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Notes on terrestrial molluscs of Java, Bali and Nusa Penida

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This paper includes the descriptions of twelve new species from Java, Bali, and Nusa Penida, belonging to the families *Assimineidae*, *Cyclophoridae*, *Diplommatinidae*, *Achatinellidae*, *Ariophantidae*, *Camaenidae*, *Endodontidae*, and *Euconulidae*. Previously included in the *Valloniidae*, the genus *Anaglyphula* Rensch, 1932, is transferred to the *Assimineidae*. Javanese and Balinese shells generally identified as *Lamprocystus infans* (Pfeiffer, 1854) are found to differ from the Bornean shells of this species, including the type. Diagnostic characters are given to facilitate the identification of shells of some *Macrochlamys* and *Helicarion* species which are often confused.

Key words: Gastropoda, Prosobranchia, Assimineidae, Cyclophoridae, Diplommatinidae, Pulmonata, Achatinellidae, Ariophantidae, Camaenidae, Endodontidae, Euconulidae, Helicarionidae, taxonomy, Indonesia, Java, Bali, Nusa Penida.

While going through samples from various museums and private collections in order to compile a guide to the terrestrial molluscs of Bali and Nusa Penida (an island Southeast of Bali), 12 new species were found originating from both these islands as well as Java. These are described below. Changes in the delimitation or in the systematic position of some other species are proposed.

The prosobranch species are treated first, before the pulmonates. Within both groups, the families and then the species are discussed in alphabetical order.

The author is indebted to all who made this compilation possible. Particularly the collecting activities of Dr. A.J. Whitten (UK), and Mr. V. Kessner (Australia) added numerous novelties to the list of the Bali and Nusa Penida species. Type material and other specimens for comparison were kindly made available by the Nationaal Natuurhistorisch Museum, Leiden (RMNH), the Senckenberg Museum, Frankfurt (SMF), and the Zoological Museum, Amsterdam (ZMA). As always, extensive use has been made of the library, and other facilities of the Nationaal Natuurhistorisch Museum, Leiden.

Samples in the collection of the author are marked with a V, followed by a collection number; those in the collection of V. Kessner with a K.

The drawings have been made by the author.

Family ASSIMINEIDAE

Genus *Anaglyphula* Rensch, 1932.

Notes. — The presence of an operculum in a specimen of *A. whitteni*, described below, precludes the ranking of the genus among the Valloniidae, as suggested by Rensch (1932). The shape of the shell, and the nature of the sculpture justify a provisional inclusion in the Assimineidae. The genus is rather similar to, if not identical with, *Omphalotropis*.

Anaglyphula whitteni spec. nov. (fig. 1)

Distribution. — BALI. Danau Buyen (leg. Whitten, V 3962; incl. HOLOTYPE RMNH 56930).

Rather thin, opaque, dull, pale brown. Spire dextral, conical with slightly convex sides. Whorls slightly convex, suture impressed. Radial sculpture: above the periphery distinct, irregularly wavy, sometimes bifurcating, densely placed ribs, below the periphery of the last whorl ribs less distinct, sometimes almost absent, though distinct again in the umbilical region. Spiral striation absent or locally present, inconspicuous. Umbilicus open, moderately narrow. Aperture ovate with a sharp angular edge. Peristome white, spreading and with a thickened lip inside, not continuous on the parietal side, or present as a thin glazing only. Operculum corneous, paucispiral. Shell 2.3-2.8 mm high, 2.1-2.3 mm wide, with 4 1/2-5 1/8 whorls.

Ecology. — Montane primary forest on volcanic soil. In leaf litter.

Notes. — 1. So far, two species have been included in *Anaglyphula* by Rensch (1932). *Anaglyphula cancellata* Rensch, 1932, is smaller, and has the radial ribs interrupted by spiral bands of small pits in the shell surface. "*Pupa*" *constrictum* (Godwin Austen, 1895), provisionally included by Rensch, has a smaller aperture and finer radial ribs.

2. Named after Dr. A.J. Whitten, Cambridge, U.K., to acknowledge his collecting activities on the islands of Bali and Nusa Penida. He has added numerous new records, and several new species to the list of these islands.

Family CYCLOPHORIDAE

Chamalycaeus kessneri spec. nov. (fig. 2)

Distribution. — NUSA PENIDA. (leg. Kessner, K 19964; leg. Whitten, V 4080, incl. HOLOTYPE RMNH 57139; do., V 4365).

