

Two species of the genus *Enteroplax* (Gastropoda Pulmonata: Strobilopsidae) from Sulawesi, Indonesia

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Enteroplax dumogensis spec. nov. (Strobilopsidae), from North Sulawesi, is described. A second species, *Enteroplax trochospira*, so far only known from the Philippines, is for the first time recorded to occur in Sulawesi.

Key words: Gastropoda, Pulmonata, Strobilopsidae, *Enteroplax*, taxonomy, Indonesia, Sulawesi.

The genus *Enteroplax* includes four species, occurring in the Philippines, on Misool Island (Solem, 1968) and on the Cendrawasih Peninsula of New Guinea (RMNH). A fifth species has been described from Japan, but this probably belongs to the genus *Eostrobilops* (Vermeulen, 1992).

Collecting activities of the author in the Dumoga Valley in Northern Sulawesi, in 1985, yielded two species of *Enteroplax*. One of these, *Enteroplax dumogensis*, is new; the other proved to be identical with *Enteroplax trochospira* from the Philippines.

For the description of the teeth the nomenclature of Pilsbry (1927: 2) has been adopted.

References to material present in the collection of the author are abbreviated as 'V', followed by a collection number. Eventually all material will be deposited at the Nationaal Natuurhistorisch Museum, Leiden (RMNH).

Thanks are due to the staff of the Leiden Museum for the use of their extensive library and their generous help in other ways.

The drawings have been made by the author.

Genus *Enteroplax* Gude, 1899

***Enteroplax dumogensis* spec. nov.**
fig. 1

Shell thick, solid, very low conical with somewhat convex sides and a somewhat rounded apex in frontal view. Whorls 5 7/8, slightly less convex above the periphery than in the next species, moderately convex below the periphery; periphery angular, sharply keeled; suture well impressed; protoconch smooth; top whorls approximately smooth (possibly worn); next whorls with rather conspicuous, irregularly spaced, flat radial ribs; last whorl below the periphery with fine, irregularly spaced, distinctly curved growth lines only. Umbilicus wide and deep, distinctly more than 1/3 of the maximum shell diameter; inner margin of the whorls irregularly crenulated. Aperture semi-elliptic, with the parietal side somewhat concave. Peristome reflected, well rounded, hardly sinuous in apical view. Teeth all starting at about the same level,

