

# A New Species of *Favartia* from the Eastern Pacific (Gastropoda: Muricidae)

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## ABSTRACT

*Favartia* (*Murexiella*) *shaskyi* is described from Isla del Coco, Costa Rica, and compared with related species from the eastern Pacific. This species is known only from this isolated oceanic island.

## INTRODUCTION

Isla del Coco (also known as Cocos Island), one of the National Parks of Costa Rica, is a small, uninhabited island situated approximately 600 kilometers south southwest of Puntarenas, Costa Rica, at 5°33'N latitude and 87°03'W longitude. Isla Cascara and Roca Sucia are two of the many islets surrounding Cocos Island. In May, 1985, Donald R. Shasky of Redlands, California, and Kirstie L. Kaiser of La Canada, California, collected five specimens of the new species described herein, at depths of 50–80 feet (15.2–24.4 m), under dead coral off these two islets. In a previous paper (D'Attilio, Myers & Shasky, et al., 1987), a new species of *Phyllonotus* Swainson, 1833, was described from the same area. Montoya (1983, 1984) published a bibliography of Cocos Island molluscan faunal studies.

## SYSTEMATICS

Family **Muricidae** Rafinesque, 1815

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

Genus *Favartia* Jousseaume, 1880

**Type species:** *Murex breviculus* Sowerby, 1834, by original designation.

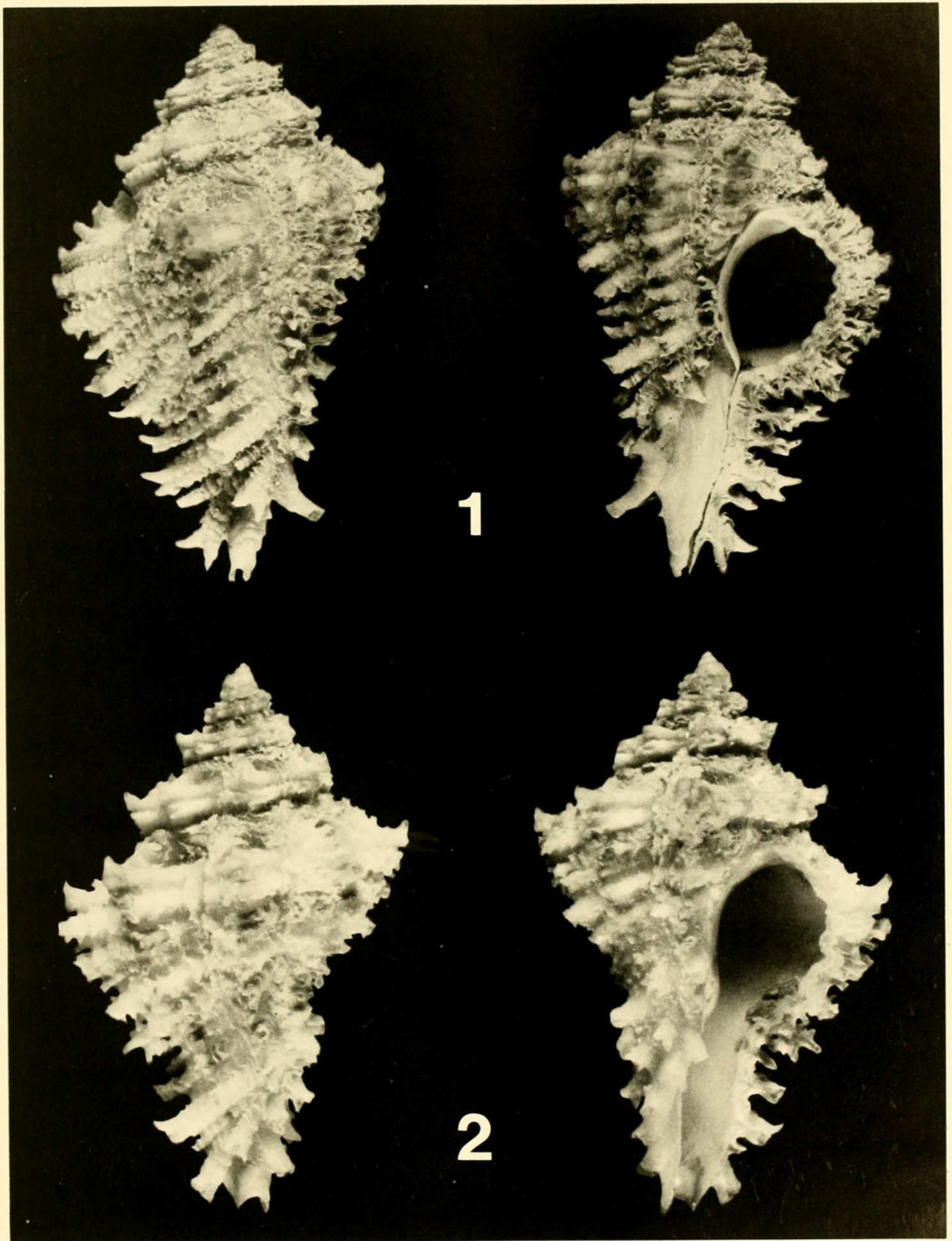
Subgenus *Murexiella* Clench & Pérez Farfante, 1945