Rather solid, opaque, dull, white or slightly orange. Spire dextral, low conical. Whorls convex, suture deeply impressed. Constriction present, with a backwards pointing, short tubule in the suture. Top (about 1 1/2 whorl) smooth, next whorl with rather prominent spiral striation, crossed with inconspicuous radial ribs; last half whorl before the constriction slightly swollen, with increasingly prominent, moderately spaced radial ribs, spiral striation inconspicuous above the periphery, more prominent below. Tuba about 1/8 whorl, the portion close to the constriction with the spiral striation most prominent, otherwise with distinct, densely placed radial ribs. Umbilicus open, rather wide. Aperture circular. Peristome thickened and spreading; the outer with a notch in the angular edge, absent or narrow along the parietal side, elsewhere wide and projecting beyond the inner; inner peristome continuous, slightly protruding from the outer. Operculum unknown. Shell 2-2.5 mm high, 3-3.5 mm wide, with 3 1/4-3 1/2 whorls.

Ecology. — Primary and secondary forest on limestone soil.

Notes. — 1. *Chamalycaeus fruhstorferi* (Von Moellendorff, 1897), from Java, is distinctly larger, has the radial ribs more densely placed, and has a less distinct spiral sculpture.

2. Named in honour of Mr. V. Kessner, Adelaide, Australia, an enthusiastic collector of the snail fauna of his home country, whose occasional wanderings abroad brought to light the first sample of this species.

Cyclotus lepidotus spec. nov. (fig. 3)

Distribution. — NUSA PENIDA. (leg. Whitten, V 4074, incl. HOLOTYPE RMNH 57140; do., V 4363; leg. Kessner, K s.n.).

Rather thin, opaque, dull, whitish with brown blotches. Spire dextral, low conical. Whorls convex, suture impressed, with numerous, densely placed growth lines, sometimes locally with slightly raised, widely and regularly spaced radial ribs. Spiral striation absent. Periostracum brown, thick, somewhat fibrous, along the periphery with 10-12 spiral bands with short, blackish hairs. Umbilicus open, wide. Aperture circular. Peristome continuous, not spreading, not or only slightly thickened. Operculum multispiral, nucleus thin, whorls without a raised crest. Shell 4-5 mm high, 7-9 mm wide, with 3 1/2-4 whorls.

Ecology. — Primary and secondary forest on limestone soil.

Notes. — Other species from surrounding islands with a low conical or almost flat shell and a wide umbilicus are: *C. discoideus* Sowerby, 1843, from Java, which is much larger; *C. obscuratus* Rensch, 1931, from Timor, which has a more shiny surface, and *C. latruncularius* P. & F. Sarasin, 1898, from North Celebes, which has a still wider umbilicus and a distinctive colour pattern on the shell.

Family DIPLOMMATINIDAE

Palaina vulcanicola spec. nov. (fig. 4)

Distribution. — BALI. Danau Buyen (leg. Whitten, V 3955, incl. HOLOTYPE RMNH 57141; do., V 4382).

About opaque, shining, pale corneous. Spire dextral, broadly fusiform. Whorls convex, suture impressed. Constriction level with the columellar side of the peristome. Tuba about 3/4 whorl, with a distinct swelling close to the constriction. Radial ribs distinct on the first 3 1/2 whorl only, and sometimes on part of the tuba, not sinuous, rather densely placed; elsewhere absent or inconspicuously present on the upper side of the whorls. Spiral striation absent. Umbilicus closed. Peristome well rounded on the palatal and basal side, double, the outer peristome not protruding beyond the inner. Shell 3.5-3.9 mm high, 2.3-2.5 mm wide, with about 5 1/2 whorl.

Ecology. — Montane primary forest on volcanic soil. In leaf litter.

Notes. — *Arinia tjendanae* Rensch, 1931, from Sumba, has similarly distributed radial ribs but is smaller, and more slender.

Family ACHATINELLIDAE

Tornatellina perinconspicua spec. nov. (fig. 5)

Distribution. — BALI. G. Abang (leg. Whitten, V 3503); Danau Buyen (leg. Whitten, V 3960, incl. HOLOTYPE RMNH 57142).

Thin, transparent, shining, pale yellowish green. Spire dextral, conical. Apex rounded. Whorls convex, suture impressed, the last whorl rounded at the periphery. Shell with inconspicuous growth lines. Spiral striation absent. Umbilicus closed. Aperture sub-rhombiform, basal and angular edge almost sharp. Peristome thin, interrupted on the parietal side, not reflected. Columellar fold present in the last whorl, distinct, high, ending slightly short of the aperture and therefore hardly visible in the aperture

when the shell is observed frontally. Shell 1.2-1.3 mm high, 0.7 mm wide, with 3 3/4-4 whorls.

Ecology. — Montane primary forest on volcanic soil. In leaf litter.

Notes. — Best placed in *Tornatellina* because of the conical outline of the shell, and the closed umbilicus. Within this genus it is readily distinguished by its extrmely small size, the hardly sinuous columellar side of the aperture, and the columellar fold which is not visible when the shell is observed frontally.

