Nassarius biendongensis spec. nov. from the South China Sea (Gastropoda, Prosobranchia, Nassariidae)

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A new species of Nassarius is described from the South China Sea.

Key words: Gastropoda, Prosobranchia, Nassariidae, *Nassarius*, taxonomy, South China Sea, Thailand, Malaysia, Borneo, Indonesia, Vietnam.

Years ago, a few specimens of a nassariid species from Bangka were found in the ZMA-collection. They could not be identified. Recently specimens of this species were also found in Thailand and western Borneo. During a short visit to Halong Bay, part of the Gulf of Tonkin, several specimens were collected. The species is now named *Nassarius biendongensis* spec. nov.

Abbreviations: GMH, collection G.M. Hansen, Lathlain, Australia; HD, collection H. Dekker, Winkel, The Netherlands; HHK, collection H.H. Kool, Dieren, The Netherlands; RMNH, Nationaal Natuurhistorisch Museum, Leiden, The Netherlands; ZMA, Zoölogisch Museum, University of Amsterdam, The Netherlands.

Subfamily Nassarinae Iredale, 1916 Genus Nassarius Duméril, 1806

Nassarius biendongensis spec. nov. (figs 1-9)

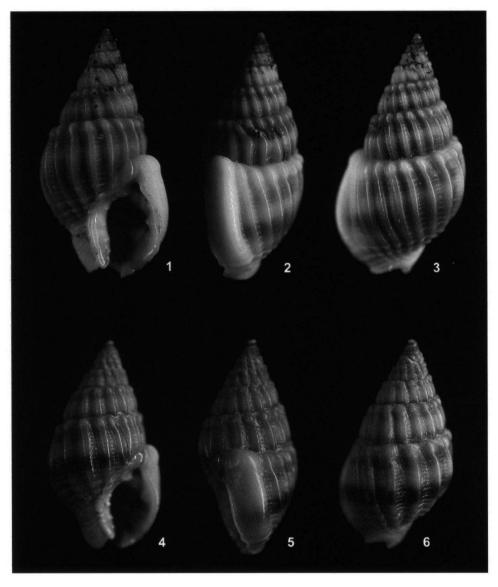
Material examined. – Thailand, Chon Buri, Bang Lamung, in tide pools, on dirty whitish sand and in seepage channels at low tide, leg. O.K. McCausland (Sarasota, Florida, U.S.A.) 24.v.2001 (ZMA 4.03.002/holotype & ZMA 4.03.007/paratype; RMHN 96333/paratype; HHK 828.01/4 paratypes); Ao Udom, just south of Laem Chabang (now obliterated) on silty wet sand areas and in tide pools, leg. O.K. McCausland 24.vi.1984 (HHK 828.02/3 paratypes; GMH/4 paratypes); Gulf of Thailand, Laem Tachi, Ban Budi, 6°55'45"N 101°18'14"E, leg. H. Dekker 28.i.2000 (HD 11941/31 paratypes); Ban Budi, small stream ending on mud flat, leg. R.G.M. Moolenbeek & H. Dekker 15.iv.2003 (ZMA 4.03.013/4 paratypes); Russamilae, local fishery, leg. R.G.M. Moolenbeek & H. Dekker 24.iv.2003 (ZMA 4.03.014/31 paratypes; HHK 838.06/5 paratypes).

Indonesia, Bangka, Muntok, leg. L.J.M. Butot 20.ii.1955 (ZMA 4.03.008/2 paratypes, ex colln Butot 14097); Bangka, Tj. Kalian-Muntok, leg. L.J.M. Butot 19.ii.1955 (ZMA 4.03.009/paratype, ex colln Butot 12415 Nassa (Aciculina) labiata').

Malaysia, Borneo, Sarawak, Kuching, Santubong, leg. O.K. McCausland (HHK 828.03/paratype); Teluk Nipah, Kuching Damai Road, sandy beach, crabbed, leg. O.K. McCausland 04.vi.1995 (HHK 828.04/4 paratypes).

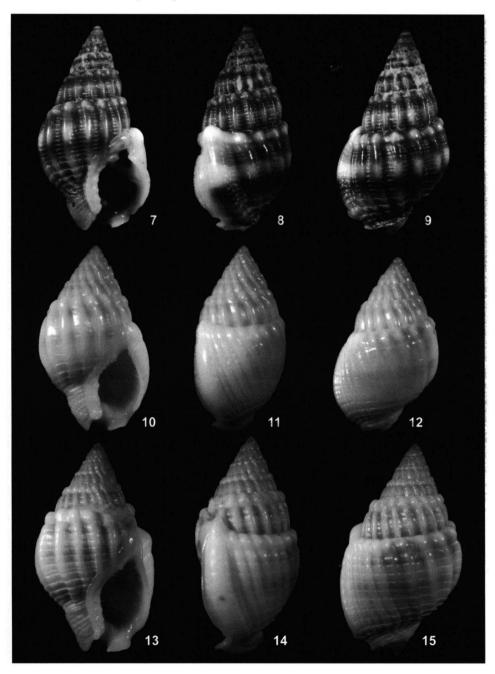
Vietnam, Gulf of Tonkin, Halong Bay, Bai Chay Beach, leg. H.H. Kool 12.iv.2002 (GMH/2 paratypes; HHK 828.05/16 paratypes; RMNH 96334/2 paratypes; ZMA 4.03.010/2 paratypes; HD/2 paratypes).

