

A new *Sveltia* (Gastropoda: Cancellariidae) from off Guadeloupe, French West Indies

Richard E. Petit

806 St. Charles Road
North Myrtle Beach, SC 29582-2846 USA
r.e.petit@att.net

M.G. Harasewych

Department of Invertebrate Zoology
National Museum of Natural History
Smithsonian Institution
P.O. Box 7012
Washington, DC 20013-7012 USA

ABSTRACT

Sveltia yoyottei, the first Recent species of *Sveltia* from the tropical western Atlantic, is described from bathyal depths off Guadeloupe, French West Indies. It is distinguished from its closest relative, *Sveltia inquilinus* (Jung and Petit, 1990) from the Pliocene of the Dominican Republic, by its shorter, more gradate spire, its narrower pseudombilicus, and by having fewer, stronger denticles along the outer lip. It differs from the Panamic *S. centrota* (Dall, 1896) in having a smaller, narrower shell with 1–3 axial ribs between adjacent varices.

Additional key words: Pliocene, biogeography, paciphile.

INTRODUCTION

The cancellariid genus *Sveltia* is readily diagnosed on the basis of its biconical shell, moderately high spire, widely spaced axial ribs with an open spine at the shoulder, broad aperture, flared peristome, and narrow pseudombilicus. *Sveltia* has a widespread geographic distribution in the Recent fauna, extending from western Africa to Argentina, the tropical and temperate eastern Pacific from Mexico to Chile, and New Caledonia. During the Pliocene, the range of *Sveltia* included most of western Europe. Following the discovery of *Sveltia inquilinus* (Jung and Petit, 1990: 91) from the Pliocene of the Dominican Republic, these authors added *Sveltia* to Woodring's (1966: 428) list of paciphile genera (genera once present in both the Caribbean and the western Pacific faunas that now survive only in the Pacific).

The discovery of a Recent species of *Sveltia* from Guadeloupe, described herein, reveals that the genus survives in the Caribbean Sea, and is not a paciphile genus.

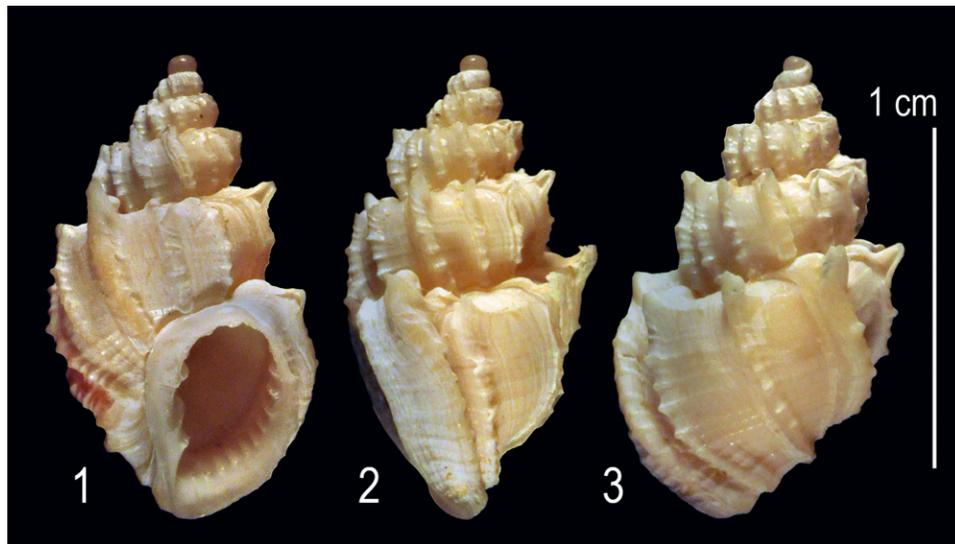
SYSTEMATICS

Family Cancellariidae Forbes and Hanley, 1851
Subfamily Cancellariinae
Genus *Sveltia* Jousseume, 1887: 214.

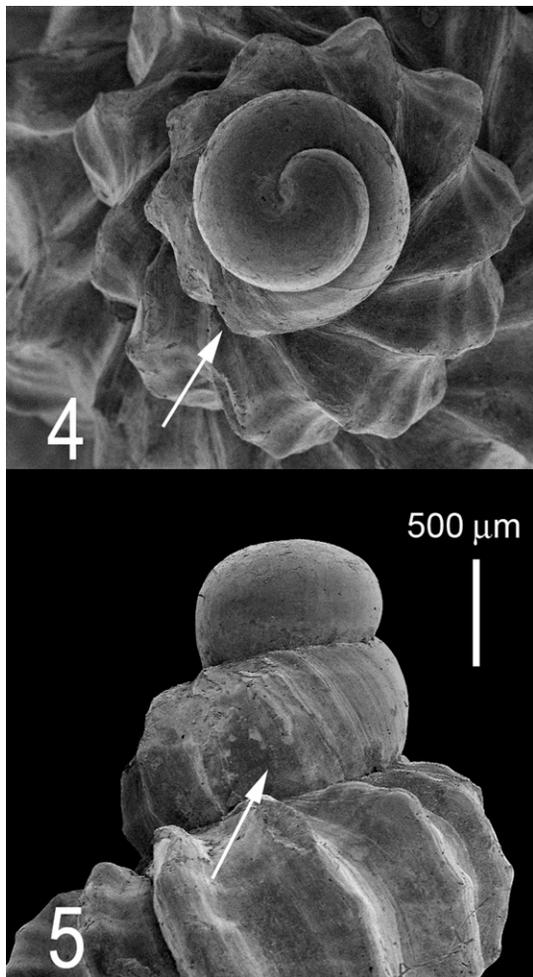
Type Species: “*Sveltia varicosa* Brocc.” (= *Voluta varicosa* Brocchi, 1814), by original designation.

