

NEW MOLLUSCAN SPECIES OF STROMBUS (STROMBIDAE) AND CANCELLA (MITRIDAE) FROM NEW BRITAIN AND TAIWAN

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Abstract. A species of *Strombus* of the subgenus *Dolomena* from New Britain and a species of *Cancellula* of the subgenus *Ziba* from Taiwan are described as new to science.

Family STROMBIDAE Rafinesque, 1815

Genus **Strombus** Linnaeus, 1758

Strombus Linnaeus, 1758, Syst. Nat., ed. 10, p. 742. Type species by SD (Montfort, 1810) *Strombus pugilis* Linnaeus, 1758. Recent, Caribbean.

Subgenus **Dolomena** Iredale, 1931

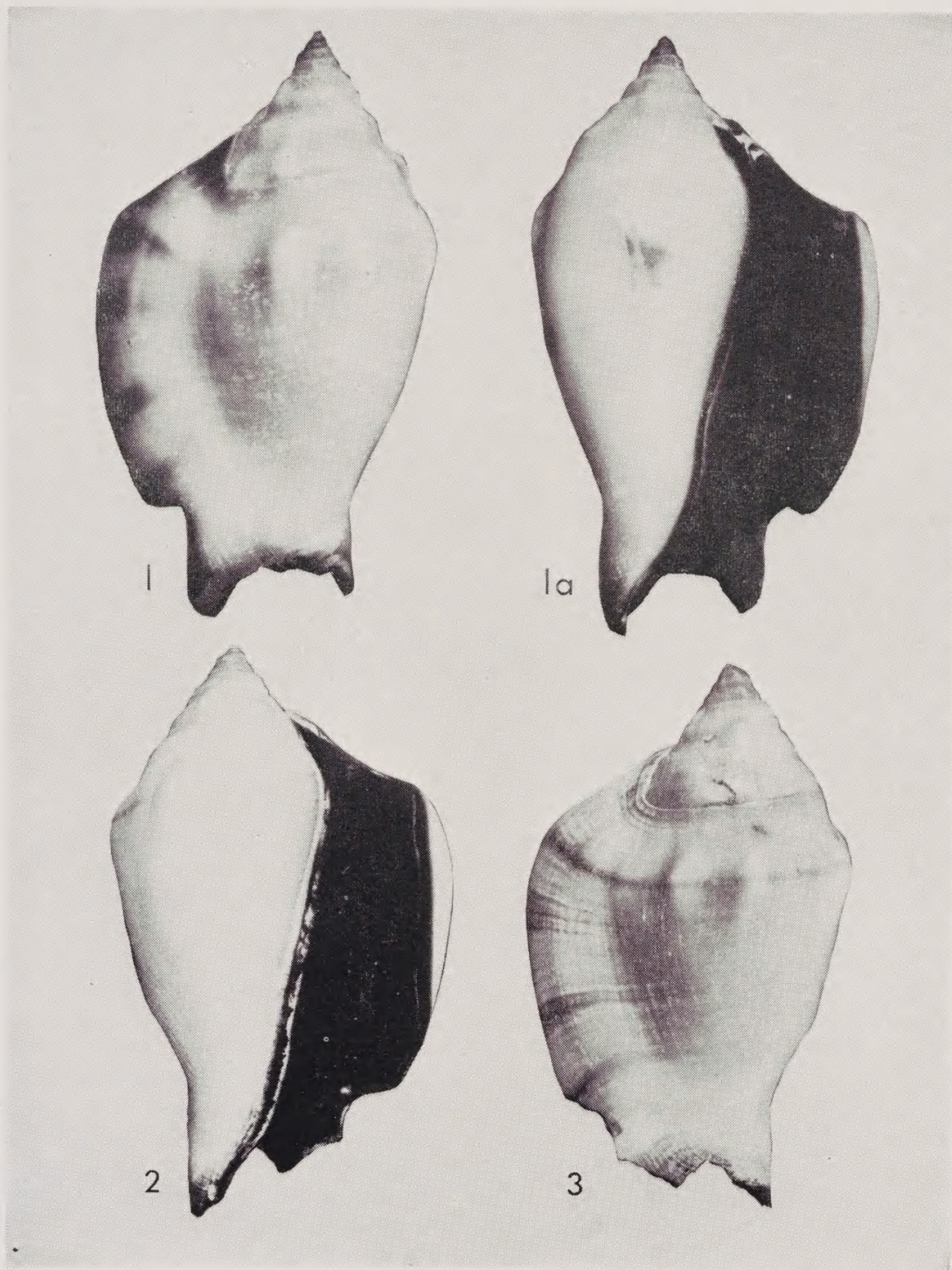
Dolomena Iredale, 1931, Rec. Aust. Mus. 18 (4) : 212, 232. Type species by OD *Strombus pulchellus* Reeve = *Strombus plicatus pulchellus* Reeve, 1851. Recent, Indo-Pacific.