Family ARIOPHANTIDAE

Macrochlamys spiralifer spec. nov. (fig. 6)

Distribution. — BALI. Danau Buyen (leg. Whitten, V 3973, HOLOTYPE RMNH 57143)

Thin, slightly translucent, glossy, brown. Spire dextral, low conical. Apex rounded. Whorls slightly convex, suture slightly impressed, the last whorl narrowly rounded at the periphery. Shell with very inconspicuous growth lines. Spiral striation distinct, rather fine (clearly visible at 20 x magn.) present over the entire shell but most conspicuous and with well-spaced lines above the periphery. Umbilicus open, narrow. Aperture obliquely lunate. Peristome thin, interrupted or present as a thin glazing only on the parietal side, somewhat reflected on the columellar side. Shell 3 mm high, 5.5 mm wide, with 4 1/2 whorls; diameter over the first three whorls (measured from suture to suture) 2.9 mm.

Ecology. — Primary montane forest on volcanic soil.

Notes. — On Java and Bali, three species of quite different alliance occur which all have a shell very similar to that of *M. spiralifer*. Because they are easily confused, all species of this group are depicted, and the diagnostic characters are given:

Both *Macrochlamys spiralifer* and *Macrochlamys gedeana* (Von Moellendorff, 1897) (see fig. 7; as *Lamprocystus gedeana* in Van Benthem Jutting, 1950), from Java, have a slightly shouldered last whorl. The latter is slightly larger (shell 4 mm high, 6.5 mm wide, with 4 1/2 whorls; diameter over the first three whorls 3.0 mm), has its whorls increasing more rapidly in size, and has at most inconspicuous spiral striation.

Macrochlamys amboinensis (Von Martens, 1864) (see fig. 8; as *Tanychlamys amboinensis* in Van Benthem Jutting, 1952), and *Helixarion radiatulus* (Von Moellendorff, 1897) (see fig. 9; see also the note on this species below) both have a well-rounded last whorl. The first, however, has a shell with a rounded apex, whereas in the second the first whorl is slightly protruding.

Microcystina brunnescens spec. nov. (fig. 10)

Distribution. — NUSA PENIDA. (leg. Whitten, V 4089, incl. HOLOTYPE RMNH 57144; do., V 4373).

Thin, somewhat translucent, glossy, pale brown. Spire dextral, low conical. Apex rounded. Whorls slightly convex, suture slightly impressed, the last whorl rounded at the periphery. Shell with inconspicuous growth lines only, which are most distinct just below the suture. Spiral striation absent, or sometimes locally present, very inconspicuous (hardly visible at 40 x). Umbilicus open, very narrow. Aperture obliquely lunate. Peristome thin, interrupted or present as a thin glazing only on the parietal side, somewhat reflected and with at most a slight edge on the columellar side. Shell up to 2.5 mm high, 4.1 mm wide, with up to 5 1/2 whorls; diameter over the first three whorls (measured from suture to suture) 1.6-2.0 mm.

Ecology. — Primary and secondary forest on limestone soil.

Notes. — Larger than most other Balinese species of *Microcystina*. *Microcystina radioplicata* Rensch, 1930, from Flores, has a more distinct radial and spiral sculpture.

Microcystina chionodiscus spec. nov. (fig. 11)

Distribution. — JAVA. West Java: limestone hill near Ciampea (leg. Whitten, V 3653; leg. Turner & Van Welzen, V 4328); G. Tilu (leg. Whitten, V 3859); Padalarang Hills (leg. Whitten, V 3891, incl. HOLOTYPE RMNH 57145); Pangandaran area (leg. Whitten, V 4114). Central Java: Nusa Kambangan, Benteng Penden (leg. Whitten, V 3617); do., Candi, Gua Ratu Batu (leg. Whitten, V 3602; do., V 4566); Karangbolong Mts., Gua Petruk (leg. Whitten, V 4125); G. Sewu Hills (leg. Whitten, V 3897). NUSA PENIDA. Between Karangsari roadside and Gua Paon (leg. Whitten, V 4100).

Thin, somewhat translucent, glossy, white. Spire dextral, lenticular. Apex rounded. Whorls slightly convex, suture slightly impressed, the last whorl rounded at the periphery. Shell with inconspicuous growth lines, as well as rather inconspicuous, widely spaced (though often at irregular intervals) radial grooves above the periphery; with growth lines only below the periphery. Spiral striation absent, or sometimes locally present, very inconspicuous (hardly visible at 40 x). Umbilicus open, very narrow. Aperture obliquely lunate. Peristome thin, interrupted or present as a thin glazing only on the parietal side, somewhat reflected and with a distinct edge on the columellar side. Shell up to 1.2 mm high, 2.2 mm wide, with up to 3 5/8 whorls; diameter over the first three whorls (measured from suture to suture) 1.4-1.6 mm.

Ecology. — Secondary forest and grassland on limestone soil and volcanic soil.

