Nassarius olomea Kay, 1979, revalidated (Gastropoda, Caenogastropoda, Nassariidae)

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Contrary to data in the literature, *Nassarius olomea* Kay, 1979, has a much wider distribution than only the Hawaiian Islands. It occurs also in parts of the southwestern Pacific. *Nassarius olomea* and *N. crebricostatus* (Schepman, 1911) are shown to be separate species.

Key words: Gastropoda, Caenogastropoda, Nassariidae, *Nassarius*, taxonomy, Pacific, Marquesas Islands, Chesterfield Islands, New Caledonia, Vanuatu, Loyalty Islands, Hawaiian Islands.

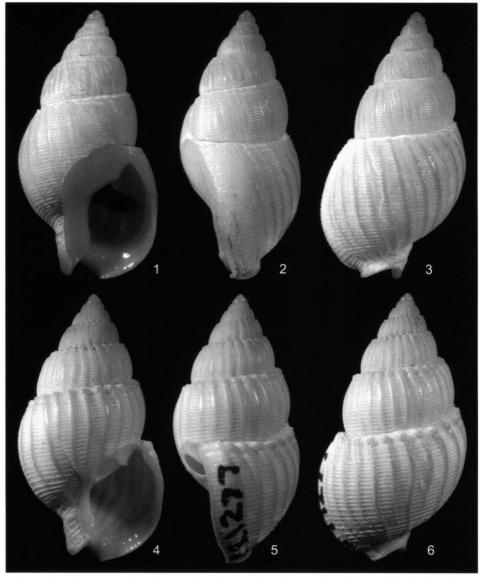
Abbreviations: BPBM = Bernice P. Bishop Museum, Honolulu, Hawaii; HHK = (collection) H.H. Kool, Dieren, The Netherlands; MNHN = Muséum National d'Histoire Naturelle, Paris, France; RMNH = Nationaal Natuurhistorisch Museum, Leiden, The Netherlands; ZMA = Zoölogisch Museum Amsterdam, The Netherlands.

Subfamily Nassariinae Iredale, 1916 Genus *Nassarius* Duméril, 1806

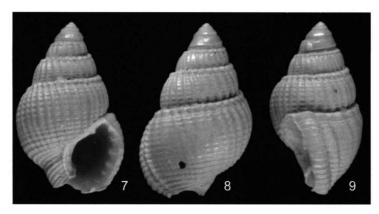
Nassarius olomea Kay, 1979 (figs 1-6)

Nassarius crebricostatus; Cernohorsky 1978: 4. Not Schepman, 1911. Nassarius olomea Kay, 1979: 274, fig. 95 E. Kaicher, 1985: card 4095. Nassarius (Zeuxis) olomea; Cernohorsky, 1984: 161, pl. 33, figs 9-11.

Material examined. - Marquesas Islands: MUSORSTOM 9: DW 1146, 9°19'S 140°06'W, 200 m (MNHN/10, ZMA/1); CP 1160, 7°57.8'S 140°02.0'W, 49-55 m (MNHN/1); DW 1172, 8°45'S 140°15'W, 300-302 m (MNHN/1); CP.1227, 9°44.2'S 138°52.5'W, 84-85 m (MNHN/1); DR 1247, 10°34'S 138°42'W, 1150-1250 m (MNHN/3); CP 268, 7°56'S 140°43'W, 285-320 m (MNHN/1); DW 1287, 7°54'S 140°40'W, 163-245 m (MNHN/10, HHK 101.03/2). Chesterfield Islands: MUSORSTOM 5: 304, 22°10'S 159°26'E, 385-420 m 'N. crebricostatus' (MNHN/1); 337, 19°54'S 158°38'E, 412-430 m 'N. crebricostatus' (MNHN/1); 361, 19°53'S 158°38'E, 400 m'N. crebricostatus' (MNHN/1); 378, 19°54'S 158°38'E, 355 m'N. crebricostatus f. olomea Kay' (MNHN/1); 379, 19°53'S 158°40'E, 370-400 m 'N. crebricostatus' (MNHN/2). New Caledonia: MUSORSTOM 4: DW 181, 18°57'S 163°22'E, 350 m 'N. crebricostatus' (MNHN/1). MUSORSTOM 6: DW 457, 21°00'S 167°29'E, 353 m (MNHN/1). VOLSMAR: DW 7, 22°26'S 171°44'E, 325-400 m (MNHN/2); DW 16, 22°25'S 171°41'E, 420-500 m 'Nassarius crebricostatus' (MNHN/1). BERIX 11: DW 11 and CP 23, 24°44'-24°43'S 168°10'-168°08'E, 270-350 m (MNHN/6). SMIB 5: DW 98, 23°02'S 168°16'E, 335 m (MNHN/1). SMIB 8: DW 158, 24°46'S 168°08'E, 262-290 m (MNHN/1); DW 163, 310-460 m (HHK 101.02/2); DW 165, 24°47'S 168°10'E, 372-660 m (MNHN/4); DW 177, 23°39'S 168°00'E,320-370 m (MNHN/2); DW 182-184, 23°18'S-23°19'S 168°05'E, 305-367 m (MNHN/2); DW 189, 23°18'S 168°06'E, 400-402 m (MNHN/3, HHK 101.01 /1). BATHUS 2: DW 730, 23°03'S 166°58'E, 397-400 m (MNHN/2); DW 731, 22°49'S 166°45'E 300-370 m (MNHN/2); DW 747, 22°30'S 166°26'E, 574 m (MNHN/1); DW 754, 22°23'S 166°13'E, 577-780 m



Figs 1-6. Nassarius olomea Kay, 1979. 1-3, New Caledonia, st. DW 189, 23°18'S 168°06'E, 400-402 m, 30.i.1993 MNHN (actual dimensions 13.5 x 6.6 mm); 4-6, Hawaiian Islands, Oahu, BPBM 221277 (actual dimensions 15.2 x 7.6 mm).