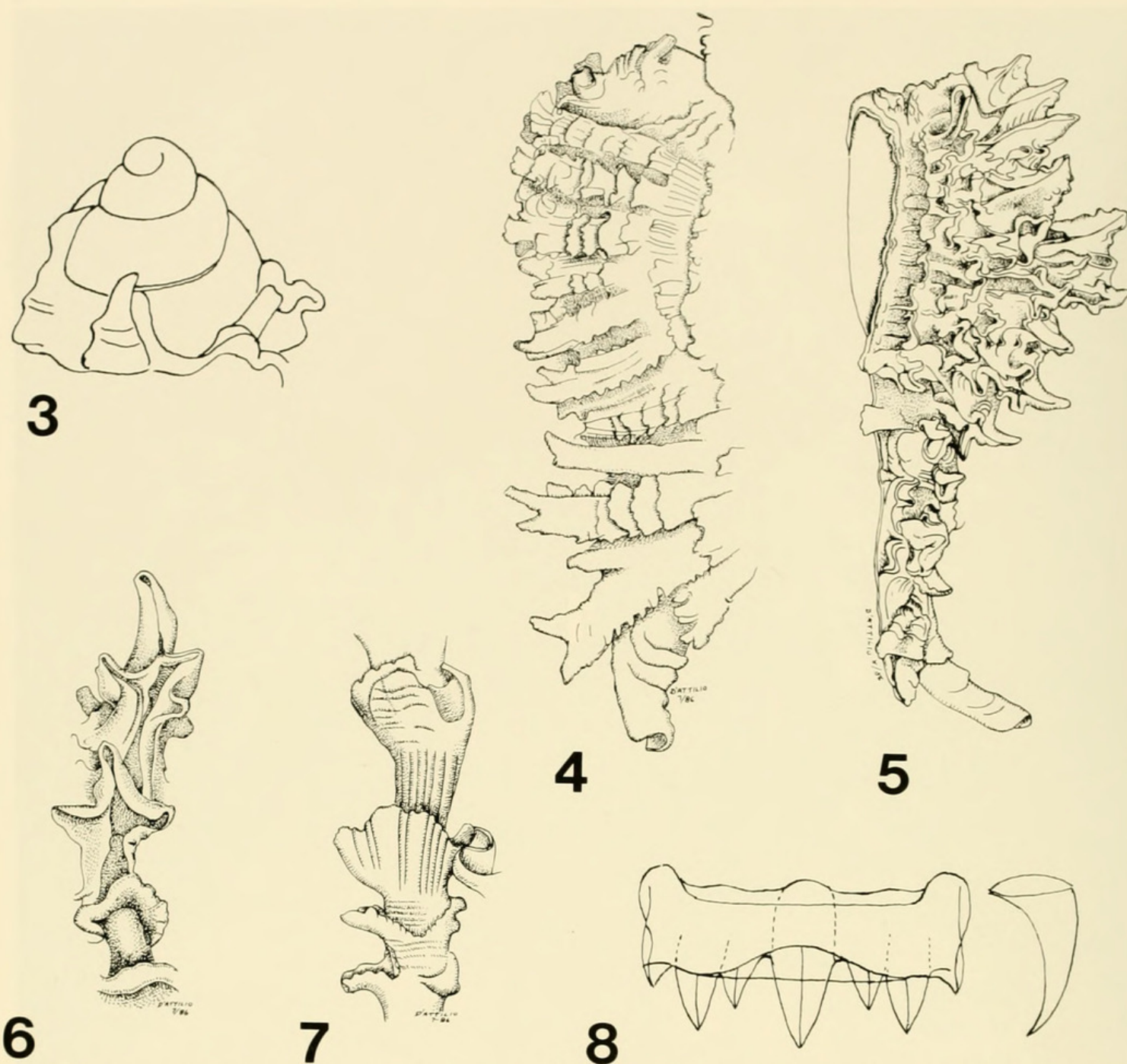
**Type species:** *Murex hidalgoi* Crosse, 1869, by original designation.