Notes. — *Microcystina sinica* Von Moellendorff, 1885, which occurs in scattered locations on Java and Bali, has a smaller (up to 1 mm wide) shell, with a less flattened last whorl. *Microcystina muscorum* Van Benthem Jutting, 1959, described from Sumatra but also found on Java and Bali, may be of about equal size, but has a brown shell with a spiral striation consisting of rows of small pits. All other species of *Microcystina* found on Java and Bali are larger.

Family CAMAENIDAE

Ganesella sphaerotrochus spec. nov. (fig. 12)

Distribution. — BALI. G. Abang (leg. Whitten, V 3495, incl. HOLOTYPE, RMNH 57146).

Thin, opaque, somewhat shining, brown. Spire dextral, conical with distinctly convex sides. Whorls convex, suture impressed, the last whorl rounded at the periphery. Shell with inconspicuous, rather irregular, radial ribs above the periphery. Spiral striation absent. Surface entirely covered with small scars parallel to the growth lines. Periostracum thin, with a sort, hook-shaped hair on each scar on the shell surface. Umbilicus open, deep, rather wide. Aperture subcircular. Peristome whitish, interrupted on the parietal side, reflected on the columellar side, elsewhere hardly so. Shell 6.3 mm high, 6.5 mm wide, with 5 1/8 whorls.

Ecology. — Primary montane forest on volcanic soil. In leaf litter.

Notes. — Species of *Ganesella* with similar shells occur as far away as China, e.g. *G. conispira* Yen, 1939, which has a larger and wider last whorl. *Ganesella acris* (Benson, 1859), a widespread species and the only one found in adjacent areas, has a conical shell with flat sides and flat whorls.

Family ENDODONTIDAE

Philalanka depressispira spec. nov. (fig. 13)

Distribution. — JAVA. Bremi (leg. Whitten, V 4020, incl. HOLOTYPE RMNH 57147). BALI. Danau Buyen (leg. Whitten, V 3965).

Thin, translucent, shining, whitish or pale yellowish green. Spire dextral, conical with slightly convex sides. Whorls convex, suture impressed, with inconspicuous growth lines. Spiral ridges 4-6, all above the periphery, with much finer, densely placed spiral ridglets in between and similar, less densely placed and slightly coarser ridglets below the periphery. Umbilicus open, narrow. Aperture semi-elliptic. Peristome not thickened, interrupted or as a thin glazing only on the parietal side, columellar side oblique in relation to the coiling axis, somewhat reflected. Shell 0.9-1.1 mm high, 1.3-1.4 mm wide, with 3 1/2-3 3/4 whorls.

Ecology. — Primary montane forest on volcanic deposits. In leaf litter.

Notes. 1 — The Javanese specimens have fewer spiral ridges, but are otherwise not different from the Balinese.

2 — The widespread *P. carinifera* (Stoliczka, 1873) has less depressed whorls, has a semi-circular rather than a semi-elliptic aperture, and has its columellar margin about parallel to the coiling axis in adults. *Philalanka nannophya* Rensch, 1932, from Java and various Lesser Sunda Islands, has a wider spire; *P. kusana* Aldrich, 1889, from Borneo, is larger.

Philalanka setifera spec. nov. (fig. 14)

Distribution. — JAVA. Gedeh-Pangango Mts: Telaga Warna (V 2774, incl. HOLOTYPE RMNH 57148).

Thin, translucent, shining, whitish or pale corneous. Spire dextral, conical with slightly convex sides. Whorls convex, suture impressed, with distinct growth lines. Spiral ridges 2 (3 on the last whorl), the third, lowermost below the periphery, each with a single row of short, straight periostracal hairs; close to, and between the first and the third ridge with much finer, densely placed spiral ridglets, elsewhere with a few, widely spaced spiral ridglets only. Umbilicus open, rather wide. Aperture semi-elliptic. Peristome not thickened, interrupted or as a thin glazing only on the parietal side, columellar side oblique in relation to the coiling axis, somewhat reflected. Shell 1.2-1.4 mm high, 1.7-1.8 mm wide, with 3 3/8-4 whorls.

Ecology. — Primary montane forest on volcanic deposits. In leaf litter.

Notes. — 1. The only known species of *Philalanka* in Malaysia and Indonesia with hairs on the periostracum. The Australian *Therasia grenvillei* (Brazier, 1876) (*Helix grenvillei*), as well as the widespread *Therasia fimbriosa* (Quadras & Von Moellendorff, 1894) both have a very similar sculpture, though with less distinct spiral ridges. They also have a closed umbilicus, and the latter has a higher spire.

2. Its inclusion in *Philalanka* is provisional; it could equally well fit in *Therasia*. In spite of a marked similarity as far as the shells are concerned, the first genus is generally regarded as an *Endodontidae*, whereas Solem (1988: 552, sub genus *Queridomus*) includes the second in the *Helicarionidae* on account of anatomical features.

Family EUCONULIDAE

Coneuplecta olivacea spec. nov. (fig. 15)

Durgellina spec. Rensch, 1932: 70.

