat. Sci. Phila. for 1860, p. 94, pl. 2, fig. 9. Phila., 1861. W. M. Gabb.

Formation: Cretaceous.

Location: Burlington county, N. J.

— **conoideum** (**Fitt.**) **Eichwald.** (1871.)

Geogr.-Paleont. Bemerk. Halb. Mang. aleutischen Inseln, p. 156. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Kadiak island, Alaska.

— **planorbis** n. s. **Roemer.** (1888.)

Paleont. Abhandl. Vierter Band, Heft 4, pp. 15, 16, Taf. I [xxxI], figs. 14a-14c. Berlin, 1888. F. Roemer.

Formation: Cretaceous.

Location: Two miles above the mouth of Barton creek, near Austin, Tex.

— **wallense** n. s. **White.** (1885.)

Bull. U. S. Geol. Sur., No. 22, p. 14, pl. 5, figs. 1, 2. Wash., 1885. C. A. White.

Formation: Cretaceous.

Location: Near the town of Wallala, Mendocino county, Cal.

**Solecortus** (**Tagelus**) **occidentalis** **Whiteaves.** (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 178, 179, pl. 24, fig. 4. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Battle river, township 40, range 13, west of the fourth principal meridian, Northwest Territory.

**Solemya [Lam.] Conrad. (1850.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 274. Phila., 1850-1854. T. A. Conrad.

— **bilix n. s. White. (1880.)**

Proc. U. S. Nat. Mus., vol. 3, p. 158. Wash., 1880. Smithsonian Misc. Coll., vol. 22. Wash., 1882. C. A. White.

Formation: Cretaceous.

Location: About four miles north of Golden, Colo.

— **bilix White. (1881.)**

Proc. U. S. Nat. Mus., vol. 4, p. 139, pl. 1, fig. 9. Wash., 1881. Smithsonian Misc. Coll., vol. 22. Wash., 1882. C. A. White.

— **planulata n. s. Conrad. (1853.)**

Jour. Acad. Nat. Sci. Phila., vol. 2, 2d ser., 1850-1854, p. 274, pl. 24, fig. 11. Phila., 1850-1854. T. A. Conrad.

Formation: Cretaceous.

Location: Monmouth county, N. J.; Alabama.

— **subplicata (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 129, pl. 28, fig. 19. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river.

— **triasina n. s. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 102. Phila., 1870. T. A. Conrad.

Formation: Triassic.

Location: Near Perkiomen creek, Pa.

**Solen (Linn.) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 146. Phila., 1864. W. M. Gabb.

— **? dakotensis n. s. M. & H. (1857.)**

Proc. Acad. Nat. Sci., Phila., for 1857, p. 142. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Just below the mouth of Vermilion river, Nebr.

— **irradians n. s. Roemer. (1852.)**

Kreide von Tex., p. 46, Taf. 6, figs. 9a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— **parallelus n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 146, 147, pl. 22, fig. 117. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Bull head point, near Martinez; Marsh, east of Mount Diablo; Alizos creek, near Fort Tejon, Cal.

— **subplicatus n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 82. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebr.

— **(Hypogella) cuneatus n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 175, 176, pl. 29, fig. 61. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

**Solen—Continued.**— **(Hypogella) diegoensis Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 176. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

— **? sp. undet. Roemer. (1849.)**

Texas, p. 407. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**Solena (Browne) Con. (1865.)**

Proc. Acad. Nat. Sci., Phila., for 1865, p. 184. Phila., 1865. T. A. Conrad.

— **biplicata Con. (1865.)**

Proc. Acad. Nat. Sci., Phila., for 1865, p. 184. Phila., 1865. T. A. Conrad.

Formation: Cretaceous.

**Solenoceras n. g. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 284. Phila., 1858-1860. T. A. Conrad.

— **annulifer (Mort. sp.) Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 284. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

**Solidula (Fischer) Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 194. Boston, 1862. B. F. Shumard.

— **riddelli n. s. Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 194. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Navarro county, Tex.

**Solidulus (Fischer) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 334. Phila., 1855-1858. T. A. Conrad.

— **linteus n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 334, pl. 35, fig. 10. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**Solyma n. g. Conrad. (1870.)**

Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p. 75. Phila., 1871. T. A. Conrad.

— **lineolata (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 182, 183, pl. 25, figs. 11-13. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **lineolatus n. s. Conrad. (1870.)**

Am. Jour. Conch., vol. 6, Phila., 1870, 1871, pp. 75, 76, pl. 3, fig. 9. Phila., 1871. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **lineolatus (Con.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 305. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Putaula creek, Ga.

**Spatangus (Lam.) Morton. (1824.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 122, 123. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Big Timber creek, Gloucester county, N. J.

**— cor marinum ? (Park.) Morton. (1830.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 199. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Gloucester county, N. J.

**— cor marinum ? (Park.) Morton. (1830.)**

Am. Jour. 1st ser., vol. 18, pl. 3, fig. 10. New Haven, 1830. S. G. Morton.

**— parastatus n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 294. New Haven, 1833. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**— parastatus Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., pp. 77, 78, pl. 3, fig. 21. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Prairie bluff, Ala.; Timber creek, N. J.

**— stella n. s. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 18, p. 245, pl. 3, fig. 11. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

**— stella Morton. (1830.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 200. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

**— ungula n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 24, p. 131, pl. 10, fig. 9. New Haven, 1833. S. G. Morton.

Formation: Cretaceous.

Location: Deep cut of the Chesapeake and Delaware canal.

**— ungula Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 78, pl. 10, fig. 6. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Chesapeake and Delaware canal.

**— sp. undet. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 286. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: Gloucester county, N. J.

**— sp. undet. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 286. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: Deep cut of the Chesapeake and Delaware canal.

**Sphæra (Sow.) Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p. 102. Wash., 1877. F. B. Meek.

**Sphæra—Continued.****— whitneyi n. s. Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p. 102, pl. 10, figs. 4a-c. Wash., 1877. F. B. Meek.

Formation: Triassic.

Location: Buena Vista canyon, West Humboldt range, Nev.

**Sphærella n. g. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 280. Phila., 1858-1860. T. A. Conrad.

**— concentrica n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 280, pl. 46, fig. 4. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula [Ala.].

**Sphæriola (Stoliczka) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 136, 137. Wash., 1876. F. B. Meek.

**— ? cordata (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 137, 138, pl. 29, figs. 3a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river.

**— ? endotrachys n. s. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 139, pl. 29, fig. 2. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Ninety miles below Fort Benton, on the Missouri.

**— ? endotrachys (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 182. Wash., 1871. C. A. White.

Formation: Cretaceous.

Location: Valley of Little Thompson creek, Colo.

**— ? obliqua n. s. Meek. (1875.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 1, No. 1, 2d ser., p. 46. Wash., 1875. F. B. Meek.

Formation: Cretaceous.

Location: Left-hand creek, halfway between Long Mont and Boulder city, Colo.

**— ? obliqua (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 182. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valley of Little Thompson creek, Colo.

**— transversa n. s. Whitfield. (1877.)**

U. S. Geogr. and Geol. Sur. Rocky Mt. Region; Prelim. Rep. Paleont. Black Hills, pp. 34, 35. Wash., 1877. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Old Woman's fork, Dak.

**— transversa Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., p. 145, pl. 10, figs. 14-16. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Old Woman's fork, Wyo.



**Sphæriola—Continued.**

- **umbonata** n. s. Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, p. 152, pl. 19, figs.  
17, 18. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: New Jersey.

- **? warrenana** n. s. Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 138, 139.  
Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Near the eastern base of the Black  
hills.

**Sphærium (Scopoli) Prime. (1865.)**

- Mon. Am. Corbiculadæ (Recent and Fossil),  
Smithson. Misc. Coll., vol. 7, No. 145, pp. 32, 33.  
Wash., 1865. T. Prime.

- **formosum** (M. & H.) Prime. (1865.)  
Mon. Am. Corbiculadæ (Recent and Fossil),  
Smithson. Misc. Coll., vol. 7, No. 145, p. 59.  
Wash., 1865. T. Prime.  
Formation: Tertiary [Cretaceous].  
Location: Three miles above Fort Union, Nebr.

- **formosum** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 526, 527, pl.  
43, figs. 4a-c. Wash., 1876. F. B. Meek.  
Formation: Lower Eocene? [Cretaceous].  
Location: Ten miles below Fort Union.

- **formosum** (M. & H.) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 72. Wash., 1883. C. A. White.  
Formation: [Cretaceous].  
Location: Upper Missouri river region.

- **formosum** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. and Geogr. Sur. Terr.,  
p. 33, pl. 17, fig. 11. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

- **formosum ?** (M. & H.) Whiteaves.  
(1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, p. 68. Montreal, 1885. J. F.  
Whiteaves.  
Formation: Cretaceous.

- Location: Belly river, east side of Driftwood bend,  
South Saskatchewan, one mile below the mouth  
of the Bow river, Canada.

- **formosum ?** (M. & H.) var. **Whiteaves.** (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, p. 61, 62, pl. 9, fig. 3. Mon-  
treal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.

- Location: Ed. Mahan's coulee; Belly river, eight  
miles above Coal banks, Canada.

- **planum** n. s. M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, pp. 175,  
176. Phila., 1861. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Near the mouth of Grand river, on the  
Upper Missouri, Nebr.

**Sphærium—Continued.**

- **planum** (M. & H.) Prime. (1865.)  
Mon. Am. Corbiculadæ (Recent and Fossil),  
Smithson. Misc. Coll., vol. 7, No. 145, p. 58.  
Wash., 1865. T. Prime.  
Formation: Tertiary [Cretaceous].  
Location: Near the mouth of Grand river, on the  
Upper Missouri, Nebr.

- **planum** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 528, pl. 43,  
figs. 6a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Near Grand island, on the upper Mis-  
souri.

- **planum** (M. & H.) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 72. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

- **planum** (M. & H.) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 33, pl. 17, fig.  
8. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

- **recticardinale** n. s. M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 176.  
Phila., 1861. Meek & Hayden.  
Formation: Tertiary [Cretaceous].  
Location: Near the mouth of Grand river, on the  
Upper Missouri, Nebr.

- **recticardinale** (M. & H.) Prime.  
(1865.)  
Mon. Am. Corbiculadæ (Recent and Fossil),  
Smithson. Misc. Coll., vol. 7, No. 145, p. 58.  
Wash., 1865. T. Prime.  
Formation: Tertiary [Cretaceous].  
Location: Near the mouth of Grand river, on the  
Upper Missouri, Nebr.

- **recticardinale** (M. & H.) Meek.  
(1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 527, 528,  
pl. 43, figs. 3a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Near Grand island, on the Upper Mis-  
souri.

- **recticardinale** (M. & H.) White.  
(1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 72. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

- **recticardinale** (M. & H.) White.  
(1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 33, pl. 17, fig.  
9. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

**Sphaerium**—Continued.— **recticardinale** (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 9. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Old Man river, two miles above Rye-Grass flat, Canada.

— **subellipticum** (M. & H.) Prime. (1865.)

Mon. Am. Corbiculadae (Recent and Fossil), Smithsonian. Misc. Coll., vol. 7, No. 145, p. 59. Wash., 1865. T. Prime.

Formation: Tertiary [Cretaceous].

Location: Three miles above Fort Union, Nebr.

— **subellipticum** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 527, pl. 43, figs. 5a, b. Wash., 1876. F. B. Meek.

Formation: Lower Eocene? [Cretaceous].

Location: Ten miles below Fort Union, Nebr.

— **subellipticum** (M. & H.) White. (1883.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 72. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

— **subellipticum** (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 33, pl. 17, fig. 10. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

## — ? White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 242. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Evanston coal mines, Wyo.

**Sphenodiscus** subgen. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 463. Wash., 1876. F. B. Meek.

— **mandensis** n. s. Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 200, 201, pl. 22, figs. 3, 3a, b. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: East point of Maud island, in Skidegate inlet.

— **requienianus** ? (d'Orb.) Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 248, pl. 22, figs. 4, 4a. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Maud island.

**Spirifer** (Sow.) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 35. Phila., 1864. W. M. Gabb.

**Spirifer**—Continued.— **homfrayi** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 35, pl. 6, fig. 38. Phila., 1864. W. M. Gabb.

Formation: Triassic.

Location: Star canyon, Humboldt county, Nev.

— **obtusius** n. s. Gabb. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, pp. 17, 18, pl. 7, figs. 16, a, b. Phila., 1870. W. M. Gabb.

Formation: Triassic.

Location: Volcano, about thirty miles southeast of Walker's lake, Nev.

**Spirifera** (**Spiriferina** ?) **alia** n. s. H. & W. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, pp. 281, 282, pl. 6, fig. 17. Wash., 1877. Hall & Whitfield.

Formation: Triassic.

Location: One and a half miles south of Dun Glen pass, Pah-Ute range, Nev.

**Spiriferina** (d'Orb.) H. & W. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, p. 281. Wash., 1877. Hall & Whitfield.

— **borealis** n. s. Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 128, 129, pl. 17, fig. 1. Montreal, 1889. J. F. Whiteaves.

Formation: Triassic.

Location: Liard river, about twenty-five miles below Devil's portage, Canada.

— **homfrayi** ? (Gabb) H. & W. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, p. 281, pl. 6, fig. 18. Wash., 1877. Hall & Whitfield.

Formation: Triassic.

Location: One and a half miles south of Dun Glen pass, Pah-Ute range, Nev.

**Spiroceras** (Meek) Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 193. Montreal, 1884. J. F. Whiteaves.

— **carlottense** n. s. Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 198, 199. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: North shore of Cumshewa inlet.

**Spirocrypta** n. subgen. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 136, 137. Phila., 1864. W. M. Gabb.

**Spiironema** n. g. Meek. (1864.)

Check List Invert. Foss. N. Am., Cret. and Jur., Smithsonian. Misc. Coll., vol. 7, No. 177, p. 35. Wash., 1864. F. B. Meek.

— **tenuilineata** (M. & H.) Meek. (1864.)

Check List Invert. Foss. N. Am., Cret. and Jur., Smithsonian. Misc. Coll., vol. 7, No. 177, p. 35. Wash., 1864. F. B. Meek.

Formation: Cretaceous.

Location: Dakota.

**Spiromema—Continued.****— tenuilineata (M. & H. sp.) Meek. (1876).**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 342, 343, pl. 32, fig. 9, a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river.

**Spiroplecta americana Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 25. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**— americana Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, figs. 13, 14. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Missouri region.

**— rosula Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 26. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**Spiropora (d'Orb.) G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 166. Phila., 1862, 1863. Gabb & Horn.

**— calamus n. s. G. & H. (1862.)**

Jour. Acad. Nat. Sci., Phila., vol. 5, 2d ser., 1862, 1863, p. 166 [pl. 21], fig. 55. Phila., 1862, 1863. Gabb & Horn.

Formation: Cretaceous.

Location: Timber creek, N. J.

**Spirorbis (Lamarck) White. (1880.)**

Proc. U. S. Nat. Mus., vol. 3, p. 161. Wash., 1880. Smithsonian. Misc. Coll., vol. 22. Wash., 1882. C. A. White.

**— ? dickhauti n. s. White. (1880.)**

Proc. U. S. Nat. Mus., vol. 3, p. 161. Wash., 1880. Smithsonian. Misc. Coll., vol. 22. Wash., 1882. C. A. White.

Formation: Cretaceous [Tertiary].

Location: Near Little Rock, Ark.

**— ? (Lam.) Morton. (1829.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 121, 122. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Big Timber creek, Gloucester county, N. J.

**— ? Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 282. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**— ? White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 246. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Near Mellis station, Wyo.

**Spondylus [Lam.] Conrad. (1853.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 274. Phila., 1850-1854. T. A. Conrad.

**— capax n. s. Conrad. (1853.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 274, pl. 24, fig. 8. Phila., 1850-1854. T. A. Conrad.

Formation: Cretaceous.

Location: Nimrod Woodward's farm N. J.

**— gregalis (Mort.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 57, 58, pl. 9, figs. 11, 12, pl. 10, figs. 1, 2. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Upper Freehold, Monmouth county, N. J.

**— guadalupæ n. s. Roemer. (1849.)**

Texas, p. 400. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waterfall near New Braunfels, Tex.

**— guadalupæ Roemer. (1852.)**

Kreide von Tex., pp. 62, 63, Taf. 8, figs. 9a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waterfall of the Guadalupe and crossing of the Cibola between New Braunfels and San Antonio, Tex.

**— n. s. ? Hill. (1889.)**

Geol. Sur. Tex., Bull. No. 4, p. 7. Austin, 1889. R. T. Hill.

Formation: Cretaceous.

Location: Two miles northwest of Austin, Tex.

**Stalagmium n. subgen. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 281. Phila., 1858-1860. T. A. Conrad.

**Stavella (subgen. Gray) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 68. Wash., 1876. F. B. Meek.

**Stearnisia n. g. White. (1887.)**

Proc. Acad. Nat. Sci., Phila., pt. 1, for 1887, pp. 32, 33. Phila., 1887. C. A. White.

**— robinsi n. s. White. (1887.)**

Proc. Acad. Nat. Sci., Phila., pt. 1, for 1887, pp. 33, 34, pl. 2, figs. 7-9. Phila., 1887. C. A. White.

Formation: Cretaceous.

Location: Texas [Six miles north of Fort Worth].

**Stephanoceras braikenridgii (?) (Sow. sp.) Whiteaves. (1878.)**

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 407. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river.

**— braikenridgii (?) (Sow. sp.) Whiteaves. (1878.)**

Geol. Sur. Can., Rep. Prog. for 1876-1877, p. 156. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river, British Columbia.

**Stephanoceras—Continued.****—cephoides n. s. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, p. 210. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South island, Skidegate inlet.

**—humphreysianum (Sow. sp.) Whiteaves. (1878.)**

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 407. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Sigutlat lake.

**—humphreysianum (Sow. sp.) Whiteaves. (1878.)**

Geol. Sur. Can., Rep. Prog. for 1876-1877, p. 156. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Sigutlat lake, British Columbia.

**—oblatum n. s. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 209, 210. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: Skidegate inlet, Queen Charlotte islands.

**—(?) Whiteaves. (1878.)**

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 407. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river.

**—(?) Whiteaves. (1878.)**

Geol. Sur. Can., Rep. Prog. for 1876, 1877, pp. 156, 157. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river, British Columbia.

**Stomatia (Lamarck) White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 18. Wash., 1889. C. A. White.

**—obstricta n. s. White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, pp. 18, 19, pl. 4, figs. 10, 11. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Little Cow creek, Shasta county, Cal.

**—suciensis n. s. Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 128, 129, pl. 16, fig. 4. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands.

**—suciensis var. carinifera n. var. Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 128, 129, pl. 16, fig. 5. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands.

**Straparollus (Montf.) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 120. Phila., 1864. W. M. Gabb.

**Straparollus—Continued.****—lens n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 120, 121, pl. 20, figs. 77a-d. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas flat, Placer county, Cal.

**—paucivolvus n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 120, pl. 20, fig. 76. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas flat, Placer county, Cal.

**Straparollus (Montf.) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 299. Phila., 1858, 1860. W. M. Gabb.

**—lapidosus (Mort. sp.) Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 300, pl. 48, fig. 5a, b. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

**—subplanus n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 299, 300, pl. 48, figs. 4, a, b. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Prairie bluff, Ala.

**Strepsidura (Swains.) Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 286. Phila., 1858-1860. T. A. Conrad.

**—ripleyana n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 286, pl. 46, fig. 42. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

**Striarca (subgen. Conrad) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 78. Wash., 1876. F. B. Meek.

**Strombus (Linn.) Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 330. Phila., 1855-1858. T. A. Conrad.

**—densatus n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 330, pl. 35, fig. 14. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**Strophoconus spicula ? Ehrenberg. (1854.)**

Mikrogeologie, Taf. 32, fig. 21. Leipzig, 1854. C. G. Ehrenberg.

Formation: Cretaceous.

Location: Mississippi region.

**Surcula (H. & A. Ad.) Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 150. Phila., 1869. W. M. Gabb.

**—(subgen. H. & A. Ad.) (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 381. Wash., 1876. F. B. Meek.

**Surcula**—Continued.

- **præattenuata** n. s. Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 150, pl. 26, fig. 27. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: San Diego, Cal.

— **raricostata** (Gabb.) var. **Whiteaves**. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 116, 117, pl. 15, figs. 2, 2a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: West side of Hornby island, Nanaimo river, Vancouver island.

— **strigosa** n. s. Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 299, 280. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Holmdale, N. J.

— **suciensis** n. s. **Whiteaves**. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 115, 116, pl. 15, figs. 1, 1a. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Sucia islands.

— (**Surculites**) **[io]** Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 280. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: [California.]

— (**Surculites**) **inconspicua** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 151, pl. 26, fig. 29. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

— (**Surculites**) **mathewsoni** (Gabb) sp.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 280. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: [California.]

— (**Surculites**) **sinuata** Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, pp. 150, 151 pl. 26, fig. 28. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Tejon; Canada de las Uvas and Arroyo de los Alizos, Cal.

**Surculites** (subgen. **Conrad**) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 382. Wash., 1876. F. B. Meek.

**Sycodes** n. g. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 160. Phila., 1869. W. M. Gabb.

— **cypræoides** Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 160. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: California.

**Sycodes**—Continued.

— (?) **cypræoides** ? (Gabb.) **Whiteaves**. (1874.)

Geol. Sur. Can., Rep. Prog. for 1873, 1874, p. 262. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, Vancouver island, two and one-half and two and one-quarter miles up.

— (?) **cypræoides** (?) (Gabb.) **Whiteaves**. (1874.)

Geol. Sur. Can., Rep. Prog. for 1873, 1874, p. 263. Montreal, 1874. J. F. Whiteaves.

Formation: Cretaceous.

Location: Protection island.

— **glaber** (Shum. sp.) **Whiteaves**. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 125. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Protection island; Nanaimo river, two miles and a quarter up, Vancouver island, Sucia islands.

**Syncyclonema** n. g. Meek. (1864.)

Check List Invert. Foss. N. Am., Cret. and Jur., Smithsonian. Misc. Coll., vol. 7, No. 177, p. 31. Wash., 1864. F. B. Meek.

— **meekana** **Whiteaves**. (1882.)

Proc. and Trans. Roy. Soc. Can., vol. 1, sec. 4, p. 86. Montreal, 1883. J. F. Whiteaves.

Formation: Cretaceous.

Location: Jackass mountain, also between Fountain and Lilloet, and near the thirty-sixth mile post on the wagon road to Yale. All localities on the Lower Fraser river, Canada.

