

A new species of *Eulimostraca* (Mollusca, Caenogastropoda, Eulimidae) from deepwater of the Southwest Brazil

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Abstract

Eulimostraca subcarinata, a new eulimid species from Angra dos Reis bay, Rio de Janeiro, is described based on shells. As main characters are the almost straight profile of the spire, the carinate last whorl and the minute size (little more than 2 mm). This is the first record of the genus to the Brazilian coast.

Keywords: *Eulimostraca subcarinata* new species, Brazil, systematics, deep waters.

Resumo

Eulimostraca subcarinata, uma nova espécie de Eulimidae da baía de Angra dos Reis, Rio de Janeiro, é descrita baseada em conchas. Como principais características estão o perfil quase reto da espira, a última volta carinada e o tamanho diminuto (pouco mais de 2 mm). Este é o primeiro registro do gênero para a costa do Brasil.

Palavras-chave: *Eulimostraca subcarinata* nova espécie. Brasil, sistemática, águas-profundas.

Introduction

The Eulimidae are normally small gastropods that parasite echinoderms. The family has several genera worldwide and possesses from active ectoparasites to sessile highly modified endo-parasites (Warén, 1983).

The family has been frequently collected in all oceanographic expeditions in Brazilian coast, and has been aim of some recent descriptive papers (Simone & Martins, 1995; Simone, 2002). This paper deals with the description of another species collected in Baía de Ilha Grande & Sepetiba Expedition, developed by the Oceanographic Institute of USP.

This paper is also part of an on going project of revision of the Brazilian malacofauna, in such the new species have been detected. Although the eulimid taxonomy, mainly in specific level, is very confuse, a wider revision has been prepared. However, those taxa that are easily separated from the pool of species with difficult taxonomy, because of conchological peculiarities, have been described separately.

The genus *Eulimostraca* Bartsch, 1917 [type species *E. galapagensis* Bartsch, 1917, OD, from Galapagos] is by first time reported to the Brazilian coast. The genus is characterized by small sized species (2-4 mm in length); with a straight profile (Warén, 1983: 46).

Material and methods

The specimens arrived for study already dry, being constituted only by shells. They are examined in stereo-microscope and also in SEM in the "Laboratório de Microscopia Eletrônica", MZSP, covered by gold.

Systematics

Eulimostraca subcarinata, new species
(Figs. 1-3)

Types: Holotype MZSP 63400. Paratypes: MZSP 63164 (from type locality).

Type locality: BRAZIL; Rio de Janeiro; Angra dos Reis Bay, off Ilha das Cobras, 23°02'26"S 44°24'16"W, 17.5 m depth (sta. 99F3; R.V. "W. Besnard"; 10/vi/1967).

Diagnosis: Protoconch relatively narrow. Strong carina in inferior level of last whorl, of about 110°. Aperture relatively small.

Description

Shell (Figs. 1-3), elongated, turritiform, of small size (about 2 mm). Protoconch of 1 whorl, rounded, smooth. Teleoconch of up to 7 whorls; each whorl profile very

weakly convex, almost straight. Suture almost invisible, only marked by very shallow furrow. Sculpture wanting, smooth, glossy. Approximate spire angle of 29°. Last whorl with a middle carina, superior and inferior surfaces almost plane and smooth, performing approximately an angle of 110°; carina initiated in region of intersection between outer and inner lips. Aperture oval; occupying slightly more than 1/5 of shell length and less than half of last whorl width. Outer lip orthocline, rounded, weakly thick sub-terminally, cutting edge. Inner lip uniformly rounded, somewhat thick, forming narrow callus, clearer in inferior half. No clear canal. Umbilicus absent.

Measurements (in mm). Holotype = 2.30 by 1.00; Paratype = 2.30 by 0.80.

Distribution. Only known to type locality

Habitat. Sandy, 17.5 m depth.