Distribution. — JAVA. Pangandaran area (leg. Whitten, V 4116). BALI. Danau Buyen (leg. Whitten, V 3968, incl. HOLOTYPE RMNH 57149); Gitgit (Rensch, 1932). NUSA PENIDA. (leg. Whitten, V 4078; do., V 4368). FLORES. Rana Mese (Rensch, 1932).

Very thin, translucent, shining, pale brownish green. Spire dextral, conical with flat sides. Whorls rapidly increasing in size, convex near the apex, almost flat above the periphery close to the aperture, suture impressed, the last whorl with a sharp, somewhat pinched keel at the periphery. Radial sculpture: irregular undulations following the growth lines, most distinctly so just below the suture. Spiral sculpture: above the periphery 5-8 fine ridglets, on the last whorl each second ridglet often in a shallow spiral depression; below the periphery with numerous well spaced, very fine spiral grooves. Umbilicus (almost) closed. Aperture subrectangular with a rounded basal edge. Peristome interrupted on the parietal side or present as a thin glazing only, reflected on the columellar side, elsewhere not so. Shell 1.7-2.0 mm high, 2.1-2.2 mm wide, with 2 1/2-3 1/4 whorls.

Ecology. — Primary and secondary forest on volcanic deposits and limestone.

Notes. — Juvenile *C. sitaliformis* (Von Moellendorff, 1897), from Java, Bali and Celebes, have more convex whorls which more slowly increase in size. *Liardetia dendrophila* Van Benthem Jutting, 1950, from Java, has a lower conical spire, and a spiral sculpture consisting of rows of small pits.

Family HELICARIONIDAE

Helicarion radiatulus (Von Moellendorff, 1897) (fig. 9)

Lamprocystus radiatula Von Moellendorff, 1897: 63.

Lamprocystus infans auct. Van Benthem Jutting, 1950: 412 (not *Helix infans* Pfeiffer, 1854).

Notes. — 1. The name *Helix infans* Pfeiffer, 1854 (type from Malaysian Borneo) has incorrectly been used for shells from Java and Bali. Shells from Java and Bali are less densely coiled, more lenticular, have a less conspicuous spiral striation, and have a narrower umbilicus than those from Borneo; such shells are not present in our, by now, rather extensive, collections from Borneo. The taxon occurring on Java and Bali should be referred to as *Lamprocystus radiatula* Von Moellendorff, based on a specimen from Bali.

2. Rensch (1932: 53) gives illustrations of the genitalia, the jaw, and the radula of specimens originating from Bali. Based on this information, Forcart (1964) proposes a transfer to *Helicarion*.

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The scale bar with each species indicates 1 mm.

Fig. 1. a, *Anaglyphula whitteni* spec. nov., holotype specimen, Bali: Danau Buyen (RMNH), front view; b, do., umbilical view; c, a juvenile paratype specimen, operculum.

Fig. 2. a, *Chamalycaeus kessneri* spec. nov., holotype specimen, Nusa Penida (RMNH), front view; b, do., umbilical view; c, do., apical view.

Fig. 3. a, *Cyclotus lepidotus* spec. nov., holotype specimen, Nusa Penida (RMNH), front view; b, do., umbilical view.

Fig. 4. a, *Palaina vulcanicola* spec. nov., holotype specimen, Bali: Danau Buyen (RMNH), front view; b, do., right lateral view.

Fig. 5. a, *Tornatellina perinconspiqua* spec. nov., holotype specimen, Bali: Danau Buyen (RMNH), front view; b, do., right lateral view; c, paratype specimen, right lateral view with 1/4 whorl removed to show the columellar lamella.

Fig. 6. a, *Macrochlamys spiralifer* spec. nov., holotype specimen, Bali: Danau Buyen (RMNH), front view; b, do., umbilical view; c, do., apical view.

Fig. 7. a, *Macrochlamys gedeana* (Von Moellendorff, 1897), holotype specimen, Java: G. Gedeh (SMF 62476), front view; b, do., umbilical view; c, do., apical view.

Fig. 8. a, *Macrochlamys amboinensis* (Von Martens, 1864), Aru Islands: P. Kobroor (V 4186), front view; b, do., umbilical view; c, do., apical view.

Fig. 9. a, *Helicarion radiatulus* (Von Moellendorff, 1897), Java: G. Tanguban Prahu (ZMA 39258), front view; b, do., umbilical view; c, do., apical view.

Fig. 10. a, *Microcystina brunnescens* spec. nov., holotype specimen, Nusa Penida (RMNH), front view; b, do., umbilical view; c, do., apical view.

