

**Nassarius (Plicarcularia) moolenbeeki n. sp., a sibling species of
Nassarius (Plicarcularia) callospira (A. Adams, 1852) (Gastropoda,
Nassariidae)**

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Contrary to Cernohorsky's (1984) findings, *Nassarius callospira* is herein shown to consist of two different species. One, *N. moolenbeeki* new species, is limited to the western Pacific; the other, *N. callospira*, occurs in both the western Pacific and the Indian Ocean.

Key words: Gastropoda, Prosobranchia, Nassariidae, *Nassarius*, sibling species, taxonomy, Indo-West Pacific.

Nassarius (Plicarcularia) callospira is a rather common Indo-West Pacific species, ranging from the coast of East Africa to W. Samoa. After a critical study of this species in several European and North American museums, it became clear that, based on shell morphology, two different forms could be recognized. Cernohorsky (1984), in his excellent monograph, did not mention this difference. Because no other names are available, the form differing from *N. (P.) callospira* will be described herein as a new species.

Abbreviations: BMNH = National History Museum, London; KBIN = Koninklijk Belgisch Instituut voor Natuurwetenschappen, Brussels; MCZ = Museum of Comparative Zoology, Cambridge, USA; NNM = Nationaal Natuurhistorisch Museum, Leiden; USNM = National Museum of Natural History, Washington DC; ZMA = Zoologisch Museum Amsterdam.

Nassarius (Plicarcularia) callospira (A. Adams, 1852)
(figs. 1-3, 8)

Nassa (Eione) callospira; A. Adams, 1852: 102.

Nassa callospira; Reeve, 1853: 8: pl. 10 figs. 66a,b.

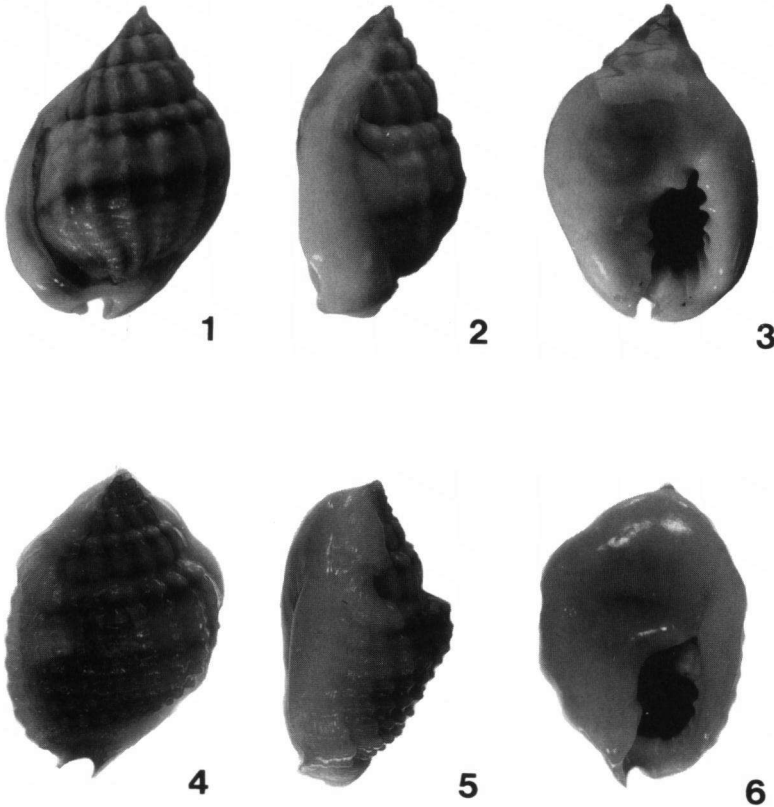
Nassa (Arcularia) callospira; Adam & Leloup, 1938: 2: 183, pl. 8 figs. 6a,b.

Nassarius (Plicarcularia) callospira; Cernohorsky, 1984: 70-71 [part], pl. 5 fig. 1.

Nassarius callospira; Wilson, 1994: 180, pl. 15 fig. 24.

Type material. — Cernohorsky (1984: 70-71) designated a lectotype (figs. 1-3) out of three syntypes, which are in the BMNH (no. 197319). The lectotype is 11.3 mm long (Cernohorsky, 1984, mentioned 11.6 mm), and 7.9 mm wide, the paralectotypes 12.6 × 8.9 mm and 11.5 × 8.7 mm. The type locality is Isle of Burias, Philippines, 6 fathoms, coral sand, ex. coll. H. Cuming.

