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A NEW SPECIES OF *SUTUROGLYPTA* FROM COLOMBIA (CAENOGASTROPODA, COLUMBELLIDAE)

LUIZ RICARDO L. SIMONE[1]
ADRIANA GRACIA C.[2]

ABSTRACT

Suturoglypta procera, *a new species of Columbellidae, is conchologically described for the Caribbean coast of Colombia. The generic attribution is mainly based on the presence of teeth at outer lip, the long siphon and the deep suture. The new species differs from the other congeners in being elongated, almost turriform, in lacking shell pigmentation, and by poorer sculpture. A syntype of the Caribbean* Astyris verrilli *Dall is also figured.*

KEYWORDS: *Suturoglypta procera* new species, Colombia, taxonomy, Caenogastropoda.

INTRODUCTION

New insights to the very complex systematics of the Columbellidae have been brought to attention with some papers of the last decades (e.g., Radwin, 1968, 1977a, 1977b, 1978; deMaintenon, 1999; Costa, 2005), facilitating the analyses on the taxonomy of the family. Those papers are used as comparative basis for the present study.

This paper deals with samples collected in the southern Caribbean Sea during the INVEMAR-Macrofauna cruises, in the coast of Colombia, where additional undescribed species have been collected.

The genus *Suturoglypta* Radwin, 1968 [type species *Columbella pretrii* Duclos, 1846, OD, from Caribbean] is characterized by pointed, elongated spire, well sculptured teleoconch, deeply-incised sutural furrow and by teeth on the outer lip. Beyond the type species, other three species are reported to the West Atlantic, *S. albella* (C.B. Adams, 1850); *S. iontha* (Ravenel, 1861); and *S. hotessieriana* (Orbigny, 1842) (Radwin, 1978; Rosenberg, 2005).

As the samples are composed only by shells, no additional anatomical information beyond it is reported. However, the shell brings sufficient comparative information for a systematic analysis. This paper is part of an on going project respect to revision of the Western Atlantic caenogastropods.

MATERIAL AND METHODS

A list of studied material is present in species description, constituted by types. Additionally, photos and specimens from related species are studied, mostly offered by Paulo Marcio S. Costa, specialist on the family. The specimen was also examined in SEM in the "Laboratório de Microscopia Eletrônica do Museu de

[1] Museu de Zoologia, Universidade de São Paulo, Caixa Postal 42494-970, CEP 04218-970, São Paulo, SP, Brasil. E-mail: lrsimone@usp.br
[2] Instituto de Investigaciones Marinas y Costeras – INVEMAR, Museo de Historia Natural Marina de Colômbia, Cerro de Punta Betín, Santa Marta, Colombia. E-mail: agracia@invemar.org.co

Zoologia da USP" and the National Museun of Natural History (Washington). Due to the scarcity of specimens, the shells were not coated with gold. The type specimen of the related species *Anachis verrilli* was examined directly in USNM (Fig. 10).

Abbreviations of institutions: INV MOL, Instituto de Investigaciones Marinas y Costeras – INVEMAR, Colombia; MZSP, Museu de Zoologia da Universidade de São Paulo, Brazil; USNM, National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA.

Systematics

Suturoglypta procera new species

(Figs 1-9)

Types – Holotype INV MOL2672. Paratypes: INV MOL5478, 3 shells from type locality. COLOMBIA; off San Bernardo Islands, 09°46'89"N 76°17'22"W, 514 m depth, 1 shell, INV MOL2387 (Sta. E149, 25/iii/2001); off Gulf of Morrosquillo, 09°48'58.2"N 76°16'27"W, 519-520 m depth, 1 shell, INV MOL1978 (Sta. E69, 13/iv/1999).

Type locality – COLOMBIA; Caribbean Sea, off San Bernardo Islands, 09°46'50"N 76°17'45"W, 516 m depth (Sta. E150, 25/iii/2001).

Diagnosis

Protoconch of 1.5 whorls – Teleoconch sculptured by broad, arched axial ribs and very narrow spiral furrow; about 13 axial ribs and 9 spiral furrows in penultimate whorl, spire angle about 20°. Canal about 1/8 of total length. Columella smooth. Outer lip with 4-5 small teeth.

