

SOUTHERNMOST RECORD OF *SINUM CYMBA* (MENKE, 1828) (GASTROPODA: NATICIDAE)

The Naticidae are a cosmopolitan family of predatory marine gastropods with auriform to globose shells, which usually burrow in soft-bottom sediments. On the Chilean coasts they are represented by 31 species, four of them in the genus *Sinum* Röding, 1828. *Sinum cymba* (Menke, 1828) — the largest naticid found in Chile, and one of the largest and most colorful *Sinum* species found in the southeastern Pacific¹ — is a conspicuous snail found in soft bottoms, where it feeds mainly on bivalves, particularly of the also infaunal *Mesodesma donacium*². Although *S. cymba* seems to be a relatively common subtidal species in northern Chile and Peru, its records in the area are scant^{2, 3}. This species has been cited from Chiapas, Mexico to Valparaíso, Chile, including also the Galápagos Islands^{2, 4}. As this species burrows into soft bottoms at depths of 24 to 100m, they are rarely seen alive, which may

explain its absence in most faunal studies of molluscs from northern and central Chile. In this work we present the southernmost geographical distribution for *Sinum cymba*, extending its previously known southern range by about four latitudinal degrees, more than 477km to the south. This record is based on one live specimen of *S. cymba* collected in nets at 25m depth off Punta Delicada, Isla Santa Maria (37°03' S; 73°27' W), Región del Bío Bío, central Chile. This specimen is deposited at the Museo Zoológico de la Universidad de Concepción (MZUC unnumbered), in Concepción, Chile.

DESCRIPTION OF *SINUM CYMBA* (MENKE, 1828) (FIGS 1A–F)

Shell large (up to 60mm in diameter), thick, stout, with a moderately elevated convex spine;