General description. — Shell length up to 14 mm, elongate-ovate, teleoconch of 4-5 whorls, protoconch of 3 1/4 smooth glossy whorls. Initial part translucent white, gradually becoming dark brown towards the end. Last two whorls with a fine spiral carina on the middle of the whorls. Usually the protoconch is heavily eroded or absent.



Figs. 1-6. Species of *Nassarius* (*Plicarcularia*). 1-3 *N. (P.) callosipira* (A. Adams, 1852). Philippines, Isle of Burias, lectotype, 11.3 × 7.9 mm (BMNH 197319). 4-6. *N. (P.) moolenbeeki* n. sp., Vanuatu, Port Vila, Malapoa, holotype, 11.1 × 7.4 mm (ZMA Moll. 3.94.023).

Riblets crossed by radial grooves, resulting in low beads; subsutural groove deep, separating subsutural nodules. Greatly expanded parietal shield extending over outer lip, which gives the entire varix a smooth surface, and embracing (rudiments of) the protoconch. Deep groove on back of extremely thick outer lip. Aperture narrow, outer lip denticulate-lirate. Anal canal relatively wide. Siphonal canal very prominent, siphonal notch deeply grooved into callus (fig. 8).

Colour whitish to cream, usually three brown bands on body whorl: one subsutural, one peripheral and one at base, occasionally partly extending over back of outer lip; some specimens uniform white to creamish. Callus white, aperture white, at times with two narrow brown bands. Operculum yellowish, partly serrate.

Distribution. — Specimens in the collections of KBIN, MCZ, NNM, ZMA, and in my private collection are from Madagascar, Zanzibar, Andaman Islands, Thailand, Philip-

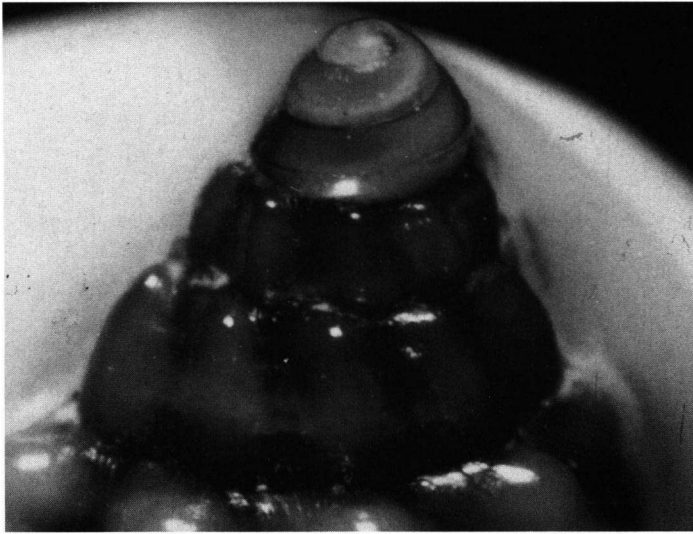
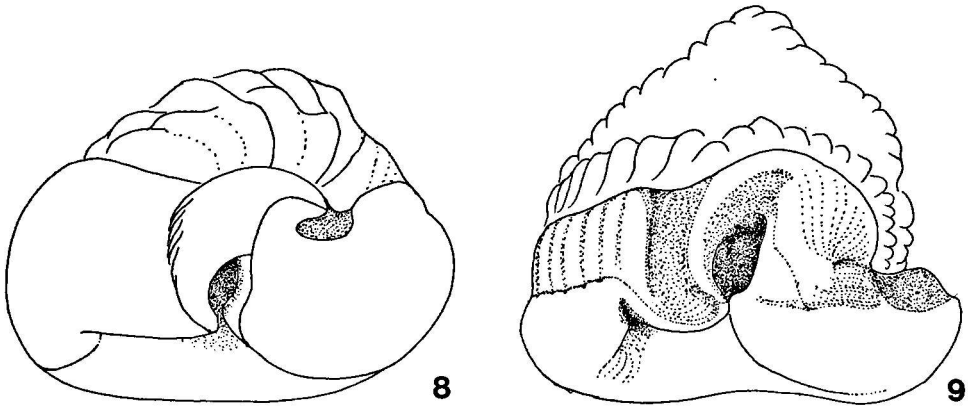


Fig. 7. *Nassarius (Plicarcularia) callospira* n. sp. Protoconch holotype, highly enlarged (ZMA Moll. 3.94.023).



