

(200)
R290
no. 78-692

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✓ UNITED STATES (DEPARTMENT OF THE INTERIOR)
GEOLOGICAL SURVEY

[Reports - Open file series]

UPDATE AND REVISION OF BRACHIOPOD COLLECTIONS
OF THE PHOSPHORIA, PARK CITY, AND SHEDHORN
FORMATIONS (PERMIAN) OF THE U.S. GEOLOGICAL
SURVEY

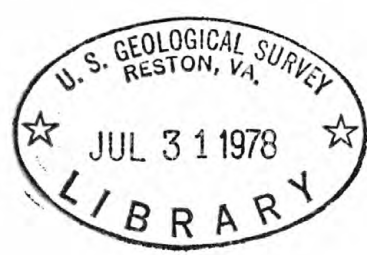
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Open File Report 78-692
1978

This report has not been reviewed
or edited for conformity with U.S.
Geological Survey standards and
nomenclature.



289622

Update and revision of brachiopod collections of the
Phosphoria, Park City, and Shedhorn Formations (Permian)
of the U.S. Geological Survey

The numerous collections amassed by the U.S. Geological
Survey's study of the Western Phosphate Field have been
examined. Many collections already have been discarded; and
only those still housed at the Smithsonian are dealt with in
this paper. Future studies of the biostratigraphy and
paleogeography of the Phosphoria Formation and related rocks
will be based on this data. Sections and samples are those
presented by Yochelson (1968). In this paper, the
brachiopods of each sample are listed. New and undescribed
forms (in quotations) are presented as the closest allied
and described taxon. Lingula and Orbiculoidea are not
listed.

1 IDAHO

2 Blackfoot Narrows (section 1261, O'Malley and others, 1953,
3 U.S.G.S. Circ. 262, p. 13-16) sec. 24, T. 7 S., R. 43 E.,
4 Caribou Co.

5-- USGS 10491-PC

6 Crurithyris arcuata (Girty)

7 Leiorhynchoidea sp.

8 USGS 10493-PC

9 Rhynchopora?

10-- Undulella?

11 USGS 10494-PC

12 Crurithyris arcuata (Girty)

13 Leiorhynchoidea nobilis (Girty)

14 Lissochonetes?

15-- Orbiculoidea sp.

16 Undulella?

17 USGS 10495-PC

18 Crurithyris arcuata (Girty)

19 Leiorhynchoidea nobilis (Girty)

20-- Undulella sp.

21 USGS 10497-PC

22 Crurithyris arcuata (Girty)

23 USGS 10506-PC

24 "Canocrinella" cf. "C." phosphatica (Girty)

25

1 Caldwell Canyon (section 1260, McKelvey and others, 1953,
2 U.S.G.S. Circ. 208, p. 11-13) sec. 1, T. 8 S., R. 43 E.,
3 Caribou Co.

4 USGS 10131-PC

5 "Canocrinella" cf. "C." phosphatica (Girty)

6 USGS 10178-PC

7 "Canocrinella" cf. "C." phosphatica (Girty)

8 Undulella?

9 USGS 10181-PC

10 Anidanthus sp.

11 Lissochonetes?

12 Phrenophoria?

13 USGS 10188-PC

14 Crurithyris arcuata (Girty)

15 Rhynchopora taylori Girty

16 Undulella sp.

17 USGS 10525-PC

18 Lissochonetes ostiolatus (Girty)

19 USGS 10526-PC

20 Anidanthus eucharis (Girty)

21 Leiorhynchoidea?

22 Lissochonetes ostiolatus (Girty)

23 Tautosia?

24 USGS 10539-PC

25 Leiorhynchoidea?

1 USGS 10546-PC

2 "Canocrinella" cf. "C." phosphatica (Girty)

3 Leiorhynchoidea cf. L. nobilis (Girty)

4 USGS 10548-PC

5 "Canocrinella" phosphatica (Girty)

6 USGS 10555-PC

7 Leiorhynchoidea sp.

8 USGS 10561-PC

9 "Canocrinella"?

10- Leiorhynchoidea?

11 Conda Mine (section 1200, McKelvey and others, 1953, U.S.G.S.

12 Circ. 208, p. 25-29) sec. 13, T. 8 S., R. 42 E.,

13 Caribou Co.

14 USGS 9703-PC

15- Crurithyris?

16 Leiorhynchoidea?

17 Orbiculoidea sp.

18 Undulella?

19 USGS 9704-PC

20- Crurithyris arcuata (Girty)

21 USGS 9705-PC

22 Undulella?

23 USGS 9707-PC

24 "Canocrinella"?

25 Leiorhynchoidea cf. L. weeksi (Girty)

Orbiculoidea sp.

USGS 9708-PC

"Cancrinella" phosphatica (Girty)

USGS 9711-PC

"Cancrinella" cf. "C." phosphatica (Girty)

Deer Creek (section 1268, McKelvey and others, 1953,
U.S.G.S. Circ. 208, p. 46-49) S 1/2 SW 1/4 sec. 34, T. 9 S.,
R. 45 E., Caribou Co.

USGS 10137-PC

Lissochonetes ostiolatus (Girty)

Undulella sp.

Divide between Trail and Wood Canyons (section K, Sheldon,
1963, U.S.G.S. Prof. Paper 313-D)
sec. 26, T. 8 S., R. 42 E., Caribou Co.

USGS 12620-PC

Neophricadothyris?

USGS 12621-PC

Derbyia sp.

Kuvelousia leptosa Waterhouse

Thamnosia?

Dingle (section 1293, Sheldon and others, 1953, U.S.G.S.
Circ. 304, p. 25-28) SE 1/4 sec. 36, T. 14 S., R. 44 E.,
Bear Lake Co.

USGS 10987-PC

Crurithyris arcuata (Girty)

Lissochonetes?

Undulella sp.

USGS 10989-PC

Crurithyris arcuata (Girty)

Undulella sp.

USGS 10992-PC

"Canocrinella" phosphatica (Girty)

Crurithyris arcuata (Girty)

East Georgetown Canyon (section 1267, O'Malley and others,
1953, U.S.G.S. Circ. 262, p. 30-33) NE 1/4 NW 1/4 sec. 30,
T. 10 S., R. 45 E., Bear Lake Co.

USGS 10727-PC

Lissochonetes ostiolatus (Girty)

USGS 10911-PC

Undulella sp.

USGS 10912-PC

Crurithyris arcuata (Girty)

USGS 10918-PC

Lingula sp.

USGS 10919-PC

"Canocrinella" phosphatica (Girty)

Crurithyris?

Enoch Valley (section 1314, Davidson and others, 1953,
U.S.G.S. Circ. 305, p. 24-27) SW 1/4 sec. 16, T. 6 S., R. 43 E.,
Caribou Co.

USGS 11595-PC

Leiorhynchoidea cf. L. nobilis (Girty)

Leiorhynchoidea cf. L. weeksi (Girty)

Orbiculoidea sp.

USGS 11596-PC

Crurithyris arcuata (Girty)

Orbiculoidea sp.

Rhynchopora taylori Girty

Undulella?

USGS 11599-PC

Leiorhynchoidea nobilis (Girty)

USGS 11601-PC

Lingula sp.

USGS 11603-PC

Orbiculoidea sp.

USGS 11604-PC

Leiorhynchoidea nobilis (Girty)

Orbiculoidea sp.

USGS 11605-PC

Orbiculoidea sp.

Fall Creek (section 1338, Smart and others, 1954, U.S.G.S.
Circ. 327, p. 5-7, Sheldon's section 39) SW 1/4
sec. 18, T. 1 N., R. 43 E., Bonneville Co.

USGS 12293-PC

Orbiculoidea sp.

USGS 12294-PC

Neospirifer striatoparadoxus (Toula)

Sphenalosisa smedleyi Muir-Wood and Cooper

Sphenosteges?

USGS 12295-PC

Lingula?

Neospirifer striatoparadoxus (Toula)

Orbiculoidea sp.

USGS 18594-PC

Neospirifer striatoparadoxus (Toula)

Sphenosteges?

Grizzly Creek (section N, Sheldon, 1968, U.S.G.S.

Prof. Paper 313-D) sec. 30, T. 5 S., R. 40 E.,

Caribou Co.

USGS 19533-PC

"Canocrinella"?

Hustedia sp.

Henry (section 1309, Davidson and others, 1953, U.S.G.S. Circ.

305, p. 20-23) SE 1/4 sec. 10, T. 6 S., R. 42 E.,

Caribou Co.

USGS 11623-PC

Crurithyris?

Leiorhynchoidea nobilis (Girty)

USGS 11624-PC

Crurithyris arcuata (Girty)

Orbiculoidea sp.

Rhynchopora taylori Girty

USGS 11625-PC

Crurithyris arcuata (Girty)

USGS 11626-PC

Crurithyris arcuata (Girty)

USGS 11627-PC

Crurithyris arcuata (Girty)

USGS 11628-PC

Spiriferinid brachiopod

USGS 11633-PC

Orbiculoidea sp.

USGS 11634-PC

Leiorhynchoidea nobilis (Girty)

Orbiculoidea sp.

Hot Spring (section 1317, Sheldon and others, 1953, U.S.G.S.

Circ. 304, p. 29-30) sec. 13, T. 15 S., R. 44 E.,

Bear Lake Co.

