

Description of a new species of *Muricopsis*
(Gastropoda: Muricidae: Muricopsinae)
from São Tome, West Africa

Roland HOUART

Research Associate

Institut royal des Sciences naturelles de Belgique

rue Vautier, 29, 1000 Bruxelles, Belgium

roland.houart@skynet.be

KEYWORDS. Gastropoda, Muricidae, Muricopsinae, *Muricopsis (Muricopsis) delemarrei* n.sp., West Africa

ABSTRACT. A new species of *Muricopsis* is described from São Tome, West Africa. It is compared with three similar taxa: *Muricopsis rutilus rutilus* (Reeve, 1846) from Ghana, *M. rutilus mariangelae* Rolán & Fernandes, 1991 and *M. matildeae* Rolán & Fernandes, 1991 from São Tome. A list of all the Recent taxa of *Muricopsis s.s.* from West Africa is provided.

INTRODUCTION. At present 12 species and subspecies of *Muricopsis s.s.* are known to live on the West African coast: *M. annobonensis* Houart & Rolán, 2001 from Annobón Island, *M. fusiformis fusiformis* (Gmelin, 1791) from Mauritania and Senegal, *M. fusiformis punctata* Houart, 1990 from Angola, *M. haidari* Houart, 2003 from Senegal, *M. gofasi* Houart, 1993 from Angola, *M. matildeae* Rolán & Fernandes, 1991 from São Tome, *M. principensis* Rolán & Fernandes, 1991, from Principe Island, *M. rutilus rutilus* (Reeve, 1846) from Ghana, *M. rutilus mariangelae* Rolán & Fernandes, 1991 from São Tome and Principe, *M. seminolensis* Vokes & Houart, 1986 from Goree Island, Senegal, *M. suga suga* (Fischer-Piette, 1942) from Senegal, and *M. suga discissus* Houart, 1990 from Angola. All of them have a lecithotrophic larval life and a strongly carinate,

paucispiral protoconch of 1-1.5 whorls. Many of these taxa were illustrated by Houart (1994 and 1996).

Merle & Houart (2003) restricted *Risomurex*, previously used to designate the West African species (Vokes & Houart, 1986a and 1986b, and other authors) to the East Atlantic species: *Muricopsis (Risomurex) deformis* (Reeve, 1846); *M. (R.) rosea* (Reeve, 1846); *M. (R.) schrammi* (Crosse, 1863), and *M. (R.) withrowi* Vokes & Houart, 1986.

Abbreviations

MNHN: Muséum national d'Histoire naturelle, Paris, France

JLD: collection Jean-Louis Delemarre

RH: collection Roland Houart

P	Primary cord
s	Secondary cord
t	Tertiary cord
IP	Infrasutural primary cord (primary cord on shoulder)
P1	Shoulder cord
P2-P6	Primary cords of the convex part of the teleoconch whorl
s3	Secondary cord between P3 and P4
ADP	Adapical siphonal cord
MP	Median siphonal cord
ID	Infrasutural denticle of aperture
D1 to D5	Denticles of the convex part of the aperture

Table 1. Terminology used to describe the spiral cords and the internal denticles of the outer lip (based on Merle 1999, 2001)

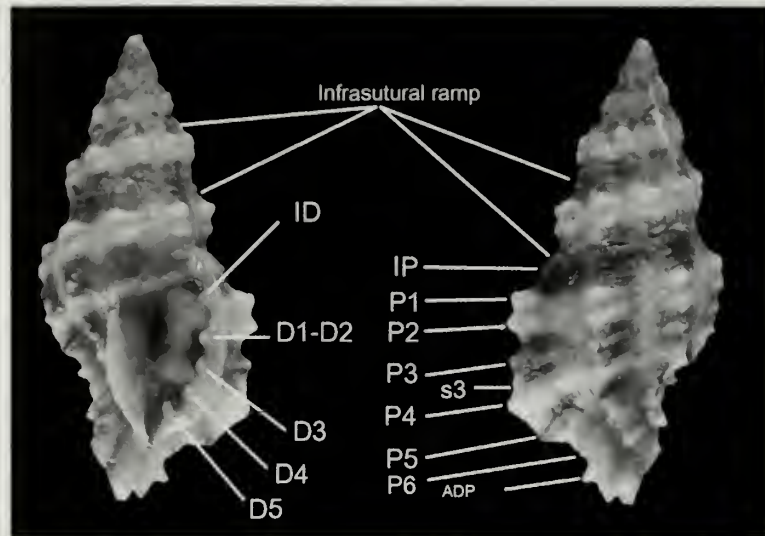


Fig. 1. Morphology of the spiral cords and the denticles in *M.(M.) delemarrei* n.sp.

