

## Four Previously Undescribed Indo-Pacific Terebrids

(Mollusca : Gastropoda)

BY

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(1 Plate)

IN FOURTEEN YEARS of examining and identifying terebrids from various institutions and private collectors, I have come across a number of undescribed species. Several specimens of one of these have been in my own collection for many years, unidentified. I needed to wait for additional material before describing some of these species. For others, I needed to do additional research. Four of these are now being described in this paper.

TEREBRIDAE Mörch, 1852

*Terebra* Bruguière, 1789

*Terebra boucheti* Bratcher, spec. nov.

(Figures 1 and 2)

**Diagnosis:** A shiny medium-large terebrid shell, white or white with reddish-brown blotches and ornamented with round bead-like nodes.

**Description:** Shell size moderately large; color shiny white; outline of whorls concave with convex double subsutural band and projecting rows of nodes; protoconch of  $3\frac{1}{2}$  extremely long whorls, the last whorl being twice the length of the preceding one; first 2 whorls of teleoconch extremely angulate because of sharp nodes projecting from center of whorl, a row of smaller, less conspicuous nodes both anterior and posterior to projecting row; 2 rows of nodes becoming equal in size after 4<sup>th</sup> whorl and forming subsutural band; sculpture posterior to band consisting of 2 rows of smaller nodes; subsutural band on later whorls consisting of a row of shiny elongate nodes with obsolete spiral cords in interspaces, followed by a row of slightly smaller nodes, a broad channel between; remainder of whorl sculptured by 4 rows of small nodes

aligned vertically and connected both spirally and axially by shiny cords; body whorl with double subsutural band followed by 3 rows of smaller nodes, the one at the periphery being slightly more pronounced; sculpture anterior to periphery of heavy spiral cords; aperture quadrate; columella recurved; siphonal fasciole almost smooth, with microscopic striations, and a sharp keel.

**Dimensions:** Holotype 47.5 x 7.7 mm. Paratypes from 41.4 x 7.3 to 61.8 x 12.3 mm.

**Type Locality:** Philippine Islands. 14°16'N; 120°31'E; Musorstrom Expedition, Station 10, 70 to 67 meters.

**Type Material:** Holotype MNHN. Paratypes MNHN (1); BM(NH) no. 198019 (1); LACM no. 1364 (1); USNM no. 782260 (1); Bratcher coll. (2); Parkinson coll. (1).

**Distribution:** Philippines to Solomon Islands.

**Discussion:** The most outstanding feature of this species is the long whorled protoconch followed by extremely angulate early whorls caused by a keel of small nodes in the center of the first whorls of the teleoconch. This is one of the shiniest of the terebrids. There is almost no variation in the sculpture of the early whorls of the specimens examined. In the later whorls some specimens show more pronounced axial and spiral cords with smaller nodes at the intersections. Of the paratypes, 3 are white, the remainder blotched with orange brown. Specimens with orange brown blotching have been in some collections labeled as *Terebra adamsi* E. A. Smith, 1878, though there is little resemblance to that species; *T. adamsi* has small orange-brown dots, is turreted in outline, and the only nodes are those on the subsutural band.

*Terebra boucheti* should be compared with several other Indo-Pacific species: *T. torquata* Adams & Reeve, 1850 is similar in size and somewhat similar in sculpture though it lacks the nodes anterior to the subsutural band,

has a mamillate protoconch of  $1\frac{1}{2}$  whorls, and lacks the high gloss; *T. elliscrossi* Bratcher, 1979 has a white shell with small paired dots rather than wide blotches. It lacks the keeled angulate early whorls of the teleoconch and the beaded nodes anterior to the subsutural band; *T. insalli* Bratcher & Burch, 1967 has a more slender shell and also lacks the angulate early whorls and the beading.

This species is named in honor of Dr. Philippe Bouchet, curator at the Muséum National D'Histoire Naturelle, Paris, France.

*Terebra troendlei* Bratcher, spec. nov.

(Figures 3 and 4)

**Diagnosis:** A medium sized white shell with orange spots on a flat subsutural band and with axial ribs on the early whorls, the later whorls being smooth.