Figs 7-9. Nassarius crebricostatus (Schepman, 1911), lectotype (ZMA Moll. 3.11.051), Indonesia, SIBOGA Expedition 139, Molucca Passage, 0°11'S 127°25'E, 397 m, 22.ii.1900 (actual height 6.7 mm).

(MNHN/1); DW 758, 22°18′S 166°11′E, 377-386 m (MNHN/1). BATHUS 3: 829, 23°21S 168°02′E, 386-390 m (MNHN/1); 838, 23°01′S 166°56′E, 400-402 m (MNHN/1). BATHUS 4: 894, 20°16′S 163°52.′E, 245-268 m (MNHN/1); DW 924, 18°55′S 163°24′E, 344-360 m (MNHN/1); PALEO-SURPRISE: DW 1391, 18°29.8′S 163°02.8′E, 365 m (MNHN/1); CP 1399, 18°29.0′S 163°02.0′E, 325 m (MNHN/1). LITHIST: DW 13, 23°45.0′S 168°16.7′E 400 m (MNHN/1). BIOGEOCAL : DW 253, 21°32′S 166°29′E, 310-315 m ′N. crebricostatus′ (MNHN/3). NORFOLK 1: DW 1658, 23°26′S 167°50E, 320-336 m (MNHN/1); DW 1679, 24°43′S 168°10′E, 294-324 m (MNHN/7, RMNH/1, HHK 101.01/1);DW 1680, 24°45′S 168°10′E, 385-392 m (MNHN/2); DW 1707, 23°43′S 168°16′E, 381-493 m (MNHN/4); DW 1709, 23°42′S 168°16′E, 380-389 m (MNHN/1); DW 1723 23°18′S 168°16′E, 366-267 m (MNHN/1); DW 1729, 23°20′S 168°16′E, 304-619 m (MNHN/3); DW 1732, 23°20′S 168°16′E, 347-1063 m (MNHN/2). Vanuatu: MUSORSTOM 8: DW 979, 19°22′S 169°23′E, 250 m (MNHN/1). Loyalty Islands: SMIB 5: DW 87, 22°19′S 168°41′E, 370 m (MNHN/1). Hawaiian Islands: Oahu, off Waikiki, BPBM 221227/4.

Abridged description (adapted after Kay, 1979). – Shell cream, conical-ovate, coronate at the suture; with uniform, narrow, elevated, brown axial ribs and sharp, depressed, spiral threads in the interspaces, which are broader than the ribs. Protoconch conical, with three whorls; abapical whorls with a minute peripheral keel. Teleoconch with five convex whorls; suture deep, nodular. A conspicuous subsuteral groove crosses the ribs and makes them nodular at the suture. Aperture ovate; outer lip thick, with numerous denticles. Columella and parietal wall coated with enamel. The holotype measures 16 x 8 mm.

The operculum is yellowish and very small in relation to the wide aperture.

At the type locality, i.e. Mamala Bay, Oahu, the species is common at 50-100 m. In the western South Pacific live snails have been recorded at 200-400 m, whereas shells are known from 50-1250 m.

Distribution. – This species was described by Kay (1979: 274) from Oahu, Hawaiian Islands. In his monograph on Nassariidae, Cernohorsky (1984: 161) mentioned that this species is only known from the Hawaiian Islands. Meanwhile, the author had the pleasure to work on the nassariids collected during several expeditions to the southern Pacific, organized by the MNHN. Now it appears that *N. olomea* has a much wider distribution than was thought before. The species was recorded in the area of the Marquesas Islands, the Chesterfield Islands, New Caledonia, Vanuatu, the Loyalty Islands and once more the Hawaiian Islands.

Discussion. – Cernohorsky (1991: 200) had "no hesitation in placing *Nassarius olomea* Kay, 1979 in synonomy of *N. (Zeuxis) crebricostatus* Schepman" and identified some of the samples mentioned above as *N. crebricostatus* (Schepman, 1911), in one case with the addition 'forma *olomea* Kay'. The shell figured by Cernohorsky (1984: 9) as *N. crebricostatus* may cause confusion because that shell seems not to be similar to the type specimens of that species, which are all in ZMA. Here we argue that *N. olomea* and *N. crebricostatus* should be regarded as separate species.

The lectotype of *N. crebricostatus* (figs 7-9) was designated by Cernohorsky (1984: 160, pl. 33 fig. 4). As mentioned earlier (Kool, 2004: 139), Cernohorsky did not select the specimen figured by Schepman (1911: pl. 19 fig. 3a, b) that was illustrated with the same figure by Richard et al. (1984: 9, fig. 11). It is a small species. The fully grown lectotype, from the Molucca Passage, $0^{\circ}11'S$ $127^{\circ}25'E$, Indonesia, collected at 397 m, measures 6.7 x 4.0 mm. The height of adult specimens of *N. olomea* is 8.3-14.3 mm.

In both N. olomea and N. crebricostatus there is a protoconch with about 3-3 ½ glassy, carinate whorls. Nassarius crebricostatus has a reticulate sculpture with spiral cords and axial ribs that are about equally prominent, whereas N. olomea has elevated ribs and depressed spiral threads. Apart from the size and the sculpture of the two species, the columellar callus is quite different. In N. crebricostatus the columella has a narrow callus, whereas the shiny callus of N. olomea extends over partly the parietal wall. The ribs on the dorsal side of N. olomea are usually brown (the species owes its name to this feature). In some specimens from the type locality the nodules near the suture are more prominent than in shells from elsewhere; the colour varies from white to cream.

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