Strombus (Dolomena) kleckhamae sp.n.

(Figs. 1-3)

Shell moderate in size, 39 - 50 mm in length, solid and moderately heavy; spire short and slightly elevated, whorls 9 inclusive of 3 smooth and glassy nuclear whorls, whorls concave below suture. Sculptured with 13 swollen and broad varices, fine and elevated axial riblets numbering 40 - 45 on antepenultimate whorl and becoming obsolete on the last 2 whorls; fine spiral threads encircling whorls, 5 - 10 on penultimate whorl and 40 - 45 on body whorl; spiral threads visible only on last half of body whorl toward labial lip. Dorsal side of body whorl and occasionally penultimate whorl with 5-6 small but distinct knobs. Aperture long and flaring, commencing at antepenultimate whorl; labial lip thickened and inflected, stromboid notch and siphonal notch both prominent. Interior labial lip sculptured with 8-34 lirae, some of them bifurcate, extending almost to edge of labial lip; columella calloused and glazed, swollen anteriorly, and sculptured with 10-16 lirae on parietal wall, lower half of the columella smooth. Siphonal canal produced and recurved towards dorsum. Colour of shell cream, leaden-grey or fawn, with irregular brown stains on early whorls, a brown spiral line passing through the knobs on body whorl and 5 broad, short brown stripes on edge of labial lip; aperture, columella and tip of siphonal canal dark purple-brown.

TYPE LOCALITY: West side of Matupi Island, Simpson Harbour, Rabaul, New Britain, Territory of Papua and New Guinea; in pumice bank, 10 feet (3 metres) above sea-level.



Figs. 1-3. *Strombus (Dolomena) kleckhamae* sp. n. 1-1a. Matupi I., Simpson Harbour, Rabaul, New Britain. Holotype AIM No. TM-1326; length 49.8mm. 2. Paratype No. 1 from type-locality; length 39.7mm. 3. Paratype No. 2 from Rabaul, New Britain; length 41.8mm.

Holotype: Auckland Institute and Museum No. TM-1326; length 49.8 mm, width 30.0 mm, height of aperture 41.0 mm (leg. W. M. English, 1967); 8 obscure lirae on labial wall and 10 lirae on parietal wall (Fig. 1-1a).

Paratypes: No. 1. Specimen from the type locality, length 39.7 mm, width 25.9 mm, height of aperture 32.2 mm; 29 distinct lirae on labial wall and 16 lirae on parietal wall (coll. W. M. English) (Fig. 2). No. 2. Specimen from Rabaul, New Britain, obtained by Mrs. A. Kuster, length 41.8 mm, width 25.0 mm, height of aperture 33.3 mm; 34 distinct lirae on labial wall and 16 lirae on parietal wall (author's coll.) (Fig. 3).

Strombus (Dolomena) kleckhamae bears no real resemblance to any living species but is superficially similar to *Strombus rutteni* Altena, 1942, from the Indonesian Pliocene. *Strombus rutteni* has a higher spire, sutural cords, angulate whorls which are prominently ribbed and a very broad body whorl; the columella is not swollen anteriorly and is finely denticulate, and the siphonal canal is short and straight.

The pumice bank deposit at Matupi Island contains strata of "semifossil" molluscs, which were presumably deposited there in the course of the recent volcanic uplift during the eruption of Matupi volcano in 1937. The well preserved colour of the 3 specimens suggests that *Strombus (Dolomena) kleckhamae* still lives in Simpson Harbour.

The new species is named for Mrs. Marjorie Kleckham, Port Moresby, Papua, who first brought this species to my attention.