SYSTEMATICS

Family **MURICIDAE** Rafinesque, 1815

Subfamily **MURICOPSINAE** Radwin & D'Attilio, 1971

Genus *Muricopsis* Bucquoy & Dautzenberg, 1882

Subgenus *Muricopsis* Bucquoy & Dautzenberg, 1882

Type species by original designation: *Murex blainvillei* Payraudeau, 1826 (= *Murex cristatus* Brocchi, 1814).
Recent; Mediterranean.

Muricopsis (Muricopsis) delemarrei n.sp.
Figs 1, 2-8

Type material. Principe Island, approximately 1° 38' 60 N - 7° 25' 0 E, under stones, 2-5 m, holotype MNHN and 2 paratypes RH; Principe or São Tome Ids (locality in some doubt, specimens from of Principe and São Tome Islands mixed), 2 paratypes JLD; São Tome Is., Ilha das Cabras, under rocks, 12-20 m. 1 paratype RH.

Type locality. Principe Island, approximately 1° 38' 60 N - 7° 25' 0 E, under stones, 2-5 m.

Figures 2-15

2-8. *Muricopsis (Muricopsis) delemarrei* n.sp.

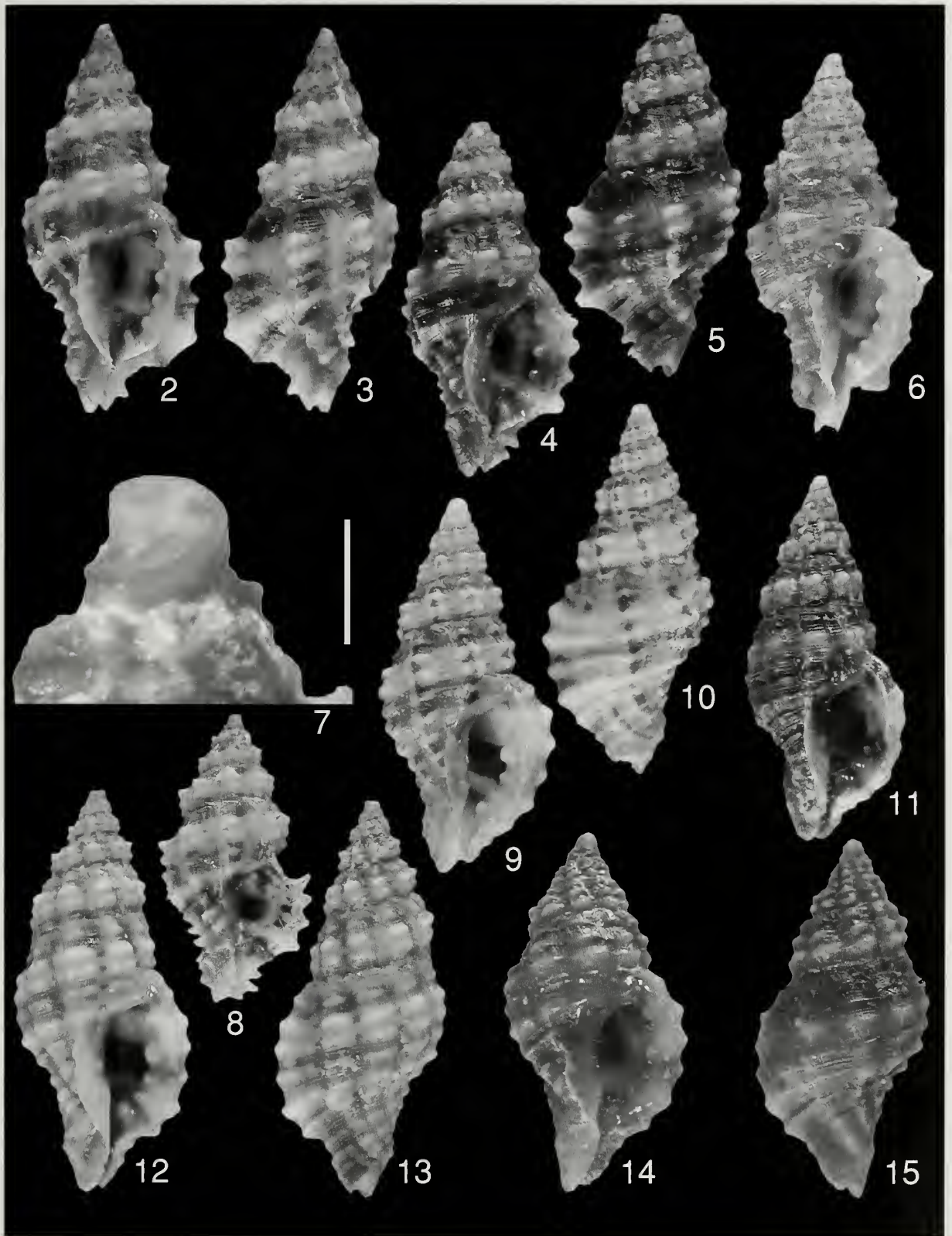
2-3. Principe Island, approximately 1° 38' 60 N - 7° 25' 0 E, under stones, 2-5 m, holotype MNHN, 11.4 mm. 4-5. Principe or São Tome Ids, paratype JLD, 11.2 mm. 6. São Tome Id, Ilha das Cabras, under rocks, 12-20 m, paratype RH, 11.3 mm. 7-8. Principe Island, approximately 1° 38' 60 N - 7° 25' 0 E, under stones, 2-5 m, paratype RH (7. Protoconch, scale bar 0.5 mm; 8. 10.2 mm).