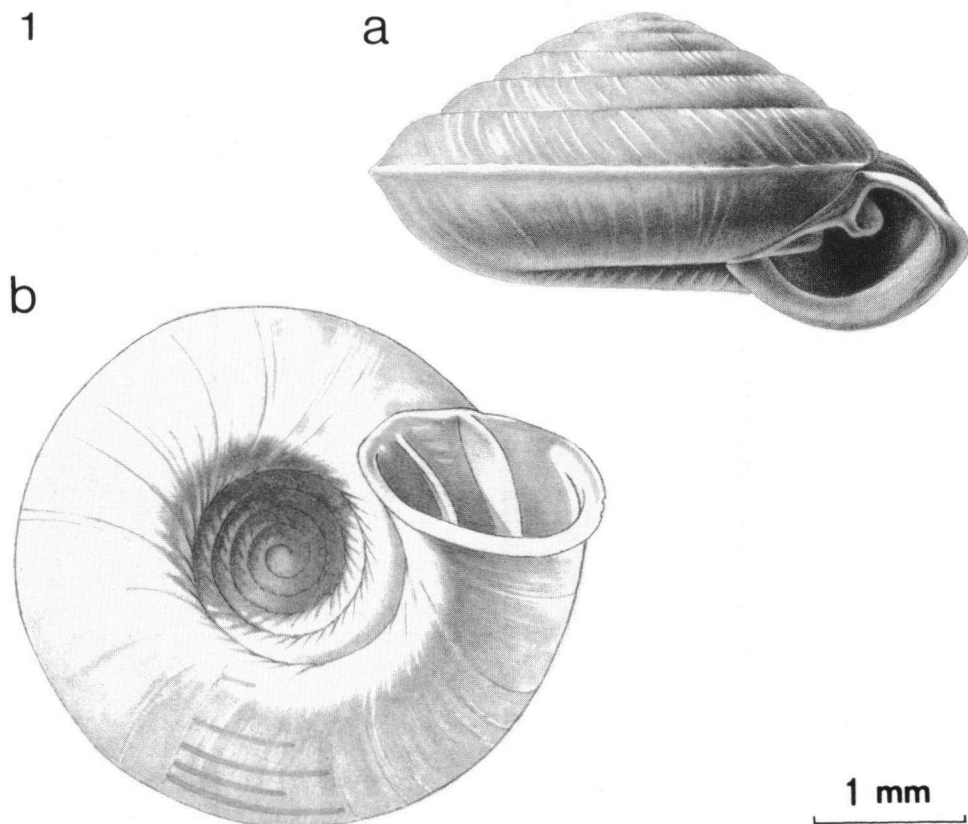


Fig. 1. a, *Enteroplax dumogensis* spec. nov., holotype specimen, Sulawesi Utara: Dumoga Valley (RMNH), frontal view; b, do., umbilical view, with the position of the basal teeth shaded.

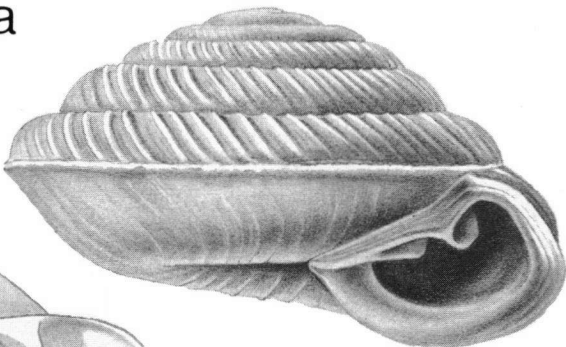
approximately 1/3 whorl before the aperture; five rather short lamella-shaped basales, of which the one closest to the angular side is the longest; two long, lamella-like parietales, both reaching the peristome, but the most columellar one the lowest and shortest.

Measurements. — Height 1.9 mm; largest diameter 4.0 mm; height of aperture 1.0 mm; width of aperture 1.5 mm.

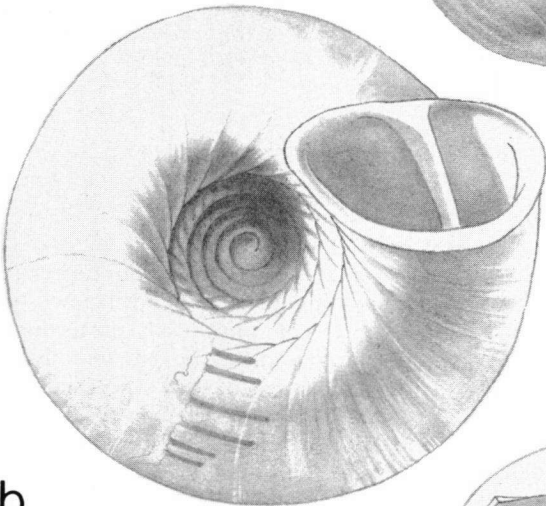
Fig. 2. a, *Enteroplax trochospira* (Moellendorff, 1887), Sulawesi Utara: Dumoga Valley (V), frontal view; b, do., umbilical view, with the position of the basal teeth shaded; c. another specimen from the same locality, umbilical view with part of the shell removed to show the parietales; d. another specimen, portion of the last whorl to show the basales and columellaris.

