A NEW SPECIES OF *NEADMETE* (NEOGASTROPODA) 
FROM THE PLIOCENE OF CALIFORNIA

*By Jack D. Mount*
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VIRGINIA D. MILLER
Editor
A NEW SPECIES OF _Neadmete_ (Neo gastropoda)  
FROM THE PLIOCENE OF CALIFORNIA  

By Jack D. Mount

**Abstract:** _Neadmete schwartzi_, a new species of gastropod belonging to the family Cancellariidae, is described from the Upper Pliocene Fernando Formation near Newport Bay, Orange County, California.

**Introduction**

During February, 1967, earth moving equipment on the east bluff of upper Newport Bay, Orange County, California, uncovered a highly fossiliferous portion of the lower part of the Fernando Formation. This locality remained exposed until August of the same year when further construction destroyed it. Between these months extensive collecting at the exposure by me and my associates yielded an interesting fauna of over 200 species of larger invertebrates characterized by _Nuculana fossa_ (Baird, 1863), _Patinopecten healeyi_ (Arnold, 1906), _Pecten hemphilli_ Dall, 1879, _Glycymeris growingki_ Dall, 1909, _Exidoidea rectirostris hertleini_ Bentson, 1940, _Neptunea tabulata colmaensis_ (Martin, 1914), _Boreotrophon raymondi_ (Moody, 1916) and _Mya truncata_ Linné, 1758. This assemblage suggests a Late Pliocene age based on a two-fold division of the Pliocene of California (Vedder, 1960).

While studying the material several new species of mollusks were noted. One of these belongs to the genus _Neadmete_ Habe, 1961, which was only recently recognized in the west American fauna (Kanakoff and McLean, 1966). This new species is described herein.

References to the Los Angeles County Museum of Natural History, Section of Invertebrate Paleontology are hereafter abbreviated as LACMIP.

**Acknowledgments**

I am grateful for the assistance of the following persons. Dr. Robert F. Meade, California State College at Los Angeles, and Dr. James H. McLean, Los Angeles County Museum of Natural History, gave helpful advice and critically reviewed the manuscript. Mr. Jack Schwartz, Mr. Boris Savic and Mr. and Mrs. F. L. Grouard aided in collecting the type material. Photographs are by Mr. Louis W. Kundrath and Mr. James W. Shuttleworth of Kundrath Studio of Photography, Baldwin Park, California.

*Department of Geology, California State College, Los Angeles, 90032.*
Figure 1. *Neadmote schwartzii*, new species. Holotype, LACMIP 1779. Height 35.6, diam. 16.9 mm.
A New Species of Neadmate

Systematic Description

Family Cancellariidae Gray, 1853
Genus Neadmate Habe, 1961
Neadmate schwartzii new species

Figure 1

Diagnosis: Shell relatively large; whorls 8, evenly convex, weakly tabulate; 16 spiral ribs on body whorl; outer lip reflected.

Description: Shell relatively large for genus, long, slender, fusiform; spire elevated. Whorls 8, moderately inflated, evenly convex, weakly tabulate on early whorls becoming obsolete on penultimate and body whorls. Nucleus simple, smooth, whorls 2. Axial sculpture of approximately 16 low, rounded ribs, becoming obsolete on last four whorls. Spiral sculpture of low, narrow, rounded ribs, 3 on postnuclear whorls and 16 on body whorl; with single smaller rib intercalated between major ribs on the apical whorls and the first nine ribs of the body whorl; interspaces slightly wider than ribs. Sutures moderately impressed. Aperture subelliptical, approximately one half the height of the shell; outer lip smooth, thin, slightly reflected, with 15 internal spiral lines; canal short and shallow. Columella long, straight, with two folds and eight plicae formed by extension of primary spiral ribbing.

Type Material: Holotype, LACMIP 1779. Four paratypes: LACMIP 1780; California Academy of Sciences (CAS), Department of Geology type collection 13203; University of California at Los Angeles (UCLA), Department of Geology type collection 47313; and collection of Jack D. Mount (JDM) 106. Measurements for the type specimens are listed in Table 1.

Type Locality: LACMIP locality 471; 33° 38' 21" N, 117° 53' 02" W; in a 6 foot thick lens of sandy cobble conglomerate which occurs approximately 425 feet stratigraphically above the base of the formation. At the present time it is located under the residence at 2161 Vista Entrada, Newport Beach, California.

Age and Formation: Late Pliocene, Fernando Formation.

Discussion: Neadmate schwartzii is nearest to the Recent N. circumcincta (Dall, 1873:59) but differs from that species principally in the larger size, more evenly convex, less tabulate whorls, more spiral ribs and in the presence of the reflected outer lip. N. circumcincta is recorded from Alaska, with a specimen in the Los Angeles County Museum of Natural History from Hope Island, off the northern end of Vancouver Island, British Columbia. N. sutherlandi Kanakoff and McLean, (1966:4) from the Lomita Marl (Plio-Pleistocene) of Los Angeles County, California, is the only other fossil species of Neadmate and it is readily distinguished from N. schwartzii by its larger size, more pronounced tabulation, and smaller number of spiral ribs.

Etymology: This new species is named for Mr. Jack Schwartz, who
collected the holotype, in recognition of his contributions to the mineralogy of California.

**Table 1.**

Measurements (in mm) of the type specimens of *Neadmete schwartzi*, new species.

<table>
<thead>
<tr>
<th>Specimen no.</th>
<th>Height</th>
<th>Diameter</th>
<th>Height of Aperture</th>
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<td>JDM 106</td>
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**Literature Cited**


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