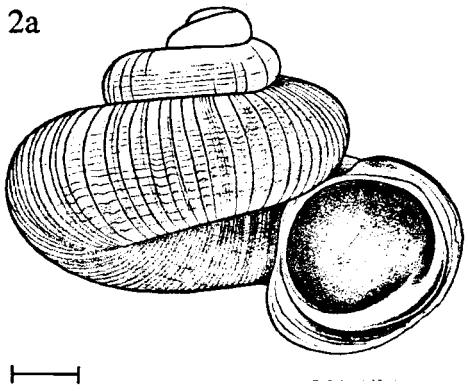
Fig. 11. a, *Microcystina chionodiscus* spec. nov., holotype specimen, Java: Padalarang Hills (RMNH), front view; b, do., umbilical view; c, do., apical view.

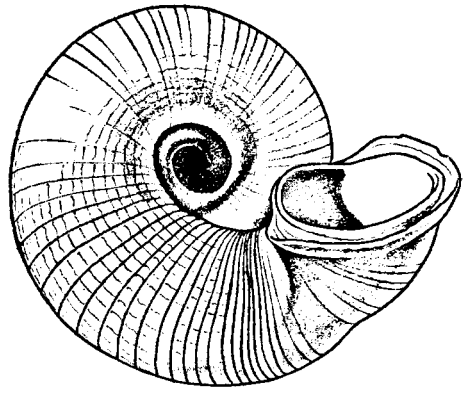
Fig. 12. a, *Ganesella sphaerotrochus* spec. nov., holotype specimen, Bali: G. Abang (RMNH), front view; b, do., umbilical view.

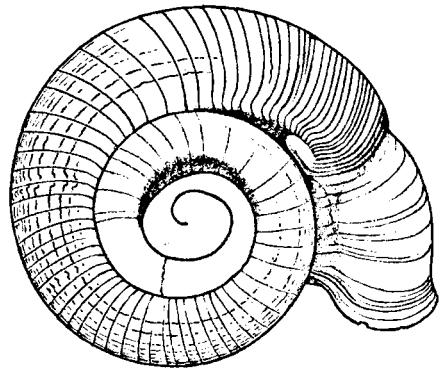
Fig. 13. a, *Philalanka depressispira* spec. nov., holotype specimen, Java: Bremi (RMNH), front view; b, do., umbilical view.

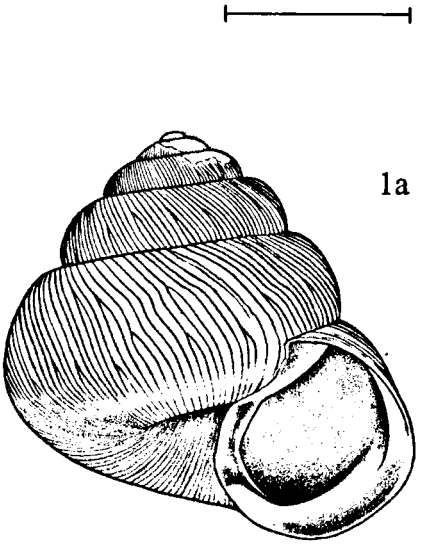
Fig. 14. a, *Philalanka setifera* spec. nov., holotype specimen, Java: Telaga Warna (RMNH), front view; b, do., umbilical view.

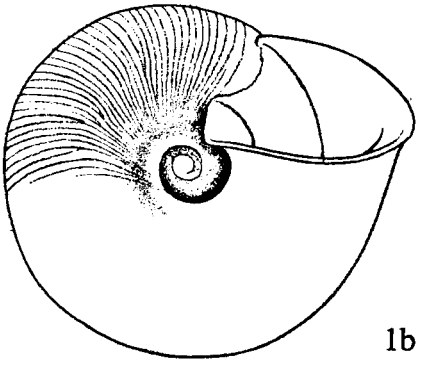
Fig. 15. a, *Coneuplecta olivacea* spec. nov., holotype specimen, Bali: Danau Buyen (RMNH), front view; b, do., umbilical view.

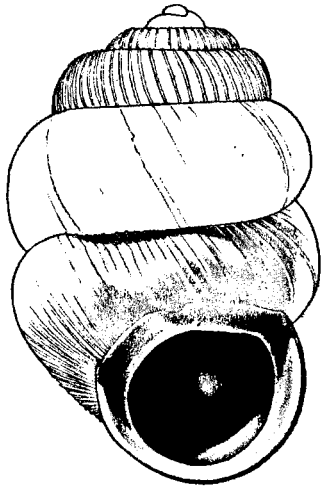












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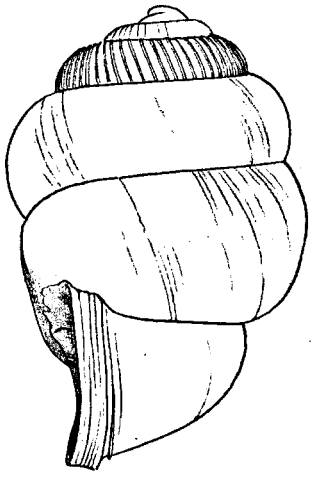
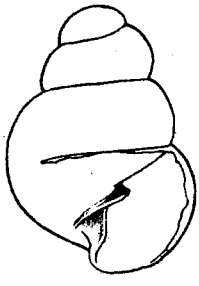