2

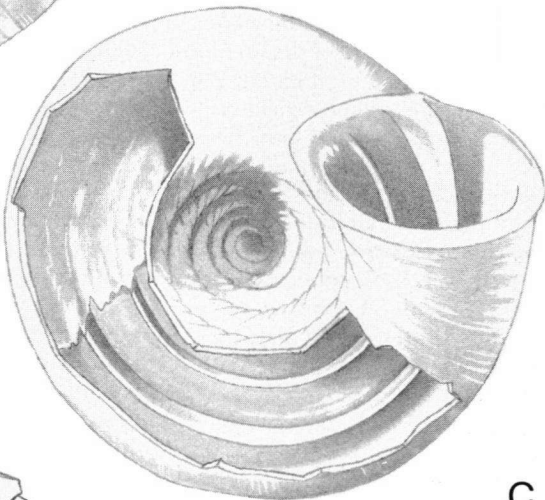
a



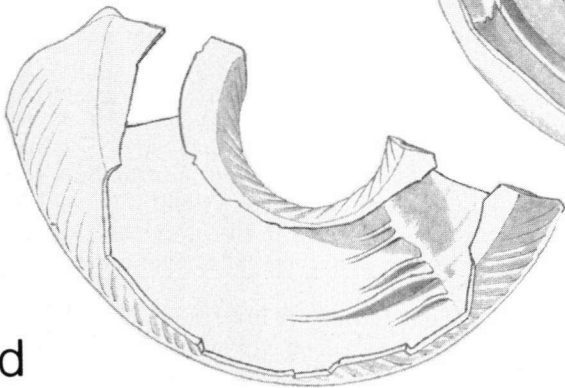
1 mm



b



c



d

Ecology. — Found on young volcanic soil.

Distribution. — Indonesia: North Sulawesi.

Material seen. — SULAWESI. Sulawesi Utara: Dumoga Valley, Mount Mogogonipa (V 980, HOLOTYPE RMNH 56626).

Notes. — 1. *E. dumogensis* differs from all other *Enteroplax* species by its rather inconspicuous ribs on the upper surface of the whorls. It differs from the sympatrical *E. trochospira* by its wider umbilicus.

2. The name refers to the Dumoga Valley, where the type specimen has been collected.

Enteroplax trochospira (Moellendorff, 1887)
fig. 2

For further references, see Solem, 1968.

Shell thick, solid, very low conical with somewhat convex sides and a rounded apex in frontal view. Whorls $5 \frac{3}{4}$ - $6 \frac{1}{8}$, moderately convex above and below the periphery; periphery angular, sharply keeled; suture well impressed; protoconch smooth; top whorls with irregular, fine, densely placed radial grooves, sometimes crossed by a conspicuous spiral striation; next whorls with very conspicuous, irregularly spaced, high and thick radial ribs; last whorl below the periphery with fine, irregularly spaced, somewhat curved growth lines only. Umbilicus wide and deep, approximately $\frac{1}{3}$ of the maximum shell diameter; inner margin of the whorls coarsely and irregularly crenulated. Aperture semi-elliptic, with the parietal side somewhat concave. Peristome reflected, well rounded, hardly sinuous in apical view. Teeth all starting at about the same level approximately $\frac{1}{3}$ whorl before the aperture: four to six rather short lamella-shaped basales, of which the outer ones are the shortest; one to two long, lamella-like parietales, both reaching the peristome, but the one closest to the columellar side (if present) lowest and shortest.

Measurements. — Height 2.1-2.3 mm; largest diameter 3.6-4.0 mm; height of aperture 1.1-1.2 mm; width of aperture 1.1-1.4 mm.

Ecology. — Found on young volcanic soil.

Distribution. — Philippines: Cebu, Bohol; Indonesia: North Sulawesi.

Material seen. — SULAWESI. Sulawesi Utara: Dumoga Valley, confluence of the Tumpah and Toraut Rivers (V 999).

Notes. — 1. The Philippine species *E. trochospira* (Moellendorff, 1887), and *E. quadrasi* (Moellendorff, 1893) are almost identical with the material described above, a difference in size excepted (largest diameter 4.05-4.24 mm and 3.42-3.75 mm respectively, see Solem, 1968). With a largest diameter of 3.6-4.0 mm the Sulawesi specimens perfectly fill the gap between the two. As Solem (1968: 27) already suspected, the two Philippine taxa mentioned are probably best regarded as a single, slightly variable species. A formal synonymisation, however, falls beyond the scope of this paper.

2. *Enteroplax misoolensis* (Adam & Van Benthem Jutting, 1939) (from Misool Island and Irian Jaya; largest diameter 3.89-4.35 mm) has less convex whorls, as well as a narrower umbilicus.

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