

**The genus *Stosicia* in the Caribbean (Caenogastropoda, Rissoidae),  
with the description of a new species**

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*Stosicia garciai* spec. nov. is described from Honduras. The new species is compared with the other W. Atlantic species, with details of the shell, its protoconch and the microsculpture.

Key words: Rissoidae, *Stosicia*, taxonomy, Honduras.

INTRODUCTION

The first W. Atlantic species of *Stosicia* Brusina, 1878, was described by C.B. Adams (1850). Only after a century a second species was discovered (Sleurs, 1996). More recently, Espinosa & Ortea (2002) described another species. Lee (2003) discussed the taxonomy, zoogeography, and evolution of *Stosicia* Brusina, 1878, in the western Atlantic. Here we reconsider material collected in Caribbean Honduras, which he referred to *S. houbricki* Sleurs, 1996. These specimens belong to one more new species, i.e. *Stosicia garciai* spec. nov. The differential diagnoses of this taxon and its three western Atlantic congeners are presented. Ultrastructural features revealed by the SEM are reported for the first time.

Abbreviations used. — CEG, colln Emilio García, Lafayette, LA, USA; CFG, colln Raúl Fernández-Garcés, Cienfuegos, Cuba; CHL, colln Harry G. Lee, Jacksonville, USA; FLMNH, Florida Museum of Natural History, USA; IES, Instituto de Ecología y Sistemática, Havana, Cuba; IOC, Instituto de Oceanología, Havana, Cuba; MCZ, Museum of Comparative Zoology, Harvard, USA; MNCN, Museo Nacional de Ciencias Naturales, Madrid, Spain; MNHC, Museo de la Naturaleza y el Hombre, Tenerife, Spain; USNM, United States National Museum, Washington, USA.

SYSTEMATIC PART

*Stosicia* Brusina, 1878

*Stosicia aberrans* (C. B. Adams, 1850) (figs 1-4)

*Rissoa aberrans* C. B. Adams, 1850: 58-59 (Jamaica). Holotype (MCZ 156426): Clench & Turner, 1950: pl. 33 fig. 10.

Material examined. — Cuba: Cienfuegos, in sediments, Rancho Luna, 50 m (CFG/6). Honduras: E. side of entrance to Carib Bight, S. Roatan Is (CEG/7); E. side of the Caribe Bight, Roatan Is., under coral rubble (CHL/4).

Description. — Shell (fig. 1) ovoid with elongate spire, solid, with spiral and axial sculpture. Protoconch (figs 2, 3) with  $2\frac{1}{4}$ - $2\frac{1}{2}$  whorls; nucleus of 70  $\mu\text{m}$  and a diameter of about 330  $\mu\text{m}$ , smooth, presenting only on the last part 1-2 spiral angulations scarcely prominent. The spiral cords pass over the axial ribs forming rounded nodules on the crossing points. There are 2 cords on the initial two teleoconch whorls, 3 on the subsequent, 4 on the penultimate and 8-9 on the last whorl, which are all very conspicuous; additionally there are 4-5 small, narrowly spaced cords at the base. The aperture is ovoid, with a deep siphonal canal below and three internal nodules inside the external lip, and about nine prominences externally. Peristome double. Columella curved, with a thickened callus. The microsculpture (fig. 4) is formed by axial, very small striae which do not cross the spiral cords.

Dimensions: Up to 6 mm high.

Distribution. — Known from Broward Co., SE. Florida, USA, the northern Gulf of Mexico, through the entire Caribbean, and southwards to Estado Sta. Catarina, S. Brazil. Apparently absent in Bermuda and the Bahamas (Lee, 2003).

Remarks. — A protoconch with slightly more than 2 whorls and a small nucleus differentiate this species from the congeneric ones that are known from the western Atlantic.

#### *Stosicia houbricki* Sleurs, 1996 (figs 5-9)

*Stosicia houbricki* Sleurs, 1996: 142 (reef flat, Carrie Bow Cay, Belize). Holotype (fig. 5) (USNM 775230), not examined, judged on the basis of photographs only.

Material examined. — USA, Florida, Dania, Broward Co. (CHL/1).