USGS 19531-PC

Neophricadothyris sp.

Johnson Creek (section 1209, McKelvey and others, 1953,

U.S.G.S. Circ. 301, p. 32-35) SE 1/4 sec. 23, T. 8 S., R. 43 E.,

Caribou Co.

USGS 10028-PC

"Canocrinella" cf. "C." phosphatica (Girty)

Orbiculoidea sp.

USGS 10030-PC

"Canocrinella" phosphatica (Girty)

USGS 10092-PC

Crurithyris arcuata (Girty)

USGS 10093-PC

Orbiculoidea sp.

USGS 10094-PC

Crurithyris sp.

USGS 10102-PC

Orbiculoidea sp.

USGS 10105-PC

"Canocrinella"?

Crurithyris arcuata (Girty)

USGS 10107-PC

Leiorhynchoidea nobilis (Girty)

Orbiculoidea sp.

USGS 10108-PC

Crurithyris arcuata (Girty)

Kendall Canyon (section 1258; O'Malley and others, 1953,
U.S.G.S. Circ. 262, p. 20-23) sec. 28, T. 7 S., R. 44 E.,
Caribou Co.

USGS 10452-PC

"Canocrinella" phosphatica (Girty)

Leiorhynchoidea cf. L. weeksi (Girty)

Neophricadothyris?

Rhynchopora taylori Girty

USGS 10454-PC

Neophricadothyris sp.

Orbiculoidea sp.

Waagenoconcha?

7 USGS 10456-PC

Leiorhynchoidea?

Lissochonetes ostiolatus (Girty)

10 USGS 10457-PC

Crurithyris arcuata (Girty)

Lissochonetes ostiolatus (Girty)

13 USGS 10463-PC

Leiorhynchoidea nobilis (Girty)

15- Lissochonetes ostiolatus (Girty)

16 Orbiculoidea sp.

17 Undulella sp.

18 USGS 10465-PC

Crurithyris arcuata (Girty)

20 USGS 10466-PC

Leiorhynchoidea nobilis (Girty)

Orbiculoidea sp.

Rhynchopora taylori Girty

Undulella?

USGS 10467-PC

Crurithyris arcuata (Girty)

Undulella sp.

USGS 10470-PC

Crurithyris arcuata (Girty)

USGS 10472-PC

Crurithyris arcuata (Girty)

USGS 10476-PC

Undulella sp.

USGS 10482-PC

"Cancrinella" phosphatica (Girty)

USGS 10483-PC

Leiorhynchoidea?

Lingula sp.

USGS 10484-PC

"Cancrinella" cf. "C." phosphatica (Girty)

Lone Pine Spring (section 1298, Sheldon and others, 1953,

U.S.G.S. Circ. 304, p. 20-23) NE 1/4 sec. 4, T. 9 S.,

R. 45 E., Caribou Co.

USGS 10995-PC

Leiorhynchoidea weeksi (Girty)

USGS 11501-PC

Crurithyris arcuata (Girty)

Rhynchopora taylori Girty

Undulella?

USGS 11502-PC

Crurithyris arcuata (Girty)

Undulella?

USGS 11503-PC

Crurithyris arcuata (Girty)

Undulella sp.

USGS 11505-PC

Orbiculoidea sp.

USGS 11509-PC

Crurithyris arcuata (Girty)

USGS 11511-PC

"Canocrinella" cf. "C." phosphatica (Girty)

Orbiculoidea sp.

USGS 11515-PC

"Canocrinella" cf. "C." phosphatica (Girty)

Rhynchopora taylori Girty

Mabie Canyon (section 1210, McKelvey and others, 1953, U.S.G.S.

Circ. 208, p. 14-19) NW 1/4 NE 1/4 sec. 10, T. 8 S.,

R. 44 E., Caribou Co.

USGS 10021-PC

"Canocrinella" sp.

Orbiculoidea sp.

USGS 10023-PC

Anidanthus cf. A. eucharis (Girty)

Leiorhynchoidea weeksi (Girty)

Lissochonetes?

USGS 10033-PC

Orbiculoidea sp.

USGS 10034-PC

Lissochonetes cf. L. ostiolatus (Girty)

Undulella sp.

USGS 10036-PC

Crurithyris cf. C. arcuata (Girty)

USGS 10037-PC

Crurithyris arcuata (Girty)

Leiorhynchoidea cf. L. nobilis (Girty)

Undulella sp.

USGS 10038-PC

Crurithyris arcuata (Girty)

Undulella sp.

USGS 10039-PC

Crurithyris arcuata (Girty)

Lissochonetes cf. L. ostiolatus (Girty)

Undulella sp.

USGS 10040-PC

Crurithyris arcuata (Girty)

Undulella sp.

USGS 10044-PC

Linoproductid brachiopod

1 USGS 10049-PC

2 "Canocrinella" cf. "C." phosphatica (Girty)

3 Crurithyris arcuata (Girty)

4 USGS 10050-PC

5 Orbiculoidea sp.

6 USGS 10051-PC

7 Orbiculoidea sp.

8 USGS 10054-PC

9 Orbiculoidea sp.

10 USGS 10055-PC

11 "Canocrinella"?

12 Liosotella?

13 USGS 10056-PC

14 "Canocrinella" sp.

15-- USGS 10059-PC

16 Orbiculoidea sp.

17 USGS 10117-PC

18 Crurithyris arcuata (Girty)

19 Undulella sp.

20 Montpelier Canyon (section 1207, McKelvey and others, 1953,

21 U.S.G.S. Circ. 301, p. 50-58) sec. 31, T. 12 S.,

22 R. 45 E., Bear Lake Co.

23 USGS 9765-PC

24 "Canocrinella"?

25 Lingula sp.

1 USGS 9768-PC

2 Undulella?

3 USGS 9771-PC

4 Leiorhynchoidea weeksi (Girty)

5 Lissochonetes ostiolatus (Girty)

6 USGS 9772-PC

7 Leiorhynchoidea weeksi (Girty)

8 USGS 9970-PC

9 Leiorhynchoidea cf. L. weeksi (Girty)

10 Undulella sp.

11 USGS 9977-PC

12 Crurithyris arcuata (Girty)

13 Undulella sp.

14 USGS 9979-PC

15 Leiorhynchoidea sp.

16 Undulella sp.

17 USGS 9982-PC

18 "Canocrinella"?

19 USGS 9983-PC

20 Composita mira Girty

21 USGS 9984-PC

22 Bathymyonia nevadensis (Meek)

23 "Canocrinella" cf. "C." n. sp.

24 "Echinauris"?

25 Thamnosia depressa (Cooper)

1 USGS 9989-PC

2 Bathymyonia sp.

3 "Canocrinella" cf. "C." n. sp.

4 "Echinauris"?

5 Thamnosia depressa (Cooper)

6 USGS 10160-PC

7 "Canocrinella"?

8 Derbyia sp.

9 Meekella sp.

10 Neophricadothyris sp.

11 Neospirifer striatoparadoxus (Toula)

12 Mud Spring (section 1351, Smart and others, 1954, U.S.G.S.

13 Circ. 327, p. 20-22) sec. 7, T. 12 S., R. 29 E.,

14 Cassia Co.

15 USGS 12635-PC

16 Leiorhynchoidea?

17 USGS 12636-PC

18 Leiorhynchoidea weeksi (Girty)

19 USGS 12637-PC

20 Composita?

21 Leiorhynchoidea weeksi (Girty)

22 USGS 12638-PC

23 Composita cf. C. parva Branson

24 USGS 12639-PC

25 Crurithyris?

1 Orbiculoidea sp.

2 USGS 12640-PC

3 Crurithyris sp.

4 Orbiculoidea sp.

5 USGS 19859-PC

6 Leiorhynchoidea weeksi (Girty)

7 North Dry Valley (section 1259, O'Malley and others, 1953,

8 U.S.G.S. Circ. 262, p. 17-19) sec. 31, T. 7 S.,

9 R. 44 E., Caribou Co.

10 USGS 10510-PC

11 Crurithyris arcuata (Girty)

12 Orbiculoidea sp.

13 USGS 10513-PC

14 Crurithyris arcuata (Girty)

15 USGS 10515-PC

16 "Cancrinella"?

17 USGS 10523-PC

18 "Cancrinella"?

19 Leiorhynchoidea nobilis (Girty)

20 North Rasmussen Valley (section 1233, McKelvey and others,

21 1953, U.S.G.S. Circ. 301, p. 10-13) sec. 6, T. 7 S.,

22 R. 44 E., Caribou Co.

23 USGS 10441-PC

24 Leiorhynchoidea weeksi (Girty)

Lissochonetes ostiolatus (Girty)

1 USGS 10444-PC

2 Crurithyris arcuata (Girty)

3 Orbiculoidea sp.

4 USGS 10446-PC

5 Orbiculoidea sp.

6 North Stewart (section 0, Yochelson, 1968, U.S.G.S.
7 Prof. Paper 313-D) NW 1/4 sec. 31, T. 8 S., R. 45 E.,
8 Caribou Co.

9 USGS 11585-PC

10 "Echinauris"?

