

Description of a new species of *Siratus* (Gastropoda: Muricidae) from Guadeloupe, Lesser Antilles

Roland HOUART

Research Associate

Institut royal des Sciences naturelles de Belgique

Rue Vautier, 29, B-1000 Bruxelles, Belgium

roland.houart@skynet.be

Jacques COLOMB

82, rue A. Daudet

F- 13013 Marseille, France

jacquescolomb@wanadoo.fr

KEYWORDS. Gastropoda, Muricidae, Lesser Antilles, Martinique, *Siratus*, new species.

ABSTRACT. *Siratus michelae* is described from six specimens dredged in about 70 m depth off Martinique, French Antilles. It is compared with *S. cailleti* (Petit, 1856) and *S. kugleri* (Clench & Pérez Farfante, 1945), both also occurring in the same area, but at greater depth.

INTRODUCTION

There are currently 27 Recent species of *Siratus* of which 24 live throughout the Western Atlantic and three in the Indo-West Pacific (Houart, 2012).

All the species are listed by Houart (2010) and most of them are illustrated by Merle, Garrigues & Pointier (2011). The Western Atlantic species were also commented and illustrated by Vokes (1965 and 1990a), while nine species from the Western Atlantic were named since 1990 by Vokes (1990b), Houart (1999 and 2000), Merle, Garrigues & Pointier (2001) and Merle & Garrigues (2008 and 2011). The most recent species was described from the Dominican Republic and Martinique.

Abbreviations

Repository

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

RH coll.: Collection of Roland Houart.

JC coll.: Collection of Jacques Colomb.

Terminology used to describe the spiral cords and apertural denticles morphology (after Merle, 1999 and 2001) (Figs 1-2).

P: primary cord; **s:** secondary cord; **t:** tertiary cord; **ad:** adapical (or adapertural); **ab:** abapical (or abapertural); **IP:** infrasutural primary cord (primary cord on subsutural ramp); **adis:** adapical infrasutural secondary cord (on subsutural ramp); **abis:** abapical infrasutural secondary cord (on subsutural ramp); **P1:** shoulder cord; **P2-P6:** primary cords of the convex part of the teleoconch whorl; **s1-s6:** secondary cords

of the convex part of the teleoconch whorl (example: s1 = secondary cord between P1 and P2; s2 = secondary cord between P2 and P3, etc.); **ADP:** adapertural primary cord on the siphonal canal; **MP:** median primary cord on the siphonal canal.

Aperture: **ID:** Infrasutural denticle; **D1 to D6:** Abapical denticles

SYSTEMATICS

Family **MURICIDAE** Rafinesque, 1815

Subfamily **MURICINAE** Rafinesque, 1815

Genus *Siratus* Jousseaume, 1880

Type species, by original designation: *Purpura Sirat* "Adanson" Jousseaume, 1880 (= *Murex senegalensis* Gmelin, 1791), Recent, Brazil.

Siratus michelae n. sp.

Figs 1-2, 3-4, 7-12

Type material. Holotype MNHN 25131

Paratypes: 4 JC coll., 1 RH coll.

Type locality. Martinique, Atlantic coast, 70 m.

Distribution. Currently only known from the type material: Martinique, Atlantic coast, alive at 70 m.

Description. Shell small for the genus, up to 41.4 mm in height at maturity. Height/width ratio 2.1-2.2. Broadly ovate, nodose, lightly built. Subsutural ramp broad, strongly sloping, weakly concave.

Light brown or greyish-brown with lighter coloured or creamy white axial nodes. Spiral cords usually topped with fine dark brown lines. P3 and P5 almost entirely white, more obvious on axial nodes. Area between P3 and P5 lighter coloured. MP spine creamy white.

Protoconch light or dark brown. Aperture bluish-white, parietal tooth white, edge of outer lip with dark brown spots between apertural crenulations.

Spire moderately high with 1.75 protoconch whorls and 6-6.5 broadly convex, weakly shouldered, nodose whorls. Suture weakly adpressed. Protoconch small, whorls rounded with a weak, narrow, single keel abapically (Fig. 4). Maximum width 700-900 μm , height 700 μm . First whorl small, 300-350 μm width. Terminal lip shallow, delicate, opistocyrte.