Description. — Shell (figs 5, 6) solid, with spiral cords and axial ribs. Protoconch (fig. 7) with about  $1\frac{1}{4}$  whorl or slightly less; nucleus of 150  $\mu\text{m}$  and a diameter of about 380  $\mu\text{m}$ . With 2 spiral cords on the first teleoconch whorl, 3 on the second and the third, 4 on the penultimate and 8 on the upper part of the last whorl, followed by 4-5 small and narrowly spaced ones on the base. The aperture is ovoid, with a deep siphonal canal below and no internal nodules; external part of the outer lip with about 7 nodes, which are the terminations of the spiral cords. Peristome sharp. Columella curved, with a thickened callus. The microsculpture (figs 8, 9) is formed by very small axial striae which do not cross the spiral cords.

Holotype, 4.3 mm high; the shell from Florida measures 3.8 mm.

Distribution. — Known from Belize and Dania, Broward Co., SE. Florida.

Remarks. — The original description by Sleurs (1996) is quite detailed and includes SEM photographs. The paucispiral protoconch differentiates this species from *S. aberrans*.

#### *Stosicia fernandezgarcesi* Espinosa & Ortea, 2002 (figs 10-13)

*Stosicia fernandezgarcesi* Espinosa & Ortea, 2002: 144, fig. 1 C (Santa Fe, Playa, Havana, sediments from 35 m, Cuba). Type series: IOC/holotype; MNHC/2 paratypes; IOC/2 paratypes.

Other material examined. — Cuba, María La Gorda, Pinar del Rio, W. of Cuba (CFG/1).

Description. — Shell (fig. 10) solid, with numerous spiral cords and ribs. Protoconch (figs 11-12) with about 1 whorl; nucleus of 160  $\mu\text{m}$  and a diameter of 410  $\mu\text{m}$ . With 2 spiral cords at the beginning of the teleoconch, but immediately 3 more depressed cords are added; 7 cords on the second and 7-8 on the penultimate 7-8 whorl. The last whorl has 13

spiral cords on the upper part, which are smaller below, whereas there are 4-5 more near the base. The aperture is ovoid, with a deep siphonal canal below, and no internal nodules. The external part of the aperture is wide and extended, with about 13 spiral prominences, which are the ends of the spiral cords. Peristome sharp. Columella curved, with a thickened callus. The microsculpture (fig. 13) is formed by very small axial striae which do not cross the spiral cords. The interspaces between the cords are small.

Dimensions: Up to 4 mm high.

Distribution. — Only known from Cuba.

Remarks. — Lee (2003) mistakenly synonymized this species with *S. houbricki*. The differences between this species and the other species from the western Atlantic are: (1) the slightly wider protoconch, (2) the more numerous spiral cords, which are narrower and more narrowly spaced, (3) the more numerous nodules on the external lip, (4) the wider external lip, and (5) the more convex teleoconch whorls.

*Stosicia garciai* spec. nov. (figs 14-19)

Type series. — Honduras, E. side of the Caribe Bight, Roatan Is., under coral rubble (FLMNH/holotype [fig. 14]; paratypes: USNM/1, [figs 15, 16, 18]; MNCN/1 [fig. 17]; IES/1; CFG/1; CHL/1; CEG/7).

Etymology. — Named for its discoverer, Dr. Emilio García of Lafayette, LA, USA, well-known for his scientific contributions on the malacofauna of the Gulf of Mexico, the Epitoniidae, and other topics.

Description. — Shell (figs 14-15) solid, with spiral cords and axial ribs. Protoconch (figs 16-18) with about 1 1/8 whorl; nucleus of 150 µm and a diameter of 350-380 µm. With 6 spiral cords on the first teleoconch whorl, 4-5 on the second and third, 5-6 on the penultimate and 8-10 on the upper part of the last whorl, followed by 4-5 small and narrowly spaced ones on the base. The aperture is ovoid, with a deep siphonal canal below, and no internal nodules in the external lip, while the external part has about 9-10 prominences, which are the ends of the spiral cords. Peristome sharp. Columella curved, with a thickened callus. The microsculpture (fig. 19) is formed by axial, very small striae, which are not present on the spiral cords.