11 USGS 11586-PC

12 Bathymyonia sp.

13 Hystriaculina sp.

14 Kochiproductus longus (Meek)

15 Kuvelousia leptosa Waterhouse

16 Leiorhynchoidea cf. L. nobilis (Girty)

17 Thamnosia?

18 USGS 11588-PC

19 Bathymyonia cf. B. nevadensis (Meek)

20 Hystriaculina sp.

21 Kuvelousia sp.

22 Leiorhynchoidea nobilis (Girty)

23 North Wooley Range (section 1230, McKelvey and others, 1953,
24 U.S.G.S. Circ. 301, p. 5-7) sec. 24, T. 6 S., R. 42 E.,
25 Caribou Co.

1 USGS 10411-PC

2 Lissochonetes ostiolatus (Girty)

3 USGS 10414-PC

4 "Canocrinella" cf. "C." phosphatica (Girty)

5 Crurithyris arcuata (Girty)

6 Paranorella sp.

7 USGS 10418-PC

8 Crurithyris arcuata (Girty)

9 Orbiculoidea sp.

10 USGS 10421-PC

11 Crurithyris arcuata (Girty)

12 Orbiculoidea sp.

13 Undulella?

14 USGS 10423-PC

15 Crurithyris arcuata (Girty)

16 USGS 10424-PC

17 Undulella?

18 USGS 10435-PC

19 Orbiculoidea sp.

20 USGS 10436-PC

1 Orbiculoidea sp.

2 USGS 10437-PC

3 Orbiculoidea sp.

4 USGS 10438-PC

5 Orbiculoidea sp.

1 USGS 10440-PC

2 "Canocrinella" phosphatica (Girty)

3 Leiorhynchoidea cf. L. nobilis (Girty)

4 Lingula sp.

5 Orbiculoidea sp.

6 Rhynchopora taylori Girty

7 Paris Canyon (section 1266, O'Malley and others, 1953,
8 U.S.G.S. Circ. 262, p. 34-37) sec. 8, T. 14 S., R. 43 E.,
9 Bear Lake Co.

10 USGS 10706-PC

11 Leiorhynchoidea sp.

12 USGS 10707-PC

13 "Canocrinella" phosphatica (Girty)

14 Lingula sp.

15 USGS 10711-PC

16 Orbiculoidea sp.

17 USGS 10715-PC

18 Crurithyris arcuata (Girty)

19 USGS 10719-PC

20 Orbiculoidea sp.

21 USGS 10721-PC

22 Crurithyris arcuata (Girty)

23 Orbiculoidea sp.

24 USGS 10722-PC

25 Orbiculoidea sp.

1 USGS 10726-PC

2 "Cancrinella"?

3 Pole Canyon (section 1303, Sheldon and others, 1953,
4 U.S.G.S. Circ. 304, p. 14-16) SW 1/4 sec. 31, T. 8 S.,
5 R. 46 E., Caribou Co.

6 USGS 11566-PC

7 Crurithyris arcuata (Girty)

8 Leiorhynchoidea sp.

9 USGS 11570-PC

10 Leiorhynchoidea sp.

11 USGS 11574-PC

12 Orbiculoidea sp.

13 USGS 11576-PC

14 Orbiculoidea sp.

15 USGS 11583-PC

16 "Cancrinella" sp.

17 Leiorhynchoidea?

18 Rocky Canyon (section 1304, Davidson and others, 1953,
19 U.S.G.S. Circ. 305, p. 9-12) NE 1/4 sec. 1, T. 6 S.,
20 R. 38 E., Bannock Co.

21 USGS 11697-PC

22 "Grandaurispina" cf. "G." arctica (Waterhouse)

23 USGS 11698-PC

24 "Cancrinella"?

25 Composita sp.

1 Neospirifer sp.

2 USGS 11699-PC

3 Composita?

4 Neospirifer sp.

5 Productoid brachiopod

6 USGS 11703-PC

7 Crurithyris arcuata (Girty)

8 USGS 11705-PC

9 Crurithyris arcuata (Girty)

10 USGS 11709-PC

11 Crurithyris arcuata (Girty)

12 USGS 11712-PC

13 "Canocrinella" cf. "C." phosphatica (Girty)

14 Snowdrift Mountain (section 1372, Smart and others, 1954,

15 U.S.G.S. Circ. 327, p. 15-19) NW 1/4 NW 1/4 sec. 8,

16 T. 10 S., R. 45 E., Caribou Co.

17 USGS 12587-PC

18 Leiorhynchoidea weeksi (Girty)

19 USGS 12588-PC

20 Leiorhynchoidea?

21 USGS 12590-PC

22 Orbiculoidea sp.

23 USGS 12591-PC

24 Crurithyris arcuata (Girty)

1 USGS 12592-PC

2 "Canocrinella" phosphatica (Girty)

3 USGS 12594-PC

4 Leiorhynchoidea sp.

5 Lingula sp.

6 Orbiculoidea sp.

7 USGS 12596-PC

8 Crurithyris arcuata (Girty)

9 South Dry Valley (section 1211, McKelvey and others, 1953,

10 U.S.G.S. Circ. 301, p. 38-43) NW 1/4 SE 1/4 sec. 14,

11 T. 9 S., R. 44 E., Caribou Co.

12 USGS 10045-PC

13 Bathymyonia cf. B. n. sp. D

14 "Canocrinella" phosphatica (Girty)

15 Composita cf. C. parva Branson

16 Lissochonetes ostiolatus (Girty)

17 Orbiculoidea sp.

18 Productoid brachiopod

19 Rhynchopora taylori Girty

20 USGS 10046-PC

21 Neophricadothyris sp.

Rhynchopora taylori Girty

USGS 10071-PC

Crurithyris arcuata (Girty)

Leiorhynchoidea cf. L. nobilis (Girty)

1 South Fork Sage Creek (section L, Yochelson, 1968,
2 U.S.G.S. Prof. Paper 313-D) SW 1/4 SE 1/4 NW 1/4
3 sec. 18, T. 9 S., R. 45 E., Stewart Flat Quadrangle,
4 Caribou Co.

5 USGS 19532-PC

6 Elliotella varicostata Cooper and Grant

7 Kochiproductus longus (Meek)

8 Kuvelousia leptosa Waterhouse

9 Thamnosia depressa (Cooper)

10- South Rasmussen Valley (section 1232, McKelvey and others,
11 1953, U.S.G.S. Circ. 301, p. 16-18) sec. 9, T. 7 S.,
12 R. 44 E., Caribou Co.

13 USGS 10485-PC

14 Leiorhynchoidea weeksi (Girty)

15- Orbiculoidea sp.

16 South Stewart Canyon (section 1306, Sheldon and others,
17 1953, U.S.G.S. Circ. 304, p. 9-13) SE 1/4 SE 1/4 sec. 31,
18 T. 8 S., R. 45 E., Caribou Co.

19 USGS 11520-PC

20- "Canocrinella" sp.

21 USGS 11521-PC

22 Lingula sp.

23 Orbiculoidea sp.

24 USGS 11522-PC

25 Lingula sp.

1 Orbiculoidea sp.

2 USGS 11525-PC

3 Crurithyris?

4 Orbiculoidea sp.

5 USGS 11527-PC

6 Crurithyris arcuata (Girty)

7 USGS 11528-PC

8 Crurithyris arcuata (Girty)

9 Undulella?

10 USGS 11529-PC

11 Crurithyris arcuata (Girty)

12 Undulella sp.

13 USGS 11530-PC

14 Crurithyris arcuata (Girty)

15 Leiorhynchoidea sp.

16 Undulella sp.

17 USGS 11532-PC

18 Orbiculoidea sp.

19 USGS 11534-PC

20 Orbiculoidea sp.

21 Rhynchopora taylori Girty

22 USGS 11535-PC

23 Crurithyris arcuata (Girty)

24 USGS 11541-PC

25 "Canocrinella" phosphatica (Girty)

1 USGS 11542-PC

2 "Canocrinella"?

3 Crurithyris?

4 Swan Lake Gulch (section 1265, McKelvey and others, 1953,

5 U.S.G.S. Circ. 208, p. 42-45) NE 1/4 SW 1/4

6 sec. 29, T. 9 S., R. 43 E., Caribou Co.

7 USGS 10577-PC

8 "Canocrinella"?

9 Composita?

10 Lissochonetes ostiolatus (Girty)

11 Neophricadothyris sp.

12 USGS 10582-PC

13 Crurithyris arcuata (Girty)

14 Orbiculoidea sp.

15 USGS 10583-PC

16 Crurithyris arcuata (Girty)

17 Orbiculoidea sp.

18 USGS 10588-PC

19 Crurithyris arcuata (Girty)

20 USGS 10589-PC

21 Crurithyris arcuata (Girty)

22 USGS 10597-PC

23 Lissochonetes?

24 USGS 10599-PC

25 "Canocrinella" sp.

1 Timber Creek (section 1310, Sheldon and others, 1953,
2 U.S.G.S. Circ. 304, p. 5-8) S 1/2 sec. 21, T. 8 S.,
3 R. 45 E., Caribou Co.

4 USGS 11553-PC

5 Rhynchopora taylori Girty

6 USGS 11554-PC

7 Crurithyris arcuata (Girty)

8 USGS 11555-PC

9 Crurithyris arcuata (Girty)

10 Leiorhynchoidea nobilis (Girty)

11 USGS 11560-PC

12 Crurithyris arcuata (Girty)

13 Lingula sp.

14 USGS 11562-PC

15 Orbiculoidea sp.

16 Trail Canyon (section 1206, McKelvey and others, 1953,
17 U.S.G.S. Circ. 301, p. 21-29) SW 1/4 NW 1/4 NW 1/4
18 sec. 30, T. 8 S., R. 43 E., Caribou Co.

