

## A new species of the genus *Leucorhynchia* (Gastropoda, Turbinidae) from West Africa

Emilio ROLÁN

Museo de Historia Natural, Campus Universitario Sur, 15782, Santiago de Compostela,  
erolan@emiliorolan.com

Federico RUBIO

Pintor Ribera, 4-16<sup>a</sup>, 46930 Quart de Poblet (Valencia)  
federubio@ono.com

**KEYWORDS.** Turbinidae, *Leucorhynchia*, West Africa, new species.

**ABSTRACT.** A new species of *Leucorhynchia* is described from Principe Island, West Africa. It is compared with *L. lirata* (E.A. Smith, 1871).

### INTRODUCTION

The genus *Leucorhynchia* Crosse, 1867 was considered of Indo-Pacific distribution until it was reported from the West African coast by Adam & Knudsen (1969), who described a new species: *Leucorhynchia bicarinata* and figured two more species previously included in the genus *Ethalia*: *Leucorhynchia plicata* (Smith, 1871) and *L. lirata* (E.A. Smith, 1871).

Rubio & Rolán (1991) illustrated specimens of *Leucorhynchia bicarinata* and *L. lirata* collected in São Tomé and Príncipe, giving from the latter one drawing of the soft parts and SEM photographs of the protoconch and radula. At the same time they included in the same genus *L. punctata* (Jousseume, 1872), previously placed in the genus *Teinostoma* A. Adams, 1853.

So far, there are four recognized species within the genus *Leucorhynchia*: *L. caledonica* Crosse, 1867 (type species of the genus), of Indo-Pacific distribution, the other three having a West African distribution: *L. punctata* Jousseume, 1872, *L. lirata* (E.A. Smith, 1871) and *L. bicarinata* Adam & Knudsen, 1969

In the sediments recently collected at the island of Príncipe by the Italian malacologist Sandro Gori, during a visit to the islands of São Tomé and Príncipe, some shells appeared to belong to a new species, which is described in the present work.

### SYSTEMATICS

Family **TURBINIDAE** Rafinesque, 1815

Subfamily **SKENEINAE** Clark, 1851

Genus ***Leucorhynchia*** Crosse, 1867

Type species: *Leucorhynchia caledonica* Crosse, 1867. Recent. New Caledonia.

***Leucorhynchia gorii*** spec. nov.

Figs 6-7, 9, 11

**Type material.** Holotype (Fig. 7) deposited in the Muséum National d'Histoire Naturelle, Paris (MNHN 24633). Paratypes: Museo de Ciencias Naturales of Madrid (MNCN 15.05/60001, 1 shell) (Fig 6); Museo de Historia Natural de Santiago de Compostela (MHNS 100556, 1 shell); collection of Sandro Gori (1 shell).

**Type locality.** Tinhosa Pequena, 25 m, Island of Príncipe, Republic of São Tomé and Príncipe.

**Distribution.** Only known from the type locality.

**Description.** Shell minute, lenticular, solid, and cream in colour. Protoconch with only one smooth whorl and a diameter of 227-230 µm. Teleoconch with a little over two whorls, almost lacking sculpture at the beginning, but on which some sulci shortly appear; they are undulating at first and after the first whorl are of circular shape; they become more irregular and on the last half-whorl they turn into smooth cords, a little irregular, separated by spaces almost of a similar width and where it is possible to see under magnification, tubercles and lines in an axial direction are observed. In the ventral side there is a well opened umbilicus, within which there are four prominent spiral sulci. In the border of the umbilical infundibulum short axial ribs are formed. The spire ends in a circular and very regular aperture with a narrow and free peristome, which extends until getting in contact with the previous whorl.

**Dimensions.** Holotype 1.5 mm in diameter; paratypes are of a similar size.

**Discussion.** *Leucorhynchia gorii* spec. nov. shows an apparent similarity with *L. lirata*, because of its rounded form, its small protoconch, the beginning of the spiral sculpture with cords with depressions, which later disappear. But *L. lirata* has a larger shell (up to 3.5 mm, as opposed to 1.6 mm the new species may reach). The number of whorls in the teleoconch of an adult *L. lirata* is about  $3\frac{1}{4}$ , while *L. gorii* has no more than  $2\frac{1}{4}$  whorls. The spiral whorls which form the sculpture of the teleoconch, after the first whorl, have smaller interspaces in *L. lirata* and wider in *L. gorii*. The most important difference between these two species is on the base where *L. lirata* has a very close umbilicus while that of *L. gorii* is wider showing the spiral cords on its inner part. The juveniles of *L. lirata* have a wider umbilicus but are similar in size to *L. gorii*; the aperture of *L. lirata* has quicker development and the umbilicus is bordered by very different elevated cords.