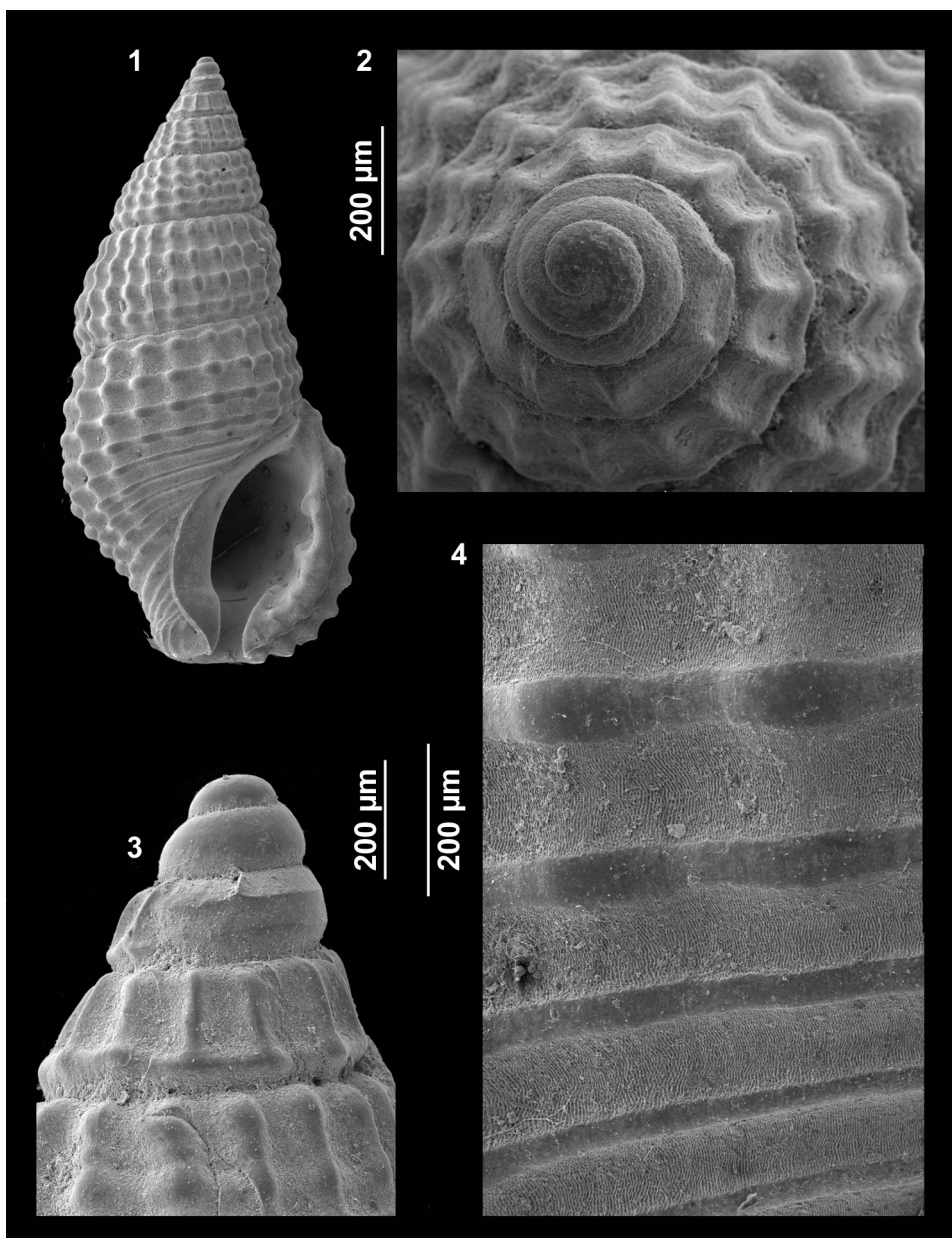
The holotype is 3.4 mm long; the paratypes are slightly larger.