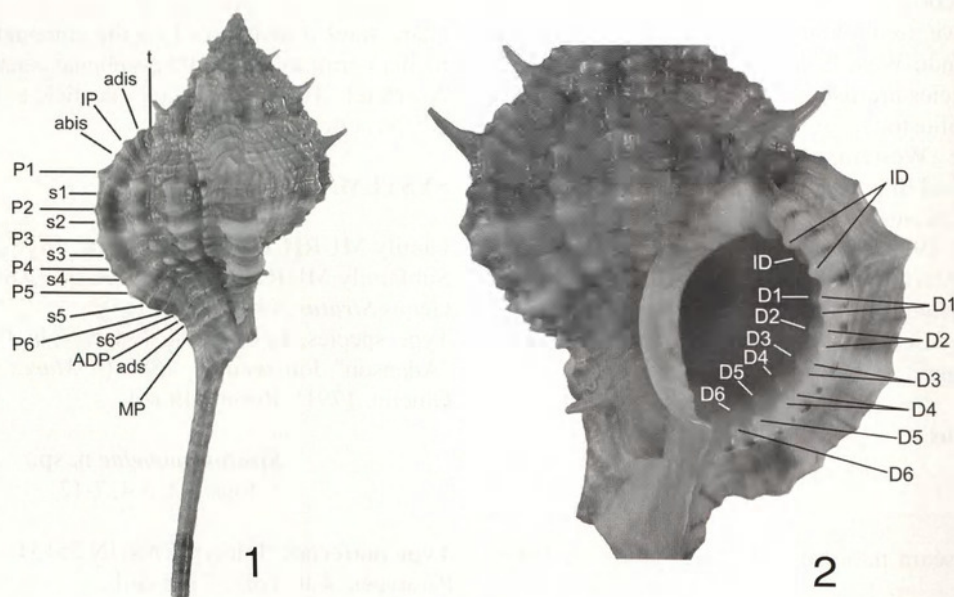
Axial sculpture of teleoconch whorls consisting of high, narrow, rounded ribs and high, strong, narrow, rounded, weakly spinose varices. First whorl with 11-13 ribs, second whorl with 5-9 ribs, starting varices, third whorl with 3 low varices and 2 intervarical ribs of similar height, fourth to last whorl with 3 high, narrow, rounded varices and 3 narrow, high intervarical ribs. Spiral sculpture of high, strong, narrow, nodose, primary, secondary and tertiary cords. First whorl with P1-P3, second and third with IP, P1-P3, fourth with adis, IP, abis, P1 and P2, P3 occasionally covered by subsequent whorl, fifth whorl with adis, IP, abis, P1, s1, P2, last teleoconch whorl with t, adis, IP, abis, P1, s1, P2, s2, P3, s3, P4, s4, P5,

s5, P6, s6, ADP, ads, MP. Intersection of axial ribs and varices with spiral cords forming broad, high, strong nodes. Spiral cords P1 and MP giving rise to small, acute spine.

Aperture narrow, ovate. Columellar lip narrow, with narrow, elongate folds adapically and abapically with 3-5, elongate, strong, oblique knobs, increasing in strength abapically. Rim partially erect, adherent at adapical extremity. Strong parietal tooth at adapical extremity. Anal notch deep, narrow. Outer lip erect, weakly crenulated, with weak or strong, low, narrow denticles within: ID, D1-D6. ID, D1-D4 split at inner edge of outer apertural lip (Fig. 2). Adapical and abapical denticles higher and stronger, D3 and D4 low. Siphonal canal long, 49-50% of total shell height, narrow, straight, strongly dorsally bent, narrowly open.

Operculum brown, ovate, with subapical nucleus and 9 or 10 broad, concentric ridges. Attached surface with about 6 or 7 growth lines and broad callused rim.

Etymology. The new species is named for Michèle Colomb, the wife of the second author.



Figs 1-2. *Siratus michelae* n. sp. spiral cords and apertural denticles morphology (paratype RH coll.).

Remarks. *Siratus michelae* n. sp. can be compared with two species only, that also occur off Martinique, although at depth of about 150-200 m.