Description of holotype. – Shell height 14.1 mm, width 7.0 mm. Protoconch of 1 1/2 whorls, teleoconch of 6 1/2 slightly convex whorls, angulate at suture. The junction between protoconch and teleoconch is indistinct. Suture moderately ledged; no subsutural groove. Axial ribs slanting and strong, starting as prominent subsutural knobs on all



Figs 1-6. Nassarius biendongensis spec. nov. 1-3, holotype (ZMA 4.03.002), Thailand, Chon Buri, Bang Lamung, height 14.1 mm; 4-6, paratype (ZMA 4.03.008), Indonesia, Bangka, Muntok, height 11.2 mm.

whorls. About 19 ribs on the penultimate and 16 on the body whorl, ending with a broad varix; no varices elsewhere. Spiral sculpture consisting of fine incisions between the ribs, about 8 on the penultimate and 11 on the body whorl. Four broad over-riding cords at base, forming blunt teeth; 7 cords on the siphonal area.



Figs 7-15. Nassarius spec. 7-9, N. biendongensis spec. nov., paratype (ZMA 4.03.017/2), Vietnam, Gulf of Tonkin, Halong Bay, Bai Chay Beach, height 11.0 mm; 10-15, N. sinusigerus (A. Adams, 1852), Indonesia, Bay of Bima, 55 m, Siboga Expedition Station 47, 12.iv.1899 (ZMA), height 9.8 [10-12] and 11.5 mm [13-15].

Aperture oval, inside outer lip with 5 strong denticles. Parietal denticle prominent. A projection of callus makes the anal canal well-defined. Columella with 5 nodules; callus somewhat elevated, margined.

Colour whitish, with two bluish gray bands on the penultimate whorl, one below the subsutural knobs and one above the suture. Three bands on the body whorl, broadest below periphery, and a gray-brown band at the base. Bandings are darkest between the ribs. Siphonal canal and aperture white; the latter showing the outside banding in reddish brown.

Variability. – The height of the shell varies between 9.7 and 14.5 mm, the width between 5.5 and 8.0 mm; the colour from whitish to yellow. The banding is light to dark gray or, in the yellowish specimens, light to dark brown. On some specimens the projection of callus near the anal canal is tinged brown.

Some specimens of this species have a spur-like process at the outer lip, partly across the anal canal. Such a process can be observed in species like *Nassarius oneratus* (Deshayes, 1863) and some specimens of strongly calloused *N. coronatus* (Bruguière, 1789) from the Pacific.

The specimens collected in Halong Bay, Vietnam, have an ovate, brown, somewhat waved, but not serrate operculum. All nuclear whorls are wholly or partly eroded. They have been found on wet coarse sand, together with among others *Batillaria zonalis* (Bruguière, 1792), *Clithon oualaniensis* (Lesson, 1831) and *Cerithidea cingulata* (Gmelin, 1793), which indicates a mangrove environment.

Distribution. - South China Sea, from the Gulf of Thailand to Bangka in the South, northern Vietnam (Halong Bay) and the west coast of Borneo (Sarawak).

Discussion. - In some specimens the blunt teeth at the outer lip, in the area of the basal cords, are of a different size or even absent, which results in a waving edge, a sinus, resembling a stromboid notch. Therefore they could be taken for *Nassarius sinusigerus* (A. Adams, 1852) (figs 10-15), which owes its name to such a sinus at the outer lip. It has a more squat shape, a narrower aperture and a quite different broad, rather flat protoconch, indicating a pelagic larval stage.

Nassarius collaticia (Melvill & Standen, 1901), a small species from the Arabian Sea, is considered a synonym of N. sinusigerus by Cernohorsky (1984: 103, pl. 16 fig. 4). Kaicher (1983: card 3503) figured N. collaticia as a synonym of N. abyssinicus (Marrat, 1877). Nassarius abyssinicus and N. collaticia have protoconchs comparable with that in N. sinusigerus and are not conspecific with the new species.

Etymology. - Named for Bien Dong, the Vietnamese name for the South China Sea.

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REFERENCES

CERNOHORSKY, W.O., 1984. Systematics of the family Nassariidae (Mollusca: Gastropoda). — Bulletin of the Auckland Institute and Museum 14: 1-356.

KAICHER, S.D., 1983. Card catalogue of world-wide shells; pack no. 34. Nassariidae, part II, cards 3453-3558. St. Petersburg, Florida, U.S.A.