Description

Shell (Figs 1-9) – Long, slender, slightly turriform, about 16 mm, up to 12 convex whorls; color whitish to pale cream. Spire angle varying from 20 to 22°. Protoconch (Figs. 6, 8) with 1.5 whorls, convex, smooth, glossy, mammillated; first whorl slightly broader. Protoconch with week sculpture of spiral and axial lines, tesselate, with about 8 axial and 4 spiral lines in last whorl, both equally strong or sometimes with stronger spiral lines (Fig. 8); lines very low, narrow, separated from each other by space three times their width. Transition protoconch – teleoconch clear, orthocline, arched, marked by abrupt change from smooth to sculptured surface (Fig. 6). Suture relatively deep, furrow-like. Periostracum thin, velvet-like, stripping, opaque (Figs. 3, 4, 9). Teleoconch sculptured by strong, arched, orthocline axial ribs, from suture to suture, about 13 in penultimate whorl; each one formed by undulation of surface, separated from each other by space approximately three times rib's width. Shallow spiral furrows, about 9 in penultimate whorl, each furrow continuing even on ribs, separated from each other by space approximately double of each furrow (Fig. 9). Last whorl comprising about half of spire length (Figs. 1, 3, 7); sculpture similar to that of spire, spiral furrows gradually becoming deeper in inferior 2/3 and oblique, covering outer surface of canal. Aperture elongated, with about 1/3 of last whorl width and its same length. Superior region angled. Inner lip concave, smooth; no callus (Fig. 5). Outer lip relatively thick, 4-5 small, subterminal teeth, more concentrated in middle region; each tooth elongated, perpendicular to edge, space between them about three times their width. Canal about 1/8 of total shell length, weakly curved, projected forwards (Figs. 2-4, 5, 7).

Measurements (in mm) – Holotype = 15.71 by 4.51; MZSP 64449: 13.10 by 4.00; INV MOL2387 = 14.04; INV MOL5478: = 16.29; 16.35; 16.13; INV MOL1978 = 12.39.

Distribution – COLOMBIA, Caribbean Sea, from San Bernando Islands and Gulf of Morrosquillo (Sucre).