Siratus cailleti (Petit, 1856) (Figs 5-6, 13-16) differs in having a larger shell with a larger and broader protoconch (Figs 5-6), with a width of 1000 μm and a height of 800-900 μm , lacking the fine abapical keel, in having only two, broader and higher intervarical ribs on penultimate and last teleoconch whorls, and in having a relatively broader siphonal canal.

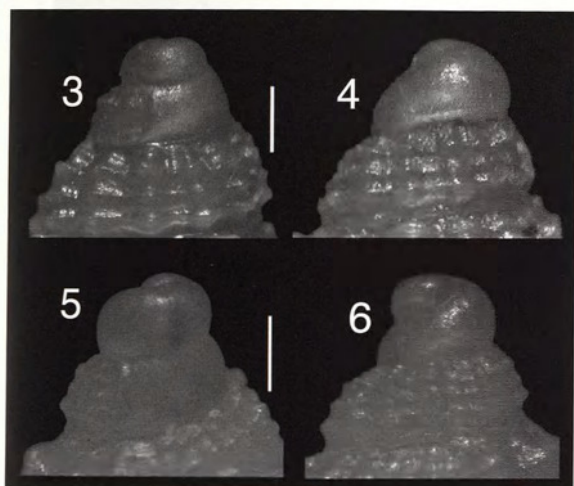
Siratus kugleri (Clench & Pérez Farfante, 1945) (Figs 17-22) most of the time also has a shell with three

intervarical ribs on four or three abapical teleoconch whorls, but the protoconch is larger and also lacks the abapical keel, the shell is relatively larger with a much broader last teleoconch whorl, a broader aperture and a relatively broader siphonal canal.

Merle et al (2011, pl. 24, fig. 12) illustrated a shell in MNHN as a syntype of *M. similis* Sowerby, 1841. *Murex similis* is an earlier name for *S. kugleri* but a junior homonym of *M. similis* Schröter, 1805, thus invalid. *Siratus kugleri* was named as a replacement name for *M. similis* Sowerby. The specimen from MNHN was brought to the museum by Sowerby in

1879 and is most probably the shell that he illustrated himself (Sowerby, 1879: pl. 3, figs 22 & 23 only), but not a syntype. Apparently *M. similis* Sowerby was described from a single specimen. The shell originally figured by Sowerby (1841: pl. 189, fig. 70) from the Jane Saul collection is in the University Museum of Cambridge and was catalogued as the holotype by Bishop & Way (1976: 43) (Figs 17-18).

The shell morphology and the colour in *S. michelae* n. sp. differentiate it definitively from any other Western Atlantic *Siratus* species.



Figures 3-6. Protoconchs (scale bars: 500 µm)

3-4. *Siratus michelae* n. sp., paratype RH coll.; 5-6. *Siratus cailleti* (Petit, 1856), Martinique, 250 m, JC coll. (specimen illustrated Figs 15-16).

