

## A new species of *Eosipho* (Gastropoda: Buccinidae) from Guadeloupe, Western Atlantic

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**ABSTRACT.** For the first time an *Eosipho* species is reported from the Atlantic. A new species is described. The generic assignation is based on shell and radula morphology.

**RESUME.** Le genre *Eosipho* est signalé pour la première fois dans l'Atlantique grâce à la description d'une espèce nouvelle. L'attribution générique est basée sur les caractères de la coquille et de la radula.

### INTRODUCTION

The genus *Eosipho* Thiele, 1929 comprises a number of deep-water buccinids, characterized by a slender spire and a short base, a strong spiral sculpture usually with alternating strong and weak cords, a rather weak axial sculpture in combination with a paucispiral protoconch and a thick velvety periostracum, a buccinid radula with a tricuspid central tooth with an angular base and bicuspid lateral teeth, the outer cusp being larger. Bouchet and Warén (1986) revised the known buccinid deep water species. Until now *Eosipho* species were only known from the Indo-West Pacific. The description of a new species in the present work is based on material dredged in the Atlantic, off Guadeloupe.

### SYSTEMATICS

#### BUCCINIDAE Rafinesque, 1815

Genus *Eosipho* Thiele, 1929

Type species by original designation: *Chrysodomus (Sipho) smithi* Schepman, 1911, Recent, Indonesia.

*Eosipho atlanticus* sp. nov.

Figs. 1-8

**Type material.** Holotype, 27.2 x 11.3 mm, Guadeloupe, Basse Terre, 200-300 m deep, in Muséum national d'Histoire naturelle, Paris. Paratype 1: 26.9 x 11.3 mm, idem, coll. Roland Hadorn. Paratype 2: 34.6 x 14.6 mm, Guadeloupe, Vieux Habitants, 500 m deep, coll. Koen Fraussen. Paratype 3: 27.6 x 12.0 mm, paratype 4: 24.2 x 10.7 mm, paratype 5: 23.4 x 10.7 mm, coll. Dominique Lamy.

**Type locality.** Off Guadeloupe, Basse Terre.

**Distribution and habitat.** From off Guadeloupe, Caribbean. Bathymetric range, all live collected specimens, between 300 and 500 m.

**Description.** Shell small (up to 34.6 mm in length), snow-white, thin but solid, axial sculpture dominating on spire, spiral sculpture dominating on body whorl. Shape fusiform, slender with high spire and short siphonal canal.

Protoconch paucispiral, smooth, with about 2 convex whorls (Fig. 7), transition to teleoconch consisting of a fine line. Diameter: 0.6 mm, length: 0.7 mm.

About 7 teleoconch whorls, slightly angulate. Suture deep.

12 strong axial ribs with broad interspaces on first teleoconch whorl. Number of axial ribs increasing slightly from second whorl on, with interspaces of equal size or narrower, whole surface ornamented with fine growth lines. 17 axial ribs on penultimate whorl, 22 weaker axial ribs on body whorl. Paratype 2 atypical with axial sculpture absent on body whorl.

5 or 6 strong, rounded, spiral cords on teleoconch whorls, interspaces narrow, becoming slightly narrower towards penultimate whorl. About 25 spiral cords on body whorl, 15 of them on siphonal canal. Spiral cords on body whorl broad, on siphonal canal weaker.

Aperture ovate, outer lip thin, edge sharp, with 12 internal lirae. Columella smooth with thin callus. Siphonal canal open, short. Aperture and siphonal canal about 2/5 of total shell length.

Periostracum thick, pale brown, velvety.

Operculum corneous, pale brown, elongate oval, abapically pointed, with terminal nucleus, filling aperture.

Radula typically buccinid (Fig. 8). Central tooth tricuspid, base semi-quadrangular, curved, the central cusp slightly larger or of equal size. Lateral teeth bicuspid, base broad, outer cusp larger.

**Comparison.** *Eosipho atlanticus* sp. nov. is characterized by a high spire, slightly angular whorls, a strong axial sculpture and a velvety periostracum.

The generic placement of this new species is based on the morphology of the radula and on conchological characteristics (slender, axial sculpture which is dominant on spire and spiral sculpture being dominant on body whorl, short siphonal canal, smooth columella, outer lip with internal lirae). *E. atlanticus* sp. nov. is more similar to the species assigned to *Eosipho* by Bouchet & Warén (1986) than to the type species (*E. smithi*). Species belonging to *Manaria* Smith, 1906 (type species *Manaria thurstoni* Smith, 1906) are very similar, and differ mainly by the more slender shape.

*E. thorybopus* Bouchet & Warén, 1986, a Pacific species, resembles in shape, sculpture, periostracum and radula, but differs by its convex spire whorls (instead of slightly angular), by stronger knobs when axials and spiral cords cross and by a larger aperture.

*Preangeria dentata* (Schepman, 1911), a Pacific species, resembles in shape, spiral sculpture, protoconch and radula, but differs by its convex spire whorls (instead of slightly angular), a lower number of spiral cords (4 instead of 5 or 6), and the presence of a labral tooth in adult specimens.

*Manaria clandestina* Bouchet & Warén, 1986, a Pacific species, resembles much in shape, sculpture,

periostracum and radula, but differs by its convex spire whorls (instead of slightly angular), stronger axial cords, a larger number of spiral cords, and a smaller protoconch (slightly more than 1 protoconch whorl instead of 2).

*Harasewychia harasewychi* Petuch, 1987 (Fascioliariidae) from off Venezuela resembles in shape, sculpture, colour and periostracum but differs by the angular spire whorls (instead of only slightly angular), broader shape, slightly weaker axial and spiral sculpture, more slender siphonal canal and absence of internal apertural lirae.

For a study of the species belonging to this deep-water genus we refer to Bouchet & Warén (1986).

**Etymology.** *Eosipho atlanticus* sp. nov. is named after the Atlantic Ocean.

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#### Figures 1-8

*Eosipho atlanticus* sp. nov., Guadeloupe. 1-2. Holotype, 27.2 mm. 3-4. Paratype 1, 26.9 mm. 5-6. Paratype 2, 34.6 mm. 7. Protoconch of the holotype. 8. radula of the holotype (scale bar: 100 µm).