**Description:** Shell size medium; color, white with low gloss, ornamented with orange blotches on subsutural band; outline of whorls weakly convex; protoconch of 3 conical whorls; sculpture of earliest whorls of teleoconch of indistinct axial ribs; ribs becoming strong at 4<sup>th</sup> whorl, fading again at 10<sup>th</sup> whorl; no spiral sculpture except for a microscopically punctate groove marking the flat subsutural band; orange blotches on band beginning at 8<sup>th</sup> whorl; body whorl smooth except for subsutural groove and microscopic axial striae; aperture quadrate; columella curved, with one weak plication at anterior end; siphonal fasciole with fine striae and a sharp keel.

**Dimensions:** Holotype 27.6 x 7.9 mm. Paratypes from 11.9 x 2.9 mm to 33.5 x 8.3 mm.

**Type Locality:** Entrance to Hana Hevane Bay, Tahuata Island, Marquesas, depth 10 meters, sand bottom.

**Type Material:** Holotype, MNHN. Paratypes AM no. C122397 (1); AMNH no. 181848 (1); BM(NH) no. 198023 (1); CAS no. 60676 (1); MNHN (4); MORG no.

21.175 (1); USNM no. 773511 (1); Bratcher coll. (4); Cernohorsky coll. (1); Mabry coll. (1); Tröndle coll. (4).

**Distribution:** Marquesas Islands.

**Discussion:** In shape this species resembles both *Terebra chlorata* Lamarck, 1822 and *T. felina* Dillwyn, 1817, though the whorls are shorter than those of either species. The color pattern differs from both. *Terebra chlorata* has orange blotches, stripes, and markings throughout the shell in addition to those on the band; *T. felina* has orange dots posterior to the suture rather than on the band. The protoconch of *T. chlorata* differs from that of *T. troendlei*, though that of *T. felina* is similar. The holotype of this species was illustrated by Salvat & Rives as *Terebra* sp. "A" in *Coquillages de Polynésie*. Of the 21 specimens examined, 18 had cracks in the shell, many of them large. All had been mended.

This species is named for Jean Tröndle of Tahiti, who first brought it to my attention.

*Terebra swobodai* Bratcher, spec. nov.

(Figures 5 and 6)

**Diagnosis:** A slender beige colored shell with angulate outline of whorls and with small nodes where spiral cords cross axial cords, forming square pits between intersections.

**Description:** Shell size medium; color, beige, the area anterior to suture being faintly lighter; outline of whorls angulate; protoconch missing in type material; early whorls of teleoconch flat-sided and weakly turreted; sculpture of early whorls of a noded subsutural band, narrow axial ribs, and weak spiral cords; subsutural band on later whorls narrow, convex, with equally spaced bead-like nodes; remainder of whorl sculptured by 2 spiral rows of heavy cords bisecting axial cords of equal strength, forming bead-like nodes at intersections and square pits be-

