

Caecum eliezeri sp. nov. (Prosobranchia: Mesogastropoda): A New Species from Brazil

by

RICARDO SILVA ABSALÃO

Departamento de Zoologia, Instituto de Biologia, C.C.S. Universidade Federal do Rio de Janeiro, Ilha do Fundão, Rio de Janeiro, Brasil and Departamento de Biologia Animal e Vegetal, Instituto de Biologia, Universidade do Estado do Rio de Janeiro, Rua São Francisco Xavier. 524-CEP 21550-900

Abstract. A new species of *Caecum* previously known as *Caecum aff. condylum* is described. *Caecum* (*Caecum*) *eliezeri* sp. nov. is diagnosed by its small length, regular curvature, light varix at aperture, and the presence of 52–90 axial rings with expanded upper part. Many longitudinal microscopic sulci cross rings and interspaces.

INTRODUCTION

In 1979, the Brazilian Navy performed the operation GEOMAR XII in order to collect sediment samples of continental shelf off Rio de Janeiro. Some of this material was preserved without suffering the usual process of decalcification that precedes sedimentological analysis. It contained many micromollusks, among them, the family Caecidae, distinguished by its high diversity, and the new taxon herein described.

The Western Atlantic Caecidae still require a great deal of research, and a global review would be in order. Since Folin (1867), many taxonomic mistakes have been made. Some of the descriptions were imprecise and/or poorly illustrated, and often the geographic variability of species was not considered in their original descriptions. Many synonymies were established in a subjective way. However, while a full review is not made in this paper, I intend to study the Brazilian caecids like this unnamed taxon.

Taxonomic treatment follows Moore (1969, 1972), Abbott (1974), Keeler (1981), Leal (1991), Lightfoot (1992a,b), and Rios (1994). The subgeneric assignments are based on teleoconch ornamentation and on septum and micro morphology.

MATERIAL EXAMINED

In addition to the type material of the new species cited below, two lots of *Caecum condylum* (Moore, 1969) were examined, one from Aruba with three specimens (Zoological Museum, Amsterdam, The Netherlands 2445), and another from St. Croix, Virgin Islands collected and identified by D.R. Moore (University of Miami Marine Laboratories, USA 308427).

Abbreviations used: BMNH, British Museum of Natural History (London), England; IBUFRJ, Instituto de Biologia da Universidade Federal do Rio de Janeiro (Brazil); MNHN, Muséum d'Histoire Naturelle (Paris), France; MNRJ, Museu Nacional do Rio de Janeiro (Brazil); MORG, Museu Oceanográfico Eliézer de Carvalho Rios da Fundação Universidade do Rio Grande (Brazil); MZUSP, Museu de Zoologia da Universidade de São Paulo (Brazil); UMML, University of Miami Marine Laboratories, USA. USNM, National Museum of Natural History (Washington), USA. ZMA, Zoological Museum, Amsterdam, The Netherlands.