— **meekiana** n. s. **Whiteaves**. (1876.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, pp. 82, 83, fig. 9, p. 82. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

— **rigida** (H. & M.) Meek. (1864.)

Check List Invert. Foss. N. Am., Cret. and Jur., Smithsonian. Misc. Coll., vol. 7, No. 177, p. 31. Wash., 1864. F. B. Meek.

Formation: Cretaceous.

Location: Dakota.

— **rigida** (H. & M.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 27, 28, pl. 16, figs. 5, a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Sage creek, Fox hills, and Moreau river.

— **rigida** (H. & M.) **Whitfield**. (1880.)

Rep. Geol. Black Hills of Dak., pp. 383, 384, pl. 7, fig. 1. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: At the forks of the Cheyenne river, Black hills.

— **simplicia** n. s. **Conrad**. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 99, pl. 9, fig. 20. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

- Tancredia** (Lycett) M. & H. (1865.)  
Paleont. Up. Missouri, Smithson. Cont. Knowl., vol. 14, No. 172, pp. 95, 96. Wash., 1865. Meek & Hayden.
- **?æquilateralis** n. s. M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 183. Phila., 1861. Meek & Hayden.  
Formation: Jurassic.  
Location: Southwest base of Black hills, Nebr.
- **?æquilateralis** M. & H. (1865.)  
Paleont. Up. Missouri, Smithson. Cont. Knowl., vol. 14, No. 172, pp. 96, 97, pl. 3, fig. 8. Wash., 1865. Meek & Hayden.  
Formation: Jurassic.  
Location: Southwest base of the Black hills.
- **americana** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 142-144, pl. 38, figs. 1a-h. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Judith river, on the Upper Missouri, Cache la Poudre, in Colorado.
- **americana** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 182. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Cache la Poudre, and at mouth of St. Vrain creek, Colo.
- **americana** (M. & H.) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 39. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Berry creek, section 31, township 25, range 12, west of the fourth principal meridian, Canada.
- **americana** (M. & H.) Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 175. Montreal, 1889. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Sounding creek, township 30, range 8, west of the fourth principal meridian, Northwest Territory.
- **bulbosa** n. s. Whitfield. (1877.)  
U. S. Geogr. and Geol. Sur. Rocky Mt. Region Prelim. Rep. Paleont., Black Hills, p. 22. Wash., 1877. R. P. Whitfield.  
Formation: Jurassic.  
Location: East of Belle Fourche, Black hills, Dak.
- **bulbosa** Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 370, 371, pl. 6, figs. 1-3. Wash., 1880. R. P. Whitfield.  
Formation: Jurassic.  
Location: East of the Belle Fourche river, near Bear Lodge butte, Black hills.
- **?cælionotus** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 182. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: The Cache la Poudre, ten miles west of Greeley, Colo.

**Tancredia—Continued.**

- **?cælionotus** n. s. White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 288, pl. 5, figs. 2a-d. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Ten miles west of Greeley, Colo.
- **corbuliformis** n. s. Whitfield. (1877.)  
U. S. Geogr. and Geol. Sur. Rocky Mt. Region; Prelim. Rep. Paleont., Black Hills, pp. 21, 22. Wash., 1877. R. P. Whitfield.  
Formation: Jurassic.  
Location: East of Belle Fourche, Black hills, Dak.
- **corbuliformis** Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., p. 370, pl. 6, figs. 5-8. Wash., 1880. R. P. Whitfield.  
Formation: Jurassic.  
Location: East of the Belle Fourche river, near Bear Lodge butte, Black hills.
- **extensa** n. s. White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 150, pl. 38, fig. 4a. Wash., 1883. C. A. White.  
Formation: Jurassic.  
Location: North side of Bull lake fork, South-eastern Idaho.
- **?inornata** (M. & H.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 368, 369, pl. 6, figs. 9-13. Wash., 1880. R. P. Whitfield.  
Formation: Jurassic.  
Location: East of the Belle Fourche river, near Bear Lodge butte, Black hills.
- **postica** n. s. Whitfield. (1877.)  
U. S. Geogr. and Geol. Sur. Rocky Mt. Region; Prelim. Rep. Paleont., Black Hills, pp. 22, 23. Wash., 1877. R. P. Whitfield.  
Formation: Jurassic.  
Location: East of Belle Fourche, Black hills of Dakota.
- **postica** Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 371, 372, pl. 6, fig. 14. Wash., 1880. R. P. Whitfield.  
Formation: Jurassic.  
Location: East of the Belle Fourche river, Black hills.
- **warrenana** n. s. M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 183. Phila., 1861. Meek & Hayden.  
Formation: Jurassic.  
Location: Southwest base of Black hills, Nebr.
- **warrenana** M. & H. (1865.)  
Paleont. Up. Missouri, Smithson. Cont. Knowl., vol. 14, No. 172, p. 96, pl. 3, fig. 7. Wash., 1865. Meek & Hayden.  
Formation: Jurassic.  
Location: Southwest base of the Black hills.
- **warrenana** (M. & H.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., p. 372, pl. 6, fig. 4. Wash., 1880. R. P. Whitfield.  
Formation: Jurassic.  
Location: Red water valley, southeast of Warren peaks, Black hills.

- Tapes** [Megerle] Shumard. (1859.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 601. St. Louis, 1856-1860. B. F. Shumard.
- **conradiana** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 169, pl. 32, fig. 282. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Alizos creek, near Fort Tejon, Cal.
- **hilgardi** n. s. Shumard. (1859.)  
Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 601. St. Louis, 1856-1860. B. F. Shumard.  
Formation: Cretaceous.  
Location: Bluffs of Red river, Lamar, and Fannin counties, Tex.
- **hilgardi** (Shum.) Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, pp. 265, 266, pl. 36, fig. 13. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.
- **hilgardi** (Shumard) White. (1883.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 22, pl. 16, figs. 3a-c. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Bluffs of Red river, Lamar, and Fannin counties, Tex.
- **montanensis** n. s. Whitfield. (1876.)  
Rep. Rec. Carroll, Mont., to Yellowstone National Park, pp. 143, 144, pl. 2, figs. 1, 2. Wash., 1876. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Near the mouth of the Judith river, Mont.
- **quadrata** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 169, pl. 30, fig. 249. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Fort Tejon and Martinez, Cal.
- **wyomingensis** n. s. Meek. (1871.)  
Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 310, 311. Wash., 1871. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Deer creek, on North Platte, in Wyoming.
- Taphius** (subgen. H. & A. Ad.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 536. Wash., 1876. F. B. Meek.
- Tellimera** n. g. Conrad. (1870.)  
Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p. 73. Phila., 1871. T. A. Conrad.
- **eborea** Conrad. (1870.)  
Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p. 73. Phila., 1871. T. A. Conrad.  
Formation: Cretaceous.
- **eborea** (Con.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 164, 165, pl. 23, figs. 12-13. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Near Haddonfield, N. J.

- Tellina** [Linn.] Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 82. Phila., 1834. S. G. Morton.
- (Linn. typical) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 193. Wash., 1876. F. B. Meek.
- **æqualis** n. s. Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, pp. 182, 183, pl. 29, fig. 73. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez, Cal.
- **ashburnerii** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 159, pl. 23, fig. 139. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Pence's ranch, north of Oroville, Butte county, Cal.
- **californica** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 161, pl. 30, fig. 245. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: East of Mount Diablo, near Fort Tejon, Cal.
- **? cheyennensis** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 82. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Forks of Cheyenne river, Nebr.
- **decurtata** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 158, 159, pl. 23, fig. 137. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Pence's ranch, twelve miles north of Oroville, Butte county, Cal.
- **densata** n. s. Conrad. (1853.)  
Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 275, pl. 24, fig. 14. Phila., 1850-1854. T. A. Conrad.  
Formation: Cretaceous.  
Location: Burlington county, N. J.
- **equilateralis** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 82. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Mouth of the Judith river, Nebr.
- **equilateralis** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 183. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of the Saint Vrain creek, Colo.
- **eufaulensis** n. s. Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 277. Phila., 1858-1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Eufaula, Ala.
- **? formosa** n. s. M. & H. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 179. Phila., 1861. Meek & Hayden.  
Formation: Cretaceous.  
Location: Twenty miles below mouth of Cannon Ball river, Nebr.

## Tellina—Continued.

- *gracilis* n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 82.  
Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Mouth of the Judith river, Nebr.
- *hoffmanniana* n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 156, 157, pl. 22, figs. 133, 133a. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: West of Martinez, Pence's ranch, Butte county, Cal.
- *hoffmanniana* Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 182, pl. 30, fig. 72. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez, Pence's ranch, Griswolds, Cal.
- *hornii* n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 160, 161, pl. 30, fig. 244. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Fort Tejon, Clayton, Cal.
- ? *isonema* n. s. Meek. (1877.)  
Rep. Geol. Expl., Fortieth Parallel, vol. 4, pt. 1, pp. 156, 157, pl. 15, fig. 6. Wash., 1877. F. B. Meek.  
Formation: Cretaceous.  
Location: Chalk creek, above Coalville, Utah; East canyon creek, Wasatch range.
- *isonema* (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 235. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- *longa* n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 155, 156, pl. 22, fig. 131. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Martinez; Marshs, fifteen miles east of Mount Diablo; Alizos creek, near Fort Tejon, Cal.
- *mathewsonii* n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 158, pl. 23, fig. 136. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Martinez; about a mile north of the village of Pacheco, southeast of Martinez, Cal.
- *meekiana* n. s. Whiteaves. (1874.)  
Geol. Sur. Can., Rep. Prog. for 1873, 1874, p. 265. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Gabriola island.
- *meekiana* Whiteaves. (1874.)  
Geol. Sur. Can. Rep. Prog. for 1873, 1874, p. 268, pl. fig. 6. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Gabriola island.

## Tellina—Continued.

- *modesta* n. s. Meek. (1877.)  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 157, 158, pl. 15, figs. 4, 5. Wash., 1877. F. B. Meek.  
Formation: Cretaceous.  
Location: East canyon creek, Wasatch range.
- ? *modesta* (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 236. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- ? *modesta* (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 248. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, Wyo.
- *monilifera* n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 157, pl. 22, figs. 134, 134a. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Texas flat, Placer county, Cal.
- *nitidula* n. s. M. & H. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 443. Phila., 1862. Meek & Hayden.  
Formation: Cretaceous.  
Location: Deer creek, a tributary of the North branch of Platte river, Nebr.
- *occidentalis* n. s. Morton. (1841.)  
Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser., 1839-1842, p. 210, pl. 11, fig. 3. Phila., 1839-1842. S. G. Morton.  
Formation: Cretaceous.  
Location: Great bend of the Missouri river (Lat. 43° 40' N.).
- *occidentalis* (Mort.) Marcou. (1858.)  
Geol. N. Am., p. 42. Zurich, 1858. Jules Marcou.  
Formation: Cretaceous.  
Location: Between Gold mount and the villages of Galisteo and Algodones, in New Mexico.
- *parilis* n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 160, pl. 30, fig. 243. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Near Martinez, Cal.
- *prouti* n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 83. Phila., 1857. Meek and Hayden.  
Formation: Cretaceous.  
Location: Fort Benton.
- ? *quadrata* n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 159, pl. 23, fig. 138. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Tuscan springs, Cal.
- *reichii* (Röm.) Eichwald. (1871.)  
Geog.-Paleont. Bemerk. Halb. Meeresalteschen Inseln, p. 123. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Kadiak island, Alaska.



## Tellina—Continued.

- **remondii** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 156, pl. 22, fig. 132. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Cochran's, six miles east of Mount Diablo, near Fort Tejon, Cal.
- **remondii** Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 182, pl. 23, fig. 71. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Tejon, Cal.
- **ripleyana** n. s. Conrad. (1858.)  
Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 327. Phila., 1855-1858. T. A. Conrad.  
Formation: Cretaceous.  
Location: Owl creek, three miles north of the town of Ripley, Miss.
- **scitula** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 82. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Moreau river, Nebr.
- **scitula** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 183. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of the Saint Vrain creek and in the valley of the Coche la Poudre, Colo.
- **scitula** (M. & H.) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 179. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear creek, near Morrison, Colo.
- **skidegatensis** n. s. Whiteaves. (1884.)  
Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 225, 226, pl. 30, figs. 2, 2a, b. Montreal, 1864. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Bear Skin bay, Skidegate inlet.
- **subelliptica** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 83. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Cherry creek, Nebr.
- **subscitula** n. s. Meek. (1871.)  
Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 310. Wash., 1871. F. B. Meek.  
Formation: Cretaceous.  
Location: Twelve miles southwest of Salina, Saline county, Kans.
- **subtortuosa** n. s. M. & H. (1856.)  
Proc. Acad. Nat. Sci., Phila., for 1856, p. 272. Phila., 1857. Meek & Hayden.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Nebr.
- **undulifera** n. s. Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 183, pl. 30, fig. 74. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: West of Martinez, Cal.

## Tellina—Continued.

- (**Arcopagia** ?) **cheyennensis** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 607, pl. 17, fig. 16. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Forks of Cheyenne river, Dak.
- (**Arcopagia** ?) **utahensis** (Meek) (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 236. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- (**Arcopagia** ?) **utahensis** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 248. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, Wyo.
- (**Cæne** ?) **subscitula** Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 195, 196, pl. 2, figs. 11, a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Twelve miles southwest of Salina, Kan.
- (**Cæne** ?) sp. undet., Whiteaves. (1879.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 143-144, pl. 17, fig. 10. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Vesuvius bay, Salt spring, or Admiralty island.
- (**Palæomoera** ?) **quadrata** (Gabb) Whiteaves. (1879.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 144. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest side of Hornby island.
- (**Peronæa** ?) **aquilateralis** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 196, 197, pl. 30, figs. 5a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Judith river.
- (**Peronæa** ?) **occidentalis** (Meek sp.) Whiteaves. (1879.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 144, 145, pl. 17, figs. 11, 11a. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Gabriola island, two miles and a half up the Nanaimo river, Vancouver island.
- (**Peronæa** ?) **scitula** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 197, 198, pl. 30, figs. 1a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Long lake, and on the Missouri above Fort Pierre; also on Moreau river and the South Branch of Cheyenne river.

**Tellina—Continued.****— (Peronæoderma ?) mathewsoni (Gabb) Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 143.  
Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo river, Vancouver island, two miles and a half up.

**— (? Sanguinolaria) whitneyi n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 160, pl. 30, fig. 242.  
Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Jacksonville, Oregon.

**— (Tellinella) georgiana n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 307.  
Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

**— (Tellinimera) aborea n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858–1860, p. 238, pl. 46, fig. 14. Phila., 1858–1860. T. A. Conrad.

Formation: Cretaceous.

Location: Alabama.

**— (Tellinimera) limatula n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858–1860, p. 278, pl. 46, fig. 10. Phila., 1858–1860. T. A. Conrad.

Formation: Cretaceous.

Location: [Eufaula? Alabama.]

**— sp. undet. Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 286. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: Near Arneytown, N. J.

**— sp. undet. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 82. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**Tellinella (subgen. Gray) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 193. Wash., 1876. F. B. Meek.

**Tellinides (subgen. Sam.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 193. Wash., 1876. F. B. Meek.

**Tellinimera n. subgen. Conrad. (1860.)**

Jour. Acad. Nat. Sci. Phila., vol. 4, 2d ser., 1858–1860, p. 278. Phila., 1858–1860. T. A. Conrad.

**Temnochilus (subgen. McCoy) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 490. Wash., 1876. F. B. Meek.

**Tenea n. g. Conrad. (1870.)**

Am. Jour. Conch., vol. 6, Phila., 1870, 1871, pp. 72, 73. Phila., 1871. T. A. Conrad.

**Tenea—Continued.****— paralis n. s. Conrad. (1870.)**

Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p. 73, pl. 3, fig. 12. Phila., 1871. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**— paralis Conrad. (1875.)**

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875. W. C. Kerr. App. A, p. 8, pl. 2, fig. 25. T. A. Conrad.

Formation: Cretaceous.

Location: Snow hill, Greene county, N. C.

**— pinguis (Con. sp.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 307. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

**— pinguis (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 163, 164, pl. 22, figs. 1–3. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, Holmdel, Upper Freehold, near Burlington and Freehold, N. J.

**Terebra (Lam.) N. & G. (1840.)**

Bull. Roy. Acad. Sci., Bruxelles, Tome 7, pt. 2, p. 217. Bruxelles, 1840. Nyst & Galeotti.

**— californica n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 162, pl. 27, fig. 41. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

**— minuta n. s. N. & G. (1840.)**

Bull. Roy. Acad. Sci., Bruxelles, Tome 7, pt. 2, p. 217, fig. 7. Bruxelles, 1840. Nyst & Galeotti.

Formation: Jurassic.

Location: Tehuacan, Mexico.

**Terebratella (d'Orb.) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 19. Phila., 1862. W. M. Gabb.

**— obesa n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 205, 206, pl. 26, figs. 194, 194, a, b. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Texas flat, Placer county, Cal.

**— plicata (d'Orb.) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 19. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**— plicata (Say) Cook. (1868.)**

Ann. Rep. Geol. Sur. N. J., for 1868, p. 375, fig. p. 375. Newark, 1868. G. H. Cook.

Formation: Cretaceous.

Location: New Jersey.

**— plicata (Say) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 12–14, pl. 1, figs. 5–9. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Cream ridge and Middletown, N. J.

**Terebratella—Continued.****—vanuxemiana (d'Orb.) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 19,  
Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**—vanuxemi (Lyell & Forbes) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 14, 15, pl. 1,  
figs. 1-4. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: [Cream ridge, Middletown, and other  
localities in New Jersey.]

**Terebratula (Llhwyd) Say. (1820.)**

Am. Jour. Sci., 1st ser., vol. 2, p. 43. New  
Haven, 1820. Thomas Say.

**—atlantica n. s. Morton. (1842.)**

Jour. Acad. Nat. Sci., Phila., vol. 8, 1st ser.,  
1839-1842, p. 214. Phila., 1839-1842. S. G.  
Morton.

Formation: Cretaceous.

Location: Woodward's farm, N. J.

**—augusta n. s. H. & W. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2,  
p. 285, pl. 7, figs. 7-10. Wash., 1877. Hall &  
Whitfield.

Formation: Jurassic.

Location: Shoshone springs, Augusta mountains,  
Nev.

**—augusta (H. & W.) White. (1880.)**

Bull. U. S. Geol. and Geogr. Sur., vol. 5, No. 1,  
pp. 108, 109. Wash., 1880. C. A. White.

Formation: Jura-Trias [Triassic].

Location: About sixty-five miles north of the  
boundary line between Idaho and Utah, about  
eighteen miles west of the boundary line be-  
tween Idaho and Wyoming, and about five  
miles south of John Gray's lake. Locality No. 1.

**—augusta (H. & W. ?) White. (1883.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Ter., Part 1, p. 109. Wash., 1883. C. A. White.

Formation: Triassic.

Location: Loc. No. 1. Within the limits of  
Idaho, about sixty-five miles north of the  
boundary line between that Territory and Utah,  
about eighteen miles west of the boundary line  
between Idaho and Wyoming, and about five  
miles of Gray's lake.

**—choctawensis n. s. Shumard. (1853.)**

Expl. Red River, La., by R. B. Marcy, pp. 207,  
208, pl. 2, figs. a, b. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Near Fort Washita, Ind. Terr.

**—choctawensis (Shum.) Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. —, p.  
137. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Leon Springs.

**Terebratula—Continued.****—choctawensis (Shum.) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 19.  
Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

**—floridana n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 72, pl. 16,  
fig. 7. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Prairie bluff, Ala.

**—fragilis n. s. Morton. (1828.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-  
1831, pp. 75, 76, pl. 3, figs. 3, 4. Phila., 1827-  
1831. S. G. Morton.

Formation: Cretaceous.

Location: New Egypt, N. J.

**—fragilis Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 283. New  
Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: New Egypt, N. J.

**—fragilis Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 18, pl. 3, fig. 17.  
New Haven, 1830. S. G. Morton.

**—fragilis Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., pp. 70, 71, pl.  
3, fig. 2. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Egypt, N. J.

**—guadalupæ Roemer. (1852.)**

Kreide von Tex., p. 82, Taf. 6, figs. 3a-d. Bonn,  
1852. F. Roemer.

Formation: Cretaceous.

Location: Ford of the Guadalupe. New Braun-  
fels, Tex.

**—guadalupæ (Roem.) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 19.  
Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

**—harlani n. s. Morton. (1828.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser.,  
1827-1831, pp. 73, 74, pl. 3, figs. 1, 2. Phila.,  
1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**—harlani Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 18, pl. 3, fig. 16.  
New Haven, 1830. S. G. Morton.

**—harlani Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 283. New  
Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: New Egypt, N. J.

**—harlani Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 70, pl. 3, fig.  
1, pl. 9, figs. 8, 9. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Egypt and other places in New Jersey.

**Terebratula—Continued.**

- **harlani** (Mort.) Marcou. (1853.)  
Geol. Map of the U. S. and British Provinces of N. A., p. 47, pl. 7, fig. 7. Boston, 1853. Jules Marcou.  
Formation: Cretaceous.  
Location: New Jersey.
- **harlani** (Mort.) Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 18. Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.  
Location: New Jersey.
- **harlani** (Mort.) Cook. (1868.)  
Ann. Rep. Geol. Sur. N. J., for 1868, p. 375, figs. p. 375. Newark, 1868. G. H. Cook.  
Formation: Cretaceous.  
Location: New Jersey.
- **harlani** (Mort.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 6-9, pl. 1, figs. 15-23. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: New Egypt, Timber creek, Mullica hill, Kirby's marl pits, two miles southwest of Harrisonville, N. J., Old Man creek, N. J.
- **harlani** var. **discoïdal** n. var. **Morton.** (1833.)  
Am. Jour. Sci., 1st ser., vol. 24, p. 130, pl. 9, fig. 8. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous.  
Location: Ralph's mills, Burlington, N. J.
- **harlani** var. **fragilis** (Mort.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 7, 8, pl. 1, figs. 15-18. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: [New Egypt, Timber creek, Mullica hill, Kirby's marl pits, two miles southwest of Harrisonville, N. J., Old Man creek, N. J.]
- **harlani** var. **perovalis** (Mort.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, p. 8, pl. 1, fig. 19. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: New Egypt, Timber creek, Mullica Hill, Kirby's marl pits, two miles southwest of Harrisonville, N. J.; Old Man's creek, N. J.
- **harlani** var. **rectilateral** n. var. **Morton.** (1833.)  
Am. Jour. Sci., 1st ser., vol. 24, p. 130, pl. 9, fig. 9. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous.  
Location: Ralph's mills, Burlington county, N. J.
- **harlani** (Morton.) Bronn. (1838.)  
Lethaea Geognostica, Zweiter Band, p. 661. Stuttgart, 1838. H. G. Bronn.  
Formation: Cretaceous.  
Location: New Egypt, N. J.
- **harlani** (Mort.) Credner. (1870.)  
Zeitsch. Deutsch. Geol. Ges. Band 22, pp. 221-223. Berlin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: New Jersey.

