



## *Cimaria vargasi* n. gen, n. sp. (Gastropoda: Pyramidellidae: Odostomiinae) from the Pacific Coast of Costa Rica, Central America

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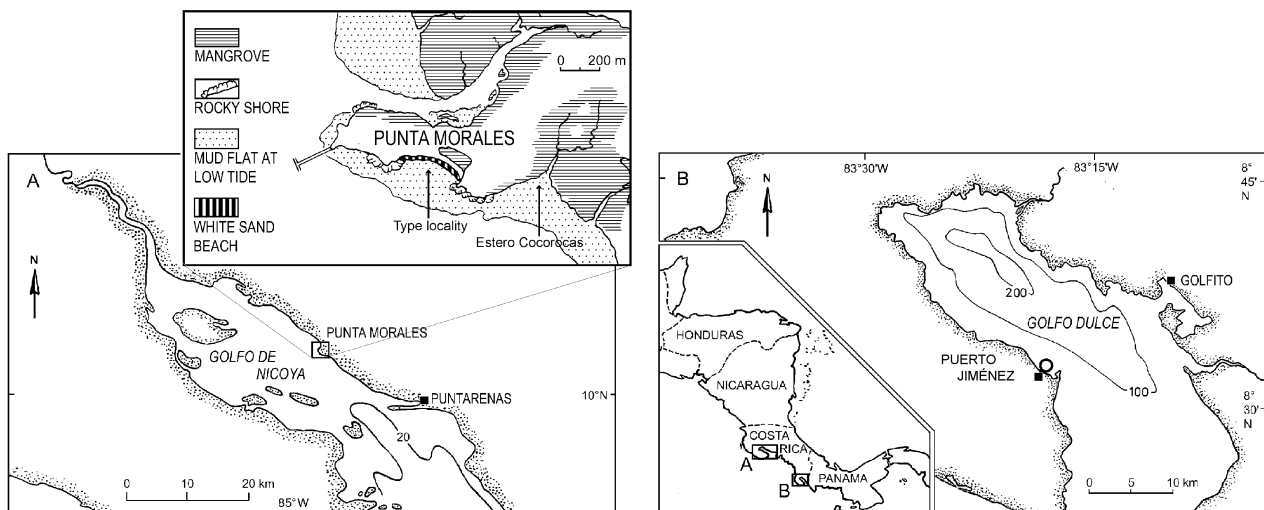
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The Panamic biogeographic province has long been thought to harbour a rich pyramidellid fauna. In the compilation of Keen (1971) the family is second only to the Turridae in being the most speciose gastropod family in the region, and no less than 350 species are listed. However a number of these have later been recognized to be synonyms, and in the update of the compilation by Skoglund (2002) the number of pyramidellids was reduced to 258.

Most of the species described from this region belong to the species-rich, and ill-defined 'genera' *Chrysallida* Carpenter, 1856 and *Turbonilla* Risso, 1826, although a number of more distinctive species are found as well, such as members of *Ivara* Dall & Bartsch, 1903, *Ividella* Dall & Bartsch, 1909, and *Salassiella* Dall & Bartsch, 1909. The fact remains that the taxonomy of the group is still in a chaotic state, and unless a thorough regional revision is done, it is hazardous to describe new species within the most species-rich 'genera'.

During the 1970ties and 1980ties, the superfamily Pyramidelloidea had been enriched with a number of species with shell morphologies rather unlike the classical *Turbonilla*-, *Chrysallida*-, *Eulimella*- and *Odostomia*-archetypes. Examples are *Rissopsetia* Dell, 1956 (Ponder 1974), *Pseudoskenella* Ponder, 1973 (Ponder 1973), *Amathina* J.E. Gray, 1842 (Ponder 1987), and *Cyclostremella* Bush, 1897 (Robertson 1973). In a substrate sample from an intertidal mudflat close to the Marine Science Station (Estación Marino Costera, ECMAR) at Punta Morales in the Golfo de Nicoya, Costa Rica, yet another distinctive-looking pyramidellid was found. As no records of a similar-looking pyramidellid could be found, this gastropod is here described as a new genus and species.

The type locality is on the eastern shore of the mid upper Golfo de Nicoya, a large, shallow estuarine embayment on the Pacific coast of Costa Rica (Fig. 1A, Vargas 1987). The sampling took place on a mud flat immediately south of Punta Morales, where ECMAR is located. The salinity of the water masses varies seasonally between 27 and 32 ppt. (Vargas 1987). The mean range of the semidiurnal tides is 2.3 m. The sediment at the rather homogeneous mud flat is a mixture of fine sand and silt, with an average of 65% sand and 32% silt and clay (Vargas 1987). The mud flat is bordered shoreward by a white sand beach, with a transition zone of rather coarse, white shell fragments, mainly fragments of barnacles. At the time of sampling, the water was murky with close to zero visibility.



**FIGURE 1.** Map of Costa Rica, showing eastern Pacific collecting localities. A - Golfo de Nicoya with type locality. B - Golfo Dulce with Puerto Jiménez.