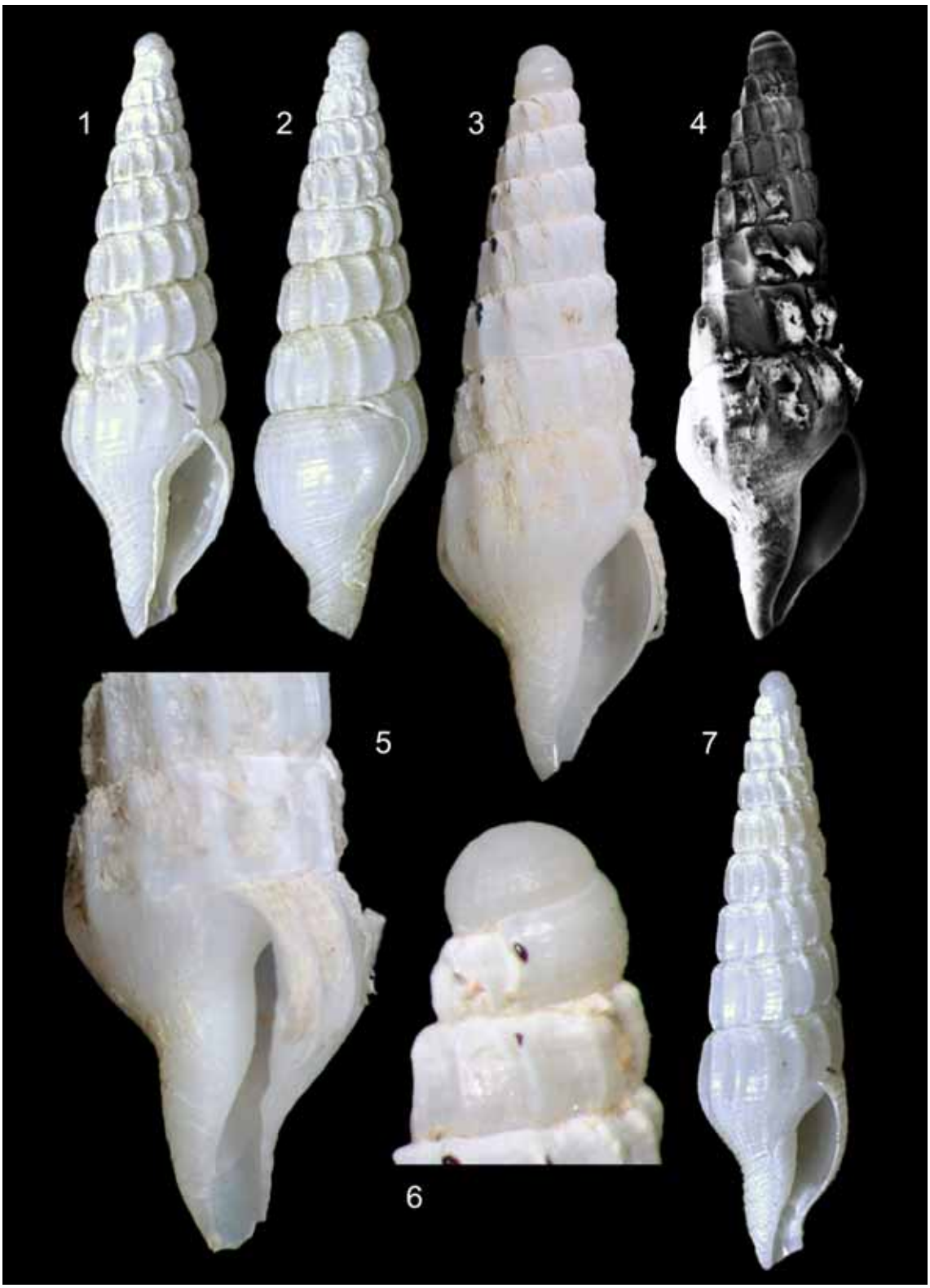
Habitat – Upper slope and continental shelf soft bottoms, from 514 to 520 m depth (only shells).

Material examined – Types.

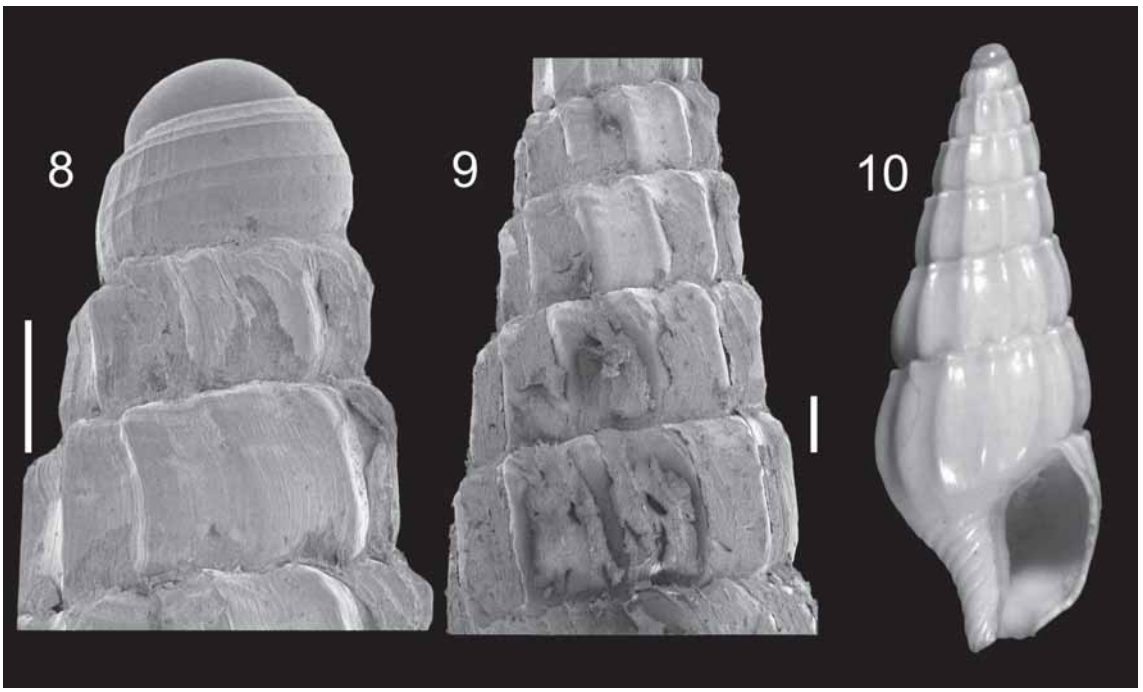
Etymology – The specific epithet refers to the elongated shape of the shell in comparison with congener species, from the Latin *proceros,* meaning tall, slender and long.