Explanation of Figures 1 to 8

Figure 1: *Terebra boucheti* Bratcher, spec. nov. Holotype MNHN

Figure 2: Same specimen as in Figure 1

Figure 3: *Terebra troendlei* Bratcher, spec. nov. Holotype MNHN  
× 3½

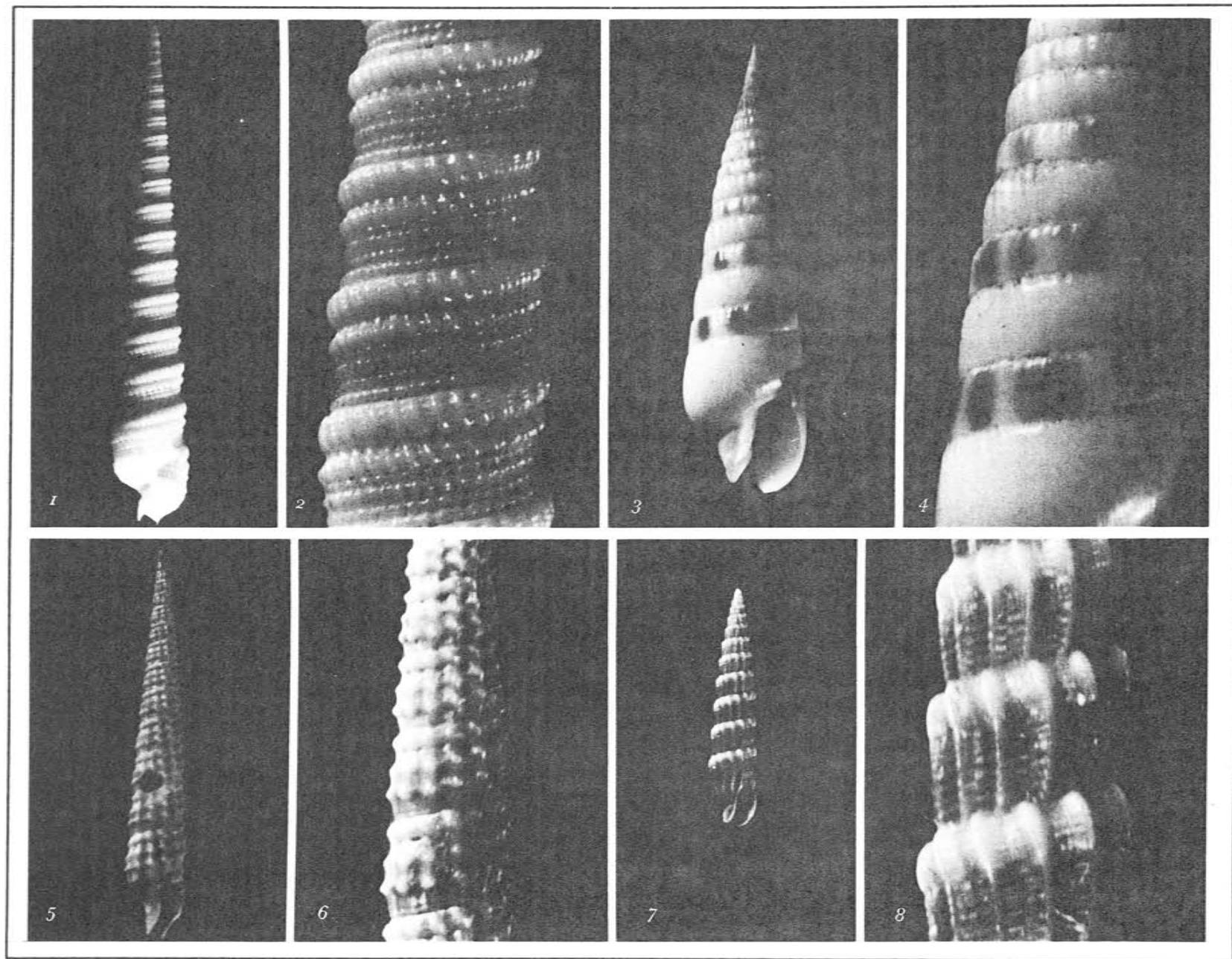
Figure 4: Same specimen as in Figure 3

Figure 5: *Terebra swobodai* Bratcher, spec. nov. Holotype LACM  
no. 1185  
× 9½

Figure 6: Same specimen as in Figure 5

Figure 7: *Terebra turschi* Bratcher, spec. nov. Holotype LACM  
no. 1191  
× 9½

Figure 8: Same specimen as in Figure 7



tween intersections; body whorl with 2 rows of spiral cords crossing axial ribs, forming strong nodes, and 3 rows of square pits ending at periphery; anterior to periphery axial ribs becoming obsolete, spiral cords continuing to siphonal fasciole; columella gently curved; siphonal fasciole striate, with weak keel.

**Dimensions:** Holotype 24.3 x 4.3 mm. Paratypes from 23.7 x 4.1 to 27.2 to 4.9 mm.

**Type Locality:** Zamboanga, Mindanao, Philippines, on *Xenophora pallidula* Reeve, 1842, from net traps.

**Type Material:** Holotype LACM no. 1185. Paratypes, BM(NH) no. 19018 (1) USNM no. 773510 (1); Bratcher coll. (2); Cernohorsky coll. (1); Swoboda coll. (1).

