

(200)
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PLEASE REPLACE IN POCKET
IN BACK OF BOUND VOLUME

- 1) Deep-water, low-temperature forms Nonion pomplilloides and Pullenia bulloides also present. These two species ignored in drawing depth and temperature ranges because of occurrence with 18 other species with common depth around 3000 feet, and common temperature around 5° C.
- 2) Because temperature data insufficient, ranges not plotted for two species:
 - a) Epistominella hradjana: given with limited depth and hence limited temperature in Natland's (1933) chart; much larger depth range in Butcher's (1951) chart, but no temperature given.
 - b) Virgulina nodosa: only data from Crouch: "Common offshore in water temperatures below 4° C."
- 3) Cyclammina cancellata plotted on both D and E. However, information insufficient for use in drawing maximum and minimum lines.

Temperature

Depth

SAMPLE

Butcher	(1951)
Coronado	
Bank	
Depth	

1 Eponides callidus Cushman & Cole
 2 Epistominella pacifica Cushman
 3 Nonion soaplum (Fichtel & Moll)
 4 Cibicides mckennai Galloway & Wissler
 5 Epistominella subperuviana Cushman
 6 Globigerina spp.
 7 Gaudryina arenaria Galloway & Wissler
 8 Buliminella elegantissima (d'Orbigny)
 9 Nonion incisum Cushman
 10 Cibicides basiliobus (Cushman)
 11 Rotalia avalonensis Natland
 12 Textularia spp.
 13 Lagena spp.
 14 Bolivina imbricata Cushman
 15 Pullenia multilobata Chapman
 16 Cassidulina limbata Cushman & Hughes
 17 Angulogerina angulosa Williamson
 18 Uvigerina cf. U. hootsi Rankin
 19 Pullenia bulioides d'Orbigny
 20 Nonionella miocenica var. stella Cushman & Noyes
 21 Uvigerina cf. U. hispido-costata Cushman & Noyes
 22 Bulimina denudata Cushman & Parker
 23 Virgulina cf. V. californiensis Cushman
 24 Nonion pompilioides (Fichtel & Moll)
 25 Fissurina spp.
 26 Buliminella curta Cushman
 27 Virgulina nodosa R. E. & K. C. Stewart
 28 Cassidulina cushmani R. E. & K. C. Stewart
 29 Quinqueloculina spp.
 30 Uvigerina peregrina Cushman
 31 Cibicides mckennai Galloway & Wissler var.
 32 Sigmollina spp.
 33 Globobulimina spp.
 34 Cassidulina translucens Cushman & Hughes
 35 Cyclammina cancellata H. B. Brady
 36 Cassidulina quadrata Cushman & Hughes
 37 Bolivina spissa Cushman
 38 Cassidulina californica Cushman & Hughes
 39 Polymorphina spp.
 40 Dentalina communis (d'Orbigny)
 41 Siphotextularia spp.
 42 Nodogenerina lepidula (Schwager)
 43 Orbulina universa d'Orbigny
 44 Reophax spp.
 45 Uvigerina hispida Schwager
 46 Planulina armenensis d'Orbigny
 47 Haplophragmoides spp.
 48 Bolivina pisciformis Galloway & Morrey
 49 Bathysiphon spp.
 50 Nodogenerina advena Cushman & Laiming
 51 Bolivina sinuata Galloway & Wissler
 52 Planulina ornata (d'Orbigny)
 53 Bolivina argentea Cushman
 54 Angulogerina carinata Cushman
 55 Trochammina spp.
 56 Frondicularia advena Cushman
 57 Nonionella globosa Ishiwada
 58 Bolivina interjuncta Cushman
 59 Bulimina subacuminata Cushman & R. E. Stewart
 60 Buliminella subfusiformis Cushman
 61 Virgulina cornuta Cushman
 62 Epistominella bradyana Cushman
 63 Epistominella smithi R. E. & K. C. Stewart
 64 Karreriella milleri Natland
 65 Bulimina pagoda Cushman
 66 Gyroidina rotundimargo R. E. & K. C. Stewart
 67 Eponides tenerus (H. B. Brady)
 68 Pullenia malkinae Coryell & Mossman
 69 Valvulineria araucana (d'Orbigny)
 70 Bulimina rostrata H. B. Brady
 71 Robulus cushmani (Galloway & Wissler)
 72 Verneulina spp.
 73 Saccammina spp.
 74 Cheilostomella ovoidea Reuss
 75 Bolivina pseudobeyrichi Cushman
 76 Robulus americanus var. spinosus (Cushman)
 77 Eponides umbonatus (Reuss)
 78 Robulus cultratus Montfort
 79 Cheilostomella grandis Cushman
 80 Cassidulina delicata Cushman
 81 Bolivina eseminada Cushman
 82 Bulimina ovula d'Orbigny
 83 Nonionella pauciloba Cushman
 84 Nonionella pulchella Hada
 85 Bolivina advena var. striatella Cushman
 86 Bolivina subadvena Cushman
 87 Bolivina marginata var. gracillima Cushman
 88 Gyroidina soldanii d'Orbigny
 Species occurring in Towsley Canyon Section
 but not in Pico Canyon Section.
 89 Rotalia peruviana Ehrenberg
 90 Bolivinita angelina Church
 91 Discoorbis spp.
 92 Globorotalia spp.
 93 Eponides mansfieldi Cushman
 94 Cibicides fletcheri Galloway & Wissler
 95 Bolivina advena Cushman
 96 Suggunda spp.
 97 Vaginulina spp.
 98 Nonion cf. N. depressulum (Walker & Jacob)
 99 Anomalina spp.

[illegible]

3-33
5-11
3-33
3-27
3-24
6-33
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6-32
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9-30
5-24
6-33
4-28
10-33
4-30
3-12
3-15

Species occurring in Gavin Canyon Section but
not in Pico Canyon or Towsley Canyon Sections.

00 *Eponides* cf. *E. peruviana* (d'Orbigny)
01 *Ehrenbergina bradyana* Cushman

Species occurring in Hekter-Del Valle Section
but not in Pico Canyon, Towsley Canyon, Gavin
Canyon or Weldon-Gavin Divide Sections.

02 *Pullenia* cf. *P. pedroana* Kleinpell

$4^{\circ}-1.7^{\circ}$

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