Figs. 8-9. Basal view of *Nassarius (Plicarcularia) callospira* (A. Adams, 1852) (fig. 8) and *N. (P.) moolenbeeki* n. sp. (fig. 9), New Guinea, Hollandia. Both figures highly enlarged.

pinas, Indonesia, Northern New Guinea, Loyalty Islands, and Fiji Islands. The conclusion is that *N. callospira* is an Indo-West Pacific species.

***Nassarius (Plicarcularia) moolenbeeki* n. sp.**

(figs. 4-7, 9)

Nassarius (Plicarcularia) callospira; Cernohorsky, 1972: 135, figs. 14, 25.

Nassarius (Plicarcularia) callospira; Cernohorsky, 1984: 70-71 [part], pl. 5, fig. 2.

Nassarius callospira; Kaicher, 1982: no. 31, card 3151.

Description of holotype. — Shell length 11.1 mm, width 7.4 mm, elongate-ovate, shiny. Protoconch of 3 to 3 1/4 smooth whorls, last two with a fine carina, which nearly attaches the suture towards the end (fig. 7). Teleoconch of 5 whorls, sculptured with thick and broad axial ribs, 6 on penultimate whorl, but on body whorl 11 more slender ribs; 9 deep radial overriding grooves on body whorl, causing fine and regular granules; dorsal area with a hump. Grooves continuing on back and on upper side of outer lip (fig. 9), giving back of lip a wavy appearance. Callus shield large and shining, covering the post-embryonic whorls on ventral side. Aperture narrow, columella with 3 denticles, outer lip with 8 lirate denticles and weak stromboid notch. Anal canal narrow, siphonal canal distinct.

Colour white to creamish, spire whorls with two brown bands; body whorl with grey subsutural and broad dark grey peripheral band, extending over the dorsal hump and spreading partly over basal area; orange markings on siphonal canal; callus white with flush of yellowish orange above parietal wall, outer lip white. Aperture showing outside bandings.

Operculum yellowish, partly serrate.

Type locality. — VANUATU, Port Vila, Malapoa (holotype ZMA Moll. 3.94.023; 7 paratypes coll. Kool). Other paratypes. — INDONESIA: S. Moluccas, coll. L.J. Butot, leg. Rijkschroeff (ZMA), 2; Ambon, Rumphius Biohistorical Expedition 1990 (NNM), 1; West Irian, Jayapura (Hollandia), Laboratorium Onderzoek der Zee, 1938 (ZMA), 6; Manokwari, 1957/1960 (coll. D. Smits), 7; PAPUA NEW GUINEA: Laing Island, Hansa Bay, coll. D. Christensen (KBIN), 2; SOLOMON ISLANDS: San Cristobal Island, 3; Russell Islands, Pavuvu Island, 2 (both USNM).

Variability. — The size of full-grown specimens ranges from about 9.5 to 13 mm; the seven paratypes from the type locality are 9.9 to 12.7 mm long. The callus usually covers 3 to 4 whorls. In some shells the grey colouring on the body whorl is not extended over the dorsal hump and there is no connection between subsutural and peripheral bands.

Etymology. — Named in honour of Mr. Robert G. Moolenbeek of the Department of Malacology (ZMA) for his devotion and many contributions to malacology and his willingness to provide assistance and to share his expertise with his colleagues.

Distribution. — From the Moluccas, northern New Guinea to Vanuatu. Kaicher (1982) mentions Melanesia. The distribution of *N. moolenbeeki* n. sp. is therefore limited to the tropical western Pacific.

Discussion. — *Nassarius moolenbeeki*, herein separated from *Nassarius callospira*, differs from the latter in the following features:

- a glistening appearance;
- more granulose ribs;
- the prominent (occasionally knob-like) dorsal hump;

- the shape of the siphonal notch (compare figs. 8 and 9);
- the narrower anal canal;
- the varix partly granulated, partly covered by the callus shield;
- orange-brown blotch on the siphonal canal;
- protoconch usually not embedded in callus-shield.

There is also a difference in distribution pattern. The new species is limited to the western Pacific, whereas *N. callospira* occurs in both the western Pacific and the Indian Ocean. In some areas the new species occurs sympatrically with *N. callospira* without intergrades.

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