



The genus *Pelycidion* P. Fischer *in de Folin & Périer, 1873* (Caenogastropoda: Pickworthiidae: Pelycidiinae) in the northeast Pacific Ocean

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Abstract

As part of a memorial volume honouring the late malacologist James H. McLean and covering elements of the molluscan fauna of the northeast Pacific Ocean, we here provide an overview of the species *Pelycidion kelseyi* (Bartsch, 1911). This is the only known member of the subfamily Pelycidiinae occurring in this area.

Keywords: Micromollusca, biogeography

Introduction

The late James H. McLean, former Curator of Malacology at the Natural History Museum of Los Angeles County, California, made many contributions to regional and global malacology. A comprehensive guide to the Mollusca of the north-eastern Pacific coastline of North America was a project which he commenced but unfortunately did not complete. This paper, forming part of a memorial volume to him, which overviews elements of this fauna, looks at the subfamily Pelycidiinae Ponder & Hall, 1983 and its only member known from the region, the species *Pelycidion kelseyi* (Bartsch, 1911).

Materials and methods

This paper is based on a literature review. Images of specimens from the Santa Barbara Museum of Natural History, California, are provided courtesy of Daniel Geiger, Lindsey Groves and Jann Vendetti (see also Acknowledgements).

Systematics

Subclass Caenogastropoda Cox, 1960

Superfamily Cerithioidea Fleming, 1922

Family Pickworthiidae Iredale, 1917

Remarks. There has been uncertainty on the family placement of *Pelycidion* P. Fischer *in de Folin & Périer, 1873* [see discussion in Stephens & Vafiadis (2013)] but recent phylogenetic analysis suggested a close affinity with the pickworthiid genus *Microliotia* Boettger, 1902, with these genera belonging to the superfamily Cerithioidea Fleming, 1922 (Takano & Kano 2014). This approach was followed by Haga & Hasegawa (2017) and Bouchet et al. (2017).

Subfamily Pelycidiinae Ponder & Hall, 1983

Pelycidiidae Ponder & Hall, 1983: 30, 32.

Type genus. *Pelycidion* P. Fischer in de Folin & Périer, 1873: 182–183.

Diagnosis. Shell minute, less than 2.0 mm, elongate-pupoid; protoconch blunt, up to three whorls, smooth or sculptured; teleoconch straight or slightly curved, smooth or spirally sculptured; aperture ovate, peristome complete, no umbilicus; corneous operculum with central nucleus.

Remarks. *Pelycidion* are mainly found as empty shells in lower littoral or sublittoral sediment.

Pelycidion P. Fischer in de Folin & Périer, 1873

Pelycidion P. Fischer in de Folin & Périer, 1873: 182–183.

Allixia Cossmann, 1913: 141. Type species (by original designation): *Allixia acicularis* Cossmann, 1913. France.

Nannoteretispira Habe, 1961: 271–274. Type species (by monotypy): *Nannoteretispira japonica* Habe, 1961. Japan.

Type species. (By monotypy): *Pelycidion venustum* P. Fischer in de Folin & Périer, 1873. West Africa.

Diagnosis. As per sub-family.

Remarks. Detailed discussion on ambiguities relating to ascertaining the type locality is provided in Stephens & Vafiadis (2013).

Pelycidion kelseyi (Bartsch, 1911)

(Figure 1A–D)

Nodulus kelseyi Bartsch, 1911: 290–291, fig. 3. Holotype USNM 111369. Coronado Island, San Diego, California (Fig. 1A).

Diagnosis. Shell to 1.9 mm in length, elongate, white, axis straight, somewhat cylindrical. Sculpture microscopic. Protoconch whorls two, microsculpture uncertain - smooth (but possibly worn: Fig. 1D); but with faint threads as per Ponder & Hall, 1983: 33, fig. C&D (if their species, identified as *Pelycidion* cf. *kelseyi*, is conspecific). Teleoconch whorls four, with fine spiral rows of close-set punctae, occasional axial growth lines. Aperture complete, subcircular, projecting beyond shell axis.

Distribution. Palos Verdes Peninsula, California, to Nayarit, Mexico (Keen 1971, McLean 1978); presence in the Gulf of California unclear. Lower littoral to shallow subtidal. Uncommon.

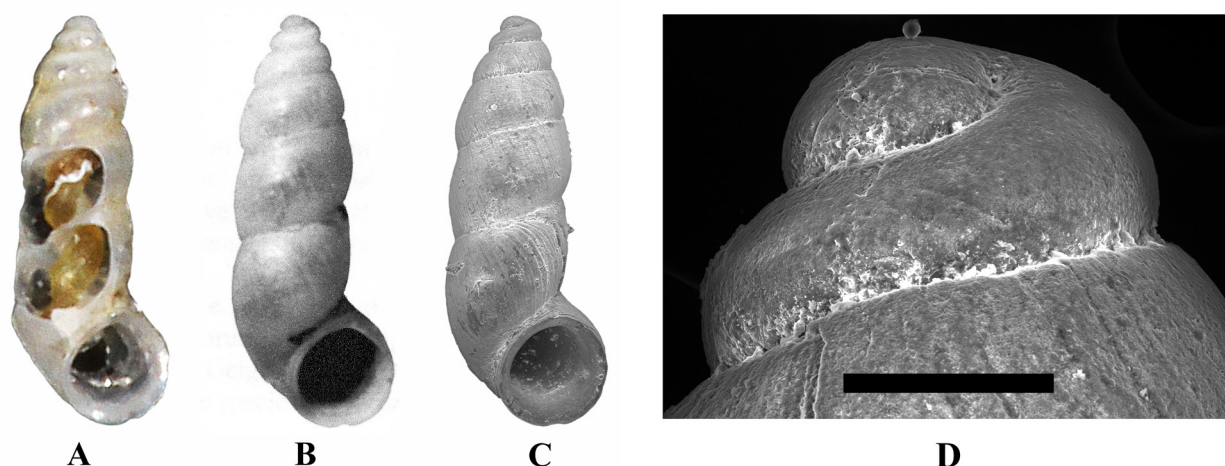


FIGURE 1. *Pelycidion kelseyi* (Bartsch, 1911). **A.** Holotype, USNM 111369, 1.9 mm. **B** (photograph), **C, D** (SEM images). 6 m from a kelp holdfast, Paradise Cove, Los Angeles County, California, 33.7333°N, 118.3667°W, collector Tom Bergner, 21 September, 1972, LACM 1972-205, 1.7 mm. (Scale bar 0.1 mm).

Conclusions

Pelycidion kelseyi is currently the only known *Pelycidion* from the north-east Pacific. The minute size of these shells, however, makes them easy to overlook. Future studies may see further clarification of the range of this species and also possible additions to the genus from this region.

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