9-10. *M. (M.) rutilus rutilus* (Reeve, 1846), Ghana, off Matrachmi Point, on rocks, 20 m, RH, 9.8 mm. 11-13. *M. (M.) rutilus mariangelae* Rolán & Fernandes, 1991, São Tome, South East of the São Tome city, JLD (11. 9.4 mm; 12-13. 11.2 mm). 14-15. *M. (M.) matildeae* Rolán & Fernandes, 1991, São Tome, São Tome city, under rocks, 2-3 m, RH, 7.6 mm.

Distribution. São Tome and Principe, under rocks, 2-12 m.

Description. Shell small, up to 12.6 mm in length (subadult para JLD), slender, lanceolate, weakly spinose, delicate. Spire very high, acute with 1.25 protoconch whorls and up to 5 or 6 narrow, weakly angulate and shouldered teleoconch whorls. Suture adpressed. Protoconch small with narrow, strong single keel adapically, otherwise smooth. Terminal lip of protoconch eroded in all specimens examined.

Axial sculpture of teleoconch whorls consisting of low or moderately high, broad ribs. Ribs nodose on 4 adapical whorls; rather spinose on last whorl, or on penultimate and last whorls. First teleoconch whorl with 9 ribs, second with 7 or 8, third with 6-8, fourth with 6-9, last whorl with 6 or 7 ribs. Spiral sculpture of low, narrow, smooth cords. First to third or fourth whorl with P1 and P2 visible, giving rise to small nodes at intersection with axial ribs; fourth (or fifth) with P1-P3; P3 occasionally partially covered by next whorl; last whorl with P1 and P2, approximately similar in size, P3 narrower, occasionally followed by small s3; P4 largest; P5 of similar size as P3; P6 narrow, smallest cord. ADP strong, occasionally



followed by very small, narrow MP. All cords giving rise to short, sharp or blunt, open spinelets on axial ribs of last whorl. Infracutural ramp slightly concave on penultimate and last whorls, with IP visible from third or fourth whorl. Interspace between P1 and P2 narrower than between other cords. Other spiral sculpture consisting of numerous, narrow, nodose lirae.