**Terebratula—Continued.**

- **helenae** n. s. Whitfield. (1875.)  
Rep. Rec. Black Hills of Dak., pp. 103, 104, pl. —, figs. 7-9. Wash., 1875. R. P. Whitfield.  
Formation: Cretaceous.  
Location: On the northeast side of the Black hills, a few miles north of the Belle Fourche.
- **humboldtensis** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 34, pl. 6, figs. 35, 35a, b. Phila., 1864. W. M. Gabb.  
Formation: Triassic.  
Location: Star canyon, Humboldt county, Nev.
- **humboldtensis** (Gabb) H. & W. (1877.)  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, pp. 282, 283, pl. 6, figs. 22-24. Wash., 1877. Hall & Whitfield.  
Formation: Triassic.  
Location: Near Dun Glen pass, Pah-Ute range, Nev.
- **humboldtensis** (Gabb) Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 129. Montreal, 1889. J. F. Whiteaves.  
Formation: Triassic.  
Location: McDonald river, on Nicola lake, Canada.
- **lachryma** n. s. Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 24, p. 130, pl. 10, fig. 11. New Haven, 1833. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: South Carolina.
- **lachryma** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 72, pl. 10, fig. 11; pl. 16, fig. 6. Phila., 1834. S. G. Morton.  
Formation: Cretaceous [Tertiary].  
Location: South Carolina; below Claiborne, Ala.
- **leonensis** n. s. Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 164, pl. 21, fig. 2. Wash., 1857. T. A. Conrad.  
Formation: Cretaceous.  
Location: Leon Springs [Texas].
- **liardensis** n. s. Whiteaves. (1889.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 130, 131, pl. 17, figs. 2, 2a-c. Montreal, 1889. J. F. Whiteaves.  
Formation: Triassic.  
Location: Liard river, about twenty-five miles below Devil's portage; also about thirty miles below the same portage, Canada.
- **obesa** (Gabb) Whiteaves. (1884.)  
Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 245, 246. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: South side of Alliford bay.
- **perovalis** ? (Sow.) Morton. (1828.)  
Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, pp. 77-79, pl. 3, figs. 7, 8. Phila., 1827-1831. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.

**Terebratula—Continued.**— **plicata** n. s. Say. (1820.)

Am. Jour. Sci., 1st ser., vol. 2, pp. 43, 44. New Haven, 1820. Thomas Say.

Formation: [Cretaceous.]

Location: New Jersey.

— **robusta** n. s. Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 163, 164, pl. 22, figs. 1, 1a, b, and 2. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rocky mountains, three miles north of the east end of Devil's lake, Northwest territory.

— **sayi** n. s. Morton. (1828.)

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1828-1831, pp. 76, 77, pl. 3, figs. 5, 6. Phila., 1828-1831. S. G. Morton.

Formation: Cretaceous.

Location: Woodward's farm, near Wainford, Burlington county, N. J.

— **sayi** Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 283. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

— **sayi** Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 18, pl. 3, figs. 14, 15. New Haven, 1830. S. G. Morton.

— **sayi** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 71, pl. 3, figs. 3, 4. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Woodward's farm, near Wainford, Burlington county, N. J.

— **semisimplex** n. s. White. (1880.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 5, No. 1, p. 108. Wash., 1880. C. A. White.

Formation: Jura-Trias. [Triassic].

Location: About sixty-five miles north of the boundary line between Idaho and Utah, about eighteen miles west of the boundary line between Idaho and Wyoming, and about five miles south of John Gray's lake, locality No. 1.

— **semisimplex** White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 108, 109, pl. 31, figs. 3a-c. Wash., 1883. C. A. White.

Formation: Triassic.

Location: Location No. 1. Within the limits of Idaho, about sixty-five miles north of the boundary line between that Territory and Utah, about eighteen miles west of the boundary line between Idaho and Wyoming, and about five miles west of Gray's lake.

— **vanuxemiana** n. s. Forbes. (1844.)

Quart. Jour. Geol. Soc., London., vol. 1, p. 62, figs. —, p. 62. London, 1845. Edward Forbes.

Formation: Cretaceous.

Location: New Jersey.

**Terebratula—Continued.**— **wacoensis** n. s. Roemer. (1852.)

Kreide. von Texas, pp. 81, 82, Taf. 6, figs. 2a-c. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Waco camp on the Guadalupe above New Braunfels, Tex.

— **wacoensis** (Roemer) Conrad. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 147, pl. 3, fig. 1. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Aroyo Pedras Pintas.

— **wacoensis** (Roemer) Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 18. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Texas.

— **wacoensis** (Roemer) Whiteaves. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 177. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Banks of the Trent river, Vancouver island.

## — [Llhwyl] Say. (1820.)

Am. Jour. Sci., 1st ser., vol. 2, p. 45. New Haven, 1820. Thomas Say.

Formation: Cretaceous.

Location: New Jersey.

— **sp. undet.** Roemer. (1849.)

Texas, p. 408. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Waco camp on the Guadalupe above New Braunfels, Tex.

— **sp. undet.** Meek. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 41, pl. 8, figs. 2, 2a, b. Phila., 1864. F. B. Meek.

Formation: Jurassic.

Location: Genesee valley, Plumas county, Cal.

— **sp. undet.** Whiteaves. (1878.)

Geol. Sur. Can., Rep. Prog. for 1876-1877, pp. 150, 151. Montreal, 1878. J. F. Whiteaves.

Formation: Triassic.

Location: Sigutlat lake and Itasyouco river, British Columbia.

— (?) **sp. undet.** Whiteaves. (1876.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, pp. 84. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

— (?) **sp. undet.** Whiteaves. (1876.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, p. 84. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

— **sp. undet.** Whiteaves. (1878.)

Canadian Naturalist, vol. 8, n. ser., No. 7, pp. 400, 401. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Sigutlat lake and Itasyouco river,

**Tellina ooides n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 157, 158, pl. 22, figs. 135, 135a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: West of Martinez, Pence's Ranch, Butte county, Cal.

**Terebratulina (d'Orb.) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 19. Phila., 1862. W. M. Gabb.

**atlantica (Mort.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 9-11, pl. 1, figs. 10-13. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Farmingdale, Shark river, Woodward's farm, N. J.

**filosa n. s. Conrad. (1866.)**

Am. Jour. Conch., vol. 2, p. 77, pl. 9, figs. 4, 5. Phila., 1866. T. A. Conrad.

Formation: Cretaceous.

Location: Alabama.

**floridana (Mort.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 11, 12. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: New Jersey?

**floridi[a]na (d'Orb.) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 19. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Alabama.

**halliana n. s. Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 19. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**lachryma (d'Orb.) Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 19. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

**Terebratella plicata (Say.) Credner. (1870.)**

Zeitsch. Deutsch. Geol. Ges. Band 22, pp. 224, 225. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Marlboro and Nut swamp, N. J.

**Terebrispira subgen. (Conrad) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 356. Wash., 1876. F. B. Meek.

**Teredo (Linn.) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 286. New Haven, 1830. S. G. Morton.

**(Linn. typical) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 261. Wash., 1876. F. B. Meek.

**antennautæ? (Sow.) Morton. (1829.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 123. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Big Timber creek, Gloucester county, N. J.

**Teredo—Continued.****antennautæ? (Sow.) Morton. (1830.)**

Am. Jour. Sci., 1st ser., vol. 17, p. 286. New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: Chesapeake and Delaware canal, and New Jersey.

**Teredo calamus n. s. Tuomey. (1854.)**

Proc. Acad. Nat. Sci., Phila., vol. 7, p. 170. Phila., 1856. M. Tuomey.

Form: Cretaceous.

Location: Columbus, Miss.

**contorta n. s. Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, pp. 323, 324. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Burlington county, N. J.

**globosa n. s. M. & H. (1858.)**

Proc. Acad. Nat. Sci., Phila., for 1858, p. 53. Phila., 1859. Meek & Hayden.

Formation: Cretaceous.

Location: Square butte, near Fort Clark.

**globosa (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 264, 265, pl. 30, fig. 13, figs. 31, 32, p. 264. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Fort Clark, on the Missouri, [N. Dak.]

**irregularis n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 393, pl. 68, fig. 19. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Burlington county, N. J.

**irregularis (Gabb) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 191, 192, pl. 25, figs. 18, 19. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: New Jersey.

**pugetensis n. s. White. (1889.)**

Bull. U. S. Geol. Sur. No. 51, p. 62, pl. 7. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Carbonado, Wash.

**selliformis n. s. M. & H. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, pp. 178, 179. Phila., 1861. Meek & Hayden.

Formation: Cretaceous.

Location: Fort Clark, on the Missouri, Nebr. [N. Dakota.]

**selliformis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 262, 263, pl. 17, figs. 19a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Fort Clark, on the Missouri, [N. Dak.]

**socialis Eichwald. (1871.)**

Geog.-Paleont. Bemerk. Halbins. Mang. u. aleutischen Inseln, p. 157. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

**Teredo—Continued.**

- **suciensis** n. s. Whiteaves. (1879.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 135-137, pl. 17, figs. 1, 1a. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Southwest of Denman island, Sucia islands.
- **suciensis** Whiteaves. (1884.)  
Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 218, 219, pl. 29, fig. 1. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: North shore of Cumshewa inlet.
- **suciensis** (Whiteaves?) White. (1889.)  
Bull. U. S. Geol. Sur. No. 51, p. 44. Wash., 1889. C. A. White.  
Formation: Cretaceous.  
Location: Sucia island.
- **sp. undet.** Credner. (1870.)  
Zeitsch. Deutsch. Geol. Ges. Band 22, p. 236. Berlin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: New Jersey.
- **tibialis** n. s. Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 23, p. 292, (pl. 9, fig. 2, [vol. 24]). New Haven, 1833. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.
- **tibialis** Morton. (1833.)  
Am. Jour. Sci., 1st ser., vol. 24, p. 9, fig. 2. New Haven, 1833. S. G. Morton.
- **tibialis** Morton. (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., pp. 68, 69, pl. 9, fig. 2. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey.
- **tibialis** (Mortón) Gabb. (1861.)  
Proc. Acad. Nat. Sci., Phila., for 1861, p. 366. Phila., 1862. W. M. Gabb.  
Formation: Cretaceous.
- **tibialis** (Morton) Cook. (1868.)  
Ann. Rep. Geol. Sur. N. J., for 1868, p. 376, fig. —. Newark, 1868. G. H. Cook.  
Formation: Cretaceous.  
Location: New Jersey.
- **tibialis** (Mort.) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 201-203, pl. 26, figs. 19-22. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Timber creek and near New Egypt, N. J.
- **sp. undet.** Roemer. (1849.)  
Texas, p. 408. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: [Ford near New Braunfels] Texas.
- **sp. undet.** Roemer. (1852.)  
Kreide. von Texas, p. 44. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Ford of the Guadalupe, New Braunfels, Tex.

**Teredo—Continued.**

- ? **White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 184. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Little Thompson creek, Colo.
- **sp. undet.** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 206. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Sage creek, Col.
- Tessarolax** n. g. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1 p. 126. Phila., 1864. W. M. Gabb.
- **distorta** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 126, 127, pl. 20, figs. 82, 82a, b. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Tuscan springs, Tehama county, Cal.
- **distorta** Gabb. (1868.)  
Am. Jour. Conch., vol. 4, p. 146, pl. 14, figs. 18, 19. Phila., 1868. W. M. Gabb.  
Formation: Cretaceous.
- **distorta** (Gabb) Whiteaves. (1879.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 123. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Banks of the Trent river, below the falls, Vancouver island.
- **hitzii** n. s. White. (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 29, 30, pl. 15, fig. 2a. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Fort Shaw, near Muscle Shell river, Mont.
- Textilaria americana** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 4a. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Missouri region.
- **americana** ? Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 7. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Missouri region.
- **euryconus** Ehrenberg.  
Mikrogeologie, Taf. 32, fig. 9. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Missouri region.
- **globulosa** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 8. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Missouri region.
- **globulosa** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 12. Leipzig, 1854. C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.

**Textilaria—Continued.**

- **gomphoconus** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 10. Leipzig, 1854.  
C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Missouri region.
- **inflata** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 13. Leipzig, 1854.  
C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.
- **missouriensis** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 5. Leipzig, 1854.  
C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Missouri region.
- **poroconus** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 6. Leipzig, 1854.  
C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Missouri region.
- **striata** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, figs. 11 and 14. Leipzig, 1854.  
C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.
- **striata** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 46. Leipzig, 1854.  
C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Missouri region.

**Textularia agglutinans var. pygmæa (d'Orb.) Dawson. (1874.)**

- Canadian Naturalist, vol. 7, n. ser., pp. 253, 254, fig. 1, b. Montreal, 1875. G. M. Dawson.  
Formation: Cretaceous.  
Location: About twenty miles north of the forty-ninth parallel, on the escarpment called Pembina mountain, Manitoba.
- **agglutinans var. pygmæa (d'Orb.) Dawson. (1875.)**  
British N. Am. Bound. Com., Rep. Geol. and Res. Forty-ninth Parallel, p. 79, pl. 17, fig. 2a. Montreal, 1875. G. M. Dawson.  
Formation: Cretaceous.  
Location: Boyne river, Manitoba, Canada.
- **gibbosa var. globulosa (Ehr.) Dawson. (1875.)**  
British N. Am. Bound. Com., Rep. Geol. and Res. Forty-ninth Parallel, p. 79, pl. 17, fig. 2a. Montreal, 1875. G. M. Dawson.  
Formation: Cretaceous.  
Location: Boyne river, Manitoba, Canada.
- **globulosa (Ehrenberg) Dawson. (1874.)**  
Canadian Naturalist, vol. 7, n. ser., p. 253, fig. 1, a. Montreal, 1875. G. M. Dawson.  
Formation: Cretaceous.  
Location: About twenty miles north of the forty-ninth parallel, on the escarpment called Pembina mountain, Manitoba.

**Thaumastus (Albers) Meek. (1876.)**

- Rep. U. S. Geol. Sur. Terr., vol. 9, p. 553. Wash., 1876. F. B. Meek.
- **limnæiformis (M. & H.) Meek. (1876.)**  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 553, 554, pl. 44, figs. 8a-d. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Opposite the mouth of Yellowstone river, northwestern Dakota.
- **limnæiformis (M. & H.) White. (1880.)**  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 88. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Near mouth of Yellowstone river, Mont.
- **limnæiformis (M. & H.) White. (1883.)**  
Third Ann. Rep. U. S. Geol. Sur., p. 454, pl. 25, fig. 24. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.
- **limnæiformis (M. & H.) Whiteaves. (1885.)**  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 20, pl. 3, fig. 3. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Rosebud river, township 27, range 25, west of fourth principal meridian; Three Hills creek, township 30, range 23, west of fourth meridian, Canada.
- **limnæiformis (M. & H.) Whiteaves. (1885.)**  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 27, pl. 3, figs. 3a, b. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Wood End depot, Souris river, and Pyramid creek, Canada.
- **limnæiformis (M. & H.) Whiteaves. (1885.)**  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 72. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: South Saskatchewan, six miles above the mouth of Bow river, Canada.
- Theliostyla subgen. (Mörcb) Gabb. (1869.)**  
Geol. Sur. Cal. Paleont., vol. 2, p. 170. Phila., 1869. W. M. Gabb.
- Thetiopsis (Meek) Whiteaves. (1879.)**  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 152. Montreal, 1879. J. F. Whiteaves.
- **circularis (M. & H. sp.) Whiteaves. (1879.)**  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 153. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Hornby island, northwest side; Nanaimo river, Vancouver island, ten miles up; Sucia islands.



**Thetis (Sby.) Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 186. Phila., 1869. W. M. Gabb.

**— *affinis* nom. prov. *Whiteaves*. (1884.)**

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 226, 227, pl. 30, figs. 4, 4a, b. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: Bear Skin bay, Skidegate inlet.

**— ? *circularis* (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 190, 191, pl. 17, figs. 8a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Near Black hills, on Cheyenne river; also near the mouth of Milk river, on the Missouri.

**— ? *circularis* (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 206. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Sage creek, Colo.

**— *circularis* (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., p. 417, pl. 11, figs. 22-24. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: Near the forks of the Cheyenne river, and near the mouth of Rapid creek, Black hills, Dak.

**— ? *elongata* n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 186, pl. 30, figs. 80, 80a. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Vicinity of Cottonwood creek, Cal.

**Thracia (Leach) M. & H. (1865.)**

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, pp. 101, 102. Wash., 1865. Meek & Hayden.

**— ? *arcuata* n. s. M. & H. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 182. Phila., 1861. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of Black hills, Nebr. [S. Dak.]

**— ? *arcuata* M. & H. (1865.)**

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, p. 102, pl. 4, fig. 8. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of the Black hills.

**— *gracilis* (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 224, 225, pl. 39, figs. 6a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, Idaho Ter., on the Missouri.

**— ? *occidentalis* n. s. Meek. (1858.)**

Trans. Albany Inst., vol. 4, pp. 43, 44. Albany, 1858-1864. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

**Thracia—Continued.****— ? *occidentalis* Meek. (1876.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, p. 363, pl. 2, figs. 3, 3a. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

**— *myæformis* n. s. White. (1879.)**

Proc. U. S. Nat. Mus., vol. 2, pt. 2, pp. 297, 298, pl. 6, figs. 1, 2. Wash., 1880. Smithsonian. Misc. Coll., vol. 19. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Bell county, Tex.

**— *myæformis* White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 23, pl. 17, figs. 2a, b. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Bell county, Tex.

**— ? *prouti* (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 225, 226, pl. 37, figs. 6a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, Idaho Ter., on the Missouri.

**— *sempianata* n. s. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 221, 222, pl. 29, figs. 5, 5a-c. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Alliford bay; Bear Skin bay, Skidegate inlet; South island.

**— *subgracilis* n. s. Whitfield. (1877.)**

U. S. Geogr. and Geol. Sur. Rocky Mt. Region; Prelim. Rep. Paleont. Black Hills, p. 36. Wash., 1877. R. P. Whitfield.

Formation: Cretaceous.

Location: Near French creek, on Cheyenne river, Dak.

**— *subgracilis* Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., pp. 419, 420, pl. 11, figs. 29, 30. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: Near French creek, on the Cheyenne river, Black hills, Dak.

**— ? *sublevis* n. s. M. & H. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, p. 182. Phila., 1861. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of Black hills, Nebr. [S. Dak.]

**— ? *sublævis* M. & H. (1865.)**

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, p. 102, pl. 4, figs. 4, 4a. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of the Black hills.

**— ? *sublevis* (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., p. 375, pl. 6, fig. 34. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Redwater valley, Black hills.

**Thracia**—Continued.— **subtortuosa** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 223, 224, pl. 37, fig. 5. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, Idaho Ter., on the Missouri.

— ? **subtruncata n. s.** Meek. (1858.)

Trans. Albany Inst., vol. 4, pp. 44. Albany, 1858-1864. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

— ? **subtruncata** Meek. (1876.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, pp. 363, 364, pl. 2, figs. 4, 4a. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

— **subtruncata** (Meek) Whiteaves. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 140. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island, Socia islands.

— (**Corimya**) **grinnelli n. s.** Whitfield. (1876.)

Rep. Rec. Carroll, Mont., to Yellowstone National Park, pp. 144, 145, pl. 2, figs. 6, 7. Wash., 1876. R. P. Whitfield.

Formation: Cretaceous.

Location: Mouth of Judith river, Mont.

— (**Periploma**) **simplex** (d'Orb.) Eichwald. (1871.)

Geog.-Paleont. Bemerk. Halbins. Mang. u. aleutischen Inseln, p. 121. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Kadiak island, Alaska.

— **sp. undet.** Whiteaves. (1876.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, p. 56. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

— **sp. undet.** Whiteaves. (1876.)

Geol. Sur. Can. Mes. Foss., vol. 1, p. 1, p. 57. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

— **sp. undet.** Whiteaves. (1877.)

Geol. Sur. Can. Rep. Prog. for 1875, 1876, App. II, pp. 96, 97. Montreal, 1877. J. F. Whiteaves.

Formation: Jurassic or Cretaceous.

Location: Rock Island gates, below Hudson's hope, Peace river.

**Thylacus n. g.** Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 290. Phila., 1858-1860. T. A. Conrad.

— **cretaceus n. s.** Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 290, pl. 46, fig. 22. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Ala. [Miss.].

**Tiara humerosa** Meek. (1870.)

Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 431.

Phila., 1871. F. B. Meek.

Formation: Tertiary [Cretaceous].

Location: Elk station, Central Pacific railroad, beyond Salt lake.

**Torcula** ? [Gray.] Conrad. (1869.)

Am. Jour. Conch. vol. 5, Phila., 1869, 1870, p. 45, pl. 1, fig. 15. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: New Jersey.

**Torni[a]tella** [Lam.] Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 48. Phila., 1834. S. G. Morton.

**Tornatella** (Lam.) Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 194. Boston, 1862. B. F. Shumard.

— ? **bullata n. s.** Morton. (1833.)

Am. Jour. Sci., 1st ser., vol. 23, p. 292, pl. 5, fig. 3. New Haven, 1833. S. G. Morton.

Formation: Cretaceous.

**Torni[a]tella** ? **bullata** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 48, pl. 5, fig. 3. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**Tornatella texana n. s.** Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 194. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Red river, Lamar county, Tex.

**Torni[a]tella sp. undet.** Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 48. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**Tornatella sp. undet.** Forbes. (1844.)

Quart. Jour. Geol. Soc. London, vol. 1, p. 63, fig. c, p. 63. London, 1845. Edward Forbes.

Formation: Cretaceous.

Location: New Jersey.

**Toxaster elegans** (Shum.) Hall. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 146, pl. 21, figs. 1a-e. Wash., 1857. James Hall.

Formation: Cretaceous.

Location: Eagle springs, Tex.

— **texanus n. s.** Roemer. (1849.)

Texas, p. 393. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— **texanus** Roemer. (1852.)

Kreide von Texas, pp. 85, 86, Taf. 10, figs. 3a-c. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— **texanus** (Roem.) Hall. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 145, pl. 1, figs. 2a-c. Wash., 1857. James Hall.