19 USGS 9773-PC

Leiorhynchoidea cf. L. weeksi (Girty)

USGS 9778-PC

Crurithyris arcuata (Girty)

USGS 9779-PC

Crurithyris arcuata (Girty)

Leirhynchoidea cf. L. weeksi (Girty)

1 Orbiculoidea sp.
2 USGS 9780-PC
3 Crurithyris arcuata (Girty)
4 Orbiculoidea sp.
5 USGS 9781-PC
6 Crurithyris arcuata (Girty)
7 Orbiculoidea sp.
8 USGS 9782-PC
9 Crurithyris arcuata (Girty)
10 USGS 9784-PC
11 "Canocrinella" phosphatica (Girty)
12 Leiorhynchoidea nobilis (Girty)
13 USGS 9785-PC
14 Leiorhynchoidea cf. L. weeksi (Girty)
15 USGS 9786-PC
16 "Canocrinella" phosphatica (Girty)
17 Leiorhynchoidea sp.
18 Orbiculoidea sp.
19 USGS 9922-PC
20 "Canocrinella"?
21 Leiorhynchoidea?
22 USGS 9924-PC
23 "Canocrinella" phosphatica (Girty)
24 USGS 9954-PC
25 "Canocrinella" sp.

1 USGS 9955-PC

2 "Canocrinella" cf. "C." phosphatica (Girty)

3 Leiorhynchoidea nobilis (Girty)

4 USGS 9975-PC

5 Orbiculoidea sp.

6 Waterloo Phosphate Pit (section 1385) SE 1/4

7 NW 1/4 sec. 6, T. 13 S., R. 45 E., Bear Lake Co.

8 USGS 12630-PC

9 Anidanthus eucharis (Girty)

10 Dielasmid brachiopod

11 Leiorhynchoidea weeksi (Girty)

12 Orbiculoidea sp.

13 Rhynchopora taylori Girty

14 USGS 12631-PC

15 Leiorhynchoidea weeksi (Girty)

16 West Dairy (section 1208, McKelvey and others, 1953,

17 U.S.G.S. Circ. 301, p. 44-49) SE corner NE 1/4 SE 1/4

18 sec. 19, T. 9 S., R. 44 E., Caribou Co.

19 USGS 9926-PC

20 Bathymyonia n. sp. D

21 "Canocrinella" phosphatica (Girty)

22 Composita sp.

23 Crurithyris?

24 Lissochonetes ostiolatus (Girty)

25 Rhynchopora taylori Girty

1 Spiriferoid brachiopod
2 USGS 9928-PC
3 Bathymyonia cf. B. n. sp. D
4 "Cancrinella" sp.
5 Composita sp.
6 Lissochonetes ostiolatus (Girty)
7 Rhynchopora?
8 USGS 9929-PC
9 "Cancrinella" sp.
10 Composita sp.
11 Rhynchopora taylori Girty
12 Spiriferinid brachiopod
13 USGS 9932-PC
14 Orbiculoidea sp.
15 USGS 9936-PC
16 Crurithyris arcuata (Girty)
17 USGS 9937-PC
18 Crurithyris arcuata (Girty)
19 USGS 9941-PC
20 "Cancrinella" sp.
21 Waagenoconcha?
22 USGS 9945-PC
23 "Cancrinella"?
24 USGS 9950-PC
25 Crurithyris arcuata (Girty)

1 USGS 9951-PC

2 Crurithyris arcuata (Girty)

3 Orbiculoidea sp.

4 West Georgetown Canyon (section 1264, O'Malley and others,
5 1953, U.S.G.S. Circ. 262, p. 27-29) SE 1/4 sec. 1,
6 T. 10 S., R. 44 E., Bear Lake Co.

7 USGS 10567-PC

8 Leiorhynchoidea?

9 Orbiculoidea sp.

10 USGS 10569-PC

11 Crurithyris?

12 Leiorhynchoidea sp.

13 Undulella sp.

14 USGS 10572-PC

15 Orbiculoidea sp.

16 USGS 10575-PC

17 "Canocrinella"?

18 Undulella sp.

19 Wolverine Canyon (section 1322, Smart and others, 1954,
U.S.G.S. Circ. 327, p. 8-10) SE 1/4 NW 1/4 sec. 31
T. 1 S., R. 39 E., Bingham Co.

USGS 12110-PC

Crurithyris arcuata (Girty)

Orbiculoidea sp.

Woodal Creek (section 1262, O'Malley and others, 1953,
U.S.G.S. Circ. 262, p. 9-12) NW 1/4 sec. 26,
T. 7 S., R. 42 E., Caribou Co.

USGS 10549-PC

Lissochonetes?

Rhynchopora taylori Girty

USGS 10551-PC

Crurithyris arcuata (Girty)

USGS 10562-PC

"Canocrinella" sp.

Leiorhynchoidea sp.

Orbiculoidea sp.

MONTANA

Big Timber (section M, Yochelson, 1968, U.S.G.S.
Prof. Paper 313-D) sec. 23, T. 5 S., R. 12 E.,
Snodgrass Co.

USGS 18843-PC

"Dyoros" n. sp.

Phrenophoria sp.

Big Sheep Canyon (section 1224, Swanson and others, 1953,
U.S.G.S. Circ. 209, p. 25-31) sec. 26, 25, and 11,
T. 14 S., R. 10 W., Beaverhead Co.

USGS 9901-PC

Hustedia?

USGS 9904-PC

Linoproductus?

Neospirifer sp.

USGS 9905-PC

Koslowskia?

Kutorginella?

Peniculauris sp.

USGS 9906-PC

Hustedia sp.

Koslowskia?

Linoproductus?

USGS 9907-PC

"Canocrinella"?

1 Lissochonetes?
2 USGS 9912-PC
3 Orbiculoidea sp.
4 USGS 9915-PC
5 Composita cf. C. parva Branson
6 USGS 9916-PC
7 Orbiculoidea sp.
8 USGS 9918-PC
9 Neospirifer striatoparadoxus (Toula)
10 Orbiculoidea sp.
11 Thamnosia sp.
12 USGS 9919-PC
13 Neospirifer striatoparadoxus (Toula)
14 Thamnosia sp.
15 USGS 9920-PC
16 Neospirifer?
17 Hogback Mountain (section 1299, Cressman and others, 1953,
18 U.S.G.S. Circ. 302, p. 5-9) S 1/2 NW 1/4 sec. 8,
19 T. 11 S., R. 4 W., Madison Co.
20 USGS 11673-PC
21 "Cancrinella"?
22 Koslowskia sp.
23 Quadrochonetes sp.

1 USGS 11674-PC

2 Composita?

3 Derbyia?

4 Koslowskia sp.

5 Peniculauris?

6 USGS 11675-PC

7 Koslowskia?

8 Peniculauris?

9 USGS 11679-PC

10 Bathymyonia?

11 USGS 11680-PC

12 Composita sp.

13 "Echinauris" sp.

14 Lingula sp.

15 Plekonella sp.

16 Little Water Canyon (section 1341, Cressman and others,
17 1953, U.S.G.S. Circ. 302, p. 14-15) SW 1/4 sec. 34,
18 T. 14 S., R. 9 W., Beaverhead Co.

19 USGS 12300-PC

20 Composita sp.

21 USGS 12302-PC

22 Thamnosia?

23 USGS 12304-PC

24 Lingula sp.

25 Orbiculoidea sp.

1 Thamnosia sp.

2 USGS 12306-PC

3 Orbiculoidea sp.

4 Little Sheep Creek (section 1294, Cressman and others,
5 1953, U.S.G.S. Circ. 302, p. 16-20) SW 1/4 sec. 34,
6 T. 14 S., R. 9 W., Beaverhead Co.

7 USGS 11644-PC

8 Composita?

9 USGS 11649-PC

10 Kochiproductus?

11 Neospirifer striatoparadoxus (Toula)

12 Thamnosia cf. T. depressa (Cooper)

13 USGS 11650-PC

14 Neospirifer striatoparadoxus (Toula)

15 Sphenosteges?

16 USGS 11651-PC

17 Orbiculoidea sp.

18 USGS 11654-PC

19 Neospirifer striatoparadoxus (Toula)

20 Thamnosia cf. T. depressa (Cooper)

21 USGS 11655-PC

22 Orbiculoidea sp.

23 USGS 11658-PC

24 Orbiculoidea sp.

1 Sawtooth Mountain (section 1241, Klepper and others, 1953,
2 U.S.G.S. Circ. 260, p. 23-26) NE 1/4 SW 1/4 sec. 10,
3 T. 12 S., R. 5 W., Beaverhead Co.

4 USGS 10856-PC

5 Orbiculoidea sp.

6 USGS 10857-PC

7 Composita sp.

8 "Echinauris" sp.

9 Lingula sp.

10 Phrenophoria sp.

11 USGS 11665-PC

12 Orbiculoidea sp.

13 Sheep Creek (section 1234, Swanson and others, 1953,
14 U.S.G.S. Circ. 209, p. 16-19) NW 1/4 SW 1/4 sec. 23,
15 T. 9 S., R. 9 W., Beaverhead Co.

16 USGS 10808-PC

17 "Canocrinella"?