Sveltia yoyottei new species
(Figures 1–3)

Description: Shell (Figures 1–3) small (to 13.6 mm), thick, with tall conical spire (spire angle 55°), rounded anterior, broadly ovate aperture with very short siphonal canal, narrow siphonal fasciole and pseudombilicus. Protoconch (Figures 4–5) paucispiral, increasing in diameter from 370 µm to 1.2 mm in 1½ inflated, smooth, glassy whorls, deviated from teleoconch axis by ~30°. Transition to teleoconch abrupt (Figures 4–5, arrows), marked by flared protoconch lip, onset of thick, shouldered prosocline axial ribs with weak spiral cords evident on ribs and shoulder. Teleoconch of 4 inflated, strongly shouldered whorls. Suture impressed. Axial sculpture dominant, of strongly prosocline ribs (9 on first postnuclear whorl, 11 on last whorl), with thicker, broader varices forming on every second then third rib starting with third teleoconch whorl. Two thick varices in close apposition appear to mark the end of growth (as in species of *Trigonostoma*, see Petit and Harasewych, 1987). Region between suture and shoulder with 0–1 fine threads, broadly flared on axial ribs and varices. Spiral sculpture of: strong open spines on ribs and varices along shoulder, 4–5 low, weak, narrow, rounded cords between shoulder and siphonal canal; 4 finer cords on siphonal canal, all producing knobs or weakly open spines on axial ribs and varices. Finer threads present between adjacent cords near the shoulder. Aperture broadly ovate, tapering anteriorly, deflected from coiling axis by 23°, surrounded by continuous, flared peristome, broadest along anterior third of outer lip. Outer lip with 10 short, rounded denticles. Inner lip with 2 denticles along parietal region. Columella thick, concave, with 2 strong columellar folds and a siphonal fold. Siphonal canal broad, indistinctly demarcated along outer lip. Shell cream colored, inside and out. Periostracum unknown. Operculum absent.



Figures 1–3. *Sveltia yoyottei* new species. **1.** Apertural, **2.** Lateral, and **3.** Dorsal views of the holotype, MNHN. Off Grande Terre, Guadeloupe, France, French West Indies, in 300 m.



Figures 4–5. *Sveltia yoyottei* new species. **4.** Apical and **5.** Lateral views of the protoconch of the holotype.

Type Locality: Off Pointe de la Grande Vigie, north Grande Terre, Guadeloupe, French West Indies, in 300 m.

Type Material: Holotype, Muséum national d'Histoire naturelle, Paris, MNHN 23684.

Etymology: This new species honors Mr. Jean-Claude Yoyotte, who collected the type specimen.

Comparative Remarks: *Sveltia yoyottei* is most similar to *Sveltia inquilinus* (Jung and Petit, 1990) from the Pliocene of the Dominican Republic from which it can be distinguished by its slightly shorter, more gradate spire, narrower pseudumbilicus, and fewer, stronger denticles along the outer lip. *Sveltia inquilinus* has more inflated whorls with finer and more numerous spiral sculpture. The closest living relative of *S. yoyottei* appears to be *S. centrota* (Dall, 1896), which ranges from Baja California to the Galapagos. *Sveltia centrota* differs in having a much larger, broader, heavier shell with 8–10 evenly spaced varices per whorl, and lacks axial ribs between adjacent varices. *Sveltia yoyottei* also resembles *Sveltia zahni* (Böse, 1910) from the Pliocene of Tehuantepec, Mexico, a precursor of *S. centrota*. However, *S. zahni* has a taller, narrower shell with a more sharply angled shoulder with fewer varices, and a smaller, narrower aperture.

ACKNOWLEDGMENTS

We are pleased to acknowledge the assistance of Mr. Dominique Lamy of Guadeloupe, French West Indies, who recognized this specimen to be an unknown species and permitted us to publish this description.

LITERATURE CITED

- Böse, E. 1910. Zur jungtertiären Fauna von Tehuantepec. I. Stratigraphie, Beschreibung und Vergleich mit amerikanischen Tertiärfaunen. *Jahrbuch der Kaiserlich-Königlichen Geologischen Reichsanstalt* 60: 215–255, pls. 12, 13.
- Dall, W.H. 1896. Diagnoses of new species of mollusks from the west coast of America. *Proceedings of the United States National Museum* 18: 7–20.
- Jung, P. and R.E. Petit. 1990. Neogene paleontology in the northern Dominican Republic. 10. The family Cancellariidae (Mollusca: Gastropoda). *Bulletins of American Paleontology* 98(334): 85–144, pls. 15–29.
- Petit, R.E. and M.G. Harasewych. 1987. The Indo-West Pacific species of the genus *Trigonostoma sensu stricto* (Gastropoda: Cancellariidae). *The Veliger* 30: 76–81.
- Woodring, W.P. 1966. The Panama land bridge as a sea barrier. *Proceedings of the American Philosophical Society* 110(6): 425–433.