Aperture broadly ovate; columellar lip broad, strongly flaring, smooth; rim partially, almost completely, erect, adherent at adapical extremity; anal notch broad, deep; outer lip weakly erect, smooth, with 5 strong, broad denticles within: D1 and D2 fused, broadest, D3 and D4-D5 approximately similar in size. Siphonal canal short, narrow, weakly bent dorsally, narrowly open, with 1 short spine (extension of ADP).

Shell black or dark brown and white. Infracutural ramp dark; P1 and P2 white, P3 dark, P4 white, P5 dark. Columellar lip glossy, bluish-grey. Inside of aperture with dark and white spiral bands.

Operculum dark brown, strongly ovate, narrow with apical nucleus.

Radula unknown.

Remarks. *Muricopsis delemarrei* n.sp. differs from *M. rutilus rutilus* (Figs 9-10) from Ghana in having a lighter and thinner shell with a concave infracutural ramp on the penultimate and last whorls, and in the absence or quasi-absence of IP; in having small, short, open spinelets on the varices of the last whorl vs strong nodes in *M. rutilus rutilus*; in having lower spiral cords and a smooth, broader columellar lip vs two small abapical columellar folds in *M. rutilus rutilus*.

M. delemarrei n.sp. differs from *M. rutilus mariangelae* (Figs 11-13) also in having a lighter and thinner shell, an absence or quasi-absence of IP on a more concave infracutural ramp. The shell is also more strongly angulate with sharper varices, a broader aperture and broader columellar lip, without columellar folds, and in having narrow spiral cords giving rise to short broadly spinelets on the varices of the last whorl vs short, broad and blunt nodes in *M. rutilus mariangelae*.

M. delemarrei n.sp. also differs from both *M. rutilus rutilus* and *M. rutilus mariangelae* in having IP present only in the last whorls, while it is present from the first whorl, and more conspicuous in both of the other species; and in having different sized spiral cords, and the interspace between P1 and P2 narrower than between other cords, whereas all the spiral cords, from P1 to P5, are similar or nearly similar in size and the interspaces between the spiral cords are also similar in size in *M. rutilus rutilus* and *M. rutilus mariangelae*.

M. delemarrei differs from another species described from São Tome, *Muricopsis matildeae* (Figs 14-15), in being larger and narrower, and in having sharp nodes with open spinelets instead of broad, blunt nodes in *M. matildeae*. *M. delemarrei* differs also by the absence of IP and by the broader aperture with a broader columellar lip.

All other West African *Muricopsis* species are very distinct.

Etymology. The species is named after Jean-Louis Delemarre, St. Nazaire, France, who provided these specimens and donated the holotype and other specimens.

ACKNOWLEDGEMENTS

I am most grateful to Jean-Louis Delemarre for his very helpful collaboration in many ways. His capacity to detect small, unidentified West African molluscs is much appreciated. Thanks also to John Wolff for editing the english text.

REFERENCES

- Houart, R. 1994. *Illustrated catalogue of Recent species of Muricidae named since 1971*. Wiesbaden: 1-179.
- Houart, R. 1996. Les Muricidae d'Afrique Occidentale - I. Muricinae & Muricopsinae. *Apex* 11 (3-4): 95-161.
- Merle D. 1999. *La radiation des Muricidae (Gastropoda : Neogastropoda) au Paléogène: approche phylogénétique et évolutive*. Paris. Thèse de doctorat du Muséum national d'Histoire naturelle: i-vi, 1-499.
- Merle D. 2001. The spiral cords and the internal denticles of the outer lip in the Muricidae: terminology and methodological comments. *Novapex* 2 (3): 69-91.
- Merle, D. & Houart, R. 2003. Ontogenetic changes of the spiral cords as keys innovation of the muricid sculptural patterns: the example of the *Muricopsis-Murexsul* lineages (Gastropoda: Muricidae: Muricopsinae). *C.R. Palevol.* 2: 547-561.
- Vokes, E. H. & Houart, R. 1986a. An evaluation of the taxa *Muricopsis* and *Risomurex* (Gastropoda: Muricidae), with one new species of *Risomurex*. *Tulane Stud. Geol. & Paleont.* 19 (2): 63-88.
- Vokes, E. H. & Houart, R. 1986b. A new species of *Muricopsis (Risomurex)* from West Africa. *Tulane Stud. Geol. & Paleont.* 19 (2): 88-89.