*Favartia* (*Murexiella*) *shaskyi* new species  
(figures 1–10)

**Description:** Shell (figures 1, 2) broadly fusiform, spire  $\frac{1}{3}$  shell length; protoconch of holotype eroded, protoconch of paratype 1 (figure 3) of  $3\frac{1}{2}$  smooth, lustrous, convex whorls, with axial buttresses arising from the teleoconch; teleoconch with 5–6 subangulate whorls; suture weakly impressed; whorls gently sloping from suture to shoulder; body whorl  $\frac{2}{3}$  shell length; aperture ovate; inner lip erect posteriorly; outer lip thin, erect, crenulate, reflecting the spiral cords; siphonal canal  $\frac{1}{3}$  shell length, broad proximally, tapering distally, with narrow ventral opening, terminally recurved, tube-like; siphonal fasciole of 3 fine distal portions of previous canals; body whorl with 6 broad varices, penultimate whorl with 8 varices; varices broader than intervarical regions; spiral sculpture of 6 cords on body whorl, all nearly equal in width, packed closely together; 2 additional cords between body whorl and siphonal canal, 2 major and 1 minor cord on canal; 2 cords per whorl on spire; shoulder of body whorl without spiral cords; all cords terminate as spines on varices (figures 4, 5), posterior spines recurved, anterior spines long, projecting ventrally; spiral cords (figures 6, 7) strongly scabrous; scales prominent, fine, white, erect, closely packed, disguising the contour of cords; cords and scales microscopically grooved, incrementally incised; adapertural sides of varices, especially last varix, completely scaled; scales arranged in 3 tiers (figure 6), with tube-like spines on tier farthest from aperture; radula (figure 8) typically muricopsine, with broad, U-shaped basal plate, and strongly projecting cusps. Paratypes 1 and 2 with only 4 postnuclear whorls; suture more strongly impressed, spire angulate.

**Figures 1, 2.** *Favartia* (*Murexiella*) *shaskyi* new species. **1.** Holotype, USNM 860012, Isla Cascara, Cocos Island, Costa Rica, under dead coral slab, in 24.4 m, 23.0 mm long. **2.** Paratype 1, SDNHM 91873, Roca Sucia, Cocos Island, Costa Rica, under dead coral slab, in 24.4 m, 14.0 mm long.





**Figures 3–7.** *Favartia (Murexiella) shaskyi* new species, details of shell sculpture. **3.** Protoconch of paratype 1. **4, 5.** Adapertural (4) and abapertural (5) views of last varix of holotype. **6, 7.** Microsculpture along adapertural (6) and abapertural (7) surfaces of a spiral cord of the holotype. **Figure 8.** Rachidian and right lateral teeth from the holotype.

**Color:** Base color buff to tan, with diffuse darker band encircling body whorl; scales white, aperture white, siphonal canal white.

**Type locality:** Isla Cascara, Cocos Island, Costa Rica, under dead coral slab, in 24.4 m.

**Holotype:** USNM 860012 (figure 1), 23.0 mm long, 14.2 mm wide.

**Paratypes:** Paratype 1: SDNHM 91873 (figure 2), 14.0 mm long. Paratype 2: Collection of D. R. Shasky, 11.8 mm long, both from Roca Sucia, Cocos Island, Costa Rica, under dead coral, in 24.4 m.

**Additional material examined:** Two specimens, collection of K. Kaiser, 19.2 mm long, and 14.7 mm long, Isla Cascara, Cocos Island, Costa Rica, under rocks, in 15.2–24.4 m.

**Etymology:** We are pleased to name this species for Donald R. Shasky, M.D., who collected the three type specimens, and who generously donated the holotype and paratype 1.

#### DISCUSSION

This new species has a distinct morphology that easily distinguishes it from all other eastern Pacific species of

the subgenus *Murexiella*. *Favartia* (*Murexiella*) *lappa* (Broderip, 1833), a closely related species, differs in having a higher spire, biconic form, and short, stubby, non-recurved spines. *Favartia* (*Murexiella*) *vittata* (Broderip, 1833) also has a more or less biconic shape, but the body whorl is more globose, and the spines, although recurved, are short and stubby. *Favartia* (*Murexiella*) *keenae* (E. H. Vokes, 1970) has somewhat similar sculpture, a larger shell with a globose body whorl strongly constricted at the base, and a strongly impressed suture. We have carefully studied and compared the 12 additional nominal species of *Murexiella*, none of which are closely related to this new species.

#### ACKNOWLEDGEMENTS

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