

**Two new *Cerithiopsis* species from São Tomé island
(Prosobranchia, Cerithiopsidae)**

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Abstract: Two new species of *Cerithiopsis* from São Tomé Islands are described and compared with similar congeners.

Introduction: Information on the **Cerithiopsidae** from West Africa is scarce and dispersed. Some records appear in general works: Fernandes & Rolán (1993) give all known information, including that from Tomlin & Shackleford (1914, 1915). Rolán (2007) described a new species of *Dizoniopsis* from the islands of the Gulf of Guinea showing the species from these islands previously known as *Cerithiopsis* and *Metaxia*, because the endemic species in the latter genus was described as a *Cerithiopsis* (Rolán & Fernandes, 1991).

In sediments from deeper water, collected during a recent trip, species of two undescribed *Cerithiopsis* were found and their description is the object of the present paper.

Abbreviations :

MNHN: Museum national d'Histoire naturelle, Paris

MNCN: Museo Nacional de Ciencias Naturales, Madrid

MHNS: Museo de Historia Natural de la Universidad, Santiago de Compostela

CSG : collection of Sandro Gori, Livorno

s: empty shell

f: fragment

j: juvenile

Systematics:Family **Cerithiopsidae** Adams & Adams, 1853Genus *Cerithiopsis* Forbes & Hanley, 1850***Cerithiopsis leopardus*** sp. nov.

(Figs 1A-H)

Type material: **Holotype** (Fig. 1A) in MNHN (25742, s, Fig. 1A). **Paratypes:** MNCN (15.05/60060, 2 s, 3 j, Figs 1B, 1C); MHNS (100584, 2 s, 2 f, 2 j) all from type locality.

Type locality: Minerio, North of São Tomé Island, 35-43 m, Republic of São Tomé and Príncipe.

Description: Shell conical, elongate, solid. Protoconch frequently lost in adult shells, with $3\frac{1}{2}$ - 4 whorls without a clear separation from the teleoconch, and with a diameter of about 450 μm at the lowest whorls, the nucleus measuring 50-60 μm ; the sculpture comprises fine axial and opisthocline ribs, very prominent and curved, forming prominences on the deep suture; three very small, rather irregular spiral riblets crossing over the ribs. The teleoconch has 7-10 flat whorls, with three cords with nodules, which are rounded in the uppermost cord, while the lower two have a sharp upper border to be crossed by the spiral cords. Suture evident, not deep. The last whorl has 4 spiral cords, the area towards the base is smooth and concave. Under high magnification a very fine spiral sculpture crossing the growth lines can be seen. Aperture almost ovoid, with a short and opened siphonal canal.

The colour of the shell is variable, with 1-2 very irregular dark brown blotches per whorl, alternating with whitish or cream areas.

Dimensions: Holotype 8.4 mm in height; figured paratypes 6.4 and 4.9 mm in height.

Distribution: Only known from the type locality. Its multispiral protoconch probably hints at a large distributional range, but since it lives in depths of 30 m or more, collection has not been frequent.

Remarks: *C. leopardus* differs from most known species of the area by its protoconch. The closest is *Cerithiopsis horrida* Monterosato, 1874, which has a light brown colour with irregular dark brown blotches and whose spiral cords also present a sharp border on their upper part; the protoconch is also multispiral, but the spiral sculpture of the last whorl has three very regular cordlets (see Peñas et al. 2006: fig. 96), very different from the irregular and finer ones present in the new species. Furthermore, in the protoconch, the axial sculpture is formed by very fine ribs (about 18-20 per whorl), while in the new species there are only 12-13 axial ribs per whorl. The first whorl of the teleoconch of *C. horrida* bears three cords, the first one smaller and nodulous than the others. On the first whorl of the teleoconch in *C. leopardus* only two cords are present.

Etymology: The species' name alludes to the variable colour with different dark and whitish blotches.

***Cerithiopsis inespazosae* sp. nov.**
(Figs. 2A-F)

Type material: **Holotype** in MNHN (25743, s, Figs 2A-B) in MNHN. **Paratypes:** MNCN (15/05/60066, 1 s, Fig. 2C), MHNS (100585, 4 s, Figs 2D-F); CSG (4 s).

Type locality: Minerio, North of São Tomé, 35-41 m, Republic of São Tomé and Príncipe.

Description: Shell cyrtoconoid, elongate, solid. Protoconch with almost 2 whorls, with a diameter of 260 μm , and a diameter of the nucleus of about 100 μm ; the first whorl has a rough microsculpture while the second whorl has two not very prominent spiral cords. The teleoconch has about 6 whorls and presents spiral nodules at the crossing points of ribs and cords. On the second whorl the upper spiral cord shows that the nodules are bifurcating, which is more evident on the third whorl, both being clearly separated on the fourth and fifth whorls; on the last whorl the three cords are well separated and below them there are two more not nodulous cords towards the base; the suture is evident, but not deep. Aperture almost ovoid, with a short, open and slightly recurved siphonal canal. Columella with a reinforcement; slightly curved but straight in the lower part. The colour of the shell is uniform light brown, the apex slightly lighter.