4b



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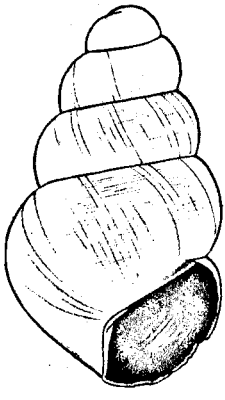

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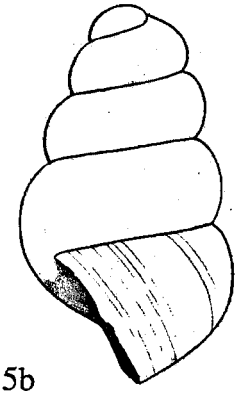

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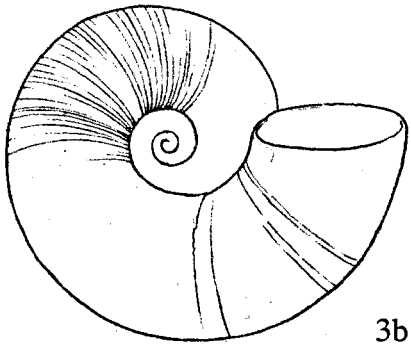

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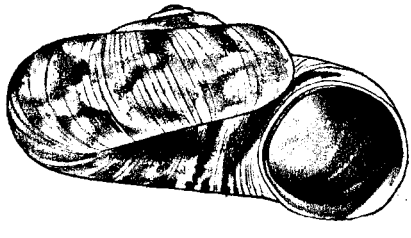

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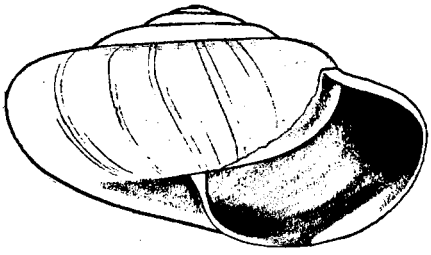

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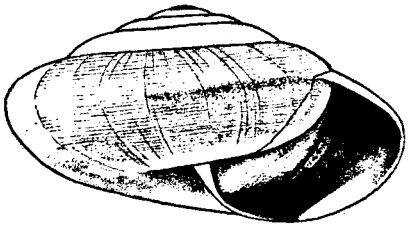

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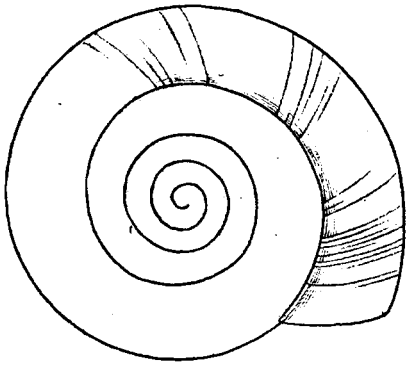

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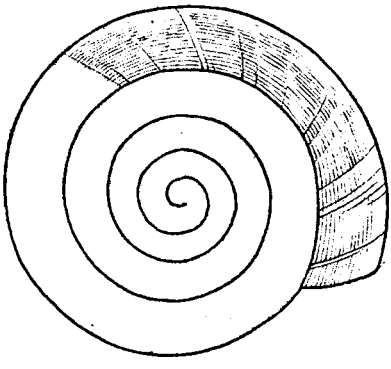

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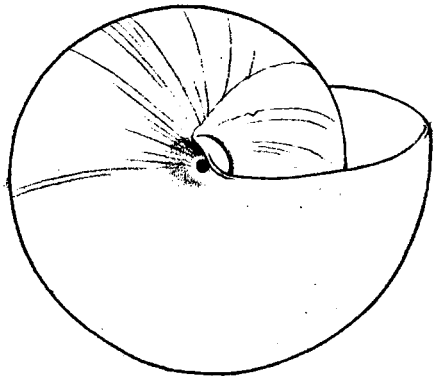

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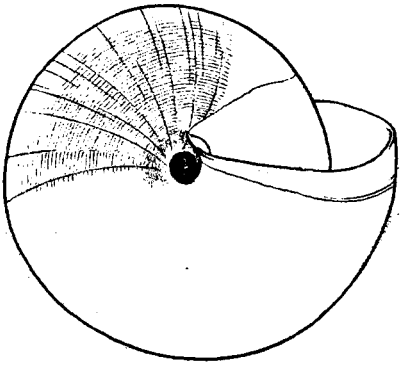