SYSTEMATIC DESCRIPTION

CAECIDAE Gray, 1850

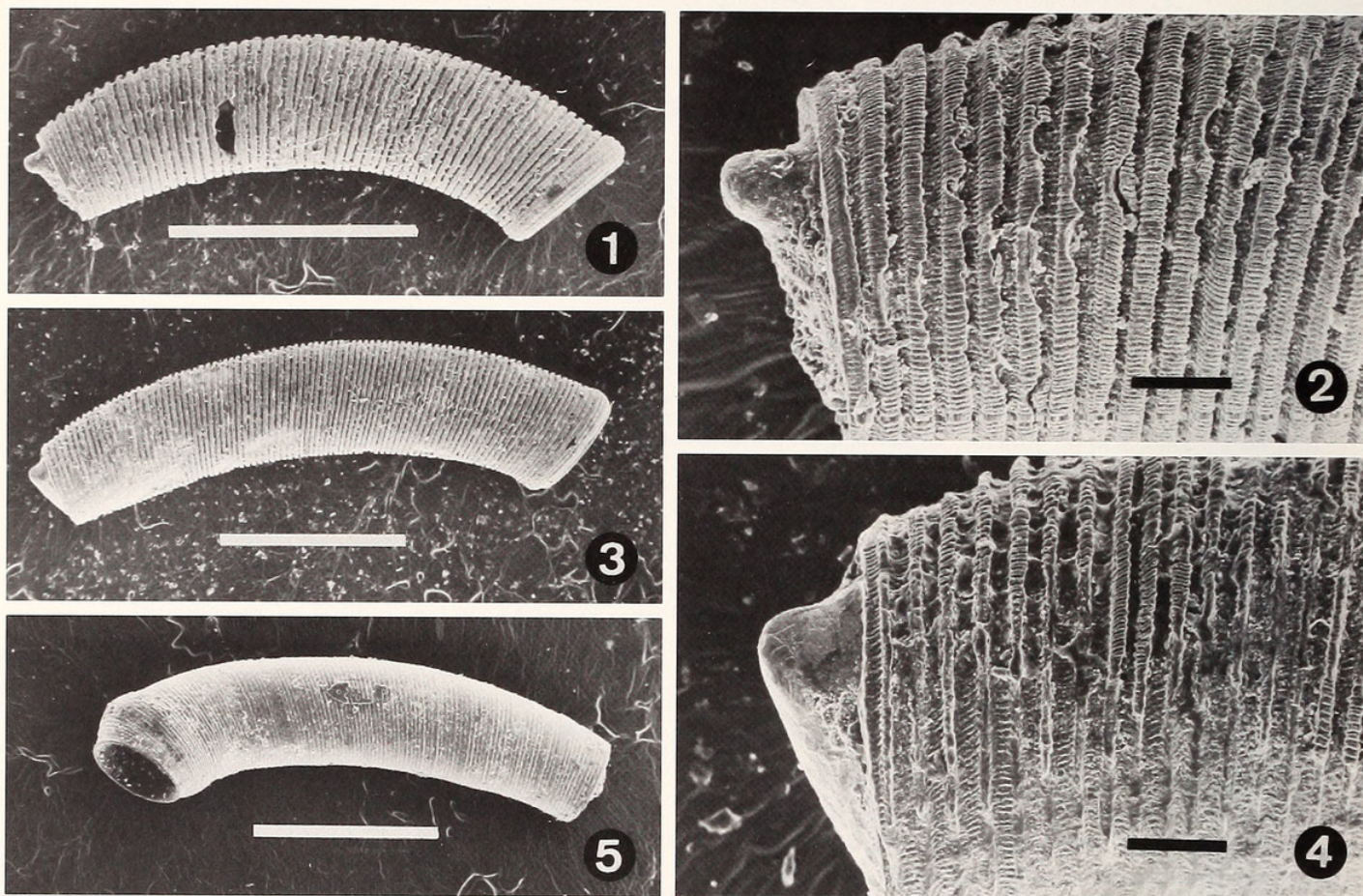
Caecum Fleming, 1813

Caecum (*Caecum*) *eliezeri* Absalão, sp. nov.

(Figures 1–4)

Diagnosis: Shell small, moderately and regularly curved, with a light varix at aperture; 52–90 rings with laminar horizontal expansion on the tops; abundant incised microscopic longitudinal striations crossing rings and interspaces.

Description: Teleoconch small, solid, and moderately curved on all extensions. Adults with a terminal varix that slightly increases the shell diameter at aperture. Presenting 52 to 90 ($x = 64$) axial rings, including two or three on the varix. Tops of rings showing a laminar horizontal expansion that is broader toward the anterior end. About



Explanation of Figures 1 to 5

Figures 1-4. *Caecum eliezeri* Absalão, sp. nov. 1. Holotype, MORG 32884, entire shell. 2. Holotype, detail of the septum, mucro, and ornamentation. 3. Paratype 1, IBUFRJ 6505, entire shell. 4. Paratype 1, detail of the septum, mucro, and ornamentation. 5. *Caecum condylum* Moore, 1969 UMML 308427. Scale bar, Figures 1, 3 and 5 = 1 mm; Figures 2 and 4 = 0.1 mm.

200 closely packed microscopic longitudinal striations crossing ring and interspaces. The ornamentation is the same over all the shell. Septum rounded, moderately high with a blunt dorsal mucro turned to the left when seen dorsally. Ground color cream to withish, but never translucent. Protoconch, second stage, and operculum unknown.

