

# A NEW GULF OF CALIFORNIA *PERIPLOMA*

MARK E. ROGERS

Loma Linda, California

## INTRODUCTION

Among the many interesting and unusual mollusks taken by the "Ariel" Expedition, August 28 through September 2, 1960, was a new member of the genus *Periploma*. This new species is of especial interest as it represents the second member of the subgenus *Halistrepta*, Dall 1904, and the first of that taxon to be recorded from the Gulf of California. It may be known as:

### ***Periploma (Halistrepta) myrae*, NEW SPECIES**

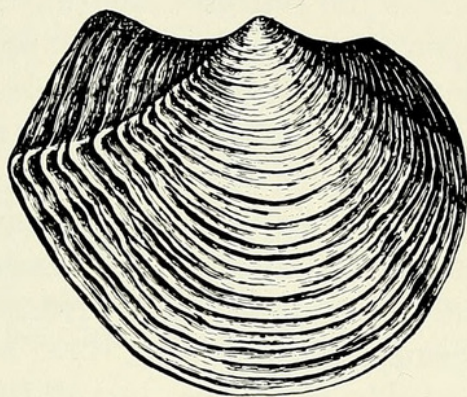


Figure 1. *Periploma (Halistrepta) myrae*, new species. Exterior view of right valve of holotype, x2.

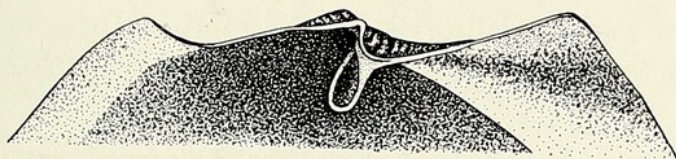


Figure 2. *Periploma (Halistrepta) myrae* new species. Hinge area of right valve of holotype, x3.

*Description:* Shell rotund, with a concave dorsal margin both anterior and posterior to the beaks, so thin as to be fragile, white, the left valve flatter than the right. The right valve is ornamented by somewhat discontinuous undulant sculpture. Left valve less coarsely sculptured, the undulations seemingly more continuous, though discontinuity does exist. Surface of shell smooth. Under high magnification the texture of the shell appears granular. The anterior and ventral margins are



broadly rounded; three minute lines extend anteriorly from the beaks but are visible only with difficulty (slightly overemphasized in Fig. 1). These lines are apparently very shallow furrows, and are shown as such in Figure 1, but this could not be determined with certainty. Posterior margin abruptly truncated, producing a broad, short rostrum. This rostrum is set off by a low rib, which extends diagonally from the beak, formed by the folding of the concentric undulations. This rib forms the boundary between the posterior and ventral margins. The rostrum is ornamented by faint continuations of the concentric undulations and by fine growth lines. Interior subnacreous. Posterior muscle-scar quite large, wedge-shaped, very faint. Anterior muscle-scar and pallial line obscure. The pallial sinus broadly wedge-shaped, with the anterior end rounded. Resilifer small, narrowly spoon-shaped, nearly vertical. A dull area bordered by a more polished narrow margin indicates the resilium attachment. A short, narrow clavicular prop supports the resilifers. The props extend diagonally and posteriorly, fading out along the anterior-dorsal edge of the posterior muscle-scar. It is possible that this prop serves more as a muscle attachment than as a support for the resilifer.

*Holotype*: To be deposited in the Stanford Univ. Paleo. Type Coll., number 9499. Length, 20.2 mm., altitude 16.4 mm. The holotype was broken subsequent to collecting and is represented by the repaired right valve and fragments of the left valve.

*Type locality*: Trawled in 15-25 fms., just off Loreto, in the channel between Loreto and Carmen Id., Baja California, Mexico. 29 August 1960. "Ariel" Expedition.

*Commentary*: In 1904 Dall described the very rare *Periploma sulcata*, from San Pedro, California, and established the sectional name *Halistrepta* for it. In both 1908 and 1915 he used *Halistrepta* in a subgeneric sense, which rank it is accorded here.

The discontinuous, undulant sculpture and prominent rostrum place *Periploma myrae* in this subgenus. It is very unfortunate that the lithodesma was not present for comparison.

While *Periploma myrae* is related to *P. sulcata* it may be distinguished at a glance by the truncated posterior end, by the doubly concave dorsal margin, prominent rostrum, and three faint furrows rather than a single furrow extending toward the anterior end. The clavicular prop is also less heavily developed and the resilifer is vertical rather than extending forward.

*Periploma myrae* resembles *P. discus* Stearns, 1890 in general shape,



but that form lacks the undulant sculpture in the adult form. The prominently truncated posterior and rostrum are also not present on *P. discus*. Young specimens of *P. discus* occasionally have undulant interior sculpture (as shown by a specimen in the Burch coll. from off Redondo Beach, California) which disappears as the shell grows older.

This beautiful new form is dedicated to Dr. A. Myra Keen of Stanford University in grateful appreciation of her many contributions to malacology and paleontology.

#### ACKNOWLEDGEMENTS

I wish to express my thanks for much assistance to Mr. and Mrs. E. P. Chase of the San Diego Museum of Natural History, to Dr. A. Myra Keen, to Mr. and Mrs. J. Q. Burch and to Dr. S. Stillman Berry for his help and guidance.

The excellent hand drawings are by Dr. Bruce Campbell.

#### REFERENCES CONSULTED

DALL, WILLIAM HEALEY

1904. A new species of *Periploma* from California. *The Nautilus*, 17(11):122-123.

1908. Reports on the dredging operations off the west coast of Central America to the Galapagos, to the west coast of Mexico, and in the Gulf of California. XIV. The Mollusca and Brachiopoda. *Bull. Mus. Comp. Zool.*, Harvard, 43(6):205-487, pls. 1-22.

1915. A review of some bivalve shells of the group Anatinacea from the West Coast of America. *Proc. U.S. Natl. Mus.*, 49(2116):441-456.

1921. Summary of marine shellbearing mollusks of the northwest coast of America. *Bull. U.S. Natl. Mus.*, no. 112, 217 pp., 22 pls.

GRANT, U.S., IV, AND H. R. GALE

1931. Catalogue of the marine Pliocene and Pleistocene Mollusca of California and adjacent regions. *Mem. San Diego Soc. Nat. Hist.*, 1:1-1036, 15 figs., pls. 1-32.

KEEN, A. MYRA

1937. *An abridged check list and bibliography of west North American marine Mollusca*. Stanford University, Calif. 84 pp.

1958. *Sea shells of tropical west America*. Stanford University, Calif. 624 pp., illus.

OLDROYD, IDA S.

1924. The marine shells of the west coast of North America. *Stanford Univ. Pubs., Univ. ser., Geol. Sci.*, (1):1-247, 57 pls.

OLSSON, AXEL A.

1961. *Mollusks of the tropical eastern Pacific. Panamic-Pacific pelecypoda*. Ithaca, N.Y., Paleo. Research Institution, 574 pp., 86 pls.



1962. "A new Gulf of California Periploma." *Bulletin of the Southern California Academy of Sciences* 61, 229–231.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/106499>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/42075>

**Holding Institution**

New York Botanical Garden, LuEsther T. Mertz Library

**Sponsored by**

The LuEsther T Mertz Library, the New York Botanical Garden

**Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the rights holder.

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.