Formation: Cretaceous.

Location: Leon springs, Tex.

**Trachycardium** subgen. (Mörch.) Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 282. Phila., 1858-1860. T. A. Conrad.

**Trachyceras** (Laube) Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p. 116. Wash., 1877. F. B. Meek.

— **canadense** n. s. Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 142-144, pl. 18, figs. 4, 4a. Montreal, 1889. J. F. Whiteaves.

Formation: Triassic.

Location: Liard river, about twenty-five miles below Devil's portage, Canada.

— **judicarium** (Mojsisovics) Meek. (1870.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, p. 118, pl. 11, figs. 1, 1a. Wash., 1877. F. B. Meek.

Formation: Triassic.

Location: Cottonwood canyon, West Humboldt range, Nev.

— **whitneyi** (Gabb) Meek. (1877.)

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 116-118, pl. 11, figs. 3, 3a. Wash., 1877. F. B. Meek.

Formation: Triassic.

Location: Cottonwood canyon, West Humboldt range, Nev.

**Trachytriton** n. g. Meek. (1864.)

Check List Invert. Foss. N. Am. Cret. and Jur., Smithson. Misc. Coll., vol. 7, No. 177, p. 37. Wash., 1864. F. B. Meek.

## — (subgen. Meek) Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2. Phila., 1869. W. M. Gabb.

— **vinculum** (M. & H.) Meek. (1864.)

Check List Invert. Foss. N. Am. Cret. and Jur., Smithson. Misc. Coll., vol. 7, No. 177, p. 37. Wash., 1864. F. B. Meek.

Formation: Cretaceous.

Location: Dakota.

— **vinculum** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 304-306, pl. 19, figs. 7a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Great bend of the Missouri river, Dak.

**Trapezium** (Humph.) Whitfield. (1877.)

U. S. Geogr. and Geol. Sur. Rocky Mt. Region; Prelim. Rep. Paleont., Black Hills, p. 18. Wash., 1877. R. P. Whitfield.

— **bellefourchensis** n. s. Whitfield. (1877.)

U. S. Geogr. and Geol. Sur. Rocky Mt. Region; Prelim. Rep. Paleont. Black Hills, pp. 18, 19. Wash., 1877. R. P. Whitfield.

Formation: Jurassic.

Location: East of Belle Fourche, Black hills, Dak.

— **bellefourchensis** Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 364, 365, pl. 5, figs. 1-4. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: East of the Belle Fourche river, near Bear Lodge butte, Black hills.

**Trapezium**—Continued.— **micronema** n. s. Meek. (1873.)

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 493. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Bear River city, on Sulphur creek, Wyo.

— **? micronema** (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 293, pl. 10, fig. 5. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear River city, on Sulphur creek, Wyo.

— **subequalis** n. s. Whitfield. (1877.)

U. S. Geogr. and Geol. Sur. Rocky Mt. Region; Prelim. Rep. Paleont. Black Hills, pp. 19, 20. Wash., 1877. R. P. Whitfield.

Formation: Jurassic.

Location: Red Canyon creek, Black hills, Dak.

— **subequalis** Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 365, 366, pl. 5, figs. 5-8. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Red Canyon creek, Black hills, Dak.

— **truncatum** (Meek) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 292, 293, pl. 10, figs. 6a-b. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Vicinity of Salt lake, Utah.

**Trematodiscus** (subgen. M. & W.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 491. Wash., 1876. F. B. Meek.

**Trematopygus crucifer** (Mort.) d'Orb. (1855.)

Paleont. Francaise, Echinoides Irreguliers, Terr. Crét. t. Sixième, pp. 387, 388, pl. 953, figs. 10, 11; pl. 963, figs. 1-5. Paris, 1853-1860. A. d'Orbigny.

Formation: Cretaceous.

Location: New Jersey.

— **crucifer** (Morton) Clark. (1891.)

Johns Hopkins Univ. Cir., vol. 10, No. 87, p. 76. Baltimore, 1891. Wm. B. Clark.

Formation: Cretaceous—Middle Marl Bed.

Location: New Jersey.

**Trichotropis** (Sow.) Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 333. Phila., 1855-1858. T. A. Conrad.

— **cancellaria** n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 333, pl. 35, fig. 8. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**Trigonarca** Conrad. (1869.)

Am. Jour. Conch., vol. 5, Phila., 1863, 1870, p. 43. Phila., 1870. T. A. Conrad.

**Trigonarca—Continued.**— **(Conrad) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 90. Wash., 1876. F. B. Meek.

— **cuneata n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 316, 317. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Clay county, Ga.

— **cuneiformis n. s. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 98, pl. 9, fig. 1. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **cuneiformis (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 88, 89, pl. 12, figs. 17-18. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **passa n. s. Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 43, pl. 1, fig. 17. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Crosswicks, N. J.

— **transversa (Gabb) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 89-91, pl. 12, figs. 13-16. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Burlington, Mullica Hill, and perhaps Arnetown, N. J.

**Trigonellites (Parkinson) M. & H. (1865.)**

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, pp. 118-121, figs. 1-4 text. Wash., 1865. Meek & Hayden.

**Trigonia [Brug.] Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 65. Phila., 1834. S. G. Morton.

— **æquicostata n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 196. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Orestimba canyon; Curry's, south of Mount Diablo, Cal.; Jacksonville, Oregon; Martinez; Cottonwood creek, Cal.

— **aliformis (Park.) Roemer. (1849.)**

Texas, p. 404. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg and ford, near Braunsfels, Tex.

— **americana (Meek) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 148, pl. 38, figs. 1a, b. Wash., 1880. C. A. White.

Formation: Jurassic.

Location: Near lower canyon of Yellowstone river, Mont.

**Trigonia—Continued.**— **angulicostata n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 312, 313. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

— **cerulia n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 114, 115, pl. 14, fig. 7. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Deep cut on the Holmdel and Keyport turnpike, Monmouth county, N. J.

— **conradi n. s. M. & H. (1860.)**

Proc. Acad. Nat. Sci., Phila., for 1860, pp. 183, 184. Phila., 1861. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of Black hills, Nebr. [S. Dak.]

— **conradi M. & H. (1865.)**

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, pp. 83, 84, pl. 3, fig. 11. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Southwest base of the Black hills.

— **consobrina n. s. Eichwald. (1871.)**

Geog.-Paleont. Bemerk. Halbins. Mang. u. aleutischen Inseln, pp. 182, 183, Taf. 14, fig. 7. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

— **crenulata (Lam.) Roemer. (1852.)**

Kreide. von Texas, pp. 51, 52, Taf. 7, fig. 6. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— **crenulata (Lam.) Shumard. (1853.)**

Expl. Red River, La., by R. B. Marcy, p. 206, pl. 4, fig. 1. Wash., 1853. B. F. Shumard.

Formation: Cretaceous.

Location: Cross Timbers, Tex.

— **dawsoni n. s. Whiteaves. (1878.)**

Canadian Naturalist, vol. 8, n. ser., No. 7, p. 405. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river and Sigutlat lake.

— **dawsoni Whiteaves. (1878.)**

Geol. Sur. Can., Rep. Prog. for 1876-1877, pp. 154, 155. Montreal, 1878. J. F. Whiteaves.

Formation: Jurassic.

Location: Itasyouco river and Sigutlat lake, British Columbia.

— **dawsoni Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 231, 232, pl. 31, figs. 1, 1a. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Alliford bay.

— **dawsoni Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 167, 168. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rocky mountains, three miles north of the east end of Devil's lake, Northwest territory.

**Trigonia—Continued.**— **devexa** n. s. Eichwald. (1871.)

Geol.-Paleont. Bemerk. Halbins. Mang. u. aleutischen Inseln, p. 183, Taf. 14, figs. 5, 6. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

— **diversicostata** n. s. Whiteaves. (1876.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, pp. 68-70, pl. 10, fig. 1. Montreal, 1876. J. F. Whiteaves.

Formation: Cretaceous.

Location: Queen Charlotte islands.

— **diversicostata** Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 230. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: Bear Skin bay, Skidegate inlet.

— **doroschini** n. s. Eichwald. (1871.)

Geol.-Paleont. Bemerk. Halbins. Mang. u. aleutischen Inseln, pp. 180-182, Taf. 13, figs. 12-14; Taf. 14, figs. 1-4. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Egge, Tukusitnu bay, Alaska.

— **emoryi** n. s. Conrad. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 148, pl. 3, figs. 2a-c. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Between El Paso and Frontera.

— **eufalensis** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 396, pl. 68, fig. 32. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Eufaula, Ala.

— **eufalensis** (Gabb) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 113, 114, pl. 14, figs. 1-4. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: At the crossing of the West Jersey railroad at a creek between Red bank and Gloucester, N. J.; also in Monmouth county, N. J.

— **evansana** n. s. Meek. (1858.)

Trans. Albany Inst., vol. 4, pp. 42, 43. Albany, 1858-1864. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

— **evansana** (Meek) Whiteaves. (1879.)

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 161. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Northwest bay, Vancouver island.

— **evansana** (Meek) White. (1889.)

Bull. U. S. Geol. Sur., No. 51, p. 39. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Sucia island.

**Trigonia—Continued.**— **evansi** Meek. (1876.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No. 4, pp. 359, 360, pl. 2, figs. 7, 7a, 7b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Nanaimo, Vancouver island.

— **evansii** (Meek) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 189, pl. 25, fig. 177. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs, Tehama county; Chico creek, Butte county; Curry's, south of Mount Diablo; Benicia, Martinez, Rancho de San Luis Gonzaga, Pacheco's pass, Cal.; Jacksonville and Siskiyou mountains, Oregon; Nanaimo, Vancouver island.

— **gibboniana** (Lea?) Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 190, pl. 17, fig. 178; pl. 31, fig. 262. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Martinez, Cal.; Jacksonville, Oregon.

— **intermedia** (Fahrenkohl) Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, p. 262. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South side of Alliford bay.

— **leana** n. s. Gabb. (1876.)

Proc. Acad. Nat. Sci. Phila. for 1876, p. 312. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: California.

— **limbata** (d'Orb.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges. Band 22, pp. 234, 235. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Woodbury, N. J.

— **maudensis** n. s. Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can. Mes. Foss., vol. 1, pt. 3, pp. 230, 231, pl. 31, fig. 2. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: North side of Maud island; South island, north side of Cumshewa inlet.

— **montanaensis** (Meek) White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 147, 148, pl. 38, fig. 2a. Wash., 1880. C. A. White.

Formation: Jurassic.

Location: Near the lower canyon of the Yellowstone, Mont.

— **mooreana** Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 269. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

**Trigonia—Continued.**

- **mortoni** n. s. Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 112, 113, pl. 14, figs. 5, 6. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Freehold, Burlington, Monmouth, Holmdel, N. J.
- **nana** n. s. Eichwald. (1871.)  
Geogr.-Paleont. Bemerk. Halbins. Mang. u. aleutischen Inseln, p. 180, Taf. 14, fig. 8. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Tukusitnu bay, Alaska.
- **pandicosta** n. s. Meek. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 48, 49, pl. 8, fig. 7. Phila., 1864. F. B. Meek.  
Formation: Jurassic.  
Location: Genesee valley, Plumas county, Cal.
- **plicato-costata** n. s. N. & G. (1840.)  
Bull. Roy. Acad. Sci., Bruxelles, Tome 7, pt. 2, pp. 212, 213, fig. 1. Bruxelles, 1840. Nyst & Galeotti.  
Formation: Jurassic.  
Location: Tehuacan, Mexico.
- **quadrangularis** n. s. H. & W. (1877.)  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 2, pp. 293, 294, pl. 7, fig. 22. Wash., 1877. Hall & Whitfield.  
Formation: Jurassic.  
Location: Near Como, Laramie plains, Wyo.
- **texana** n. s. Conrad. (1857.)  
Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 148, pl. 3, figs. 3a-c. Wash., 1857. T. A. Conrad.  
Formation: Cretaceous.  
Location: Leon springs.
- **thoracica** n. s. Morton. (1834.)  
Synop., Org. Rem. Cret. Gr. U. S., p. 65, pl. 15, fig. 13. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey and Alabama.
- **thoracica** (Mort.) Roemer. (1852.)  
Kreide. von Texas, p. 52. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Ravine three miles from New Braunfels on road to Seguin, Tex.
- **thoracica** (Mort.) Gabb. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 304, 305, pl. 47, fig. 10. Phila., 1858-1860. W. M. Gabb.  
Formation: Cretaceous.  
Location: Tennessee.
- **thoracica** (Mort.) Conrad. (1860.)  
Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 282, pl. 47, fig. 10. Phila., 1858-1860. T. A. Conrad.  
Formation: Cretaceous.  
Location: Eufaula, Ala.
- **thoracica** (Mort.) Gabb. (1876.)  
Proc. Acad. Nat. Sci., Phila., for 1876, p. 312. Phila., 1876. W. M. Gabb.  
Formation: Cretaceous.  
Location: Pataula creek, Ga.

**Trigonia—Continued.**

- **tryoniana** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 188, 189, pl. 25, fig. 176. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Tuscan springs, Tehama county, Cal.
- **tryoniana** (Gabb) Whiteaves. (1879.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, p. 161, pl. 18, fig. 7. Montreal, 1879. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest bay, Vancouver island.
- ? [Brug.] Morton. (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 285. New Haven, 1830. S. G. Morton.  
Formation: Cretaceous.  
Location:
- **sp. A. Whiteaves.** (1874.)  
Geol. Sur. Can., Rep. Prog. for 1873, 1874, p. 262. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest bay, Vancouver island.
- **sp. B. Whiteaves.** (1874.)  
Geol. Sur. Can., Rep. Prog. for 1873, 1874, p. 262. Montreal, 1874. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Northwest bay, Vancouver island.
- **sp. undet. White.** (1875.)  
Rep. Geogr. and Geol. Expl. and Sur. west of One-hundredth Meridian, vol. 4, pt. 1, p. 167. Wash., 1875. C. A. White.
- **sp. undet. Whiteaves.** (1876.)  
Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 70-72, pl. 10, figs. 2, 2a. Montreal, 1876. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Queen Charlotte islands.
- **sp. undet. Urquiza.** (1882.)  
An. Min. Fomento Rep. Mex., Tomo 7, p. 224, fig. 15. Mexico, 1882. M. Urquiza.  
Formation: Cretaceous.  
Location: Astala, Coalcoman district, state of Michoacan, Mexico.
- **sp. undet. Hill.** (1889.)  
Geol. Sur. Tex., Bull. No. 4, p. 11. Austin, 1889. R. T. Hill.  
Formation: Cretaceous.  
Location: North of Webberville, Tex.
- Trigonoarca Conrad.** (1867.)  
Am. Jour. Conch., vol. 3, p. 9. Phila., 1867. T. A. Conrad.
- **maconensis** Conrad. (1867.)  
Am. Jour. Conch., vol. 3, p. 9. Phila. 1867. T. A. Conrad.  
Formation: Cretaceous.  
Location: Haddonfield, New Jersey.
- **perovalis** Conrad. (1872.)  
Proc. Acad. Nat. Sci., Phila., for 1872, p. 55, pl. 2, fig. 4. Phila., 1872. T. A. Conrad.  
Formation: Cretaceous.

**Trigonoarca—Continued.****—saffordii (Gabb) Conrad. (1872.)**

Proc. Acad. Nat. Sci., Phila., for 1872, p. 55, pl. 2, fig. 3. Phila., 1872. T. A. Conrad.

Formation: Cretaceous.

**—triquetra n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875.

W. C. Kerr. App. A, p. 2, pl. 1, fig. 7. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, N. C.

**—tumida n. s. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 235, 236, pl. 31, fig. 6. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: East end of Maud Island.

**—tumida Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 167. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: Rocky mountains, three miles north of the east end of Devil's lake, Northwest Territory.

**—(Breviarca) congesta n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875.

W. C. Kerr. App. A, p. 3, pl. 1, fig. 2. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, N. C.

**—(Breviarca) carolinensis n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875.

W. C. Kerr. App. A, p. 3, pl. 1, fig. 4. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, N. C.

**—(Breviarca) exigua (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 93, 94, pl. 15, figs. 2a-f. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Milk river, on the Missouri, and near the forks of Cheyenne river.

**—(Breviarca) perovalis n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875.

W. C. Kerr. App. A, p. 3, pl. 1, fig. 3. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, N. C.

**—(Breviarca ?) salinaensis n. s. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 92, 93, pl. 2, figs. 1a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina Kans.

**Trigonoarca—Continued.****—(Breviarca ?) siouxensis (H. & M.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 92, pl. 1, fig. 6. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Big Sioux river, on the Missouri.

**—(Breviarca) umbonata n. s. Conrad. (1875.)**

Rep. Geol. Sur. N. C., vol. 1. Raleigh, 1875.

W. C. Kerr. App. A, p. 3, pl. 1, fig. 8. T. A. Conrad.

Formation: Cretaceous.

Location: Snow Hill, Greene county, N. C.

**Trigonodus (?) productus n. s. Whiteaves. (1889.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, pp. 135, 136, pl. 17, figs. 7, 7a, b. Montreal, 1889. J. F. Whiteaves.

Formation: Triassic.

Location: Liard river, about thirty miles below Devil's portage, Canada.

**Tritonidea (subgen. Swainson) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 378. Wash., 1876. F. B. Meek.

**Tritonium (Link) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 94. Phila., 1864. W. M. Gabb.

**—californicum n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 154, pl. 26, fig. 33. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Tejon, Cal.

**—diegoensis n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 95, pl. 18, fig. 44. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: San Diego, Cal.

**—hornii n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 94, pl. 28, fig. 208. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Alizos creek, near Fort Tejon; Cochran's, near Mount Diablo, Cal.

**—paucivaricatum n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 95, pl. 28, figs. 209, 209a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Alizos creek, near Fort Tejon, Cal.

**—whitneyi n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 96, pl. 28, figs. 210, 210a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Alizos creek, near Fort Tejon, Cal.

**—(Lagena ?) edentatum n. s. Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 381. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

**Tritonium—Continued.**— (*Lagena*?) *interruptum* (Con.) Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, pp. 281, 282. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

— (*Trachytriton*) *fusiformis* n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 155. Phila., 1869. W. M. Gabb.

— (*Trachytriton*) *tejonensis* n. s. Gabb. 1869.

Geol. Sur. Cal. Paleont., vol. 2, pp. 154, 155, pl. 26, fig. 34. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Arroyo de los Alizos, Tejon, Cal.

**Tritonofusus** (subgen. Beck) Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 146. Phila., 1869. W. M. Gabb.

**Trochactæon cylindraceus** (Stoliczka) Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 218, pl. 28, fig. 6. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: East end of Maud island, opposite Lead-ing island.

**Trochosmilia** (M. Edw.) Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 399. Phila., 1858-1860. W. M. Gabb.

— *conoides* (G. & H.) Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 399, pl. 69, figs. 12-14. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

— ? *granulifera* n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 208, pl. 26, figs. 196, 196a. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Chico creek, Cal.

— ? *inauris* (Mort.) Bölsche. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 215. Berlin, 1870. W. H. Bölsche.

Formation: Cretaceous.

Location: Brownville and Squankum, N. J.; Alabama.

— *striata* n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 207, 208, pl. 26, fig. 195. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Near the coal mines at Mount Diablo, Cal.

**Trochus** [Linn] Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 46. Phila., 1834. S. G. Morton.

**Trochus—Continued.**— *aleuticus* n. s. Eichwald. (1871.)

Geog.-Paleont. Bemerk. Halbins. Mang. u. aleutischen Inseln, p. 155, Taf. 12, figs. 2, 3. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaskan peninsula.

— *leprosus* n. s. Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 46, pl. 15, fig. 6. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Prairie bluff, Alabama.

— *mortonii* n. s. Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 321. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Alabama.

— *orientalis* n. s. Eichwald. (1871.)

Geogr.-Paleont. Bemerk. Halbins. Mang. u. aleutischen Inseln, pp. 155, 156, Taf. 12, fig. 1. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

— *texanus* n. s. Roemer. (1888.)

Paleont. Abhandl. Vierter Band, Heft 4, p. 15, Taf. 1 [xxxix], fig. 13. Berlin, 1888. F. Roemer.

Formation: Cretaceous.

Location: Two miles above the mouth of Barton's creek, near Austin, Tex.

— (*Anadema*) *gemiferus* n. s. White. (1889.)

Bull. U. S. Geol. Sur., No. 51, pp. 17, 18, pl. 4, figs. 8, 9. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Near Pence's ranch, Butte county, Cal.

— (*Oxystele*) *eurostomus* n. s. White. (1885.)

Bull. U. S. Geol. Sur., No. 22, p. 12, pl. 5, figs. 9-11. Wash., 1885. C. A. White.

Formation: Cretaceous.

Location: Shore of Todos Santos bay, Lower California.

— (*Lam.*) Morton. (1829.)

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 122. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Big Timber creek, Gloucester county, N. J.

— *sp. undet.* Morton. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 282, New Haven, 1830. S. G. Morton.

Formation: Cretaceous.

Location: [New Jersey?]

**Trophon** (Montfort) White. (1889.)

Bull. U. S. Geol. Sur., No. 51, p. 21. Wash., 1889. C. A. White.

— *condoni* n. s. White. (1889.)

Bull. U. S. Geol. Sur., No. 51, pp. 21, 22, pl. 3, figs. 4, 5. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Little Cow creek valley, about 18 miles east of Redding, Shasta county, Cal.



**Tropidina** (subgen. H. & A. Adams) M. & H. (1865.)

Paleont. Upper Missouri, Smithson. Cont. Knowl., vol. 14, No. 172, p. 113. Wash., 1865. Meek & Hayden.

**Tropidocardium** (subgen. Roem.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 166. Wash., 1876. F. B. Meek.

**Truncatulina** (d'Orb) Reuss. (1861.)

Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsber. 1861, Band XLIV, p. 338. Wien, 1862. A. E. Reuss.

— **dekayi** n. s. Reuss. (1861.)

Math.-Naturw. Cl. Kaiserl. Akad. Wiss. Sitzungsber. 1861, Band XLIV, p. 338, Taf. VII, fig. 6. Wein 1862. A. E. Reuss.

Formation: Cretaceous.

Location: New Jersey.

**Tuba** ? (Lea) Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 289. Phila., 1858-1860. T. A. Conrad.

— **bella** n. s. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 289, 290, pl. 46, fig. 38. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

**Tubulipora megaera** n. s. Lonsdale. (1844.)

Quart. Jour. Geol. Soc., London, vol. 1, pp. 69, 70, figs. a, b, p. 69. London, 1845. William Lonsdale.