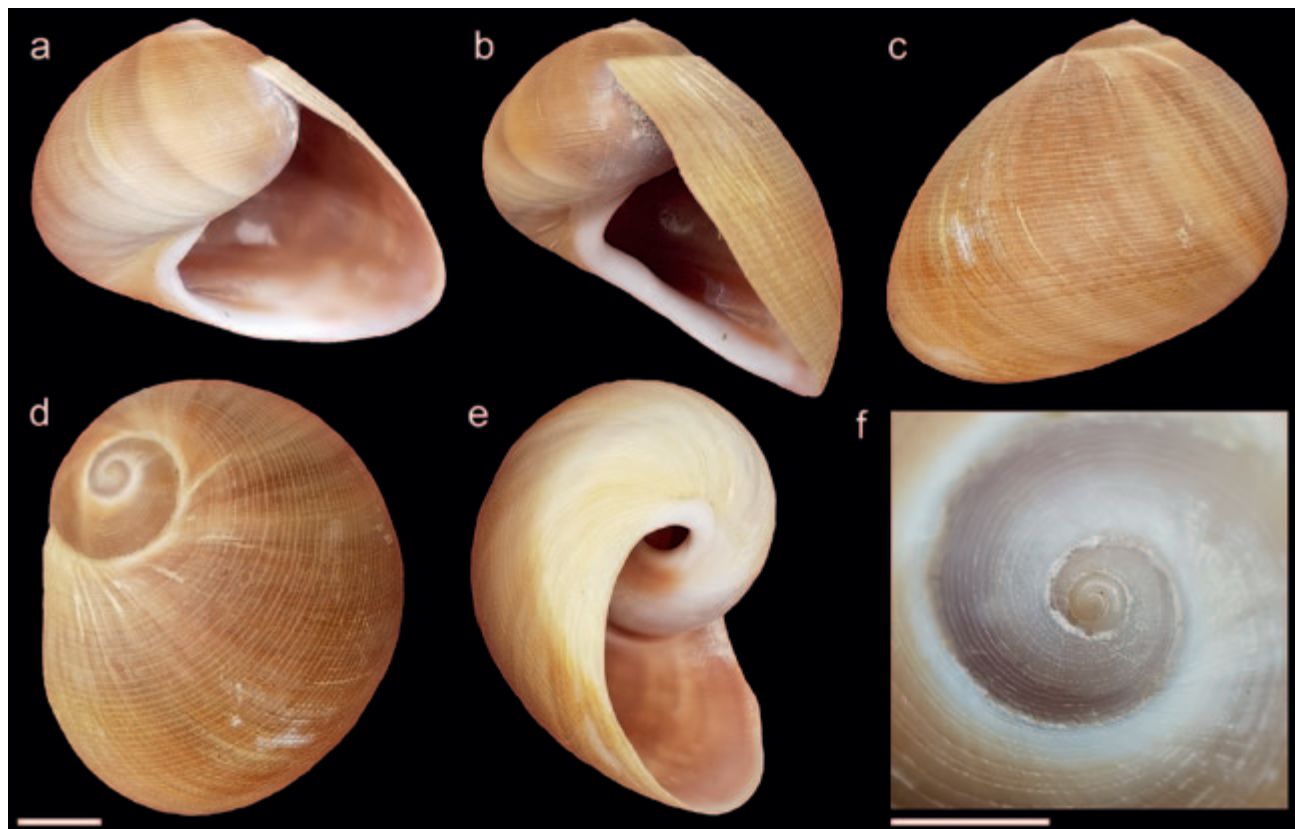


Figure 1 *Sinum cymba* (Menke, 1828), off Isla Santa Maria, Chile, 25m depth (MZUC unnumbered); a: apertural view; b: side view; c: dorsal view; d: apical view; e: umbilical view; f: detail of protoconch. Scale bars are 1cm for a–e, and 5mm for f.

shoulder slightly flattened. Protoconch of two and a half convex and slightly angulated whorls, sculptured with indistinct spiral costellae. Teleoconch of three whorls, suture slightly impressed and narrowly channeled; narrow subsutural band of a paler colour. Sculpture of flat spiral ribs of irregular width separated by fine grooves; axial sculpture of fine growth lines which cross the spiral sculpture giving them a wavy appearance. Parietal callus thin to thick in adult specimens. Umbilicus very narrow, almost slit-like. Umbilical callus narrow, flattened, covering the umbilicus. Inner lip thickened in adult specimens; outer lip sharp and weakly crenulated, thickened in adult specimens. Exterior of shell whitish brown to chestnut brown, often with whitish and brownish streaks; interior of shell of a bright chestnut brown, with an internal peripheral ridge of a darker brown colour; callus and margin of aperture white, base of shell whitish. Periostracum very thin, pale yellow. Operculum chitinous and very small, not covering the aperture.

Although naticid species are often difficult to recognise by their overall similar shells, *S. cymba* can be easily identified from all other naticids in Chile by its large brown shell, which in live specimens is almost completely covered by the mantle and foot of the snail. *Sinum cymba* is a relatively new component of the shallow water molluscan fauna of Chile, as its oldest records in the country are restricted to Upper Pleistocene deposits at Antofagasta⁵. Subtidal ecological information in Chile is scarce⁶, and it may explain the new record of this overlooked species in Isla Santa Maria, however, climate change or warm El Niño Southern Oscillation events⁷ may also be related to the presence of this species in the coasts of central Chile.

- ¹ MARINCOVICH L 1977 Cenozoic Naticidae (Mollusca: Gastropoda) of the Northeastern Pacific. *Bulletins of American Paleontology* **70**(84): 165–494.
- ² RODRIGUEZ MI 1977 *Amici Molluscarum* **5**: 8–10.
- ³ GUZMÁN N, Saá S & Ortlieb L 1998 *Estudios Oceanológicos* **17**: 17–86.
- ⁴ PENAGOS FE 2013 Guía ilustrada moluscos marinos gasterópodos y lamelibranquios de la costa de Chiapas, Mexico. 125 pp.
- ⁵ ORTLIEB L, GUZMÁN N & CANDIA M 1994 *Estudios Oceanológicos* **13**: 57–63.
- ⁶ MANSUR LE, GODOY N, GELCICH S, DE LA BARRA C & NAVARRO R 2016 *Gayana* **80**(2): 198–200.
- ⁷ VARGAS L & PEQUEÑO G 2004 *Investigaciones Marinas* **29**: 35–37.

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