**Distribution:** Philippines.

**Discussion:** As a gift I received a pair of *Xenophora pallidula* Reeve, 1842, which had been dredged from deep water in the Philippines. They were decorated with many terebrids, one species of which was strikingly different from any I had previously seen. Examination of other *Xenophora pallidula* dredged from the same area produced several more of the same species. Subsequent research convinced me they are an undescribed species.

The most outstanding feature of this species is the large square pits formed by the crossing of heavy spiral and axial cords. The number of spiral cords may vary from 2 to 4. In all specimens examined, the axial and spiral cords are of equal strength. Of the 7 specimens seen (all were on *Xenophora pallidula*), none had the protoconch intact, though there were intact protoconchs on other terebrid species on the same *Xenophora*.

There is no species with which *Terebra swobodai* could be confused. *Terebra fenestrata* Hinds, 1844, often has square pits formed by the crossing of axial and spiral cords, but it has a larger, broader shell, with a double subsutural band and a completely different sculpture pattern.

This species is named for Edward Swoboda who presented me with the *Xenophora* on which the type material was found.

*Terebra turschi* Bratcher, spec. nov.

(Figures 7 and 8)

**Diagnosis:** A small turreted brown shell with a light band anterior to the suture, decorated with axial ribs and many fine spiral threads.

**Description:** Shell size small; color, somewhat shiny brown, with a light band anterior to suture; outline of whorls turreted; protoconch of  $4\frac{1}{2}$  slender conical whorls; axial sculpture of teleoconch of thin, sharp, curved axial ribs from suture to suture, the posterior ends forming weak elongate nodes, 13 on penultimate whorl; interspaces marked with many fine spiral threads, 8 rows on penultimate whorl plus 5 on subsutural band; spiral threads faintly crossing ribs; axial ribs and spiral threads continuing on body whorl to siphonal fasciole; aperture elongate; columella curved with a heavy, light colored parietal callus; siphonal fasciole striate, with a sharp keel.

**Dimensions:** Holotype 14.1 x 3 mm. Paratypes from 11.6 x 2.8 to 14.3 x 3.2 mm.

**Type Locality:** Hansa Bay, North Coast of Papua, New Guinea, in 36 meters, mud bottom (04°06'S, 144°22'E).

**Type Material:** Holotype LACM no. 1191. Paratypes AM no. 120657 (1); AMNH no. 181847 (1); ANSP no. 352483 (1); BM(NH) no. 198020 (1); CAS no. 60675 (1); MORG no. 21.277 (1); SDMNH no. 73614 (1); USNM no. 773512 (1); Bratcher coll. (11); Cernohorsky coll. (2); Mabry coll. (1); Tursch coll. (4).

**Distribution:** New Guinea.

**Discussion:** There is little variation in the specimens examined except in size. A few are slightly lighter in color. This species may be separated from *Terebra polygyrata* Deshayes, 1859, which has a broader, heavier shell and a quadrate aperture. It also has wider spaced, thicker ribs. *Terebra turschi* also somewhat resembles the eastern Pacific *T. iola* Pilsbry, 1932, which has a small brown shell with many spiral cords between narrow ribs. It lacks the parietal callus, the light band anterior to the suture, and the groove between the ribs marking the subsutural band.

This species is named in honor of Dr. Bernard Tursch of Brussels, Belgium, who collected the type material.

Abbreviations have been used for a number of institutional collections cited in this paper. They are:

- AM — Australian Museum
- AMNH — American Museum of Natural History
- ANSP — Academy of Natural Sciences of Philadelphia
- BM (NH) — British Museum (Natural History)
- CAS — California Academy of Sciences
- LACM — Los Angeles County Museum of Natural History

- MNHN — Muséum National D'Histoire Naturelle, Paris, France  
 MORG — Museu Oceanográfico de Rio Grande, Brasil  
 SDMNH — San Diego Museum of Natural History

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