Formation: Cretaceous.

Location: Timber creek, N. J.

**Tubulostium dickhauti** White. (1881.)

Proc. U. S. Nat. Mus., vol. 4, p. 138, pl. 1, figs. 12, 13. Wash., 1881. Smithsonian Misc. Coll., vol. 22. Wash., 1882. C. A. White.

**Tulotoma** (Haldeman) White. (1876.)

Rep. Geol. Uinta Mts., p. 134. Wash., 1876. C. A. White.

— **thompsoni** n. s. White. (1876.)

Rep. Geol. Uinta Mts., p. 134. Wash., 1876. C. A. White.

Formation: Tertiary [Cretaceous].

Location: [Southern Wyoming, west of the Rocky mountains, and also east of the same in Colorado.]

— **thompsoni** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 172. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow creek valley, Colo.

— **thompsoni** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Terr., p. 221. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

**Tulotoma**—Continued.— **thompsoni** White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., Part 1, pp. 100, 101, pl. 28, figs. 2a-h. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.; also in the valley of Crow creek, east of the Rocky mountains in Colorado.

— **thompsoni** White. (1883.)

Third Ann. Rep. U. S. Geol. and Geogr. Sur., p. 467, pl. 24, figs. 17-22. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Northern Colorado, east of the Rocky mountains; Southern Wyoming, west of the Rocky mountains.

**Turbinella** (Lam.) Gabb. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 94. Phila., 1861. W. M. Gabb.

— **crassitesta** n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, pp. 157, 158, pl. 26, fig. 37. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

— **parva** n. s. Gabb. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 94, pl. 2, fig. 10. Phila., 1861. W. M. Gabb.

Formation: Cretaceous.

Location: Monmouth county, N. J.

— **subconica** n. s. Gabb. (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 94, pl. 2, fig. 6. Phila., 1861. W. M. Gabb.

Formation: Cretaceous.

Location: Monmouth county, N. J.

**Turbinolia** (Lam.) Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 81. Phila., 1834. S. G. Morton.

— **inauris** n. s. Morton. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., p. 81. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Alabama and New Jersey.

— **texana** n. s. Conrad. (1857.)

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 144, pl. 2, figs. 3a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: Between El Paso and Frontera [Tex.].

— **? texana** (Con.) Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 276. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

## — (Lam.) Say. (1820.)

Am. Jour. Sci., 1st ser., vol. 2, p. 45. New Haven, 1820. Thomas Say.

Formation: [Cretaceous.]

Location: New Jersey.

**Turbinopsis n. g. Conrad. (1860.)**

Jour. Acad. Nat. Sci. Phila., vol. 4, 2d ser., 1858-1860, p. 289. Phila., 1858-1860. T. A. Conrad.

— **depressa n. s. Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 321. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Crosswicks, N. J., and at the Delaware and Chesapeake canal.

— **depressa (Gabb) Conrad. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 45. Phila., 1870. T. A. Conrad.

Formation: Cretaceous.

Location: Crosswicks, N. J.

— **hilgardi n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci. Phila., vol. 4, 2d ser., 1858-1860, p. 289, pl. 46, fig. 29. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

— **hilgardi (Con.) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 300. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey, Delaware, Alabama, and Mississippi.

**Turbo [Linn] Gabb. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 9. Phila., 1870. W. M. Gabb.

— **? elevatus n. s. Gabb. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, pp. 9, 10, pl. 3, fig. 5. Phila., 1870. W. M. Gabb.

Formation: Jurassic.

Location: Volcano about thirty miles southeast of Walker's lake, Nev.

— **mudgeanus n. s. Meek. (1871.)**

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 313. Wash., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles south west of Salina, Kans.

— **nebrascensis n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 64. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles from mouth, Nebr.

— **? regius n. s. Gabb. (1869.)**

Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 9, pl. 5, fig. 4. Phila., 1870. W. M. Gabb.

Formation: Jurassic.

Location: Volcano, about thirty miles southeast of Walker's lake, Nev.

— **tenullineatus n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, pp. 64, 65. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau trading post, Nebr.

— **(Lam.) Morton. (1829.)**

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 122. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Big Timber creek, Gloucester county, N. J.

**Turbonilla [Risso] Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 287. Phila., 1858. T. A. Conrad.

— **(Chemnitzia ?) coalvillensis n. s. Meek. (1873.)**

Sixth Ann. Rep. Geol. and Geogr. Sur. Terr., pp. 505, 506. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Coalville, Utah.

— **(Chemnitzia ?) coalvillensis (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 238. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— **(Chemnitzia ?) coalvillensis (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 250. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Hilliard station, Wyo.

— **(Chemnitzia) coalvillensis (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 305, 306, pl. 9, figs. 5a, b. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

— **(Chemnitzia) corona n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 287, pl. 46, fig. 50. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

— **(Chemnitzia) melanopsis n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 287, 288, pl. 46, fig. 35. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

— **(Chemnitzia) melanopsis (Con. ?) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of one-hundredth meridian, vol. 4, pt. 1, pp. 197, 198, pl. 18, fig. 10a. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Near the west crossing of Virgin river, Utah.

— **(Chemnitzia) spillmani n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 287, pl. 46, fig. 48. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

**Turnus n. g. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 145, 146. Phila., 1864. W. M. Gabb.

**Turnus—Continued.**— (*Gabb*) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 254. Wash., 1876. F. B. Meek.

— *plenus* n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 146, pl. 22, fig. 116. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, Cal.

— *sphenoides* n. s. White. (1876.)

Rep. Geol. Uinta Mts., pp. 117, 118. Wash., 1876. C. A. White.

Formation: Cretaceous.

Location: Upper Kanab, Utah.

— (*Gonioclasma*) *stimpsoni* (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 256, 257, pl. 30, figs. 9a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Muscle Shell river, Idaho.

— (*Xylophagella*) *contortus* Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 304. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

— (*Xylophagella*) *elegantulus* (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 257, 258, pl. 30, fig. 10a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Muscle Shell river, Idaho.

**Turrilites** [Lam.] Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 284. Phila., 1858-1860. T. A. Conrad.

— *alternatus* n. s. Tuomey. (1854.)

Proc. Acad. Nat. Sci., Phila., vol. 7, sp. 168, 169. Phila., 1856. M. Tuomey.

Formation: Cretaceous.

Location: Noxubie county, Miss.

— *brazoensis* n. s. Roemer. (1849.)

Texas, p. 415. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Thirty miles above Torrey's trading house on Brazos river, Tex.

— *brazoensis* Roemer. (1852.)

Kreide, von Texas, p. 37, Taf. 3, fig. 2. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Left bank of Brazos river, thirty miles above Torrey's trading house.

— *helicinus* n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, pp. 191, 192. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Chatfield point and Corsicana, Navarro county, Tex.

— *oregonensis* n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, p. 138. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Crooked creek of the Des Chutes, Oregon.

**Turrilites—Continued.**— *spinifera* n. s. Conrad. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 284. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

— *splendens* n. s. Shumard. (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 191. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Chatfield point and near Corsicana, Navarro county, Tex.

— ? *umbilicatus* n. s. M. & H. (1858.)

Proc. Acad. Nat. Sci., Phila., for 1858, p. 56. Phila., 1859. Meek & Hayden.

Formation: Cretaceous.

Location: Great bend of the Missouri.

— (*Helicoceras*) *cochleatus* n. s. M. & H. (1858.)

Proc. Acad. Nat. Sci., Phila., for 1858, p. 55, 56. Phila., 1859. Meek & Hayden.

Formation: Cretaceous.

Location: Great bend of the Missouri.

— *sp. undet.* Owen. (1860.)

Second Rep. Geol. Rec. Ark., pl. 8, fig. 2. Phila., 1860. D. D. Owen.

Formation: Cretaceous.

Location: Arkansas.

— *sp. undet.* Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 73, pl. 20, fig. 201. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Jacksonville, Oregon.

**Turris** (Bolton) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 381. Wash., 1876. F. B. Meek.

— *claytonensis* n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 92, 93, pl. 18, fig. 46. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Above the "Clark" or upper coal vein, near Clayton, Contra Costa county, Cal.

— *minor* (E. & S.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 384, 385, pl. 31, figs. 9a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, Mont., one hundred and fifty miles from its mouth.

— *ripleyana* n. s. Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 332, pl. 35, figs. 21, 29. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— (*Rumphius*) Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 332. Phila., 1855-1858. T. A. Conrad.

**Turris—Continued.****—(Drillia) varicostata n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 93, pl. 18, fig. 47. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Clayton, Contra Costa county, Cal.

**—(Surcula) ? contortus (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 385, 386, pl. 31, figs. 7a-c; fig. 49, p. 385. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river, Dak.

**—(Surcula) ? hitzin n. s. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 386-388, fig. 50, p. 387. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Opposite Fort Shea, on the Upper Missouri.

**Turritella [Lam.] Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 47, Phila., 1834. S. G. Morton.

**—altis n. s. Conrad. (1858.)**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 333. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**—chicoensis n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 133, 134, pl. 21, fig. 91. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Chico creek, Butte county, Cal.

**—coalvillensis n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 502, 503. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Coalville, Utah.

**—coalvillensis (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 238. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**—coalvillensis (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 315, 316, pl. 9, fig. 4a. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**—convexa n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 70. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Yellowstone river, one hundred and fifty miles from mouth, Nebr.

**—corsicana n. s. Shumard. (1861.)**

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 126. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Near Corsicana and Chatfield point, Navarro county, Tex.

**Turritella—Continued.****—encrinoides n. s. Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 47, pl. 3, fig. 7. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey and Alabama.

**—encrinoides (Morton) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 301.

Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

**—fastigiata n. s. Tuomey. (1854.)**

Proc. Acad. Nat. Sci., Phila., vol. 7, p. 169. Phila., 1856. M. Tuomey.

Formation: Cretaceous.

Location: Noxubie county, Mississippi.

**—granulicosta n. s. Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 363. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Burlington county, N. J.

**—hardemanensis n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 392, pl. 68, figs. 15. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Hardeman county, Tenn.

**—inbricataria n. s. Troost. (1840.)**

Fifth Geol. Rep. Tenn., p. 56. Nashville, 1840. G. Troost.

Formation: Cretaceous.

Location: Near Purdy, McNairy county, Tenn.

**—infralineata n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 131, 132, pl. 20, fig. 87. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: North fork of Cottonwood creek, Shasta county; Orestimba canyon, Stanislaus county, Cal.

**—irrorata n. s. Conrad. (1855.)**

Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 268. Phila., 1856. T. A. Conrad.

Formation: Cretaceous.

Location: Between El Paso and Frontera? [Tex.].

**—kansasensis n. s. Meek. (1871.)**

Fourth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 312, 313. Wash., 1871. F. B. Meek.

Formation: Cretaceous.

Location: Twelve miles southwest of Salina, Kans.

**—leonensis n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 165, pl. 21, figs. 7a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: [Texas.]

**—marnochi n. s. White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 314, 315, pl. 7, figs. 5a, b. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Vicinity of Helotes, Bexar county, Tex.

**Turritella—Continued.****—martinezensis n. s. Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, pp. 169, 170, pl. 28, fig. 51. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Martinez, Cal.

**—moreauensis n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., for 1856, p. 70. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Moreau river, Nebr.

**—multilineata n. s. E. & S. (1857.)**

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 41, 42. St. Louis, 1856, 1860. Evans & Shumard.

Formation: Cretaceous.

Location: Moreau and Grand rivers.

**—planilateris n. s. Conrad. (1857.)**

Rep. U. S. and Mex. Bound. Sur., vol. 1, pt. 2, p. 158, pl. 14, fig. 1a, b. Wash., 1857. T. A. Conrad.

Formation: Cretaceous.

Location: [Texas.]

**—pumila n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 392, pl. 68, fig. 14. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Hardeman county, Tenn.

**—robusta n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 135, 136, pl. 21, fig. 94. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs, Tehama county, Cal.

**—saffordi n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 392, pl. 68, fig. 11. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Hardeman county, Tenn.

**—saffordii Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 135, pl. 21, fig. 93. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Six miles northeast of Snisun, Solano county; south of Clear lake, Lake county; near Martinez, Cal.

**—secta n. s. Conrad. (1855.)**

Proc. Acad. Nat. Sci., Phila., for 1854, 1855, p. 268. Phila., 1856. T. A. Conrad.

Formation: Miocene [Cretaceous?].

Location: Near Mullica Hill, N. J.

**—seriatim-granulata n. s. Roemer. (1849.)**

Texas, pp. 413, 414, Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**—seriatim-granulata Roemer. (1852.)**

Kreide von Texas, p. 39, Taf. 4, figs. 12a, b. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**Turritella—Continued.****—seriatim-granulata (Roem.) Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 132, 133, pl. 20, fig. 88. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs; Cottonwood creek, Shasta county; Siskiyou mountains, Siskiyou county, Cal.

**—seriatim-granulata (Roem.) Gabb. (1869.)**

Geol. Sur. Cal. Paleont., vol. 2, p. 263. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Sierra de las Conchas, near Arivechi, Sonora, Mexico.

**—spironema n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 503, 504. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Carleton's coal mine, Coalville, Utah.

**—spironema (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 238. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**—spironema (Meek) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 31, 32, pl. 12, fig. 3a. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Carleton's coal mine, Coalville, Utah.

**—tennesseensis n. s. Gabb. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 392, pl. 68, fig. 13. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Hardeman county, Tenn.

**—tippiana n. s. Conrad.**

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 333, pl. 35, fig. 19. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

**—tippiana Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 285. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

**—trilira n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 285. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

**—veatchii n. s. Gabb. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 133, pl. 20, fig. 90. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs, Tehama county, Cal.

**Turritella—Continued.**

- **vertebroides n. s. Morton.** (1834.)  
Synop. Org. Rem. Cret. Gr. U. S., p. 47, pl. 3,  
fig. 13. Phila., 1834. S. G. Morton.  
Formation: Cretaceous.  
Location: New Jersey and Alabama.
- **uvasana n. s. Conrad.** (1855.)  
Rep. Expl. and Sur. R. R. Mississippi River to  
Pacific Ocean, App. Prelim. Geol. Rep. of W. P.  
Blake, Pal., pp. 10, 11. Wash., 1855. T. A.  
Conrad.  
Formation: Eocene [Cretaceous].  
Location: Cañada de las Uvas.
- **uvasana Conrad.** (1856.)  
Rep. Expl. and Sur. R. R. Mississippi River to  
Pacific Ocean, vol. 5, App., pp. 321, 322, pl. 2,  
fig. 12. Wash., 1856. T. A. Conrad.  
Formation: Eocene [Cretaceous].  
Location: Cañada de las Uvas.
- **uvasana (Con.) Gabb.** (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 134, pl. 21, fig.  
22. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Hills from Bull's Head point to Clay-  
ton, Contra Costa county; east of the mouth of  
the Canada de las Uvas, Los Angeles county,  
near Martinez, Cal.
- **uvasana (Con.) White.** (1875.)  
Rep. Geogr. and Geol. Expl. and Sur., west of  
One-hundredth Meridian, vol. 4, pt. 1, p. 195,  
pl. 18, figs. 11a, b. Wash., 1875. C. A. White.  
Formation: Cretaceous.  
Location: Southeast of Paria, Utah.
- **winchelli n. s. Shumard.** (1861.)  
Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, pp.  
196, 197. Boston, 1862. B. F. Shumard.  
Formation: Cretaceous.  
Location: Near Corsicana and Chatfield point,  
Navarro county, Texas.
- **(Aclis?) micronema (Meek) White.**  
(1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 238. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **(Aclis?) micronema (Meek) White.**  
(1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 316, pl. 9, fig. 8a. Wash., 1879. C. A.  
White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- **[Lam.] Say.** (1820.)  
Am. Jour. Sci., 1st ser., vol. 2, p. 44. New  
Haven, 1820. Thomas Say.  
Formation: Cretaceous.  
Location: New Jersey.
- **sp. undet. Morton.** (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 281. New Haven,  
1830. S. G. Morton.  
Formation: Cretaceous.  
Location: Deep cut of the Chesapeake and Dela-  
ware canal.

**Turritella—Continued.**

- **sp. undet. Morton.** (1830.)  
Am. Jour. Sci., 1st ser., vol. 17, p. 281. New  
Haven, 1830. S. G. Morton.  
Formation: Cretaceous.  
Location: [New Jersey?]
- **sp. undet. Roemer.** (1849.)  
Texas, p. 414. Bonn, 1849. F. Roemer.  
Formation: Cretaceous.  
Location: Ford near New Braunfels, Tex.
- **sp. undet. Roemer.** (1852.)  
Kreide von Texas, p. 39. Bonn, 1852. F. Roemer.  
Formation: Cretaceous.  
Location: Ford of the Guadalupe, New Braunfels,  
Tex.
- **sp. undet. Credner.** (1870.)  
Zeitsch. Deutsch. Geol. Ges., Band 22, p. 257.  
Berlin, 1870. H. Credner.  
Formation: Cretaceous.  
Location: New Jersey.
- Tylostoma (Sharpe) Gabb.** (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 261. Phila.,  
1869. W. M. Gabb.
- **mutabilis n. s. Gabb.** (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, pp. 261, 262, pl. 35,  
fig. 6, a-c. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Sierra de las Conchas, near Arivechi,  
Sonora, Mexico.
- **princeps n. s. White.** (1880.)  
Proc. U. S. Nat. Mus., vol. 3, pp. 140-142, pl. 2,  
figs. 1, 2. Wash., 1881. C. A. White.  
Formation: Cretaceous.  
Location: Zapotitlan salt works, about six miles  
southwestward from the town of Tehuacan, in  
the state of Puebla, Mexico, and about fifteen  
miles inland from the gulf coast.
- **princeps White.** (1884.)  
La Naturaleza, Tomo 6, pp. 219-221, figs. 6, 7.  
Mexico, 1884. C. A. White.
- Typhis (Montf.) Gabb.** (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 82. Phila., 1864.  
W. M. Gabb.
- **antiquus n. s. Gabb.** (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, p. 82, pl. 18, fig. 31,  
Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Bull's Head point, northeast of Mar-  
tinez, Cal.
- Uintacrinus n. g. Grinnell.** (1876.)  
Am. Jour. Sci., 3d ser., vol. 12, p. 81. New  
Haven, 1876. G. B. Grinnell.
- **socialis n. s. Grinnell.** (1876.)  
Am. Jour. Sci., 3d ser., vol. 12, pp. 81-83, pl. 4.  
New Haven, 1876. G. B. Grinnell.  
Formation: Cretaceous.  
Location: Uinta mountains and Kansas.
- **socialis (Grinnell) Meek.** (1876.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 2, No.  
4, pp. 375-378, figs. A and B text. Wash., 1876.  
F. B. Meek.  
Formation: Cretaceous.  
Location: Trego county, Kans.

**Unicardium (d'Orb.) Meek. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, p. 50. Phila., 1864.  
F. B. Meek.

**— ? gibbosum n. s. Meek. (1864.)**

Geol. Sur. Cal. Paleont., vol. 1, pp. 50, 51, pl. 8, figs.  
8, 8a. Phila., 1864. F. B. Meek.

Formation: Jurassic.

Location: Genesee valley, Plumas county, Cal.

**Unio (Retzius) Meek. (1860.)**

Rep. Expl. Great Basin Terr. Utah, p. 361. Wash.,  
1876. F. B. Meek.

**— alatoides n. s. Lea. (1868.)**

Proc. Acad. Nat. Sci., Phila., for 1868, p. 164,  
Phila., 1868. Isaac Lea.

Formation: Cretaceous.

Location: About six miles northeast of Camden,  
N. J.

**— alatoides (Lea) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 249, 250, pl. 33,  
figs. 3, 4; pl. 34, fig. 6. Wash., 1885. R. P.  
Whitfield.

Formation: Cretaceous.

Location: Fish house, Camden county, N. J.

**— albertensis n. s. Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can., Pa-  
leont., vol. 1, pt. 1, p. 3, pl. 1, fig. 1. Montreal,  
1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Upper Belly river, Alberta, Northwest  
Territory, seven miles above the mouth of the  
Old Man river, Canada.

**— aldrichi n. s. White. (1878.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No.  
3, pp. 710, 711. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Union Pacific  
railroad, Wyo.

**— aldrichi White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 218. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

**— aldrichi White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, pp. 62, 63, pl. 29, figs. 2a, b. Wash.,  
1880. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

**— aldrichi White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 433, pl. 15, figs.  
4, 5. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black Buttes, Wyo.

**— belliplicatus n. s. Meek. (1870.)**

Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 430.  
Phila., 1871. F. B. Meek.

Formation: Tertiary [Cretaceous].

Location: Limestone hill, Bear river.

**— belliplicatus Meek. (1877.)**

Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1,  
pp. 165-167, pl. 16, figs. 4, 4a. Wash., 1877.  
F. B. Meek.

Formation: Cretaceous.

Location: Limestone hill, on Bear river, Utah;  
Gilmer, Wyo.

**Unio—Continued.****— belliplicatus (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 242. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear river valley, Wyo.

**— belliplicatus (Meek) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 71. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Bear River valley, both above and be-  
low Evanston, Wyo.

**— belliplicatus (Meek) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 430, pl. 6, figs.  
1-3. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Southwestern Wyoming and adjacent  
parts of Utah.

**— brachyopisthus n. s. White. (1876.)**

Rep. Geol. Uinta Mts., p. 126. Wash., 1876.  
C. A. White.

Formation: Tertiary [Cretaceous].

Location: Black buttes, Wyo.

**— brachiopisthus White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 218. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

**— brachyopisthus White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 64, pl. 22, figs. 2a, b. Wash., 1880.  
C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

**— brachyopisthus White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 433, pl. 16,  
figs. 7, 8. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black buttes, Wyo.

**— carriosoidea n. s. Lea. (1868.)**

Proc. Acad. Nat. Sci., Phila., for 1868, p. 163.  
Phila., 1868. Isaac Lea.

Formation: Cretaceous.

Location: About six miles northeast of Camden,  
N. J.

**— cariosoidea (Lea) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, p. 247, pl. 32, fig. 3.  
Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Fish house, Camden county, N. J.

**— consuetus n. s. ? Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Pa-  
leont., vol. 1, pt. 1, pp. 59-61; pl. 9, figs. 4, 4a.  
Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Milk River ridge, Red Deer river,  
township 21, range 12, west of fourth princi-  
pal meridian, Canada.

**— couesi White. (1879.)\***

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 218. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

\* See Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 111, p. 605. Wash., 1877.

## Unio—Continued.

— *couesi* White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 64, 65, pl. 27, fig. 1a. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

— *couesii* White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 432, pl. 16, fig. 1. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black Buttes, Wyo.