Distribution. — Caribbean Honduras

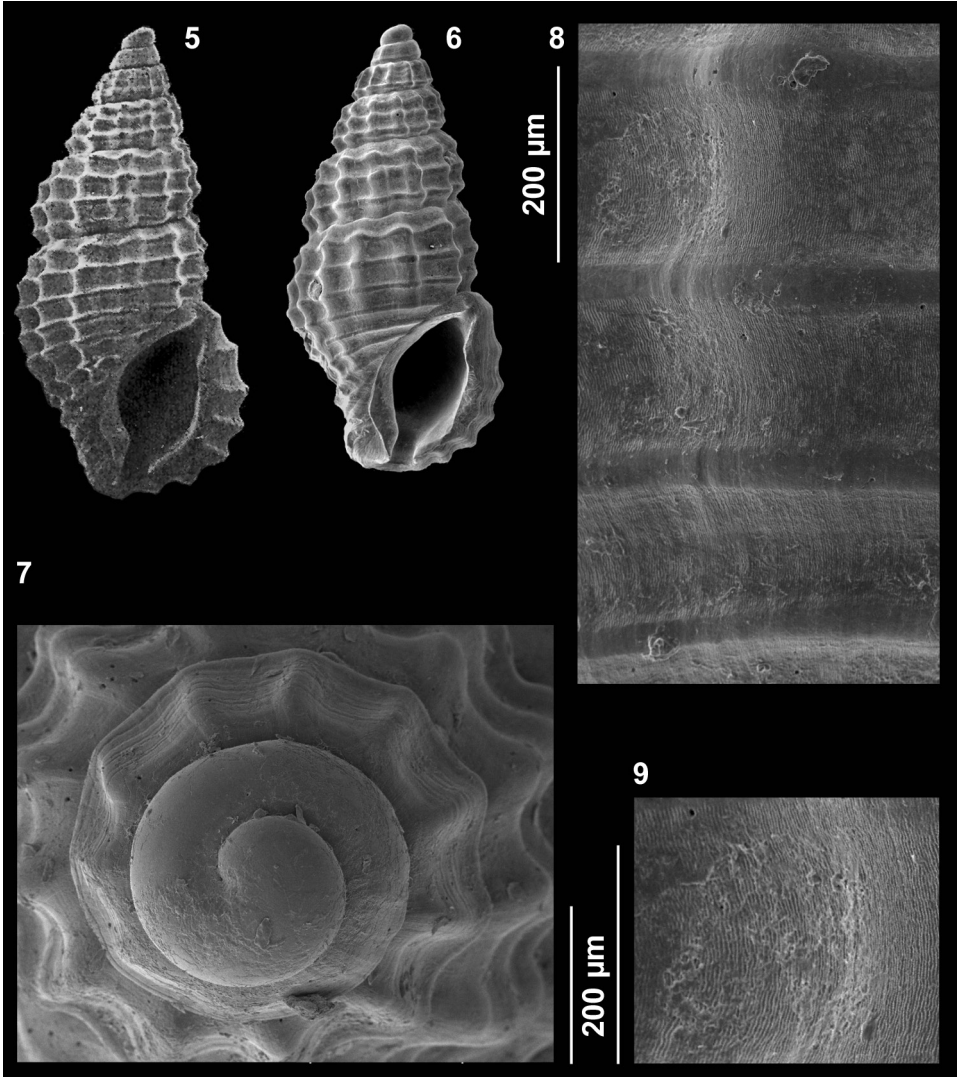
Remarks. — The new species can be differentiated from *S. aberrans* by the planktrophic protoconch of the latter. *Stosicia houbricki* has fewer cords on the initial whorls of the teleoconch, i.e. only 3-4 (versus 5-6) on the penultimate whorl, and fewer nodules on the external lip, i.e. only 7 (versus 9-10). *Stosicia fernandezgarcresi* has fewer cords on the initial teleoconch whorls but more on the last ones and on the external lip, which is wider; it also has more convex whorls. For a comparison of some characters with other W. Atlantic species, see table I.