Family MITRIDAE Swainson, 1831

Subfamily IMBRICARIINAE Troschel, 1867

Genus *Cancilla* Swainson, 1840

Cancilla Swainson, 1840, Treat. Malac., pp. 130, 320. Type species by SD (Herrmannsen, 1846. *Tiara isabella* Swainson, 1831. Recent, Sino-Japanese region.

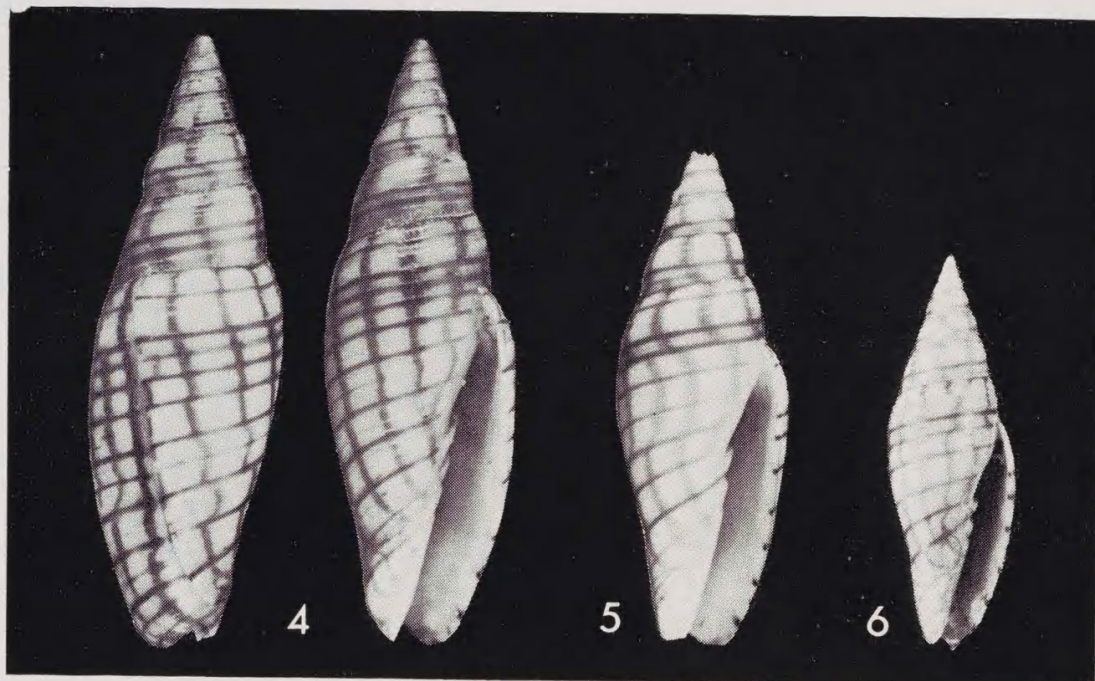
Subgenus *Ziba* H. & A. Adams, 1853

Ziba H. & A. Adams, 1853, Gen. Rec. Moll. 1: 179. Type species by SD (Wenz, 1943) *Mitra (Ziba) carinata* Swainson = *Mitra carinata* Swainson, 1824. Recent, West Africa.

Cancilla (Ziba) cloveri sp.n.

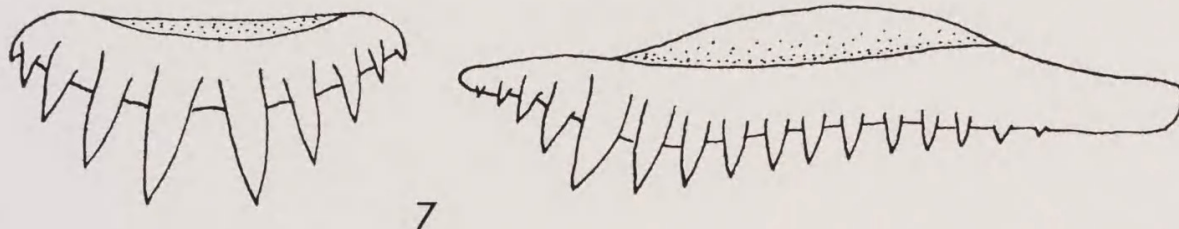
(Figs. 4-8)