— *cristonensis* n. s. Meek. (1875.)

Ann. Rep. U. S. Geogr. Expl. and Sur. West 100th Meridian for 1875, p. 83. Wash. 1875. F. B. Meek.

Formation: Triassic.

Location: Gallinas creek, N. Mex.

— *cristonensis* (Meek) Cope. (1877.)

U. S. Geol. Sur. West 100th Meridian, vol. 4, pt. 2, p. 9, pl. 23, figs. 2-5. Wash. 1877. E. D. Cope.

Formation: Triassic.

Location: Gallinas creek, N. Mex.

— *cristonensis* (Meek) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 425, pl. 3, fig. 5. Wash., 1883. C. A. White.

Formation: Triassic.

Location: Gallinas creek, N. Mex.

— *cryptorhynchus* n. s. White. (1877.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 3, No. 3, p. 600. Wash., 1877. C. A. White.

Formation: Cretaceous.

Location: Dog creek, a tributary of the Upper Missouri river, Montana.

— *cryptorhynchus* White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 218, 219. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

— *cryptorhynchus* White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 68, 69, pl. 24, figs. 1a, b. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Dog creek, a tributary of the upper Missouri river.

— *cryptorhynchus* White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 431, pl. 14, figs. 6, 7. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Judith river beds.

— *danæ* (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 517, 518, pl. 41, figs. 3, a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Judith river.

— *danæ* (M. & H.?) White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 219. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

## Unio—Continued.

— *danæ* (M. & H.?) White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 68, pl. 27, figs. 2a, b. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

— *danæ* (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 431, pl. 17, figs. 1-3. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black buttes, Wyo.

— *danæ* (M. & H.?) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 433, pl. 18, figs. 1, 2. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black buttes, Wyo.

— *danæ* (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 6. Montreal, 1885. J. F. Whiteaves.

Formation: Laramie.

Location: Bow river, mouth of East Arrowwood creek, also Bow river, four and eight miles west of Blackfoot crossing; Belly river west of crossing of MacLeod-Beuton trail; Pincher creek; Knee Hills creek, township 29, range 22, west of fourth principal meridian, Canada.

— *danæ* (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 59. Montreal 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South shore of the Belly river, above Coal banks, Canada.

— *danæ* (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 65. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Belly river, northwest angle of Driftwood bend, Canada.

— *danai* n. s. M. & H. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, p. 145. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Judith river, Nebr. [Mont.]

— *deweyanus* n. s. M. & H. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, pp. 145, 146. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Mouth of Judith river, Nebr. [Mont.]

— *deweyanus* (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 519, pl. 41, figs. 2a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, Mont.

— *deweyanus* (M. & H.) White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 71. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Mouth of Judith river, Mont.



## Unio—Continued.

— *deweyanus* (M. & H.) White. (1883)

Third Ann. Rep. U. S. Geol. Sur., p. 431, pl. 17, figs. 4, 5. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Judith river beds.

— *deweyanus* (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 66. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South Saskatchewan, one mile below the mouth of the Bow river, Canada.

— *endlichi* n. s. White. (1877.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 3, No. 3, pp. 604, 605. Wash., 1877. C. A. White.

Formation: Cretaceous.

Location: Black buttes, Wyo.

— *endlichi* White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 218. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

— *endlichi* White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 66, 67, pl. 26, fig. 1a, b. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

— *endlichi* White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 432, pl. 15, figs. 1, 2. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black buttes, Wyo.

— *felchii* n. s. White. (1886.)

Bull. U. S. Geol. Sur., No. 29, p. 16, pl. 1, figs. 1-5. Wash., 1886. C. A. White.

Formation: Jurassic.

Location: Eight miles north of Canyon city, Colo.

— *gallinensis* n. s. Meek. (1875.)

Ann. Rep. U. S. Geogr. Expl. and Sur. West 100th Meridian for 1875, p. 84. Wash. 1875. F. B. Meek.

Formation: Triassic.

Location: Gallinas creek, N. Mex.

— *gallinensis* (Meek) Cope. (1877.)

U. S. Geogr. Sur. West 100th Meridian, vol. 4, pt. 2, p. 9, pl. 23, figs. 6, 6a. Wash. 1877. E. D. Cope.

Formation: Triassic.

Location: Gallinas creek, N. Mex.

— *gonfambonatus* n. s. White. (1878.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, pp. 709, 710. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Union Pacific railroad, Wyo.

## Unio—Continued.

— *goniambonatus* White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 218. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

— *goniambonatus* White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 63, 64, pl. 29, figs. 1a, b. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

— *goniambonatus* White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 433, pl. 19, figs. 3, 4. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black buttes, Wyo.

— *gonibonotus* n. s. White. (1876.)

Rep. Geol. Uinta Mts., pp. 116, 117. Wash., 1876. C. A. White.

Formation: Cretaceous.

Location: Upper Kanab, Utah.

— *gonionotus* White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., Part 1, pp. 71, 72, pl. 26, figs. 2a-e. Wash. 1880. C. A. White.

Formation: Cretaceous.

Location: Upper Kanab, southern Utah.

— *gonionotus* White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 433, pl. 13, figs. 7-10. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Southern Utah.

— *holmesianus* n. s. White. (1877.)

Bull. U. S. Geol. and Geogr. Sur., Terr., vol. 3, No. 3, p. 604. Wash., 1877. C. A. White.

Formation: Cretaceous.

Location: Black buttes, Wyo.

— *holmesianus* White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 218. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

— *holmesianus* White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 67, 68, pl. 22, figs. 4a-e. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Black buttes station, Wyo.

— *holmesianus* White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 433, pl. 16, figs. 2-6. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black Buttes, Wyo.

— *hubbardii* n. s. Gabb. (1869.)

Geol. Sur. Cal. Paleont., vol. 2, pp. 190, 191, pl. 30, fig. 86. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: Nanaimo coal mine, Vancouver island.

## Unio—Continued.

- **hubbardi** (Gabb) Whiteaves. (1876.)  
Geol. Sur. Can. Mes. Foss., vol. 1, pt. 1, pp. 65-68,  
pl. 9, fig. 13. Montreal, 1876. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Queen Charlotte islands.
- **hubbardi** (Gabb) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 427, pl. 5,  
figs. 2, 3. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Vancouver island.
- **hubbardi** (Gabb) Whiteaves. (1884.)  
Geol. and Nat. Hist. Sur. Can. Mes. Fos. vol. 1, pt.  
3, p. 230. Montreal, 1884. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Hooper's creek, or King's tunnel,  
Cowgitz' coal mine.
- **humerosoides** n. s. Lea. (1868.)  
Proc. Acad. Nat. Sci., Phila., for 1868, pp. 163,  
164. Phila., 1868. Isaac Lea.  
Formation: Cretaceous.  
Location: About six miles northeast of Camden,  
N. J.
- **humerosoides** (Lea) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, p. 284, pl. 31,  
fig. 4. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Fish house, Camden county, N. J.
- **iridoides** n. s. White. (1886.)  
Bull. U. S. Geol. Sur. No. 29, pp. 17, 18, pl. 2, figs.  
3, 4. Wash., 1886. C. A. White.  
Formation: Jurassic.  
Location: Eight miles north of Canyon city, Colo.
- **lapilloides** n. s. White. (1886.)  
Bull. U. S. Geol. Sur. No. 29, p. 18, pl. 2, figs. 5,  
6. Wash., 1886. C. A. White.  
Formation: Jurassic.  
Location: Eight miles north of Canyon city, Colo.;  
Como, Wyo.
- **ligamentinoides** n. s. Lea. (1868.)  
Proc. Acad. Nat. Sci., Phila., for 1868, p. 164.  
Phila., 1868. Isaac Lea.  
Formation: Cretaceous.  
Location: About six miles northeast of Camden,  
N. J.
- **ligamentinoides** (Lea) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, p. 249, pl. 32, fig.  
4; pl. 34, fig. 8. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Fish house, Camden county, N. J.
- **macropisthus** n. s. White. (1886.)  
Bull. U. S. Geol. Sur. No. 29, p. 17, pl. 2, fig. 7.  
Wash., 1886. C. A. White.  
Formation: Jurassic.  
Location: Eight miles north of Canyon city, Colo.
- **martini** (d'Orb) Eichwald. (1871.)  
Geog.-Paleont. Bemerk. Halbins. Mang. n. aleu-  
tischen Inseln, pp. 168, 169, Taf. 16, figs. 28,  
29. St. Petersburg, 1871. E. Eichwald.  
Formation: Cretaceous.  
Location: Alaska.

## Unio—Continued.

- **mendax** n. s. White. (1877.)  
Bull. U. S. Geol. and Geogr. Sur., Terr., vol. 3,  
No. 3, pp. 605, 606. Wash., 1877. C. A.  
White.  
Formation: Cretaceous.  
Location: Wales, Utah; also canyon of Desolation  
of Green river, Utah.
- **mendax** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 433, pl. 18,  
figs. 3-5. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Canyon of Desolation, and Wales, Utah.
- **nasutoides** n. s. Lea. (1868.)  
Proc. Acad. Nat. Sci., Phila., for 1868, p. 163,  
Phila., 1868. Isaac Lea.  
Formation: Cretaceous.  
Location: About six miles northeast of Camden,  
N. J.
- **nasutoides** (Lea) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 244, 245, pl. 34,  
figs. 4, 5. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Fish house, Camden county, N. J.
- **nucalis** n. s. M. & H. (1858.)  
Proc. Acad. Nat. Sci., Phila., for 1858, p. 52.  
Phila., 1859. Meek & Hayden.  
Formation: Cretaceous.  
Location: Southwest base of Black hills.
- **nucalis** M. & H. (1865.)  
Paleont. Upper Missouri, Smithsonian. Cont. Knowl.,  
vol. 14, No. 172, pp. 92, 93, pl. 3, figs. 13a-c.  
Wash., 1865. Meek & Hayden.  
Formation: Jurassic.  
Location: Southwest base of Black hills.
- **nucalis** M & H. White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 426, pl. 3, figs.  
2-4. Wash., 1883. C. A. White.  
Formation: Jurassic.  
Location: Vicinity of Black hills.
- **nucalis** M. & H. White. (1886.)  
Bull. U. S. Geol. Sur., No. 29, p. 19, pl. 3, figs.  
3-7. Wash., 1886. C. A. White.  
Formation: Jurassic.  
Location: Como, Wyo.; Black hills, Dak.
- **penultimus** n. s. Gabb. (1864.)  
Geol. Sur. Cal. Paleont., vol. 1, pp. 182, 183, pl.  
24, fig. 164. Phila., 1864. W. M. Gabb.  
Formation: Cretaceous.  
Location: Peacock coal mine, Mount Diablo, Con-  
tra Costa county, Cal.
- **penultimus** (Gabb) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 427, pl. 5, fig. 1.  
Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: California.
- **petrinus** n. s. White. (1876.)  
Rep. Geol. Uinta Mt., p. 125. Wash., 1875. C.  
A. White.  
Formation: Cretaceous.  
Location: Black buttes, Wyo.

## Unio—Continued.

—*præanodontoides* n. s. Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, p. 250, pl. 31, fig. 2. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Fish house, Camden county, N. J.

—*primævus* n. s. White. (1877.)

Bull. U. S. Geol. and Geogr. Sur., Terr., vol. 3, No. 3, pp. 599, 600. Wash., 1877. C. A. White.

Formation: Cretaceous.

Location: South of Cow island, Upper Missouri river, Mont.

—*primævus* White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 70, pl. 29, figs. 3a, b. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: South of Cow island, Upper Missouri river, Mont.

—*primævus* White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 432, pl. 14, figs. 4, 5. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Judith river beds.

—*primævus* (White) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can. Cont. Can. Paleont., vol. 1, pt. 1, p. 59. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Branch of East fork of Milk river, township 1, range 27, west of third principal meridian, Canada.

—*priscus* n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 117. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Yellowstone river, forty miles above the mouth.

—*priscus* (M. & H.) Meek. (1876.)

Rép. U. S. Geol. Sur. Terr., vol. 9, pp. 516, 517, pl. 43, figs. 8a-d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: On Yellowstone river, forty miles above its mouth; near mouth of Judith river, Mont.

—*priscus* (M. & H.) White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr. pt. 1, p. 70. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Valley of the Yellowstone river.

—*priscus* (M. & H.) White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 432, pl. 14, fig. 1. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

—*priscus* (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 26, 27. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Wood End depot, Souris river, Canada,

## Unio—Continued.

—*priscus* (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 65, pl. 10, fig. 3. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Belly river, two miles above Woodpecker island, Canada.

—*proavitus* n. s. White. (1877.)

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 3, No. 3, pp. 603, 604. Wash., 1877. C. A. White.

Formation: Cretaceous.

Location: Black Buttes, Wyo.

—*proavitus* White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 218. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

—*proavitus* White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 65, 66, pl. 22, figs. 3a-d. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

—*proavitus* White. (1883.)

Third Ann. Rep. U. S. Geol. and Geogr. Sur., p. 433, pl. 13, figs. 3-6. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black Buttes, Wyo.

—*propheticus* n. s. White. (1876.)

Rep. Geol. Uinta Mts., pp. 125, 126. Wash., 1876. C. A. White.

Formation: Tertiary [Cretaceous].

Location: Black buttes, Wyo.

—*propheticus* White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 218. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

—*propheticus* White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur., Terr., pt. 1, p. 65, pl. 22, fig. 5a. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

—*propheticus* White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 433, pl. 15, fig. 3. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Black buttes, Wyo.

—*radiatoides* n. s. Lea. (1868.)

Proc. Acad. Nat. Sci., Phila., for 1868, p. 163. Phila., 1868. Isaac Lea.

Formation: Cretaceous.

Location: About six miles northeast of Camden, N. J.

—*radiatoides* (Lea) Whitfield. (1885.)

Mon. U. S. Geol. Sur., vol. 9, pp. 245, 246, pl. 34, figs. 1-3. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Fish house, Camden county, N. J.

## Unio—Continued.

- **rectoides** n. s. Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 250, 251, pl. 32, figs. 1, 2. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Fish house, Camden county, N. J.
- **roanokoides** n. s. Lea. (1868.)  
Proc. Acad. Nat. Sci., Phila., for 1868, p. 164. Phila., 1868. Isaac Lea.  
Formation: Cretaceous.  
Location: About six miles northeast of Camden, N. J.
- **roanokoides** (Lea) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 248, 249, pl. 33, figs. 1, 2; pl. 34, fig. 7. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Fish house, Camden county, N. J.
- **senectus** n. s. White. (1877.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 3, No. 3, pp. 600, 601. Wash., 1877. C. A. White.  
Formation: Cretaceous.  
Location: Dog creek, a tributary of the Upper Missouri river, Mont.
- **senectus** White. (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 69, pl. 28, figs. 1a-c. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Valley of Dog creek, a tributary of the Upper Missouri river.
- **senectus** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 432, pl. 19, figs. 1, 2. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Judith river beds.
- **senectus** (White) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 6, 7. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Bow river, two miles below the mouth of Jumping Pound river, Canada.
- **senectus** (White) Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 67, pl. 10, fig. 2. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: South Saskatchewan, one mile below the mouth of the Bow river, Canada.
- **stewardi** n. s. White. (1876.)  
Rep. Geol. Uinta Mts., p. 110. Wash., 1876. C. A. White.  
Formation: Jurassic.  
Location: Flaming gorge of Green river, near the northern boundary line of Utah.

## Unio—Continued.

- **stewardi** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 426, pl. 3, fig. 1. Wash., 1883. C. A. White.  
Formation: Jurassic.  
Location: Northern Utah.
- **stewardi** White. (1886.)  
Bull. U. S. Geol. Sur., No. 29, p. 19, pl. 3, figs. 1, 2. Wash., 1886. C. A. White.  
Formation: Jurassic.  
Location: Eight miles north of Canyon city, Colo., near banks of Green river, southern Wyoming.
- **subrotundoides** n. s. Lea. (1868.)  
Proc. Acad. Nat. Sci., Phila., for 1868, p. 163. Phila., 1868. Isaac Lea.  
Formation: Cretaceous.  
Location: About six miles northeast of Camden, N. J.
- **subrotundoides** (Lea) Whitfield. (1885.)  
Mon. U. S. Geol. Sur., vol. 9, pp. 246, 247, pl. 32, fig. 5. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Fish house, Camden county, N. J.
- **subspatulata** n. s. M. & H. (1857.)  
Proc. Acad. Nat. Sci., Phila., for 1857, p. 146. Phila., 1858. Meek & Hayden.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Nebr. [Mont.]
- **subspatulatus** (M. & H.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 518, 519, pl. 41, figs. 1a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Mont.
- **subspatulatus** (M. & H.) White. (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 71. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Mont.
- **subspatulatus** (Meek) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 432, pl. 14, figs. 2, 3. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Judith river beds.
- **supragibbosus** n. s. Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, pp. 66, 67, pl. 10, fig. 1. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: South Saskatchewan, one mile below the mouth of the Bow river, Canada.
- **terræ-rubræ** n. s. Meek. (1875.)  
Ann. Rep. U. S. Geogr. Expl. and Sur. west one-hundredth meridian for 1875, p. 84. Wash., 1875. F. B. Meek.  
Formation: Triassic.  
Location: Gallinas creek, N. Mex.

## Unio—Continued.

- **terræ-rubræ** (Meek) Cope. (1877.)  
U. S. Geogr. Sur. west one-hundredth meridian,  
vol. 4, pt. 2, p. 9, pl. 23, figs. 7, 7a. Wash.,  
1877. E. D. Cope.  
Formation: Triassic.  
Location: Gallinas creek, N. Mex.
- **toxonotus** n. s. White. (1886.)  
Bull. U. S. Geol. Sur., No. 29, p. 17, pl. 2, figs. 1, 2.  
Wash., 1886. C. A. White.  
Formation: Jurassic.  
Location: Eight miles north of Canyon city, Colo.
- **vetusta** n. s. Meek. (1860.)  
Proc. Acad. Nat. Sci., Phila., for 1860, p. 312.  
Phila., 1861. F. B. Meek.  
Formation: Cretaceous.  
Location: Bear river, near the mouth of Sulphur  
creek, latitude  $41^{\circ} 12'$  north, longitude  $110^{\circ} 52'$   
west.
- **vetustus** Meek. (1870.)  
Proc. Am. Philos. Soc., vol. 11, 1869, 1870, p. 430.  
Phila., 1871. F. B. Meek.  
Formation: Tertiary [Cretaceous].  
Location: Limestone hill, Bear river.
- **vetustus** Meek. (1876.)  
Rep. Expl. Great Basin Terr. Utah, p. 361,  
pl. 5, figs. 12, a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous?  
Location: Bear river, near the mouth of Sulphur  
creek.
- **vetustus** Meek. (1877.)  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1,  
pp. 164, 165, pl. 17, figs. 5, a-c. Wash., 1877. F.  
B. Meek.  
Formation: Cretaceous.  
Location: Bear river, near the mouth of Sulphur  
creek, Wyo.
- **vetustus** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 242. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, Wyo.
- **vetustus** (Meek) White. (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 71. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, both above and below  
Evanston, Wyo.
- **vetustus** (Meek) White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 430, pl. 7, figs.  
1-4. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming and adjacent  
parts of Utah.
- (**Baphia** ?) **nebrascensis** n. s. Meek.  
(1871.)  
Fourth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 303. Wash., 1871. F. B. Meek.  
Formation: Cretaceous.  
Location: Opposite Sioux city, on the Missouri,  
in Dakota county, Nebr.

## Unio—Continued.

- **sp. undet.** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 168. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Crow creek, Colo.
- **sp. undet.** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 235. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- Unionopsis** (subgen. Swainson) Meek.  
(1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 113. Wash.,  
1876. F. B. Meek.
- Urosyca** n. g. Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 159. Phila.,  
1869. W. M. Gabb.
- **caudata** n. s. Gabb. (1869.)  
Geol. Sur. Cal. Paleont., vol. 2, p. 159, pl. 27, fig.  
38. Phila., 1869. W. M. Gabb.  
Formation: Cretaceous.  
Location: Martinez, Cal.
- Vaginulina calcipara** Ehrenberg.  
(1854.)  
Mikrogeologie, Taf. 32, fig. 7. Leipzig, 1854.  
C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.
- **cretæ** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 8. Leipzig, 1854.  
C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.
- **subacuta** Ehrenberg. (1854.)  
Mikrogeologie, Taf. 32, fig. 9. Leipzig, 1854.  
C. G. Ehrenberg.  
Formation: Cretaceous.  
Location: Mississippi region.
- Valvata** (Müller) M. & H. (1865.)  
Paleont. Up. Missouri, Smithsonian. Cont. Knowl.,  
vol. 14, No. 172, pp. 112, 113. Wash., 1865.  
Meek & Hayden.
- (Müller) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 590. Wash.,  
1876. F. B. Meek.
- **bicincta** n. s. Whiteaves.  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, pp. 25, 26, pl. 3, figs. 3, 8, 8a, b.  
Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Mouth of Blind Man river, township  
39, range 27, west of fourth principal meridian,  
Canada.
- **filosa** n. s. Whiteaves. (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, p. 25, pl. 3, figs. 7, 7a. Mont-  
real, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Pincher creek, mouth of the Blind Man  
river, township 39, range 27, west of fourth prin-  
cipal meridian, Canada.

**Valvata—Continued.****— ? montanaensis n. s. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 591, 592, figs. 81–83, p. 591. Wash., 1876. F. B. Meek.

Formation: Cretaceous?

Location: Mouth of Judith river, on the Upper Missouri, Mont.

**— ? montanaensis (Meek) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 102. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**— ? montanaensis (Meek) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 470, pl. 27, fig. 24. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**— nana n. s. Meek. (1873.)**

Sixth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 507. Wash., 1873. F. B. Meek.

Formation: Cretaceous.

Location: Carleton's coal mine, Coalville, Utah.

**— nana (Meek) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 238. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— nana (Meek) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 33, 34, pl. 12, figs. 17a, b. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Carleton's coal mine, Coalville, Utah.

**— nana (Meek) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 470, pl. 5, figs. 19, 20. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Coalville, Utah.

**— parvula n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 123. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Three miles below Fort Union.

**— parvula (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 591. Wash., 1876. F. B. Meek.

Formation: [Cretaceous.]

Location: Three miles below Fort Union, Dak.

**— parvula (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 102. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**— scabrida (M. & H. ?) White. (1886.)**

Bull. U. S. Geol. Sur. No. 29, p. 22, pl. 4, figs. 1–3, 19. Wash., 1886. C. A. White.