	Protoconch whorls	Spiral cords on whorls 1 and 2	Spiral cords on penultimate whorl	Spiral cords on body whorl	Nodules on external lip
<i>S. aberrans</i>	2 1/4 - 2 1/2	2-3	4	8-9 + 4-5	9
<i>S. houbricki</i>	1 1/4	2-3	3-4	8-9 + 4-5	7
<i>S. fernandezgarcresi</i>	1	2-4	7	16 + 4	13
<i>S. garciai</i> spec. nov.	1 1/8	5-6	5-6	9-10 + 4-5	9-10

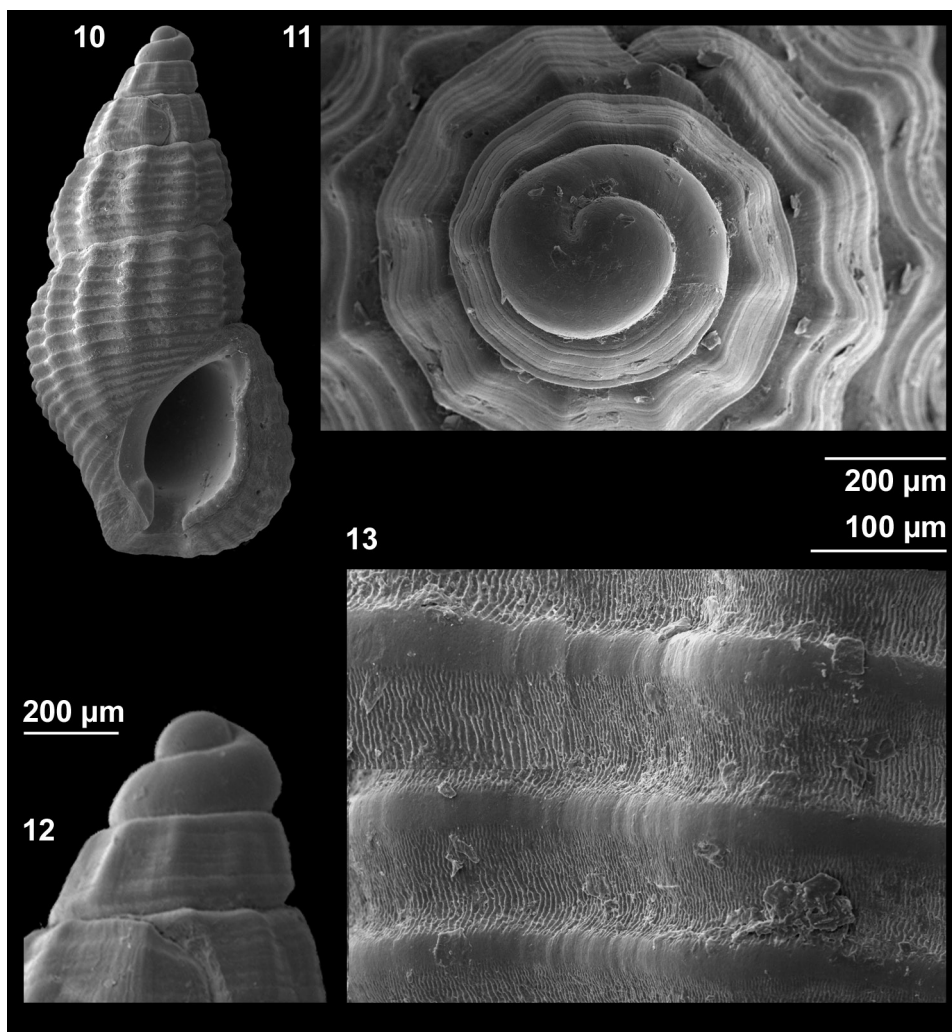
Table I. Characters of the W. Atlantic *Stosicia* species