Discussion

The generic attribution of *Suturoglypta procera* is based on the diagnosis at the literature (Radwin, 1968:145; Costa, 2005:215). The main characters are the relative elongation of the shell, the sutural furrow, the presence of well-developed siphon, and teeth at inner lip.



FIGURAS 1-7. *Suturoglypta procera* shell of some types: **1-2)** Holotype, INV MOL2672, frontal and dorsal views, length = 15.71 mm; **3-6)** MZSP 64449, length = 13.1 mm; **3)** frontal view; **4)** same in SEM; **5)** detail of aperture, frontal-slightly oblique view; **6)** apex, with protoconch in profile; **7)** paratype INV MOL5478, frontal view, length = 16.13 mm.



FIGURAS 8-9. *Suturoglypta procera* shell of MZSP 64449 in SEM: **8)** detail of shell apex, including profile of protoconch; **9)** detail of sculpture in middle region of spire; scales = 0.5 mm; 10) *Astyris verrilli,* syntype USNM 87043, length 9.1 mm (courtesy P.M. Costa).

Suturoglypta procera can be easily separated from the congeners by the extreme elongation. The shell is almost turriform, resembling a terebrid. The spire angle of about 20° is very different from the other Caribbean species, such as *S. iontha* and *S. pretrii*, which have this angle varying from 30 to 35° (Radwin, 1978; Costa, 2005). Additionally, *S. procera* has a smoother surface. The color of the shell is also not as rich as in other species, which posses brown spots sprayed by the surface, while *C. procera* is uniformly whitish to pale cream. The protoconch of *S. procera* is also a quite different in being slightly mammillated.

Suturoglypta procera resembles the Caribbean *Astyris verrilli* (Dall, 1881) (Radwin, 1978: 331; Abbott, 1974, fig. 2133) (Fig. 10) in shell shape. Both species have an elongated spire, a mammillated protoconch, with 1.5 whorls, and similar axial sculpture. However, *S. procera* is still longer and slenderer in shape, the suture is deeper, the spiral furrows are stronger and the aperture is wider. Besides, *S. procera* lacks sub-sutural nodes at the tip of the axial ribs, as those normally present in *A. verrilli* (Fig. 10). Although *A. verrilli* supposedly occurs from Florida to Pará, Brazil (Dall, 1890: 328; Rios, 1994), it has not been reported from the Colombian coast (Díaz-Merlano & Puyana-Hegedus, 1994). This is apparently the first occurrence of the genus *Suturoglypta* on the Colombian coast.

RESUMO

Suturoglypta procera, *uma espécie nova de Columbellidae, é conquiliologicamente descrita para a costa caribenha da Colômbia. A atribuição genérica é principalmente baseada na presença de dentes no lábio externo, o canal sifonal longo e a sutura profunda. A nova espécie difere das demais congêneres por ser alongada, quase turriforme, por carecer de pigmentação e pela escultura menos desenvolvida. Um sintipo da espécie caribenha* Astyris verrilli *Dall é também figurado.*

PALAVRAS-CHAVE: *Suturoglypta procera* nova espécie, Colômbia, taxonomia, Caenogastropoda.

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