Shell moderately small, 17-27mm, fusiformly-elongate, moderately solid and shining. Pinkish-white in colour, ornamented with 1-3 reddish-brown spiral lines on penultimate whorl and 7-12 lines on body whorl; additional narrow, wavy and occasionally chevron-shaped axial lines bisecting the spirals. Teleoconch of 7-8 convex whorls, protoconch missing in adult specimens, but consisting of 3 smooth, glassy nuclear whorls in the juvenile paratype. Early whorls sculptured with 3-5 flattish spiral cords and small pits in interstitial grooves; spiral cords and interstitial pits becoming less prominent on ultimate 3 whorls. Penultimate whorl with 5-6 obsoletely pitted spiral grooves, intervening spiral cords only slightly elevated or completely flat. Body whorl

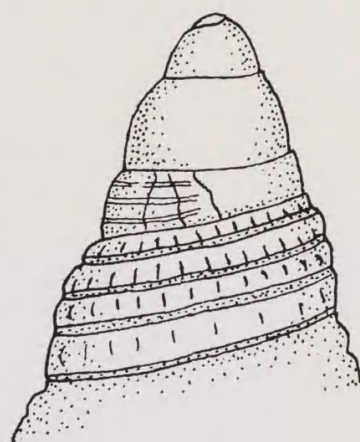


Figs. 4-6. *Cancilla (Ziba) cloveri* sp. n. c. 75 miles S.W. of Kaushiung, Formosa Strait, Taiwan, 70 fathoms (128 metres). 4. Holotype AIM No. TM-1335; length 26.3mm. 5. Paratype No. 1; length 21.7mm. 6. Paratype No. 2; length 17.0mm (spec. juv.)

100 μ



7



8

Figs. 7, 8. *Cancilla (Ziba) cloveri* sp. n. 7. Half-row of radula extracted from holotype. 8. Protoconch of immature paratype No. 2.

with 14-17 spiral grooves, grooves generally prominent only near suture and almost obsolete on remainder of body whorl and visible as finely incised smooth lines. Aperture narrow and fusiform, longer than spire, smooth within; edge of labial lip smooth, columella glazed but not calloused, 5-6 columellar folds decreasing in size anteriorly. Siphonal notch distinct, siphonal canal straight.

The radula of the holotype (Fig. 7) measured 4.4mm in length and 1.24mm in width, and contained 68 rows (+ 2 nascentes) of teeth; teeth were broken and very worn in the first 20 anterior rows. The rachidians are equipped with 10 large cusps which decrease laterally in size and the laterals have 16 teeth.

TYPE LOCALITY: Approximately 75 miles (120 km) southwest of Kaoshiung, Formosa Strait, Taiwan, in 70 fathoms (128m).

Holotype: Auckland Institute and Museum No. TM-1335; length 26.3mm, width 8.5mm, height of aperture 15.6mm (Fig. 4).

Paratypes: No. 1. Length 21.7mm, width 7.6mm, height of aperture 13.7mm in coll. P.Clover (Fig. 5). No. 2 Length 17.0mm, width 5.5mm, height of aperture 10.0mm in author's coll. (Fig. 6).

Cancilla (Ziba) *cloveri* is similar to *C.rehderi* (Webb, 1958), from 100fm (193m) off Tosa, Japan; the latter species is larger, more fusiform and slender, the whorls are almost flat and not convex, the aperture equals in height the spire, and the spiral grooves are prominently punctate over the entire body whorl. In *C.rehderi* the spiral cords are covered with reddish-brown spots and there is no trace of longitudinal line ornamentation; in *C.cloveri* the spiral and longitudinal lines are arranged at random and do not follow either the spiral cords or grooves. In *C.cloveri*, the last two-thirds or one-half of the body whorl is smooth apart from widely spaced, finely incised spirals, whereas in *C.rehderi* the spirals are deep and pitted and the cords elevated.

The species has been named for Mr. Philip Clover, Rota Cadiz, Spain, who kindly drew my attention to the new species.

Acknowledgements. I would like to record my thanks to Mr. W. M. English, Konedobu, Papua, for the additional specimens of *Strombus* (*Dolomena*) *kleckhamae* collected by him on Matupi Island.

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