**Etymology.** The new species is named after Sandro Gori who collected the sediments where the shells were found.

#### ACKNOWLEDGEMENTS

To Jesús Méndez of the Centro de Apoyo Tecnológico a la Investigación (CACTI) of the University of Vigo, where the SEM photographs were made. António A. Monteiro revised the English.

#### REFERENCES

- Adam, W. & Knudsen, J., 1969. Quelques genres de mollusques prosobranches marins inconnus ou peu connus de l'Afrique occidentale. *Bulletin Institut royal des Sciences naturelles de Belgique*, 44(27): 1-69.
- Rubio, F. & Rolán, E., 1991 "1990". Aportaciones a los conocimientos sobre los micromoluscos de África Occidental. 2. Archaeogastropoda de São Tomé y Príncipe. *Iberus*, 9 (1-2): 209-219.

---

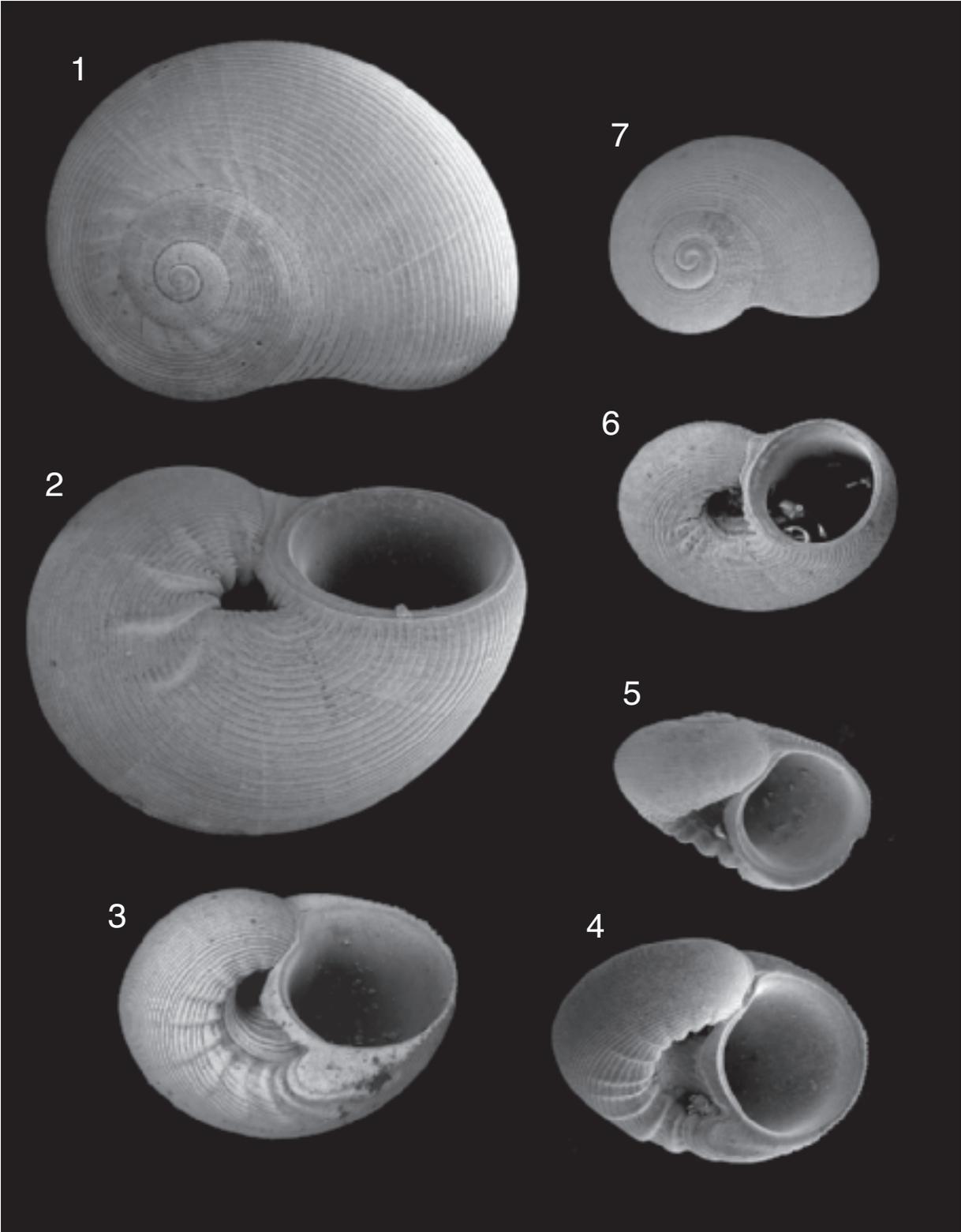
#### Figures 1-7

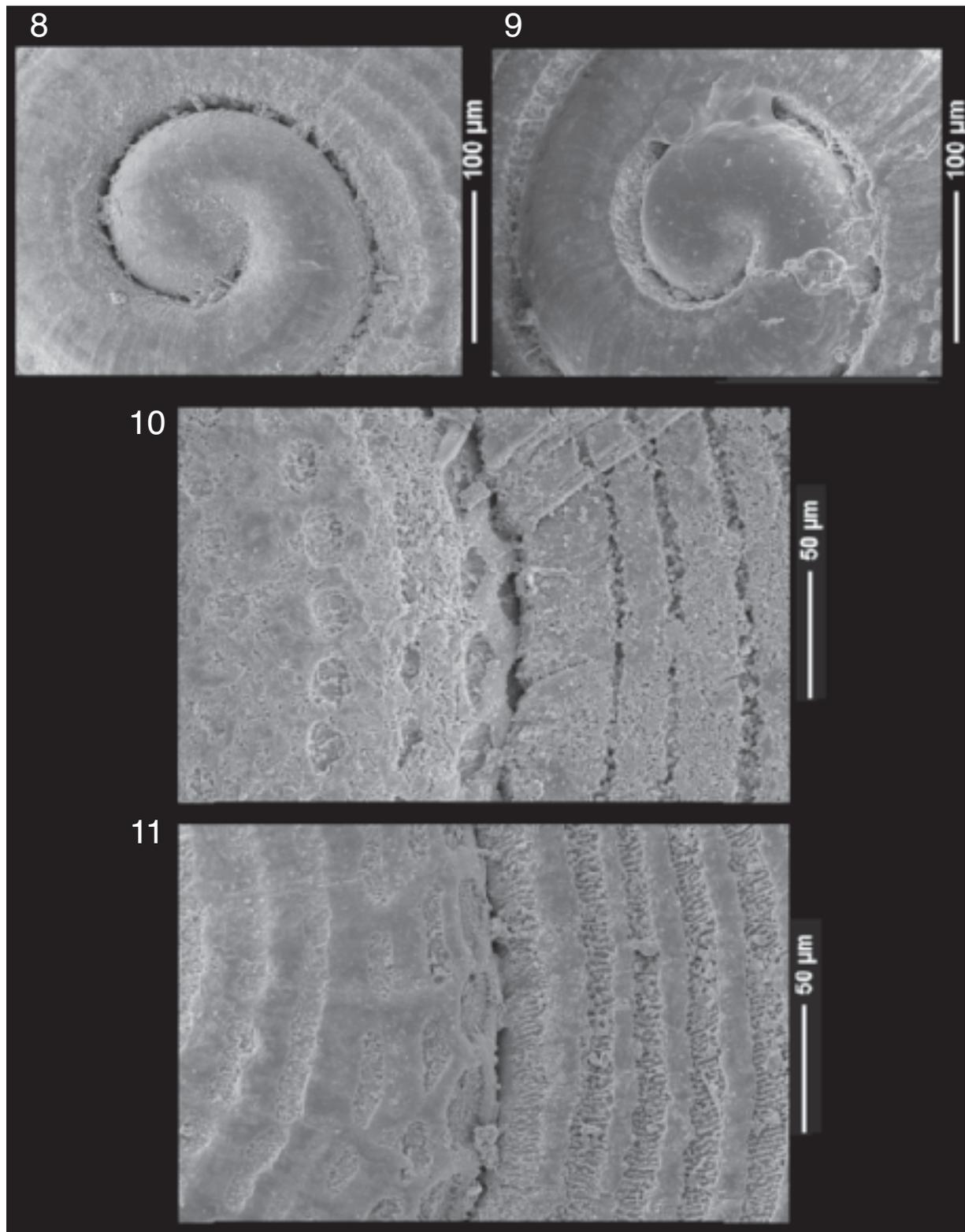
1-5. *Leucorhynchia lirata* Adam & Knudsen, 1969.

1-2. Adult shell, 2.9 x 3.0 mm, Tinhosa Pequena, Principe I.; 3-5. Juveniles, 1.9, 1.8 and 1.54 mm, Tinhosa Pequena.

6-7. *Leucorhynchia gorii* spec. nov.

6. Paratype, 1.6 mm (MNCN 15.05/60001); 7. Holotype, 1.5 mm (MNHN 24633).





**Figures 8-11**

**8-19.** Protoconchs of *Leucorhynchia* species

**8.** *Leucorhynchia lirata* Adam & Knudsen, 1969; **9.** *Leucorhynchia gorii* spec. nov.

**10-11.** Microsculpture of *Leucorhynchia* species

**10.** *Leucorhynchia lirata* Adam & Knudsen, 1969; **11.** *Leucorhynchia gorii* spec. nov.