18 Neophricadothyris?

19 USGS 10812-PC

20 Orbiculoidea sp.

21 USGS 10822-PC

22 Xestotrema?

23 USGS 10823-PC

24 "Dyoros" n. sp.

25 Phrenophoria sp.

1 USGS 10891-PC

2 Composita cf. C. parva Branson

3 Phrenophoria sp.

4 USGS 13355-PC

5 "Dyoros" n. sp.

6 "Echinauris"?

7 Phrenophoria sp.

8 Plectelasma?

9 USGS 18575-PC

10 "Dyoros" n. sp.

11 "Echinauris"?

12 Phrenophoria sp.

13 Wadhams Spring (section 1246, Klepper and others, 1953,

14 U.S.G.S. Circ. 260, p. 28-30) sec. 22 and 28,

15 T. 13 S., R. 7 W., Beaverhead Co.

16 USGS 10840-PC

17 Lingula sp.

18 USGS 10842-PC

19 Composita?

20 Spiriferinid brachiopod

21 Warm Springs Creek (section 1300, Swanson and others,

22 1953, U.S.G.S. Circ. 303, p. 11-12) NW 1/4 sec. 22,

23 T. 9 S., R. 7 W., Beaverhead Co.

24 USGS 11681-PC

25 Derbyia sp.

1 West Fork Blacktail Creek (section 1302, Cressman and
2 others, 1953, U.S.G.S. Circ. 302, p. 10-12)

3 SE 1/2 sec. 26, T. 12 S., R. 6 W., Beaverhead Co.

4 USGS 11670-PC

5- Collemataria sp.

6 Composita sp.

7 Derbyia sp.

8 "Echinauris" n. sp.

9 Hustedia cf. H. meekana (Shumard)

10- Lingula sp.

11 Paraspiriferina?

12 Plekonella sp.

13 USGS 18577-PC

14 Collemataria sp.

15- Composita sp.

16 Derbyia sp.

17 "Echinauris" n. sp.

18 Hustedia cf. H. meekana (Shumard)

19- Plekonella sp.

UTAH

Blind Stream (section F, Yochelson, 1968, U.S.G.S.
Prof. Paper 313-D) SW 1/4 SW 1/4 sec. 14, T. 1 N.,
R. 8 W., Duchesne Co.

USGS 10803-PC

Lingula sp.

Orbiculoidea sp.

USGS 10804-PC

Composita parva Branson

Derbyia?

Peniculauris?

USGS 10806-PC

Orbiculoidea sp.

USGS 19409-PC

Orbiculoidea sp.

Brazer Canyon (section 1203, Smith and others, 1952,
U.S.G.S. Circ. 211, p. 5-10) NW 1/4 sec. 9,
T. 11 N., R. 8 E., Rich Co.

USGS 10111-PC

Undulella minusculus (Girty)

USGS 10112-PC

Lissochonetes ostiolatus (Girty)

USGS 10114-PC

Anidanthus eucharis (Girty)

Bathymyonia cf. B. n. sp. A

1 Lissochonetes ostiolatus (Girty)
2 USGS 10115-PC
3 Anidanthus eucharis (Girty)
4 Lissochonetes ostiolatus (Girty)
5 USGS 10116-PC
6 Orbiculoidea sp.
7 USGS 10120-PC
8 Xestotrema pulchrum (Meek)
9 USGS 10730-PC
10 Lissochonetes ostiolatus (Girty)
11 USGS 10731-PC
12 Anidanthus eucharis (Girty)
13 Lissochonetes sp.
14 Undulella sp.
15 USGS 10732-PC
16 Leiorhynchoidea sp.
17 Phrenophoria?
18 USGS 10736-PC
19 Leiorhynchoidea weeksi (Girty)
20 USGS 10739-PC
21 Orbiculoidea sp.
22 USGS 10741-PC
23 "Canocrinella" phosphatica (Girty)
24 USGS 10746-PC
25 Orbiculoidea sp.

1 Rhynchopora taylori Girty

2 Rugatia?

3 USGS 10750-PC

4 Bathymyonia?

5 USGS 10752-PC

6 Rhynchopora taylori Girty

7 Sphenosteges cf. S. hispidus (Girty)

8 Xestotrema pulchrum (Meek) .

9 USGS 10753-PC

10 Composita sp.

11 Sphenosteges cf. S. hispidus (Girty)

12 Xestotrema pulchrum (Meek)

13 USGS 10754-PC

14 Composita sp.

15 Sphenosteges hispidus (Girty)

16 Xestotrema pulchrum (Meek)

17 USGS 15014-PC

18 Composita mira Girty

19 Sphenosteges hispidus (Girty)

20 Xestotrema pulchrum (Meek)

21 Cephalopod Gulch (section C, Yochelson, 1968, U.S.G.S.

Prof. Paper 313-D) NW 1/4 SW 1/4 SW 1/4

sec. 27, T. 1 N., R. 1 E., Salt Lake Co.

22 USGS 18076-PC

23 Anidanthus?

1 "Cancrinella"?

2 Composita parva Branson

3 Derbyia sp.

4 Neophricadothyris?

5 Orbiculoidea sp.

6 Peniculauris cf. P. bassi (McKee)

7 Phrenophoria sp.

8 Rhynchopora taylori Girty

9 Rugatia sp.

10 USGS 18077-PC

11 Anidanthus sp.

12 Hustedia sp.

13 Peniculauris cf. P. bassi (McKee)

14 USGS 18890-PC

15 Composita sp.

16 Hustedia sp.

17 USGS 18891-PC

18 Cleiothyridina sp.

19 Composita sp.

20 "Echinauris" sp.

21 Xestotrema pulchrum (Meek)

22 Devils Slide (section 1345, Cheney and others, 1953,

23 U.S.G.S. Circ. 306, p. 11-17) NW 1/4 sec. 26,

24 T. 4 N., R. 3 E., Morgan Co.

1 USGS 12482-PC

2 Hustedia cf. H. n. sp.

3 USGS 12484-PC

4 Lissochonetes?

5 Undulella?

6 USGS 12486-PC

7 Composita sp.

8 Lingula sp.

9 USGS 12488-PC

10 Bathymyonia nevadensis (Meek)

11 Composita mira Girty

12 Timaniella n. sp.

13 USGS 19411-PC

14 Bathymyonia?

15 USGS 19412-PC

16 Bathymyonia sp.

17 Composita mira Girty

18 "Echinauris"?

19 Timaniella n. sp.

20 Xestotrema pulchrum (Meek)

21 Yakovlevia multistriata (Meek)

Dry Canyon (section 1229, Smith and others, 1952, U.S.G.S.
Circ. 211, p. 29-30) S 1/2 SW 1/4 sec. 3, T. 1 N.,
R. 6 W., Duchesne Co.

1 USGS 10790-PC

2 Bathymyonia?

3 USGS 10794-PC

4 Orbiculoidea sp.

5 USGS 10795-PC

6 Orbiculoidea sp.

7 Fort Douglas (section 1350, Cheney and others, 1953,
8 U.S.G.S. Circ. 306, p. 25-31) E 1/2 NE 1/4 sec. 17,
9 T. 1 N., R. 2 E., Salt Lake Co.

10 USGS 12505-PC

11 Neophricadothyris sp.

12 USGS 12506-PC

13 Lingula sp.

14 USGS 12509-PC

15 Lingula sp.

16 USGS 12515-PC

17 Composita cf. C. parva Branson

18 Neophricadothyris sp.

19 Rugatia n. sp.

20 USGS 12516-PC

21 Anidanthus cf. A. eucharis (Girty)

22 Composita parva Branson

23 Neophricadothyris sp.

24 Peniculauris cf. P. bassi (McKee)

25 Rugatia?

1 USGS 12517-PC

2 "Canocrinella"?

3 USGS 12529-PC

4 "Echinauris"?

5 Timaniella n. sp.

6 Xestotrema pulchrum (Meek)

7 USGS 15024-PC

8 Composita cf. C. parva Branson

9 "Liosotella" n. sp.

10 USGS 15025-PC

11 Rugatia sp.

12 USGS 15026-PC

13 "Canocrinella" phosphatica (Girty)

14 USGS 15027-PC

15 Lissochonetes ostiolatus (Girty)

16 USGS 15028-PC

17 Composita mira Girty

18 Derbyia sp.

19 Dielasma sp.

20 Dyoros?

21 "Echinauris" subhorrida (Meek)

22 Orbiculoidea sp.

23 Timaniella n. sp.

24 Xestotrema pulchrum (Meek)

25 Yakovlevia multistriata (Meek)

1 USGS 25758-PC

2 Composita cf. C. mira Girty

3 "Echinauris" subhorrida (Meek)

4 Timaniella n. sp.

5 Xestotrema pulchrum (Meek)

6 Yakovlevia multistriata (Meek)

7 USGS 25759-PC

8 Orbiculoidea sp.

9 USGS 25760-PC

10 Anidanthus cf. A. eucharis (Girty)

11 "Liosotella" n. sp.