Dimensions: the holotype is 2.57 mm long. All the material is of similar size.

Distribution: Only known from the type locality. Taken its short protoconch into account, it is probable this species is endemic to the island of São Tomé.

Remarks: Due to its similarity with *Dizoniopsis apexclarus* Rolán, 2007 it was considered to include the new species in this genus, but most of the whorls of the new species have three spiral cords, and so we prefer to keep it in *Cerithiopsis sensu lato*. *Cerithiopsis inespazosae* sp. nov. may be distinguished from *Dizoniopsis apexclarus* because the latter has a larger shell with more whorls, a darker brown colour (Fig. 2G), a narrower protoconch (Figs 2H-I) which is variable (studied and figured by Rolán, 2007), the microsculpture of the second whorl of the protoconch always has one spiral cord and numerous axial riblets, and the upper spiral cord of the teleoconch is not bifurcated on the entire shell. Both sympatrically occur in Minerio.

Dizoniopsis bilineata (Hoernes, 1848) from the Mediterranean (protoconch shown in Giannuzzi-Savelli et al., 1999) has a protoconch with a more angulose first whorl, the second whorl with more prominent cords and the upper spiral cord not bifurcated down to the last whorl.

Etymology: The species is named after Inés Pazos, from the CACTI, University of Vigo, for her constant help with SEM photographs.

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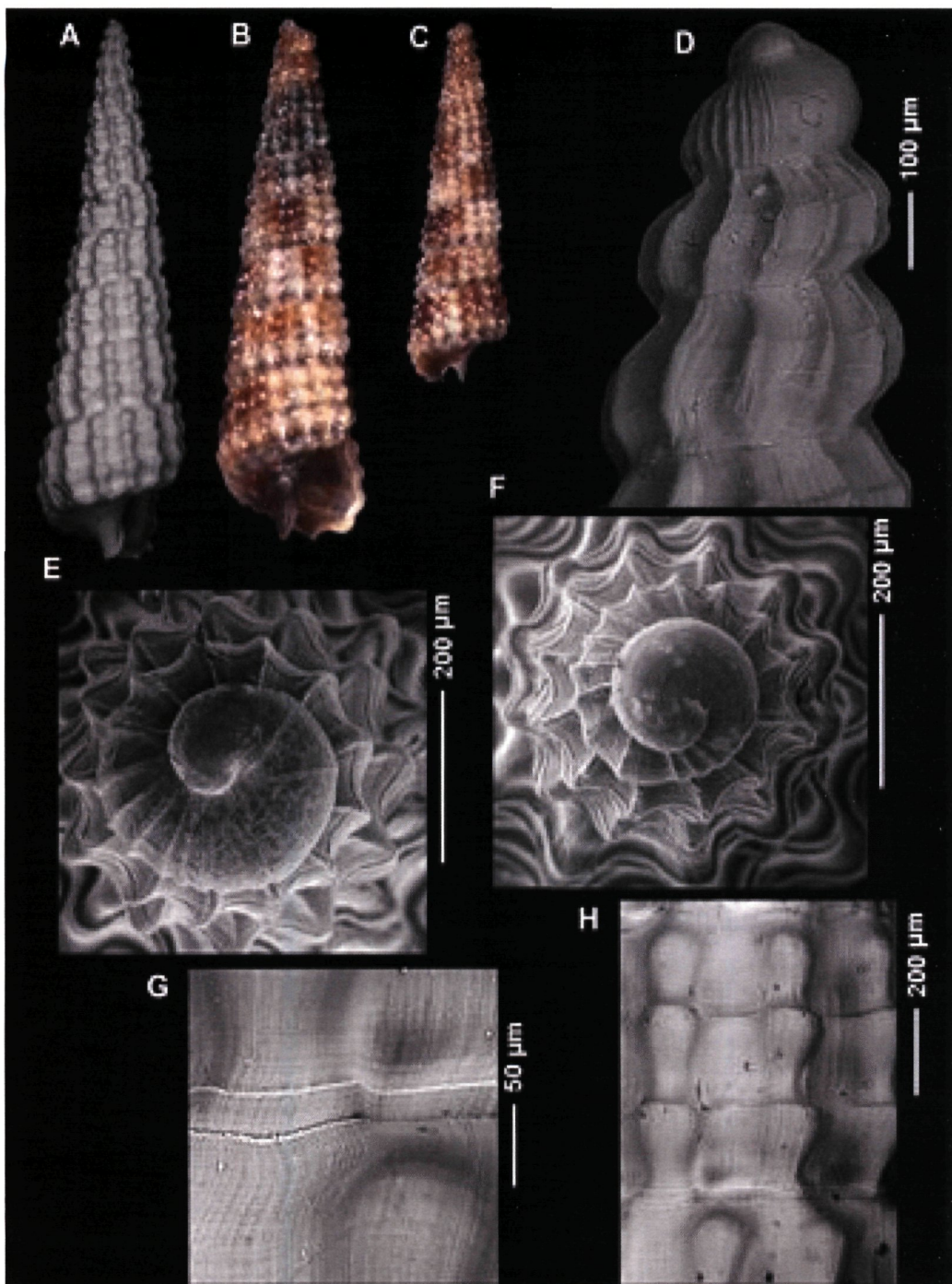


Plate 1: A-H. *Cerithiopsis leopardus* sp. nov. A: holotype, 8.4 mm (MNHN); B-C: paratypes, 6.4, 4.9 mm (MNCN); D-F: protoconch; G-H: sculpture and microsculpture.