Formation: Jurassic.

Location: Eight miles north of Canyon city, Colo.; also Black hills of Dakota.

**Valvata—Continued.****— scabrida (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 470, pl. 3, fig. 7. Wash., 1883. C. A. White.

Formation: Jurassic.

Location: Vicinity of the Black hills.

**— subumbilicata (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 590, 591, pl. 43, figs. 13a–c. Wash., 1876. F. B. Meek.

Formation: [Cretaceous.]

Location: Three miles below Fort Union, Dak.

**— subumbilicata (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 102. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**— subumbilicata (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 470, pl. 27, fig. 25. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**— ? (Tropidina scabrida n. s. M. & H. (1865.)**

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, p. 113, pl. 4, figs. 2, a, b. Wash., 1865. Meek & Hayden.

Formation: Jurassic.

Location: Near southwest base of Black hills.

**Vanikoro (Quoy & Gaim) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 329. Wash., 1876. F. B. Meek.

**— ambigua (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 330, 331, pl. 19, figs. 12a–d. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river, 150 miles above its mouth.

**— ambigua (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., pp. 430, 431, pl. 12, fig. 14. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, Black hills.

**— pulchella nom. prov. Whiteaves. (1884.)**

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, pp. 215, 216, pl. 27, figs. 4, 4a. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: East end of Maud island, opposite Leading island.

**Vanikoropsis n. g. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 331. Wash., 1876. F. B. Meek.

**— suciensis n. s. White. (1889.)**

Bull. U. S. Geol. Sur. No. 51, p. 46, pl. 7, fig. 4. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Suci Island.

**Vanikoropsis—Continued.****tuomeyana (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 332, pl. 39, figs. 2a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Judith river, on the Upper Missouri.

**tuomeyana (M. & H.) Whitfield. 1876.)**

Rep. Roc. Carroll, Mont., to Yellowstone National Park, p. 145, pl. 2, figs. 11-13. Wash., 1876. R. P. Whitfield.

Formation: Cretaceous.

Location: Near the mouth of Judith river, Mont.

**tuomeyana (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 49. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Three miles north of Ross coulé, near Irvine station, on the Canadian Pacific railway, Canada.

**Vasculum n. g. White. (1889.)**

Bull. U. S. Geol. Sur., No. 51, p. 16. Wash., 1889. C. A. White.

**obliquum n. s. White. (1889.)**

Bull. U. S. Geol. Sur. No. 51, p. 16, pl. 4, figs. 19-21. Wash., 1889. C. A. White.

Formation: Cretaceous.

Location: Canyon of Chico creek, fifteen miles east of Chico, Butte county, Cal.

**Vetallia (subgen. Meek) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of One-hundredth Meridian, vol. 4, pt. 1, p. 189. Wash., 1875. C. A. White.

**baptista (White) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 73. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Coulé "about fourteen miles north-eastward from the most eastern of the Three Buttes," near the forty-ninth parallel; Belly river, east side of Driftwood bend, and Belly river, near its junction with the Bow river; south side of Milk river, one mile above the mouth of Pa-kow-ki coulé; South Saskatchewan, one mile below the mouth of the Bow river, Canada.

**Veleda n. g. Conrad. (1870.)**

Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p. 74. Phila., 1871. T. A. Conrad.

**lintea n. s. Conrad. (1870.)**

Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p. 74. Phila., 1871. T. A. Conrad.

Formation: Cretaceous.

**lintea Conrad. (1875.)**

Rep. Geol. Sur. N. C., vol. 1, Raleigh, 1875. W. C. Kerr. App. A, p. 9, pl. 1, fig. 26. T. A. Conrad.

Formation: Cretaceous.

Location: Snow hill, Greene county, N. C.

**Veleda—Continued.****lintea (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 172, 173, pl. 23, figs. 18-21. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Rev. G. C. Schanck's pits, near Marlboro, N. J.

**nasuta n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, p. 217, pl. 28, fig. 23. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Near New Egypt, N. J.

**tellinoides n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 173, 174, pl. 23, fig. 23. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Rev. G. C. Schanck's pits, near Marlboro, Monmouth county, N. J.

**transversa n. s. Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, p. 174, pl. 23, fig. 22. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Marlboro, N. J.

**Velletia (Ancyclus) minuta n. s. M. & H. (1856.)**

Proc. Acad. Nat. Sci., Phila., vol. 8, for 1856, p. 120. Phila., 1857. Meek & Hayden.

Formation: Tertiary [Cretaceous].

Location: Three miles below Fort Union.

**Veloritina n. subgen. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 161. Wash., 1876. F. B. Meek.

**Veniella (Stoliczka) White. (1875.)**

Rep. Geogr. and Geol. Expl. and Sur. west of One-hundredth Meridian, vol. 4, pt. 1, p. 185. Wash., 1875. C. A. White.

**(Stoliczka) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 148. Wash., 1876. F. B. Meek.

**conradi (Mort.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 144, 145, pl. 19, figs. 8-10. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel, and from Rev. G. C. Schanck's pits, near Marlboro, N. J.

**crassa n. s. Whiteaves. (1879.)**

Geol. Sur. Can. Mes. Foss., vol. 1, pt. 2, pp. 153, 154, pl. 18, fig. 1. Montreal, 1879. J. F. Whiteaves.

Formation: Cretaceous.

Location: Socia islands.

**decisa (Mort.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 145-147, pl. 19, figs. 15, 16. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Blue Ball, and at the marl pits of I. Stratton, near Mullica Hill, N. J.

**elevata (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 148, 149, pl. 19, figs. 6, 7. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**Veniella—Continued.****goniophora (Meek ms.) White.**

Rep. Geogr. and Geol. Expl. and Sur. west of One-hundredth meridian, vol. 4, pt. 1, p. 185. Wash., 1875. C. A. White.

Formation: Cretaceous.

Location: Southeast of Paria, Utah.

**goniophora n. s. Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 152, 153, pl. 4; fig. 4; fig. 12, p. 152. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Missouri river, near Fort Benton.

**humilis (M. & H.) White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 182. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Valleys of the Cache la Poudre and Little Thompson creek, Colo.

**humilis (M. & H.) Whitfield. (1880.)**

Rep. Geol. Black Hills of Dak., p. 414, pl. 10, figs. 7-13. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On the Cheyenne river, near Old Woman fork, Wyo.

**inflata (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 147, 148, pl. 19, figs. 4, 5. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Crosswicks, N. J.

**rhomboidea (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 215, 216, pl. 28, figs. 12, 13. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Burlington county, N. J.

**subovalis (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 150, 151, pl. 19, figs. 1, 2. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Crosswicks, N. J.

**subtumida (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 154, 155, pl. 17, figs. 5a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Yellowstone river.

**trapezoidea (Con.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 151, 152, pl. 19, fig. 3. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Holmdel, N. J.

**trigona (Gabb.) Whitfield. (1885.)**

Mon. U. S. Geol. Sur., vol. 9, pp. 149, 150, pl. 19, figs. 11-14. Wash., 1885. R. P. Whitfield.

Formation: Cretaceous.

Location: Boonton, Monmouth county, and Freehold, N. J.

**Veniella—Continued.****(Venilicardia ?) humilis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 155, 156, pl. 30, figs. 5a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: On a branch of Cheyenne river, near the Black hills, on Cache la Poudre river, Colo.

**Venilia n. g. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 294. New Haven, 1833. S. G. Morton.

**conradi n. s. Morton. (1833.)**

Am. Jour. Sci., 1st ser., vol. 23, p. 294, pl. 8, figs. 1, 2. New Haven, 1833. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**conradi Morton. (1834.)**

Synop. Org. Rem. Cret. Gr. U. S., p. 67, pl. 8, figs. 1, 2. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: Arnetown, N. J.; Prairie Bluff, Ala.

**conradi (Morton) Gabb. (1876.)**

Proc. Acad. Nat. Sci., Phila., for 1876, p. 313. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Pataula creek, Ga.

**elevata n. s. Conrad. (1870.)**

Am. Jour. Conch., vol. 6, Phila., 1870, 1871, pp. 74, 75, pl. 1 [3], figs. 7, 7a. Phila., 1871. T. A. Conrad.

Formation: Cretaceous.

Location: Haddonfield, N. J.

**mortoni n. s. M. & H. (1862.)**

Proc. Acad. Nat. Sci., Phila., for 1862, pp. 27, 28. Phila., 1863. Meek & Hayden.

Formation: Cretaceous.

Location: Chippewa point, near Fort Benton, on the Missouri river.

**quadrata n. s. Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, p. 364. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Mississippi.

**rhomboidea n. s. Conrad. (1853.)**

Jour. Acad. Nat. Sci., Phila., vol. 2, 2d ser., 1850-1854, p. 275, pl. 24, fig. 7. Phila., 1850-1854. T. A. Conrad.

Formation: Cretaceous.

Location: Burlington county, N. J.

**trapezoidea n. s. Conrad. (1860.)**

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 282, pl. 47, figs. 7. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

**trigona n. s. Gabb. (1861.)**

Proc. Acad. Nat. Sci., Phila., for 1861, pp. 324, 325. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Boonton, N. J.



**Venilicardia** (subgen. *Stoliczka*) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 149. Wash., 1876. F. B. Meek.

**Venus** [Linn.] Shumard. (1859.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, p. 598. St. Louis, 1856-1860. B. F. Shumard.

— **? abnormis** n. s. Eichwald. (1871.)

Geog.-Paleont. Bemerk. Halbins. Mang. u. aleutischen Inseln, p. 174, Taf. 16, figs. 19, 20. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Alaska.

— **æquilateralis** n. s. Gabb.

Geol. Sur. Cal. Paleont., vol. 2, p. 184, pl. 30, fig. 76. Phila., 1869. W. M. Gabb.

Formation: Cretaceous.

Location: San Diego, Cal.

— **circularis** n. s. M. & H. (1856.)

Proc. Acad. Nat. Sci., Phila., for 1856, p. 272. Phila., 1857. Meek & Hayden.

Formation: Cretaceous.

Location: Just above the mouth of Milk river, Nebr.

— **costato-squamosa** n. s. Eichwald. (1871.)

Geog.-Paleont. Bemerk. Halbins. Mang. u. aleutischen Inseln, pp. 130, 131. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Kodiak island, Alaska.

— **lenticularis** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 162, pl. 30, fig. 246. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Benicia, Cal.

— **meekana** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 394, pl. 68, fig. 23. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Eufaula, Ala.

— **ovalis** (Sow.) Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 235. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: Haddonfield, N. J.

— **provida** n. s. Eichwald. (1871.)

Geog.-Paleont. Bemerk. Halbins. Mang. u. aleutischen Inseln, pp. 131, 132. St. Petersburg, 1871. E. Eichwald.

Formation: Cretaceous.

Location: Unga and St. Paul islands, Alaska.

— **ripleyana** n. s. Gabb. (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 393, 394, pl. 68, fig. 22. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Hardeman county, Tenn.

**Venus**—Continued.— **sublamellosus** n. s. Shumard. (1859.)

Trans. Acad. Sci., St. Louis, vol. 1, 1856-1860, pp. 598, 599. St. Louis, 1856-1860. B. F. Shumard.

Formation: Cretaceous.

Location: Grayson county, five miles north of Sherman, Tex.

— **tetrahedra** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 163, pl. 30, fig. 247. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Martinez, Cal.

— **veatchii** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 162, pl. 23, fig. 142. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs, Cal.

— (*Mercenaria* ?) **varians** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 161, 162, pl. 23, figs. 140, 140a, 141. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Near Martinez; Pence's ranch, Butte county; Tuscan springs, Tehama county, Cal.

— (Linn.) **Morton**. (1829.)

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 122. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: Big Timber creek, Gloucester county, N. J.

— ? (Linn.) **Morton**. (1830.)

Am. Jour. Sci., 1st ser., vol. 17, p. 286. New Haven, 1830. S. G. Morton.

Formation: Ferruginous sand [Cretaceous].

Location:

— ? **sp. undet. Roemer**. (1849.)

Texas, p. 407. Bonn, 1849. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

— (?) **sp. undet. Roemer**. (1852.)

Kreide, von Tex., p. 47. Bonn, 1852. F. Roemer.

Formation: Cretaceous.

Location: Fredericksburg, Tex.

**Vermetus** (Sow.) **Morton**. (1830.)

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 197. Phila., 1827-1831. S. G. Morton.

— **rotula** n. s. **Morton**. (1830.)

Jour. Acad. Nat. Sci., Phila., vol. 6, 1st ser., 1827-1831, p. 197. Phila., 1827-1831. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

— **rotula** **Morton**. (1830.)

Am. Jour. Sci., 1st ser., vol. 18, pl. 3, fig. 18. New Haven, 1830. S. G. Morton.

— **rotula** **Morton**. (1834.)

Synop. Org. Rem. Cret. Gr. U. S., pp. 81, 82, pl. 1, fig. 14. Phila., 1834. S. G. Morton.

Formation: Cretaceous.

Location: New Jersey.

**Vermetus**—Continued.

- (*Serpula*) sp. undet. Hill. (1889.)  
Geol. Sur. Texas, Bull. No. 4, p. 17. Austin, 1889.  
R. T. Hill.  
Formation: Cretaceous.  
Location: Texas.

**Vetericardia** (Con.) Whitfield. (1885.)

- Mon. U. S. Geol. Sur., vol. 9, p. 127. Wash., 1885.  
R. P. Whitfield.

— *crenulirata* (Lea) Whitfield. (1885.)

- Mon. U. S. Geol. Sur., vol. 9, pp. 128, 129, pl. 18,  
figs. 5-7. Wash., 1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

— *octolirata* (Gabb) Whitfield. (1885.)

- Mon. U. S. Geol. Sur., vol. 9, pp. 127, 128. Wash.,  
1885. R. P. Whitfield.  
Formation: Cretaceous.  
Location: New Jersey?

**Vetocardia** n. g. Conrad. (1868.)

- Am. Jour. Conch., vol. 4, pp. 246, 247. Phila.,  
1868. T. A. Conrad.

— *crenalirata* Conrad. (1869.)

- Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p.  
43, pl. 1, fig. 23. Phila., 1870. T. A. Conrad.  
Formation: Cretaceous.  
Location: Haddonfield, N. J.

— *crenalirata* Conrad. (1869.)

- Am. Jour. Conch., vol. 5, Phila., 1869, 1870, p. 48,  
Phila., 1870. T. A. Conrad.  
Formation: Cretaceous.

**Vitrina** (Drapernaud) Meek. (1876.)

- Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 544, 545.  
Wash., 1876. F. B. Meek.

— *obliqua* n. s. M. & H. (1857.)

- Proc. Acad. Nat. Sci., Phila., for 1858, p. 134.  
Phila., 1858. Meek & Hayden.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Nebr.

— *obliqua* (M. & H.) Meek. (1876.)

- Rep. U. S. Geol. Sur. Terr., vol. 9, p. 545, pl. 42,  
figs. 10a, b. Wash., 1876. F. B. Meek.  
Formation: [Cretaceous].  
Location: Mouth of Judith river.

— ? *obliqua* (M. & H.) White. (1883.)

- Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 87. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

— *obliqua* (M. & H.) White. (1883.)

- Third Ann. Rep. U. S. Geol. Sur., p. 452, pl. 27,  
figs. 32, 33. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

**Vivipara** *cossatotensis* n. s. Hill. (1888.)

- Ann. Rep. Geol. Sur. Ark., for 1888, vol. 2, p. 130,  
pl. 3, figs 4, 4a, 5, 5a. Little Rock, 1888. R.  
T. Hill.  
Formation: Cretaceous?  
Location: Well near Chapel hill, Sevier county,  
Ark.

**Viviparus** (Montfort) M. & H. (1865.)

- Paleont. Up. Missouri, Smithsonian, Cont. Knowl.,  
vol. 14, No. 172, pp. 114, 115. Wash., 1865.  
Meek & Hayden.

— *conradi* (M. & H.) Meek. (1876.)

- Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 597, 580,  
pl. 42, figs. 15a-d. Wash., 1876. F. B. Meek.  
Formation: [Cretaceous].

Location: Mouth of Judith river, Mont.

— *conradi* (M. & H.) Meek. (1877.)

- Rep. Geol. Expl., Fortieth Parallel, vol. 4, pt. 1,  
pp. 178, 179, pl. 17, figs. 18, 18a. Wash., 1877.  
F. B. Meek.

Formation: Cretaceous.

Location: Mouth of Sulphur creek, on Bear river,  
Wyo.

— *conradi* (M. & H.) White. (1880.)

- Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 100. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Mouth of Judith river, Mont.

— *conradi* (M. & H.) White. (1883.)

- Third Ann. Rep. U. S. Geol. Sur., p. 467, pl. 24,  
figs. 4-6. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

— *conradi* (M. & H.) Whiteaves. (1885.)

- Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
ont., vol. 1, pt. 1, p. 76. Montreal, 1885. J. F.  
Whiteaves.  
Formation: Cretaceous.

Location: South Saskatchewan, six miles below  
the mouth of the Bow river; south side of Milk  
river, one mile above the mouth of Pa-kow-ki  
coulee; South Saskatchewan, one mile below  
the mouth of the Bow river, Canada.

— *couesi* n. s. White. (1878.)

- Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No.  
3, pp. 717, 718. Wash., 1878. C. A. White.  
Formation: Cretaceous.

Location: Valley of Bear river, seven miles north-  
westward from Evanston, Wyo., and at several  
points in the vicinity of Mellis station, Union  
Pacific railroad, near the confluence of Sulphur  
creek and Bear river.

— *cousei* White. (1879.)

- Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., p. 245. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear river valley, Wyo.

— *cousei* White. (1880.)

- Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur.  
Terr., pt. 1, p. 99, pl. 30, fig. 1a. Wash., 1880.  
C. A. White.  
Formation: Cretaceous.

Location: Valley of Bear river, seven miles north-  
ward from Evanston, Wyo., and also near the  
mouth of Sulphur creek, above Evanston.

— *couseii* White. (1883.)

- Third Ann. Rep. U. S. Geol. Sur., p. 467, pl. 8, fig.  
1. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southwestern Wyoming and adjacent  
parts of Utah.

**Viviparus—Continued.**

- **gilli n. s. M. & H.** (1865.)  
Paleont. Up. Missouri, Smithson. Cont. Knowl., vol. 14, No. 172, p. 115, pl. 5, figs. 3, a, b. Wash., 1865. Meek & Hayden.  
Formation: Jurassic.  
Location: Southwest base of Black hills.
- **gilli (M. & H.) White.** (1886.)<sup>\*</sup>  
Bull. U. S. Geol. Sur., No. 29, p. 23, pl. 4, fig. 17. Wash., 1886. C. A. White.  
Formation: Jurassic.  
Location: Black hills of Dakota.
- **gillianus (M. & H.) White.** (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 466, pl. 3, fig. 8. Wash., 1883. C. A. White.  
Formation: Jurassic.  
Location: Near the Black hills.
- **leai (M. & H.) Meek.** (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 577, 578, pl. 44, figs. 6a-d. Wash., 1876. F. B. Meek.  
Formation: [Cretaceous].  
Location: Three miles below Fort Clarke, [N.] Dak.
- **leai (M. & H.) White.** (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 100. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.
- **leai (M. & H.) White.** (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 467, pl. 27, figs. 10-14. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Crow creek valley, east of the Rocky mountains, in Colorado.
- **leai (M. & H.) Whiteaves.** (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 24. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Bow river, four miles west of Blackfoot crossing; St. Mary river, at Gooseberry canyon, and three miles north of the forty-ninth parallel; Old Man river, two miles above Rye-grass flat; Belly river, twenty-three miles above the mouth of the Waterton; Pincher creek; Blind Man river, near fifth principal meridian, Canada.
- **leai (M. & H.) Whiteaves.** (1885.)  
Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 28. Montreal, 1885. J. F. Whiteaves.  
Formation: Cretaceous.  
Location: Souris river, four miles east of Roche Percée; Short creek, Souris river, Canada.
- **leidyi (M. & H.) Meek.** (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 582, 583, pl. 44, fig. 4. Wash., 1876. F. B. Meek.  
Formation: [Cretaceous].  
Location: Ten miles below Fort Union, Dak., and near the mouth of Powder river, on the Yellowstone, in Montana.
- **leidyi (M. & H.) White.** (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 100. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri river region.

**Viviparus—Continued.**

- **leidyi (M. & H.) White.** (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 467, pl. 24, fig. 7. Wash., 1883. C. A. White.  
Formation: Cretaceous.
- **leidyi var. formosus n. var. Meek.** (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 583, pl. 44, figs. 3a, b. Wash., 1876. F. B. Meek.  
Formation: [Cretaceous].  
Location: Ten miles below Fort Union, Dak., and near the mouth of Powder river, on the Yellowstone, in Montana.
- **leidyi var. formosus (M. & H.) White.** (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 467, pl. 24, figs. 8, 9. Wash., 1883. C. A. White.  
Formation: Cretaceous.
- **panguitchensis n. s. White.** (1876.)  
Rep. Geol. Uinta Mts., pp. 123, 124. Wash., 1876. C. A. White.  
Formation: Cretaceous.  
Location: [Southern Utah.]
- **panguitchensis White.** (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 467, pl. 25, figs. 19-21. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Southern Utah.
- **peculiaris (M. & H.) Meek.** (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 580, fig. 79. Wash., 1876. F. B. Meek.  
Formation: [Cretaceous].  
Location: Fort Clarke, [N.] Dak.
- **peculiaris (M. & H.) White.** (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 100. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Upper Missouri region.
- **peculiaris (M. & H.) White.** (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 467, pl. 24, figs. 23, 24. Wash., 1883. C. A. White.  
Formation: Cretaceous.
- **plicapressus n. s. White.** (1876.)  
Rep. Geol. Uinta Mts., p. 133. Wash., 1876. C. A. White.  
Formation: Tertiary [Cretaceous].  
Location: Black buttes, Wyo.
- **plicapressus White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pp. 209, 210. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Yampa valley, near Canyon park, Colo.
- **plicapressus White.** (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 221. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Black Buttes station, Wyo., and Yampa valley, near Canyon park, Colo.

**Viviparus—Continued.****—plicapressus White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 98, pl. 28, figs. 3a, b. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Black Buttes station, Wyo.

**—plicapressus White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 467, pl. 24, figs. 25, 26. Wash., 1883. C. A. White.

Formation: Cretaceous.

**—prudentia n. s. White. (1878.)**

Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, pp. 716, 717. Wash., 1878. C. A. White.