12 Lissochonetes?

13 USGS 25499-PC

14 Orbiculoidea sp.

15 Franson (Pinyon) Canyon (section 1347, Cheney and others,

16 1953, U.S.G.S. Circ. 306, p. 18-21) sec. 17,

17 T. 1 S., R. 6 E., Summit Co.

18 USGS 12497-PC

19 Lingula sp.

20 USGS 12500-PC

21 Xestotrema pulchrum (Meek)

22 USGS 12501-PC

23 Xestotrema pulchrum (Meek)

24 USGS 19860-PC

25 Xestotrema pulchrum (Meek)

1 Horseshoe Canyon (section 1339, Cheney and others,
2 1953, U.S.G.S. Circ. 306, p. 22-24) sec. 36, T. 3 N.,
3 R. 20 E., Daggett Co.

4 USGS 12270-PC

5 Thamnosia?

6 USGS 12275-PC

7 Orbiculoidea sp.

8 USGS 12282-PC

9 Orbiculoidea sp.

10 USGS 12286-PC

11 Orbiculoidea sp.

12 USGS 19403-PC

13 Derbyia sp.

14 Thamnosia?

15-- Laketown Canyon (section 1290, Cheney and others,
16 1953, U.S.G.S. Circ. 306, p. 5-6) sec. 32, T. 13 N.,
17 R. 6 E., Rich Co.

18 USGS 10959-PC

19 Orbiculoidea sp.

20 Terebratuloidea?

21 USGS 10960-PC

22 Orbiculoidea sp.

23 USGS 10963-PC

24 Orbiculoidea sp.

1 Mill Creek (section D, Yochelson, 1968, U.S.G.S.
2 Prof. Paper 313-D) sec. 36, T. 1 S., R. 1 E.,
3 Salt Lake Co.

4 USGS 17657-PC

5 Anidanthus eucharis (Girty)

6 "Cancrinella" cf. "C." phosphatica (Girty)

7 Composita sp.

8 Peniculauris cf. P. bassi (McKee)

9 Phrenophoria sp.

10 Rugatia n. sp.

11 USGS 19413-PC

12 Ctenalosia sp.

13 Rhynchopora sp.

14 Xestotrema pulchrum (Meek)

15 North Crawford (section 1292, Cheney and others, 1953,
16 U.S.G.S. Circ. 306, p. 7-10) NE 1/4 NE 1/4 sec. 32,
17 T. 12 N., R. 8 E., Rich Co.

18 USGS 10967-PC

19 Anidanthus cf. A. eucharis (Girty)

20 Lissochonetes sp.

21 USGS 10968-PC

22 Anidanthus cf. A. eucharis (Girty)

23 Composita?

24 Crurithyris?

USGS 10974-PC

Crurithyris arcuata (Girty)

USGS 10975-PC

Undulella sp.

USGS 10978-PC

Lissochonetes ostiolatus (Girty)

Undulella sp.

USGS 10982-PC

Orbiculoidea sp.

Right Fork Hobble Creek (section 1271, Smith and others,

1952, U.S.G.S. Circ. 211, p. 37-41) sec. 19,

T. 7 S., R. 5 E., Utah Co.

USGS 10654-PC

"Cancrinella"?

Composita parva Branson

Phrenophoria?

USGS 10656-PC

Undulella?

USGS 10662-PC

Lingula sp.

USGS 10663-PC

Lingula sp.

USGS 10696-PC

"Cancrinella" sp.

1 USGS 12623-PC

2 Composita sp.

3 Plectelasma?

4 Xestotrema pulchrum (Meek)

5 Upper Brazer Canyon (section 1228, Smith and others,
6 1952, U.S.G.S. Circ. 211, p. 21-24) sec. 30, T. 11 N.,
7 R. 8 E., Rich Co.

8 USGS 10755-PC

9 Lissochonetes ostiolatus (Girty)

10 USGS 10756-PC

11 Lissochonetes ostiolatus (Girty)

12 USGS 10757-PC

13 Lissochonetes ostiolatus (Girty)

14 USGS 10759-PC

15 Lingula sp.

16 Phrenophoria?

17 USGS 10766-PC

18 Leiorhynchoidea weeksi (Girty)

19 USGS 10767-PC

20 Leiorhynchoidea?

21 USGS 10768-PC

Undulella sp.

USGS 10771-PC

Crurithyris sp.

Orbiculoidea sp.

1 USGS 10773-PC

2 Orbiculoidea sp.

3 Undulella?

4 USGS 10774-PC

5 Undulella sp.

6 USGS 10775-PC

7 Leiorhynchoidea weeksi (Girty)

8 Undulella sp.

9 USGS 10776-PC

10 Orbiculoidea sp.

11 USGS 10777-PC

12 Orbiculoidea sp.

13 Wanrhodes Canyon (section 1270, Smith and others, 1952,

14 U.S.G.S. Circ. 211, p. 42-47) sec. 22, T. 8 S.,

15 R. 4 E., Utah Co.

16 USGS 10604-PC

17 Undulella sp.

18 USGS 10612-PC

19 Lingula?

20 USGS 10615-PC

21 Lingula sp.

22 USGS 10644-PC

23 Lingula sp.

24 USGS 10651-PC

25 Orbiculoidea sp.

1 Wolf Creek (section 1231, Smith and others, 1952,
2 U.S.G.S. Circ. 211, p. 25-26) NE 1/4 SE 1/4 sec. 20,
3 T. 1 N., R. 9 W., Wasatch Co.

4 USGS 10785-PC

5 Orbiculoidea sp.

6 USGS 10786-PC

7 Lingula sp.

8 Orbiculoidea sp.

9 USGS 10789-PC

10 Orbiculoidea sp.

11 USGS 19410-PC

12 Composita?

13 Orbiculoidea sp.

WYOMING

Bartlett Creek (section 1334, Sheldon and others, 1953,
U.S.G.S. Circ. 307, p. 30, Sheldon section 66)
sec. 23, T. 38 N., R. 111 W., Sublette Co.
USGS 12219-PC

Composita cf. C. mira Girty

Xestotrema pulchrum (Meek)

Basin Creek (section 1381, Sheldon and others, 1954,
U.S.G.S. Circ. 325, p. 15-18) sec. 12 and 13, T. 26 N.,
R. 117 $\frac{1}{2}$ W., Lincoln Co.
USGS 10032-PC

Cleiothyridina n. sp.

Composita parva Branson

Neospirifer striatoparadoxus (Toula)

Sphenalosisa smedleyi Muir-Wood and Cooper

USGS 10148-PC

Arctitreta sp.

Bathymyonia?

"Canocrinella" phosphatica (Girty)

Cleiothyridina n. sp.

Composita cf. C. parva Branson

Neospirifer striatoparadoxus (Toula)

Quadrochonetes sp.

Sphenalosisa smedleyi Muir-Wood and Cooper

Strophalosisa n. sp.

1 USGS 10198-PC

2 Anidanthus sp.

3 Arctitreta?

4 Bathymyonia sp.

5 "Canocrinella" phosphatica (Girty)

6 Composita cf. C. parva Branson

7 "Dyoros" n. sp.

8 Neospirifer striatoparadoxus (Toula)

9 Sphenalosisa smedleyi Muir-Wood and Cooper

10 Strophalosisa n. sp.

11 Thamnosia?

12 USGS 10207-PC

13 Bathymyonia?

14 USGS 13308-PC

15 Bathymyonia sp.

16 Cleiothyridina n. sp.

17 Crurithyris arcuata (Girty)

18 Neospirifer striatoparadoxus (Toula)

19 Sphenalosisa smedleyi Muir-Wood and Cooper

20 Sphenosteges hispidus (Girty)

21 Strophalosisa n. sp.

22 USGS 18898-PC

23 Arctitreta sp.

24 "Canocrinella" sp.

25 Cleiothyridina n. sp.

1 Composita parva Branson

2 Neospirifer striatoparadoxus (Toula)

3 Sphenalosisa smedleyi Muir-Wood and Cooper

4 Buck Creek (section 1332, Sheldon and others, 1953,
5 U.S.G.S. Circ. 307, p. 24-25, Sheldon section 60) SW 1/4
6 SE 1/4 sec. 1, T. 38 N., R. 115 W., Teton Co.

7 USGS 12151-PC

8 Bathymyonia sp.

9 Derbyia sp.

10 Xestotrema sp.

11 Bull Lake (section 1328, Sheldon and others, 1953, U.S.G.S.
12 Circ. 307, p. 31-34, Sheldon section 82) sec. 6,
13 T. 2 N., R. 3 W., Fremont Co.

14 USGS 12256-PC

15 Xestotrema?

16 USGS 12258-PC

17 Bathymyonia sp.

18 Orbiculoidea sp.

19 USGS 12259-PC

20 Bathymyonia nevadensis (Meek)

21 "Echinauris" subhorrida (Meek)

22 Timaniella n. sp.

23 USGS 12261-PC

24 Bathymyonia nevadensis (Meek)

25 Dielasma sp.

1 "Echinauris" subhorrida (Meek)

2 Xestotrema pulchrum (Meek)

3 USGS 12262-PC

4 Bathymyonia nevadensis (Meek)

5 Xestotrema sp.

6 USGS 12263-PC

7 Bathymyonia nevadensis (Meek)

8 "Echinauris" subhorrida (Meek)

9 Rhynchopora sp.

10 Timaniella n. sp.

11 Yakovlevia multistriatus (Meek)

12 USGS 12264-PC

13 Bathymyonia nevadensis (Meek)

14 "Echinauris" sp.