Type and type locality: Holotype MORG 32884, 21°31.7'S × 40°19.0'W, GEOMAR XII station 58, depth 41 m, 28 August 1979, 56 axial rings, 2.16 mm long, 0.51 mm aperture diameter, 0.35 mm posterior diameter. Paratype 1 IBUFRJ 6505, 21°15.3'S × 40°20.4', GEOMAR XII station 34, depth 45.7 m, 27 August 1979, 90 axial rings, 2.80 mm long, 0.55 mm aperture diameter, 0.41 mm posterior diameter. Paratype 2 IBUFRJ 6504, 21°09.7'S × 40°26.0', GEOMAR XII station 32, depth 18.3 m, 27 August 1979, 58 axial rings, 2.21 mm long, 0.51 mm aperture diameter, 0.35 mm posterior diameter. Paratype 3 USNM XXXXX, 22°21.4'S × 40°44.0', GEOMAR XII station 112, depth 59.5 m, 29 August 1979, 75 axial rings, 2.64 mm long, 0.58 mm aperture

diameter, 0.55 mm posterior diameter. Paratype 4 MNHN, 22°22.4'S × 40°56.5', GEOMAR XII station 124, depth 47.2 m, 29 August 1979, 73 axial rings, 2.67 mm long, 0.57 mm aperture diameter, 0.40 mm posterior diameter. Paratype 5 BMNH 1995190, 22°22.4'S × 40°56.5', GEOMAR XII station 124, depth 47.2 m, 29 August 1979, 73 axial rings, 2.67 mm long, 0.55 mm aperture diameter, 0.43 mm posterior diameter. Paratype 6 MNRJ 7158, 22°17.2'S × 40°49.6', GEOMAR XII station 111, depth 51.8 m, 29 August 1979, 52 axial rings, 2.49 mm long, 0.55 mm aperture diameter, 0.38 mm posterior diameter. Paratype 7 MZUSP 28102, 22°16.2'S × 41°04.5', GEOMAR XII station 127, depth 27.4 m, 29 August 1979, 52 axial rings, 2.67 mm long, 0.58 mm aperture diameter, 0.35 mm posterior diameter. Paratype 8 ZMA 395010, 21°15.3'S × 40°20.4', GEOMAR XII station 34, depth 45.7 m, August 27 1979, 79 axial rings, 2.87 mm long, 0.58 mm aperture diameter, 0.44 mm posterior diameter. Paratype 9 IBUFRJ 6506, 21°57.6'S × 40°51.0', GEOMAR XII station 76, depth 15.2 m, 28 August 1979, 85

axial rings, 2.70 mm long, 0.57 mm aperture diameter, 0.39 mm posterior diameter.

Range: *Caecum eliezeri* sp. nov. seems to be restricted to the southern regions of Brazil, since Mello & Maestrati (1986) did not obtain it from northern Brazil.

Etymology: This species is dedicated to Prof. Eliézer de Carvalho Rios, my friend and first malacology professor, in acknowledgment of his pioneering work on Brazilian marine mollusks.

DISCUSSION

Rios (1994: pl. 18, fig. 200) recorded *C. eliezeri* from the Brazilian seashore as *Caecum aff. condylum*. He stressed that the individuals examined by him had about 75 and not the 100 annular rings seen in *C. condylum* Moore, 1969. Furthermore, the material examined by Rios consisted of immature individuals, without the varix of *C. eliezeri* or the swelling of *C. condylum*.

C. condylum (Figure 5) can be distinguished from *C. eliezeri* by the following aspects:

The sculpture of *C. condylum* consists of approximately 100 rings; I counted 110 in the individuals that I examined (Figure 3), whereas *C. eliezeri* exhibits approximately 64 (52–90) rings. The rings in *C. condylum* are always much wider than the interspaces, whereas in *C. eliezeri*, the rings can be as wide or wider than the interspaces, but never as wide as in *C. condylum*. In addition, the rings in *C. condylum* have a simple distal edge, different from the horizontal expansion of *C. eliezeri*.

Caecum condylum has a broad, rounded swelling just before the anterior part, whereas *C. eliezeri* has a slight terminal varix. *C. condylum* does not present any axial sculpture, whereas *C. eliezeri* has more than 200 microscopic longitudinal striations crossing the shell. The septum of *C. condylum* is slightly depressed. On *C. eliezeri* the septum is moderately elevated. *C. condylum* is slightly curved with the anterior part more strongly curved. This differs from *C. eliezeri*, which is regularly curved over all its extension.

Another species that is similar to *C. eliezeri* is *C. strangulatum* Folin, 1867. This similarity is due to the similarity of their rings, longitudinal striations, and varix at aperture. On the other hand, they can be distinguished by the num-

ber of rings because *C. strangulatum* has 30 rings, whereas in *C. eliezeri* the number of rings varies between 52 and 90. The septum of *C. strangulatum* is retracted and the mucro is a rounded projection, whereas *C. eliezeri* has a mammilated septum with a blunt dorsal mucro. Finally, *C. strangulatum* is proportionally broader than *C. eliezeri*.

Apart from *C. condylum* and *C. strangulatum*, *C. eliezeri* does not resemble any Western Atlantic species.

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