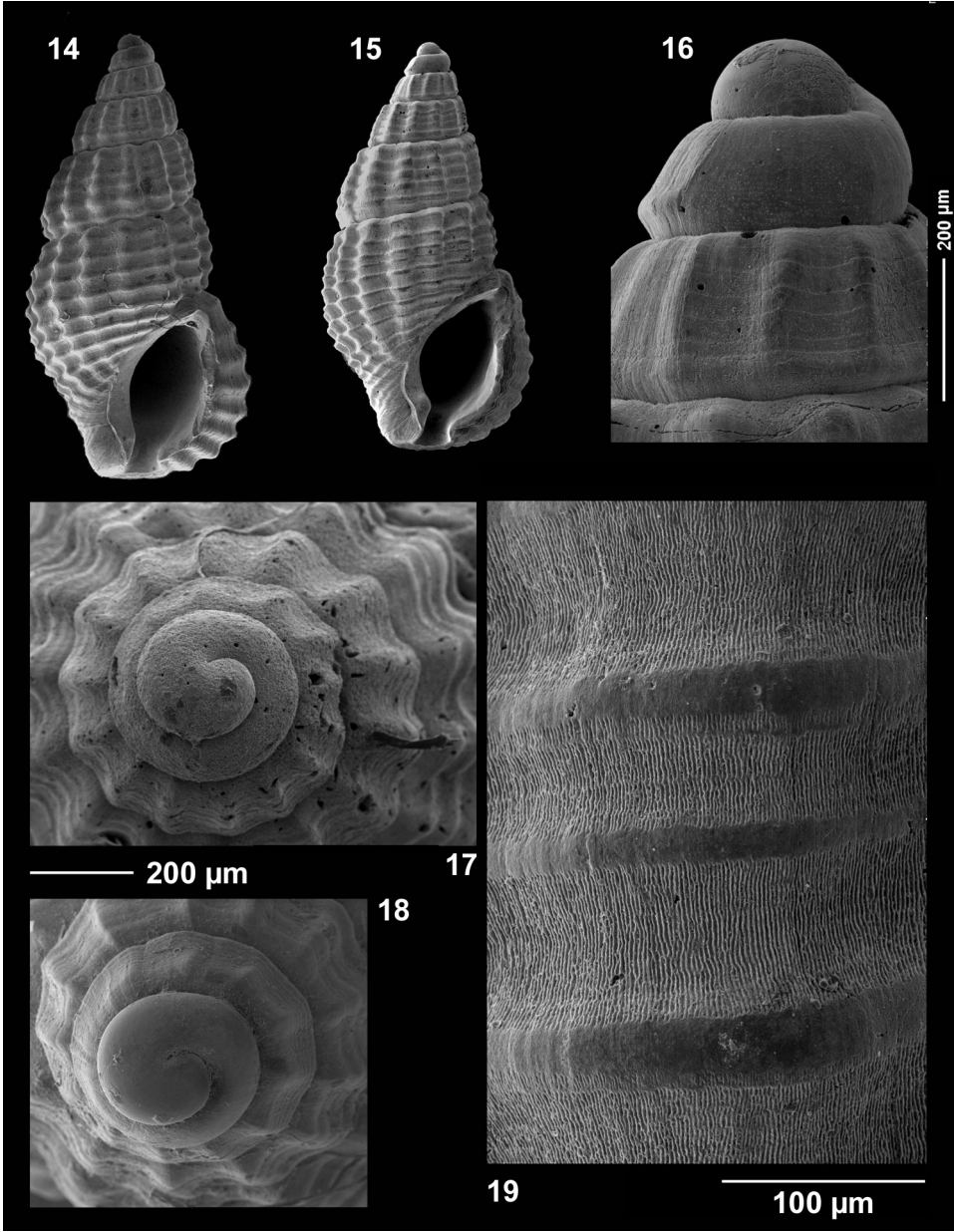
Figs 1-4. *Stosicia aberrans* (C. B. Adams, 1850). 1, shell height 5.1 mm, Cienfuegos, Cuba (CFG); 2-3, protoconch; 4, microsculpture of the last whorl, above the aperture.



Figs 5-9. *Stosicia houbricki* Sleurs, 1996. 5, holotype, shell height 4.3 mm, Belize (USNM); 6, shell height 3.8 mm, Florida (CHL); 7, protoconch, shell of fig. 5; 8-9, microsculpture, of the last whorl above the aperture (8) and detail of the upper part of 6 (9).



Figs 10-13. *Stosicia fernandezgarcesi* Espinosa & Ortea, 2002. 10, shell height 3.7 mm, Maria la Gorda, W of Cuba (CFG); 11, 12, protoconch; 13, microsculpture of the last whorl above the aperture.



Figs 14-19. *Stosicia garciai* spec. nov. 14, holotype, shell height 3.4 mm, Roatan Is., Honduras (FMNH); 15, paratype, shell height 3.5 mm (USNM); 16-18, protoconchs; 16, holotype; 17, paratype (MNCN); 18, paratype (USNM); 19, microsculpture of the last whorl above the aperture

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