15 USGS 12266-PC

16 Hustedia meekana (Shumard)

17 USGS 12267-PC

18 Sphenosteges?

19 Xestotrema?

20 USGS 12268-PC

21 Derbyia sp.

22 Dielasma phosphoriensis Branson

23 Xestotrema?

USGS 16176-PC

Bathymyonia n. sp. B

Bathymyonia nevadensis (Meek)

"Echinauris" subhorrida (Meek)

Sphenalosis?

Timaniella n. sp.

Xestotrema sp.

Yakovlevia multistriata (Meek)

USGS 16203-PC

Bathymyonia n. sp. B

Bathymyonia nevadensis (Meek)

Derbyia cf. D. sulca (Branson)

"Echinauris" subhorrida (Meek)

Quadrochonetes?

Timaniella n. sp.

Xestotrema pulchrum (Meek)

Yakovlevia multistriata (Meek)

USGS 19194-PC

Hustedia meekana (Shumard)

Paraspiniferina formulosa Cooper and Grant

USGS 19248-PC

Bathymyonia sp.

Derbyia cf. D. sulca (Branson)

Dyoros?

"Echinauris" subhorrida (Meek)

1 Phrenophoria?

2 Quadrochonetes sp.

3 Sphenalosisa?

4 Sphenosteges?

5 Timaniella n. sp.

6 Xestotrema pulchrum (Meek)

7 Yakovlevia multistriata (Meek)

8 USGS 19316-PC

9 Yakovlevia multistriata (Meek)

10 USGS 18601-PC

11 Bathymyonia nevadensis (Meek)

12 Composita sp.

13 "Echinauris" subhorrida (Meek)

14 Hustedia sp.

15 Phrenophoria sp.

16 Timaniella n. sp.

17 Xestotrema pulchrum (Meek)

18 Yakovlevia multistriata (Meek)

19 USGS 18602-PC

Composita sp.

20 Hustedia meekana (Shumard)

Xestotrema sp.

21 USGS 18603-PC

22 Bathymyonia nevadensis (Meek)

23 "Echinauris" subhorrida (Meek)

Yakovlevia multistriata (Meek)

Burroughs Creek (section 1329, Sheldon and others, 1953,
U.S.G.S. Circ. 307, p. 7-9, Sheldon section 68)
NE 1/4 sec. 14, T. 43 N., R. 107 W., Fremont Co.

USGS 12182-PC

Derbyia sp.

"Grandaurispina" sp.

Xestotrema sp.

USGS 12184-PC

Derbyia cf. D. sulca (Branson)

USGS 12185-PC

Timaniella n. sp.

USGS 12186-PC

"Echinauris" subhorrida (Meek)

Xestotrema pulchrum (Meek)

USGS 12187-PC

Bathymyonia sp.

Cenorhynchia?

"Echinauris" cf. "E." magna Cooper and Grant

Xestotrema sp.

USGS 12188-PC

Bathymyonia cf. B. nevadensis (Meek)

"Echinauris" subhorrida (Meek)

Sphenosteges?

Spiriferella?

1 Xestotrema?
2 USGS 12190-PC
3 Bathymyonia nevadensis (Meek)
4 Xestotrema?
5 USGS 12191-PC
6 Timaniella n. sp.
7 USGS 12194-PC
8 Bathymyonia nevadensis (Meek)
9 Derbyia cf. D. sulca (Branson)
10 USGS 12196-PC
11 Derbyia magna (Branson)
12 Hustedia meekana (Shumard)
13 USGS 12197-PC
14 Bathymyonia nevadensis (Meek)
15 Derbyia cf. D. magna (Branson)
16 Hustedia meekana (Shumard)
17 Xestotrema pulchrum (Meek)
18 USGS 12198-PC
19 Derbyia cf. D. magna (Branson)
20 Sphenosteges hispidus (Girty)
21 Xestotrema pulchrum (Meek)
22 USGS 12199-PC
23 Derbyia magna (Branson)
24 Xestotrema pulchrum (Meek)

1 USGS 12200-PC

2 Xestotrema pulchrum (Meek)

3 Coal Canyon (section 1201, McKelvey and others, 1953,

4 U.S.G.S. Circ. 210, p. 11-15) sec. 7, T. 26 N., R. 119 W.,

5 Lincoln Co.

6 USGS 9734-PC

7 Crurithyris?

8 Orbiculoidea sp.

9 USGS 9741-PC

10 Crurithyris arcuata (Girty)

11 Orbiculoidea sp.

12 Undulella sp.

13 USGS 9743-PC

14 Lingula sp.

15 USGS 10128-PC

16 Crurithyris arcuata (Girty)

17 Leiorhynchoidea cf. L. weeksi (Girty)

18 Lissochonetes?

19 Undulella sp.

20 USGS 10162-PC

21 Leiorhynchoidea nobilis (Girty)

22 Orbiculoidea sp.

23 USGS 10163-PC

24 Lissochonetes cf. L. ostiolatus (Girty)

25 Undulella sp.

1 USGS 10164-PC

2 Crurithyris arcuata (Girty)

3 Leiorhynchoidea nobilis (Girty)

4 Undulella sp.

5 USGS 10166-PC

6 Crurithyris arcuata (Girty)

7 Leiorhynchoidea nobilis (Girty)

8 USGS 18896-PC

9 Leiorhynchoidea sp.

10 Undulella sp.

11 Cokeville (section 1289, Sheldon and others, 1953, U.S.G.S.

12 Circ. 307, p. 41-45) NE 1/4 NW 1/4 sec. 4,

13 T. 24 N., R. 119 W., Lincoln Co.

14 USGS 10190-PC

15 "Canocrinella" phosphatica (Girty)

16 Lissochonetes ostiolatus (Girty)

17 Rhynchopora taylori Girty

18 USGS 10193-PC

19 Leiorhynchoidea?

20 Lingula sp.

21 Rhynchopora taylori Girty

22 USGS 10194-PC

23 Lingula sp.

24 USGS 10195-PC

25 "Canocrinella" phosphatica (Girty)

1 USGS 10199-PC

2 Undulella sp.

3 USGS 10200-PC

4 Leiorhynchoidea sp.

5 Lissochonetes ostiolatus (Girty)

6 USGS 10202-PC

7 "Cancrinella" phosphatica (Girty)

8 Lingula sp.

9 Rhynchopora taylori Girty

10 Undulella sp.

11 USGS 10926-PC

12 Orbiculoidea sp.

13 USGS 10927-PC

14 Crurithyris arcuata (Girty)

15 Leiorhynchoidea nobilis (Girty)

16 Undulella sp.

17 USGS 10929-PC

18 Crurithyris arcuata (Girty)

19 Undulella sp.

20 USGS 10933-PC

21 Crurithyris?

22 Leiorhynchoidea cf. L. nobilis (Girty)

23 USGS 10934-PC

24 Crurithyris?

25 Undulella sp.

1 USGS 10936-PC

2 Lissochonetes ostiolatus (Girty)

3 Orbiculoidea sp.

4 USGS 10937-PC

5 Undulella?

6 USGS 10940-PC

7 Orbiculoidea sp.

8 USGS 10942-PC

9 Lissochonetes cf. L. ostiolatus (Girty)

10- USGS 10945-PC

11 Crurithyris arcuata (Girty)

12 USGS 10946-PC

13 "Canocrinella" phosphatica (Girty)

14 Lingula sp.

15- Undulella?

16 USGS 10948-PC

17 Lissochonetes ostiolatus (Girty)

18 USGS 10951-PC

19 Lingula sp.

20- USGS 10952-PC

Lingula sp.

21 USGS 10954-PC

22 Anidanthus eucharis (Girty)

23 "Canocrinella" phosphatica (Girty)

24 Crurithyris?

1 Rhynchopora taylori Girty

2 USGS 12470-PC

3 Orbiculoidea sp.

4 USGS 12471-PC

5 Rhynchopora taylori Girty

6 Conant Creek (section 1330, Sheldon and others, 1953,

7 U.S.G.S. Circ. 307, p. 35-36, Sheldon section 124)

8 S 1/2 SE 1/4 sec. 31, T. 33 N., R. 93 W., Fremont Co.

9 USGS 12231-PC

10 Orbiculoidea sp.

11 Productid brachiopod

12 Xestotrema sp.

13 USGS 18818-PC

14 Orbiculoidea sp.

15 USGS 18819-PC

16 Bathymyonia nevadensis (Meek)

17 Ctenalosis transversa Cooper and Grant

18 Derbyia cf. D. magna (Branson)

19 Crystal Creek (section 1323, Cheney and others, 1954,

20 U.S.G.S. Circ. 324, p. 11-13, Sheldon section 44)

21 S 1/2 NW 1/4 sec. 34, T. 42 N., R. 113 W., Teton Co.

22 USGS 12118-PC

23 Derbyia cf. D. sulca (Branson)

24 Orbiculoidea sp.

1 USGS 12119-PC

2 Orbiculoidea sp.

3 USGS 12120-PC

4 "Cancrinella"?