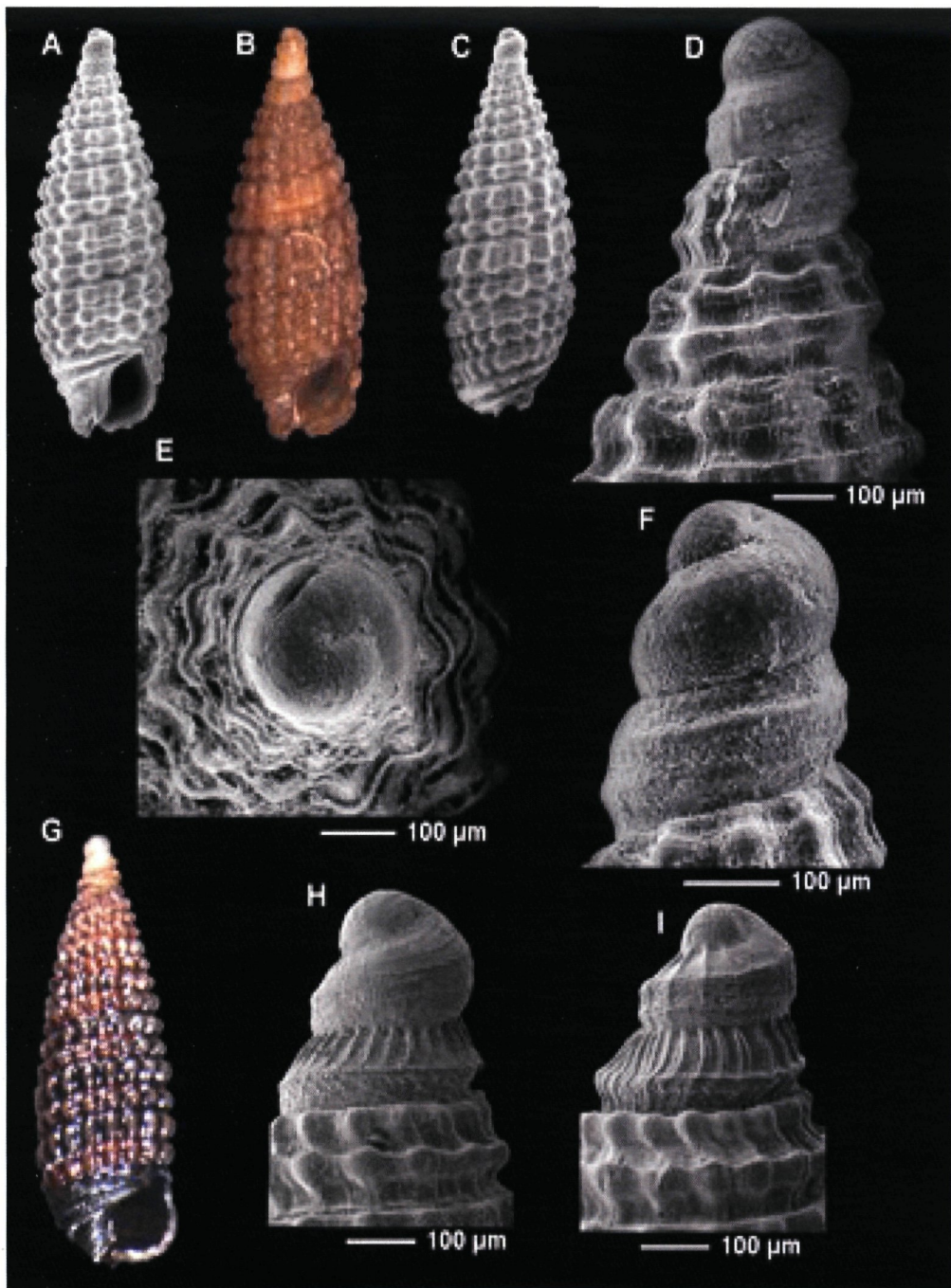


Plate 2: A-F: *Cerithiopsis inespazosae* sp. nov. A-B: holotype, 2.57 mm (MNHN); C: paratype 2.6 mm (MNCN); D-F: protoconch of paratypes (MHNS); G-I: *Dizoniopsis apexclarus* Rolán, 2007. G: shell, 2.7 mm, Minerio, 41 m, São Tomé (MHNS); H-I: protoconch