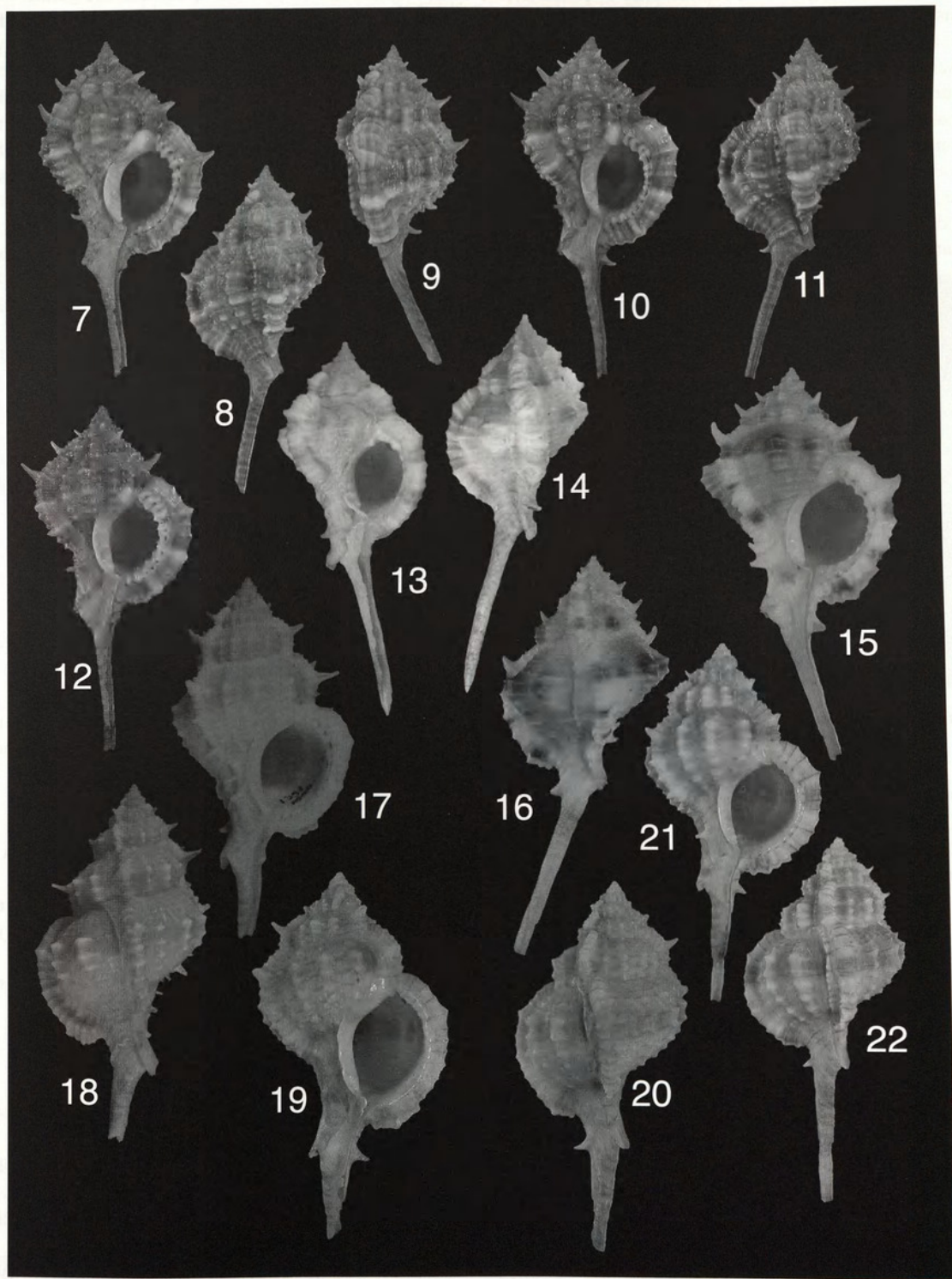
Acknowledgements

We are very grateful to Richard Preece (University of Cambridge) for the picture of the holotype of *Murex similis* Sowerby, 1841, to Virginie Héros (Muséum national d'Histoire naturelle, Paris) for the images of one of the syntypes of *Murex cailleti* and for information about *M. similis* deposited in MNHN, to Virginie Héros, Richard E. Petit (North Myrtle Beach, South Carolina, U.S.A.) and Charlie Sturm (Carnegie Museum of Natural History, Pittsburgh, PA, USA) for bibliographical research and to John Wolff, Lancaster, Pennsylvania, USA, for checking the English text. Thanks also to Alan Beu (Institute of Geological & Nuclear Sciences, Lower Hutt, New Zealand) and to Gregory S. Herbert (Department of Geology, University of South Florida, USA) who reviewed this paper. Jacques Colomb also thanks Régis Delannoye, diver and seashell collector from Martinique for his help in many ways.

References

Bishop, M.J. & Way, K. 1976. Type specimens in the Jane Saul collection, University Museum of Zoology, Cambridge. *Journal of Conchology*. 29(1): 41-46.