5 Orbiculoidea sp.

6 USGS 12537-PC

7 "Cancrinella" cf. "C." phosphatica (Girty)

8 Orbiculoidea sp.

9 USGS 12541-PC

10 Composita?

11 USGS 12545-PC

12 Orbiculoidea sp.

13 Cumberland (section 1346, Cheney and others, 1954,

14 U.S.G.S. Circ. 324, p. 20-22, Sheldon section 147)

15 SW 1/4 NE 1/4 sec. 19, T. 19 N., R. 117 W., Lincoln Co.

16 USGS 12561-PC

17 Composita?

18 USGS 12566-PC

19 Anidanthus eucharis (Girty)

20 USGS 18889-PC

21 Leiorhynchoidea sp.

Deadline Ridge (section 1380, Sheldon and others, 1954,

U.S.G.S. Circ. 325, p. 8-10, Sheldon section 107)

sec. 7, T. 27 N., R. 114 W., Lincoln Co.

1 USGS 13347-PC

2 Bathymyonia sp.

3 Xestotrema?

4 Dinwoody Lakes (section 1325, Sheldon and others, 1953,
5 U.S.G.S. Circ. 307, p. 16-17, Sheldon section 75)
6 SW 1/4 SW 1/4 sec. 6, T. 4 N., R. 5 W., Fremont Co.

7 USGS 12152-PC

8 Composita sp.

9 Koslowskia sp.

10 Lissochonetes cf. L. ostiolatus (Girty)

11 Orbiculoidea sp.

12 Phrenophoria cf. P. uta (Marcou)

13 USGS 12153-PC

14 Composita sp.

15 Lissochonetes cf. L. ostiolatus (Girty)

16 USGS 12155-PC

17 "Canocrinella"?

18 USGS 12158-PC

19 Orbiculoidea sp.

20 USGS 12160-PC

21 Lingula sp.

22 USGS 12161-PC

23 Derbyia sp.

24 Xestotrema pulchrum (Meek)

1 USGS 12162-PC

2 Derbyia sulca (Branson)

3 Orbiculoidea sp.

4 Xestotrema pulchrum (Meek)

5 USGS 12164-PC

6 Bathymyonia sp.

7 "Echinauris" cf. "E." subhorrida (Meek)

8 Phrenophoria cf. P. n. sp.

9 Xestotrema pulchrum (Meek)

10- USGS 12165-PC

11 Bathymyonia nevadensis (Meek)

12 "Echinauris" subhorrida (Meek)

13 Sphenosteges?

14 Xestotrema pulchrum (Meek)

15- USGS 12166-PC

16 Bathymyonia nevadensis (Meek)

17 USGS 12171-PC

18 Hustedia cf. H. meekana (Shumard)

19 USGS 12173-PC

20 Bathymyonia nevadensis (Meek)

21 Derbyia sp.

22 Hustedia meekana (Shumard)

23 Xestotrema pulchrum (Meek)

1 USGS 12174-PC

2 Composita cf. C. parva Branson

3 Dielasma sp.

4 USGS 12175-PC

5 Sphenosteges hispidus (Girty)

6 Xestotrema pulchrum (Meek)

7 USGS 12176-PC

8 Composita sp.

9 Xestotrema pulchrum (Meek)

10 USGS 12177-PC

11 Derbyia cf. D. magna (Branson)

12 USGS 12178-PC

13 Derbyia magna (Branson)

14 Sphenosteges hispidus (Girty)

15 Xestotrema pulchrum (Meek)

16 Flat Creek (section 1335, Sheldon and others, 1953,

17 U.S.G.S. Circ. 307, p. 13-15, Sheldon section 50) sec. 1,

18 T. 41 N., R. 115 W., Teton Co.

19 USGS 12223-PC

20 Bathymyonia sp.

21 Xestotrema?

22 USGS 12226-PC

23 Rhynchopora cf. R. taylori Girty

1 Gros Ventre Slide (section 1326, Sheldon and others,
2 1953, U.S.G.S. Circ. 307, p. 10-12, Sheldon section 42)
3 SE 1/4 sec. 5, T. 42 N., R. 114 W., Teton Co.

4 USGS 12131-PC

5 "Cancrinella" cf. "C." phosphatica (Girty)

6 Xestotrema?

7 Hoback (section 1324, Sheldon and others, 1953, U.S.G.S.
8 Circ. 307, p. 21-23, Sheldon section 57) SW 1/4
9 NE 1/4 sec. 33, T. 39 N., R. 117 W., Teton Co.

10 USGS 12137-PC

11 Orbiculoidea sp.

12 USGS 12143-PC

13 Derbyia sp.

14 USGS 12622-PC

15 Bathymyonia sp.

16 Xestotrema pulchrum (Meek)

17 Hungry Creek (section 1375, Cheney and others, 1954,
18 U.S.G.S. Circ. 324, p. 9-10, Sheldon section 47)
19 sec. 9, T. 41 N., R. 118 W., Teton Co.

20 USGS 12664-PC

21 Derbyia sp.

22 Orbiculoidea sp.

23 Xestotrema?

24 USGS 12665-PC

25 Orbiculoidea sp.

1 USGS 12666-PC

2 Orbiculoidea sp.

3 Layland Canyon (section 1202, McKelvey and others, 1953,

4 U.S.G.S. Circ. 210, p. 508) sec. 30, T. 27 N.,

5 R. 119 W., Lincoln Co.

6 USGS 9755-PC

7 Leiorhynchoidea nobilis (Girty)

8 Leiorhynchoidea cf. L. weeksi (Girty)

9 Undulella sp.

10 USGS 9757-PC

11 Orbiculoidea sp.

12 USGS 9758-PC

13 Crurithyris arcuata (Girty)

14 Leiorhynchoidea cf. L. weeksi (Girty)

15 Undulella sp.

16 Middle Fork of Pine Creek (section 1205, McKelvey and

17 others, 1953, U.S.G.S. Circ. 210, p. 28-31) sec. 35,

18 T. 25 N., R. 118 W., Lincoln Co.

19 USGS 9713-PC

20 Crurithyris?

21 USGS 9723-PC

22 "Echinauris" cf. "E." magna Cooper and Grant

23 "Grandaurispina"?

24 Liosotella sp.

25 Xestotrema pulchrum (Meek)

1 USGS 9726-PC

2 Bathymyonia sp.

3 USGS 9725-PC

4 Bathymyonia cf. B. nevadensis (Meek)

5 Composita parva Branson

6 USGS 9729A-PC

7 Composita?

8 USGS 9732-PC

9 Xestotrema?

10 USGS 9735-PC

11 Xestotrema?

12 USGS 9739-PC

13 Bathymyonia sp.

14 North Fork Pine Creek (section 1204, McKelvey and others,

15 1953, U.S.G.S. Circ. 210, p. 24-26) sec. 13, T. 25 N.,

16 R. 118 W., Lincoln Co.

17 USGS 9715-PC

18 Crurithyris arcuata (Girty)

19 USGS 9718-PC

Orbiculoidea sp.

20 USGS 9719-PC

"Canocrinella"?

Sphenalosis smedleyi Muir-Wood and Cooper

21 USGS 9750-PC

"Canocrinella" phosphatica (Girty)

1 Orbiculoidea sp.

2 USGS 9753-PC

3 "Cancrinella" phosphatica (Girty)

4 South Fork of Gypsum Creek (section 1336, Sheldon and
5 others, 1953, U.S.G.S. Circ. 307, p. 26-29, Sheldon
6 section 79) NW 1/4 sec. 22, T. 38 N., R. 109 W.,
7 Sublette Co.

8 USGS 12236-PC

9 Xestotrema pulchrum (Meek)

10 USGS 12238-PC

11 Bathymyonia sp.

12 Derbyia sp.

13 Xestotrema pulchrum (Meek)

14 USGS 12240-PC

15 Orbiculoidea sp.

16 Xestotrema pulchrum (Meek)

17 USGS 12241-PC

18 Derbyia sp.

19 Xestotrema pulchrum (Meek)

20 USGS 12242-PC

21 Derbyia sp.

22 Orbiculoidea sp.

23 Steer Creek (section 1352, Cheney and others, 1954,
24 U.S.G.S. Circ. 324, p. 17-19, Sheldon section 67) sec. 9,
25 T. 36 N., R. 116 W., Lincoln Co.

1 USGS 12645-PC

2 Bathymyonia nevadensis (Meek)

3 Derbyia sp.

4 Xestotrema pulchrum (Meek)

5 USGS 12646-PC

6 Xestotrema?

7 USGS 12647-PC

8 Hustedia sp.

9 Phrenophoria sp.

10 Quadrochonetes sp.

11 USGS 12648-PC

12 "Echinauris" sp.

13 USGS 12649-PC

14 Phrenophoria sp.

15 Quadrochonetes sp.

16 Tosi Creek (section 1333, Sheldon and others, 1953,

17 U.S.G.S. Circ. 307, p. 18-20, Sheldon section 56) sec. 24,

18 T. 39 N., R. 111 W., Sublette Co.

19 USGS 12204-PC

20 Orbiculoidea sp.

21 USGS 12207-PC

22 Derbyia sp.

23 USGS 12213-PC

24 Composita cf. C. parva Branson

25 Paraspiriferina formulosa Cooper and Grant

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Sphenalosis smedleyi Muir-Wood and Cooper

USGS 18592-PC

Composita parva Branson

Paraspiniferina formulosa Cooper and Grant

Wheat Creek (section 1378, Sheldon and others, 1954,

U.S.G.S. Circ. 325, p. 20-22, Sheldon section 110)

sec. 4, T. 23 N., R. 116 W., Lincoln Co.

USGS 13319-PC

Composita sp.

USGS 13324-PC

Orbiculoidea sp.

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