Formation: Cretaceous.

Location: Crow creek, Colo., ten miles above its confluence with South Platte river, northern Colorado.

**—prudentia White. (1879.)**

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 172. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Crow Creek valley, Colo.

**—prudentius White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 98, 99, pl. 28, figs. 5ab. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Valley of Crow creek, ten miles above the confluence of that creek with Platte river, northern Colorado.

**—prudentius White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 467, pl. 25, figs. 17-18. Wash., 1883. C. A. White.

Formation: Cretaceous.

**—prudentius (White) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 24. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Gooseberry canyon, St. Mary river, Pincher creek, Canada.

**—raynoldsianus (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 584, 585, pl. 44, figs. 7a, b. Wash., 1876. F. B. Meek.

Formation: [Cretaceous.]

Location: Clear fork of Powder river, Mont., lower fork of same stream.

**—retusus (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 578, 579, pl. 44, figs. 5a-f. Wash., 1876. F. B. Meek.

Formation: [Cretaceous].

Location: Three miles below Fort Clarke, [N.] Dak.

**—retusus (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 100. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**Viviparus—Continued.****—retusus (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 467, pl. 24, figs. 1-3. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: [Three miles below Fort Clarke, [N.] Dak.]

**—reynoldsianus (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 100. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**—reynoldsianus White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 467, pl. 25, figs. 22, 23. Wash., 1883. C. A. White.

Formation: Cretaceous.

**—trochiformis (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 580-582, pl. 44, figs. 2a-e. Wash., 1876. F. B. Meek.

Formation: [Cretaceous].

Location: Ten miles below Fort Union, Mont.; also one hundred and fifty miles below Fort Union.

**—trochiformis (M. & H.) White. (1880.)**

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 100. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Upper Missouri river region.

**—trochiformis (M. & H.) White. (1883.)**

Third Ann. Rep. U. S. Geol. Sur., p. 467, pl. 24, figs. 10-16. Wash., 1883. C. A. White.

Formation: Cretaceous.

**—trochiformis (M. & H.) Whiteaves. (1885.)**

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 28. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: Souris river, four miles east of Roche Percée and Great Valley, about one hundred miles west of Wood End depot, on the forty-ninth parallel, Canada.

**Volsella (Scopoli) M. & H. (1865.)**

Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, pp. 85, 86. Wash., 1865. Meek & Hayden.

**—(Scopoli) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 70. Wash., 1876. F. B. Meek.

**—attenuata (M. & H.) Meek. (1876.)**

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 74, pl. 28, figs. 8a, b. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river.

**Volsella**—Continued.

- **formosa** M. & H. (1865.)  
Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, pp. 86, 87, figs. A and B text. Wash., 1865. Meek & Hayden.  
Formation: Jurassic.  
Location: Big Horn mountains, Dak.
- **galpiniana** (E. & S.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 73, pl. 28, figs. 7a, b. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: Long lake, and on Moreau river.
- **meekii** (E. & S.) Meek. (1876.)  
Rep. U. S. Geol. Sur. Terr., vol. 9, p. 72, pl. 15, figs. 3a-c. Wash., 1876. F. B. Meek.  
Formation: Cretaceous.  
Location: On the Yellowstone river.
- **pertenuis** M. & H. (1865.)  
Paleont. Up. Missouri, Smithsonian. Cont. Knowl., vol. 14, No. 172, p. 86, pl. 3, figs. 5, 5a. Wash., 1865. Meek & Hayden.  
Formation: Jurassic.  
Location: Southwest base of the Black hills.
- **pertenuis** (M. & H.) Whitfield. (1880.)  
Rep. Geol. Black Hills of Dak., pp. 362, 363, pl. 5, figs. 13, 14. Wash., 1880. R. P. Whitfield.  
Formation: Jurassic.  
Location: East side of Spearfish creek, near its junction with the Redwater, Black hills.
- **scalprum** var. **isonema** n. var. Meek. (1877.)  
Rep. Geol. Expl. Fortieth Parallel, vol. 4, pt. 1, pp. 132, 133, pl. 12, figs. 4, 4a. Wash., 1877. F. B. Meek.  
Formation: Jurassic.  
Location: Weber canyon, Wasatch range, Utah.
- **subimbricata** (Meek) White. (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 145, 146, pl. 37, figs. 2a-c. Wash., 1880. C. A. White.  
Formation: Jurassic.  
Location: Near the lower canyon of the Yellowstone river and at Spring canyon, in Montana, and near Vermillion canyon, northwestern Colorado.
- (**Brachydontes**) **laticostata** n. s. White. (1878.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, p. 708. Wash., 1878. C. A. White.  
Formation: Cretaceous.  
Location: Danforth hills, near White River Indian agency, Colorado.
- (**Brachydontes**) **laticostata** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 212. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Danforth hills, Colo.

**Volsella**—Continued.

- (**Brachydontes**) **laticostata** White. (1880.)  
Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, p. 59, pl. 25, fig. 4a. Wash., 1880. C. A. White.  
Formation: Cretaceous.  
Location: Danforth hills, near White River Indian agency, northwestern Colorado.
- (**Brachydontes**) **laticostata** White. (1883.)  
Third Ann. Rep. U. S. Geol. Sur., p. 423, pl. 13, fig. 2. Wash., 1883. C. A. White.  
Formation: Cretaceous.  
Location: Wyoming and Colorado.
- (**Brachydontes**) **multilinigera** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 249. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Hilliard station, Wyo.
- (**Brachydontes**) **multilinigera** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 248. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Bear River valley, Wyo.
- (**Brachydontes**) **multilinigera** (Meek) White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 235. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Coalville, Utah.
- (**Brachydontes**) **regularis** n. s. White. (1878.)  
Bull. U. S. Geol. and Geogr. Sur. Terr., vol. 4, No. 3, pp. 707, 708. Wash., 1878. C. A. White.  
Formation: Cretaceous.  
Location: The type specimen is from the valley of Crow creek, northern Colorado, fifteen miles above the confluence of that creek with South Platte river. Other examples are from Canyon park, valley of Yampa river; Danforth hills, near White River Indian agency; and Rock Springs station, Union Pacific railroad, Wyo.
- (**Brachydontes**) **regularis** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 168. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Crow Creek valley, Colo.
- (**Brachydontes**) **regularis** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 208. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Yampa valley, near Canyon park, Colo.
- (**Brachydontes**) **regularis** White. (1879.)  
Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 212. Wash., 1879. C. A. White.  
Formation: Cretaceous.  
Location: Danforth hills, Colo.

**Volsella**—Continued.— (**Brachydontes**) **regularis** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 215. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Rock springs, Wyo.

— (**Brachydontes**) **regularis** White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 218. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Rock springs, Wyo.; Crow Creek valley.

— (**Brachydontes**) **regularis** White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 53, 59, pl. 25, figs. 3a. Wash., 1880. C. A. White.

Formation: Cretaceous.

Location: Valley of Crow creek, northern Colorado, about fifteen miles above the confluence of that creek with Platte river. Other examples are from Canyon park, valley of Yampa river; Danforth hills, near White River Indian agency, northwestern Colorado; and Rock Springs station, Union Pacific railroad, in the valley of Better creek, Wyo.

— (**Brachydontes**) **regularis** White. (1883.)

Third Ann. Rep. U. S. Geol. Sur., p. 423, pl. 13, fig. 1. Wash., 1883. C. A. White.

Formation: Cretaceous.

Location: Wyoming and Colorado.

— (**Modiola**) **formosa** (M. & H.) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., pp. 361, 362, pl. 5, fig. 15. Wash., 1880. R. P. Whitfield.

Formation: Jurassic.

Location: Near Big Horn mountains.

— (**Modiolina**) **platynota** n. s. White. (1880.)

Twelfth Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., pt. 1, pp. 146, 147, pl. 37, figs. 3a, b. Wash., 1880. C. A. White.

Formation: Jurassic.

Location: Head of Lincoln valley, southeastern Idaho.

## — sp. undet. White. (1879.)

Eleventh Ann. Rep. U. S. Geol. and Geogr. Sur. Terr., p. 242. Wash., 1879. C. A. White.

Formation: Cretaceous.

Location: Bear River valley, Wyo.

**Voluta** (Linn) Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 322. Phila., 1862. W. M. Gabb.

— **cancellata** n. s. Tuomey. (1854.)

Proc. Acad. Nat. Sci., Phila., vol. 7, p. 169. Phila., 1856. M. Tuomey.

Formation: Cretaceous.

Location: Noxubie county, Mississippi.

**Voluta**—Continued.— (**Fasciolaria** ?) **delawarensis** n. s. Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, pp. 322, 323. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Delaware and Chesapeake canal.

— **fusiformis** n. s. Tuomey. (1854.)

Proc. Acad. Nat. Sci., Phila., vol. 7, p. 169. Phila., 1856. M. Tuomey.

Formation: Cretaceous.

Location: [Mississippi or Alabama?]

— **jugosa** n. s. Tuomey. (1854.)

Proc. Acad. Nat. Sci., Phila., vol. 7, p. 169. Phila., 1856. M. Tuomey.

Formation: Cretaceous.

Location: Noxubie county, Mississippi.

— **kanei** n. s. Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 323. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

— **mucronata** n. s. Gabb. (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 323. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: Crosswicks, N. J.

— **spillmanii** n. s. Tuomey.

Proc. Acad. Nat. Sci., Phila., vol. 7, p. 169. Phila., 1856. M. Tuomey.

Formation: Cretaceous.

Location: Columbus, Mississippi.

## — sp. undet. Forbes. (1844.)

Quart. Jour. Geol. Soc., London, vol. 1, p. 63, figs. a-c. London, 1845. Edward Forbes.

Formation: Cretaceous.

Location: New Jersey.

## — sp. undet. Credner. (1870.)

Zeitsch. Deutsch. Geol. Ges., Band 22, p. 237. Berlin, 1870. H. Credner.

Formation: Cretaceous.

Location: New Jersey.

**Volutat[1]ithes** (Swains.) Conrad. (1855.)

Rep. Expl. and Sur. R. R. R. Miss. River to Pacific Ocean; App. Prelim. Geol. Rep. of W. P. Blake, Pal. p. 11. Wash., 1855. T. A. Conrad.

— [**1]ithes californiana** n. s. Conrad. (1855.)

Rep. Expl. and Sur. R. R. R. Miss. River to Pacific Ocean; App. Prelim. Geol. Rep. of W. P. Blake, Pal. p. 11. Wash., 1855. T. A. Conrad.

Formation: Eocene [Cretaceous].

Location: Cañada de las Uvas.

— [**1]ithes californiana** Conrad. (1856.)

Rep. Expl. and Sur. R. R. R. Miss. River to Pacific Ocean, vol. 5; App. p. 322, pl. 2, fig. 9. Wash., 1856. T. A. Conrad.

Formation: Eocene [Cretaceous].

Location: Cañada de las Uvas.

**Volutilithes** (Swainson) Conrad. (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 333. Phila., 1855-1858. T. A. Conrad.

— **abbotti n. s. Gabb.** (1860.)

Proc. Acad. Nat. Sci., Phila., for 1860, p. 94, pl. 2, fig. 7. Phila., 1861. W. M. Gabb.

Formation: Cretaceous.

Location: Burlington county, N. J.

— **bella n. s. Gabb.** (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 300, pl. 48 fig. 7. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Delaware and Chesapeake canal.

— **biplicata n. s. Gabb.** (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 300, pl. 48, fig. 6. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Burlington county, N. J.

— **conradi n. s. Gabb.** (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 300, 301, pl. 48, fig. 10. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Crosswicks, N. J.

— **conradi Gabb.** (1861.)

Proc. Acad. Nat. Sci., Phila., for 1861, p. 364. Phila., 1862. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

— **cretacea n. s. Conrad.** (1858.)

Jour. Acad. Nat. Sci., Phila., vol. 3, 2d ser., 1855-1858, p. 333, pl. 35, fig. 16. Phila., 1855-1858. T. A. Conrad.

Formation: Cretaceous.

Location: Owl creek, three miles north of the town of Ripley, Miss.

— **eufaulensis n. s. Conrad.** (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, pp. 286, 287, pl. 47, fig. 18. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Eufaula, Ala.

— **nasuta n. s. Gabb.** (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser., 1858-1860, p. 300, pl. 48, fig. 9. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Monmouth county, N. J.

— **navarroensis n. s. Shumard.** (1861.)

Proc. Boston Soc. Nat. Hist., vol. 8, 1861, 1862, p. 192. Boston, 1862. B. F. Shumard.

Formation: Cretaceous.

Location: Near Corsicana, Navarro county, Tex.

— **navarroensis (Shum.) Gabb.** (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 102, 103, pl. 19, fig. 56. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Tuscan springs, Pence's ranch, above Oroville, Butte county; Jacksonville, Oregon; Siskiyou mountains; Chico creek; Cow creek, Shasta county, Cal.

**Volutilithes**—Continued.— **saffordi n. s. Gabb.** (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser. 1858-1860, p. 300, pl. 48, fig. 8. Phila., 1858-1860. W. M. Gabb.

Formation: Cretaceous.

Location: Tennessee.

— **(Athleta) leioderma n. s. Conrad.** (1860.)

Jour. Acad. Nat. Sci., Phila., vol. 4, 2d ser. 1858-1860, p. 292, pl. 46, fig. 32. Phila., 1858-1860. T. A. Conrad.

Formation: Cretaceous.

Location: Tippah county, Miss.

**Volutoderma n. g. Gabb.** (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 289. Phila., 1876. W. M. Gabb.

— **? biplicata Gabb.** (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 292. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

— **sp. undet. Gabb.** (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 292. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: Vincentown, N. J.

**Volutomorpha n. g. Gabb.** (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 290. Phila., 1876. W. M. Gabb.

— **(Gabb) Dall.** (1890.)

Trans. Wag. Free. Inst. Sci., Phila., vol. 3, p. 73. Phila., 1890. W. H. Dall.

— **abbotti Gabb.** (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 293. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

— **bella Gabb.** (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 293. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

— **conradi Gabb.** (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 293. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

Location: New Jersey.

— **conradi (Gabb) Dall.** (1890.)

Trans. Wag. Free. Inst. Sci., Phila., vol. 3, p. 73. Phila., 1890. W. H. Dall.

Formation: Cretaceous.

Location: New Jersey.

— **kanei Gabb.** (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 293. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

— **mucronata Gabb.** (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 293. Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

**Volutomorpha**—Continued.— **saffordi** Gabb. (1876.)

Proc. Acad. Nat. Sci., Phila., for 1876, p. 293.  
Phila., 1876. W. M. Gabb.

Formation: Cretaceous.

**Volviceramus** (subgen. *Stoliczka*) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 40. Wash., 1876. F. B. Meek.

— **exogyroides** (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Con., Cont. Can. Paleont., vol. 1, pt. 1, p. 84. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South branch of Drywood fork, Waterton river; entrance to North Kootanaie pass, Canada.

**Vorticifex** (Meek) White. (1886.)

Bull. U. S. Geol. Sur., No. 29, p. 21. Wash., 1886. C. A. White.

— **stearnsii** n. s. White. (1886.)

Bull. U. S. Geol. Sur., No. 29, pp. 21, 22, pl. 4, figs. 4-7. Wash., 1886. C. A. White.

Formation: Jurassic.

Location: Como, Wyo.

**Websteria** (Edwards & Haine) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 2, 3. Wash., 1876. F. B. Meek.

— **cretacea** n. s. Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, pp. 3, 4, pl. 28, figs. 3a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: South branch of Cheyenne river, near Black hills.

**Whitneya** n. g. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, pp. 103, 104. Phila., 1864. W. M. Gabb.

— **ficus** n. s. Gabb. (1864.)

Geol. Sur. Cal. Paleont., vol. 1, p. 104, pl. 28, fig. 216. Phila., 1864. W. M. Gabb.

Formation: Cretaceous.

Location: Fort Tejon, Cal.

**Xylophaga elegantula** n. s. M. & H. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, p. 141. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Muscle Shell river, Nebr.

— **stimpsoni** n. s. M. & H. (1857.)

Proc. Acad. Nat. Sci., Phila., for 1857, pp. 141, 142. Phila., 1858. Meek & Hayden.

Formation: Cretaceous.

Location: Muscle Shell river, Nebr.

**Xylophagella** n. g. Meek. (1864.)

Check List Invert. Foss. N. Am. Cret. and Jur., Smithsonian. Misc. Coll., vol. 7, No. 177, p. 34. Wash., 1864. F. B. Meek.

— **subgen.** Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 255. Wash., 1876. F. B. Meek.

**Xylophagella**—Continued.— **elegantula** (M. & H.) Meek. (1864.)

Check List Invert. Foss. N. Am. Cret. and Jur. Smithsonian. Misc. Coll., vol. 7, No. 177, p. 34. Wash., 1864. F. B. Meek.

Formation: Cretaceous.

Location: Dakota.

**Yoldia** (Mörch.) Conrad. (1867.)

Am. Jour. Conch., vol. 3, p. 8. Phila., 1867. T. A. Conrad.

## — (Möller) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 107. Wash., 1876. F. B. Meek.

— **albaria** n. s. Conrad. (1867.)

Am. Jour. Conch., vol. 3, p. 8. Phila., 1867. T. A. Conrad.

Formation: Cretaceous.

— **arata** n. s. Whiteaves. (1884.)

Geol. and Nat. Hist. Sur. Can., Mes. Foss., vol. 1, pt. 3, p. 233, pl. 31, figs. 4, 4a. Montreal, 1884. J. F. Whiteaves.

Formation: Cretaceous.

Location: South island, Skidegate inlet; Bear Skin bay, Skidegate inlet; Cumshewa inlet.

— **arata** Whiteaves. (1887.)

Geol. and Nat. Hist. Sur. Can., vol. 2, n. ser., 1886, App. I, p. 112 B. Montreal, 1887. J. F. Whiteaves.

Formation: Cretaceous.

Location: East side of Winter harbor, Forward inlet.

— **arata** Whiteaves. (1889.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 2, p. 154. Montreal, 1889. J. F. Whiteaves.

Formation: Cretaceous.

Location: East side of Winter harbor, Forward inlet, Canada.

— **eufalensis** (Gabb) Conrad. (1870.)

Am. Jour. Conch., vol. 6, Phila., 1870, 1871, p. 74. Phila., 1871. T. A. Conrad.

Formation: Cretaceous.

— **evansi** (M. & H.) Meek. (1876.)

Rep. U. S. Geol. Sur. Terr., vol. 9, p. 111, pl. 28, figs. 10a-c. Wash., 1876. F. B. Meek.

Formation: Cretaceous.

Location: Moreau river; on the Yellowstone river; also on Milk river.

— **evansi** (M. & H.) Whitfield. (1880.)

Rep. Geol. Black Hills of Dak., p. 409, pl. 11, figs. 1, 2. Wash., 1880. R. P. Whitfield.

Formation: Cretaceous.

Location: On Old Woman fork of the Cheyenne river, and near Rapid creek, Black hills.

— **evansi** (M. & H.) Whiteaves. (1885.)

Geol. and Nat. Hist. Sur. Can., Cont. Can. Paleont., vol. 1, pt. 1, p. 38. Montreal, 1885. J. F. Whiteaves.

Formation: Cretaceous.

Location: South Saskatchewan, fifteen miles west of the mouth of Swift Curr nt creek; Old Wives creek, township 10, range 11, west of third principal meridian, Canada.



**Yoldia**—Continued.

- **microdonta** n. s. Meek. (1871.)  
 Fourth Ann. Rep. U. S. Geol. and Geogr. Sur.  
 Terr., p. 304. Wash., 1871. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Twelve miles southwest of Salina, Kans.
- **microdonta** Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 109, pl. 2,  
 fig. 2. Wash., 1876. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Twelve miles southwest of Salina, Kans.
- **scitula** (M. & H.) Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 110, pl. 28,  
 fig. 9. Wash., 1876. F. B. Meek.  
 Formation: Cretaceous.  
 Location: Moreau river and Long lake.
- **scitula** (M. & H.) Whiteaves. (1885.)  
 Geol. and Nat. Hist. Sur. Can., Cont. Can. Pale-  
 ont., vol. 1, pt. 1, p. 38, pl. 5, fig. 2. Montreal,  
 1885. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Twelve miles east of White Mud river,  
 on trail to Woody mountain, and forty-ninth  
 parallel, on the east branch of the Poplar river,  
 Canada.
- **striatula** (Forbes) Whiteaves. (1879.)  
 Geol. Sur. Can., Mes. Foss., vol. 1, pt. 2, p. 162,  
 pl. 18, fig. 9. Montreal, 1879. J. F. White-  
 aves.  
 Formation: Cretaceous.  
 Location: Northwest side of Hornby island; south-  
 west side of Deuman island; Sucia islands.

**Yoldia**—Continued.

- **ventricosa** (H. & M.) Meek. (1876.)  
 Rep. U. S. Geol. Sur. Terr., vol. 9, p. 112, pl. 15,  
 figs. 5a, b. Wash., 1876. F. B. Meek.  
 Formation: Cretaceous.  
 Location: South fork of Cheyenne, river.
- **sp. undet. Whiteaves.** (1876.)  
 Geol. Sur. Can., Mes. Foss., vol. 1, pt. 1, pp. 72, 73.  
 Montreal, 1876. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Queen Charlotte islands.
- **sp. undet. Whiteaves.** (1878.)  
 Canadian Naturalist, vol. 8, n. ser., No. 7, pp. 404,  
 405. Montreal, 1878. J. F. Whiteaves.  
 Formation: Jurassic.  
 Location: Itasyouco river.
- **sp. undet. Whiteaves.** (1882.)  
 Proc. and Trans. Roy. Soc., Canada, vol. 1, sec. 4,  
 p. 85. Montreal, 1883. J. F. Whiteaves.  
 Formation: Cretaceous.  
 Location: Skagit river, Canada.
- **(or Corbis) sp. undet. Whiteaves.**  
 (1878.)  
 Geol. Sur. Can., Rep. Prog. for 1876, 1877, p. 154.  
 Montreal, 1878. J. F. Whiteaves.  
 Formation: Jurassic.  
 Location: Itasyouco river, British Columbia.
- Zirphæa** (Leach) White. (1889.)  
 Bull. U. S. Geol. Sur., No. 51, p. 15. Wash.,  
 1889. C. A. White.
- **plana** n. s. White. (1889.)  
 Bull. U. S. Geol. Sur., No. 51, p. 15, pl. 4, fig. 22.  
 Wash., 1889. C. A. White.  
 Formation: Cretaceous.  
 Location: Martinez, Contra Costa county, Cal.