- Houart, R. 1999. Two new species of the genus *Chicoreus* (*Siratus*) (Gastropoda: Muricidae) from the western Atlantic. *The Nautilus* 113(4): 121-126.
- Houart, R. 2000. Description of two new species of *Chicoreus* (*Siratus*) (Gastropoda, Muricidae) from Honduras and Nicaragua. *Novapex* 1(3-4): 75-82.
- Houart, R. 2010. *Siratus* Jousseaume, 1880. Accessed through: World Register of Marine Species (WoRMS) at <http://www.marinespecies.org/aphia.php?p=taxdet&ails&id=405258> on 2012-02-01.
- Houart, R. 2012. Description of a new species in the *Siratus pliciferoides* group (Gastropoda: Muricidae) from the Philippines. *Novapex* 13(1): 25-28.
- Merle, D. 1999. *La radiation des Muricidae* (Gastropoda: Neogastropoda) au Paléogène: approche phylogénétique et évolutive. Paris. Unpublished thesis, Muséum national d'Histoire naturelle: i-vi, 499 pp.
- 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. & Garrigues, B. 2008. New muricid species (Mollusca, Gastropoda) from French Guiana. *Zoosystema* 30(2): 517-526.
- Merle, D. & Garrigues, B. 2011. Description of four new species of Muricidae (Mollusca, Gastropoda) from the Philippines and the Caribbean area. *Zoosystema* 33(4): 557-575.
- Merle, D., Garrigues, B. & Pointier, J.P. 2001. An analysis of the sculptural pattern of the shell in Caribbean members of *Chicoreus* (*Siratus*) Jousseaume, 1880 (Gastropoda, Muricidae), with description of a new species. *Zoosystema* 23(3): 417-431.
- Merle, D., Garrigues, B. & Pointier, J.P. 2011. *Fossil and Recent Muricidae of the World*—Part Muricinae—Ed. Conchbooks, D-55546 Hackenheim, 648p.
- Sowerby, G.B. 1834-1841. *The Conchological Illustrations, Murex*, Sowerby, London: pls 58-67 (1834); pls 187-199 + catalogue: 1-9 (1841).
- Sowerby, G.B. 1879. *Thesaurus conchyliorum*, vol. 4, pts. 33-34: 1-55, pls. 380-402, London.
- Vokes, E.H. 1965. Cenozoic Muricidae of the western Atlantic region. pt. II. *Chicoreus* s.s. and *Chicoreus* (*Siratus*). *Tulane Studies in Geology and Paleontology*. 3(4): 181-204.
- Vokes, E.H. 1990a. Cenozoic Muricidae of the western Atlantic region. Part VIII—*Murex* s.s., *Haustellum*, *Chicoreus*, and *Hexaplex*; additions and corrections. *Tulane Studies in Geology and Paleontology*. 23(1-3): 1-96.
- Vokes, E.H. 1990b. Two new species of *Chicoreus* subgenus *Siratus* (Gastropoda: Muricidae) from northeastern Brazil. *The Nautilus* 103(4): 124-130.

**Figures 7-22**

7-12. *Siratus michelae* n. sp., Martinique, Atlantic coast, 70 m. **7-9.** Holotype MNHN 25131, 39 mm; **10-11.** Paratype JC coll, 41.4 mm; **12.** Paratype RH coll., 41.4 mm.

13-16. *Siratus cailleti* (Petit, 1856). **13-14.** Guadeloupe, syntype MNHN0062, 53.4 mm; **15-16.** Martinique, 250 m, JC coll., 59.8 mm;

17-22. *Siratus kugleri* (Clench & Pérez Farfante, 1945). **17-18.** Locality unknown, holotype of *Murex similis* Sowerby, 1841, Cambridge Mus., 48.6 mm; **19-20.** Guadeloupe, Ile de la Désirade, 250 m, RH coll., 51.3 mm; **21-22.** St. Barthelemy, Banc de Rabet, 150 m, RH coll., 62 mm.



Houart, Roland and Colomb, Jacques. 2012. "Description of a new species of *Siratus* (Gastropoda: Muricidae) from Guadeloupe, Lesser Antilles." *Novapex : trimestriel de la Société belge de malacologie* 13(2), 75–78.

View This Item Online: <https://www.biodiversitylibrary.org/item/240924>

Permalink: <https://www.biodiversitylibrary.org/partpdf/248918>

Holding Institution

Academy of Natural Sciences of Drexel University, Library and Archives

Sponsored by

Academy of Natural Sciences of Drexel University, Library and Archives

Copyright & Reuse

Copyright Status: Public domain. The BHL considers that this work is no longer under copyright protection.

Rights Holder: Belgian Malacological Society

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.