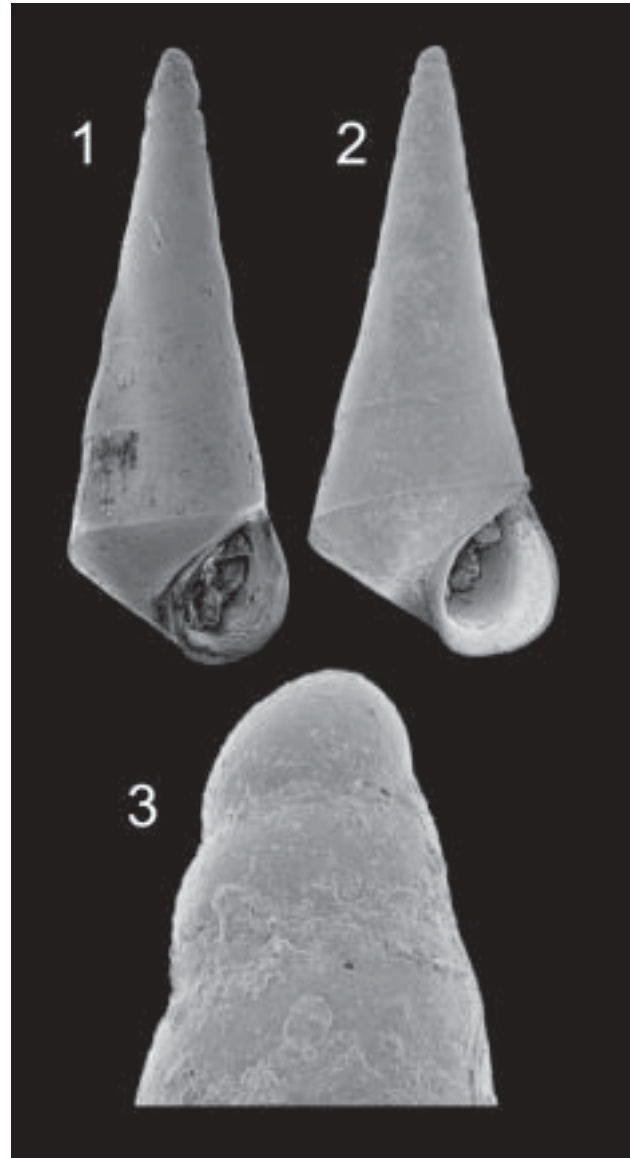
Material examined. Types.

Etymology. The specific epithet refers to the carina in last whorl, as the main distinguishable feature of the species.

Discussion: *Eulimostraca subcarinata* can not be confused with any Brazilian eulimid (Rios, 1994; Simone & Martins, 1995; Simone, 2002) because of its carinate last whorl. The minute size is also a distinctive character to the species from the region. The single western Atlantic species that also possesses a carina in the last whorl is *Melanella conoidea* (Kurz & Stimpson, 1851) as figured by Merlano & Hegenus (1994: 150, fig. 534) from Colombia. *E. subcarinata* differs from that specimen in being smaller (about 1/5 of the size of that specimen), by taller carina in last whorl and by proportionally smaller aperture. On the other hand, Warmke & Abbott (1961, fig. 26P) and Abbott (1974) figure a specimen not so carinate to represent *M. conoidea*. Anyway, and despite these differences, *E. conoidea* may belong to the genus *Eulimostraca*. *E. subcarinata* additionally differs from the type species of the genus, *E. galapagensis* by the stronger carina in last whorl, by shorter aperture and in lacking a sub-sutural shallow furrow (Bartsch, 1917; Warén, 1983). On the other hand, *E. subcarinata* is similar to *E. galapagensis*, which indicate the generic attribution, by the almost straight spire profile, by the orthocline, oval aperture, by protoconch shape, and by median carina, which in *M. galapagensis* is much lower.

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Figs. 1-3: *Eulimostraca subcarinata* sp. n., types: 1, Paratype MZSP 63400, length 2.3 mm; 2, holotype, length 2.3 mm; 3, holotype, detail of apex.

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References

- ABBOTT, R.T. 1974. American Seashells, second edition. Van Nostrand Reinhold Company. New York, 663 pp. + 240pls.
- BARTSCH, P. 1917. A monograph of West American melanellid mollusks. Proceedings of the United States National Museum 53: 295-356.
- RIOS, E.C. 1994. *Seashells of Brazil*, second edition. Fundação Universidade do Rio Grande. Rio Grande, 368 pp. + 113 pls.

SIMONE, L. R. L. 2002. Three new deepwater species of Eulimidae (Caenogastropoda) from Brazil. *Novapex*, 3(2-3): 55-60.

SIMONE, L. R. L. & MARTINS, C. M. 1995. *Annulobalcis aurisflamma*, a new species of Eulimidae (Gastropoda, Prosobranchia) parasitic on a crinoid from Brazil. *Journal of Conchology* 35: 223-235.

WARÉN, A. 1983. A generic revision of the family Eulimidae. *Journal of Molluscan Studies* suppl. 13: 1-96.

WARMKE, G.L. & ABBOTT, R.T. 1961. *Caribbean seashells*. Dover Publication, Inc. New York, 348pp.

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