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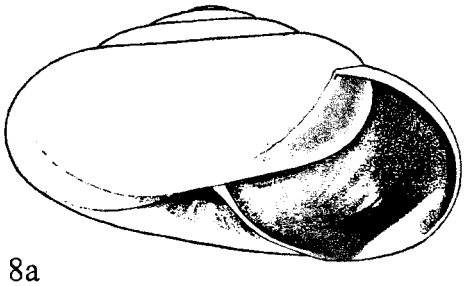

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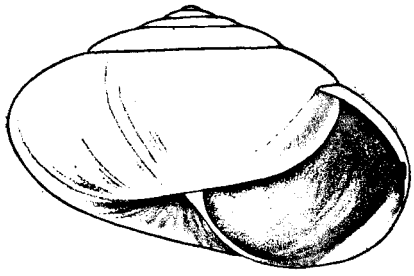

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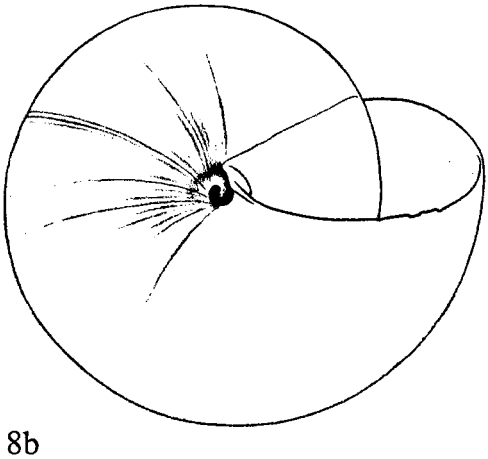

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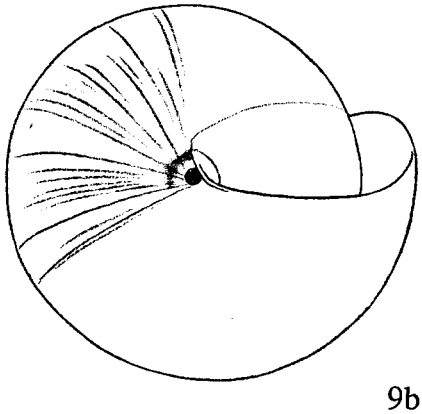

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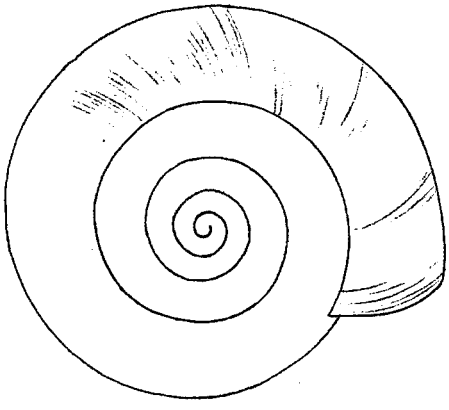

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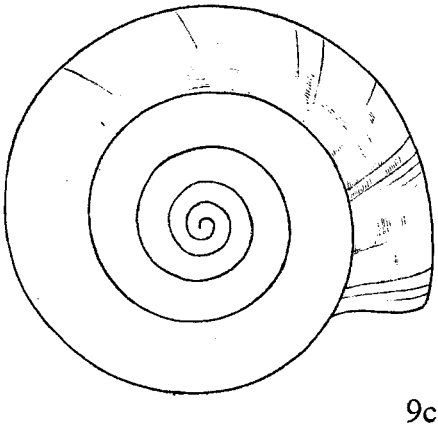

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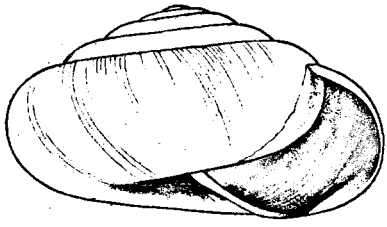

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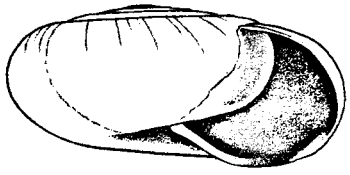

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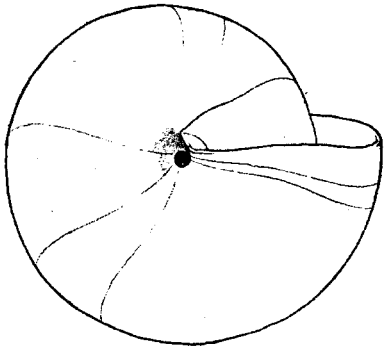

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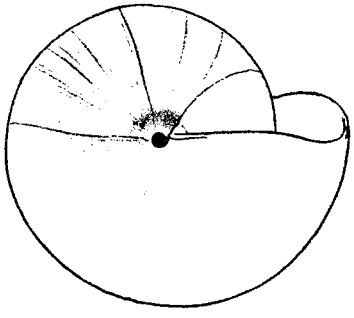

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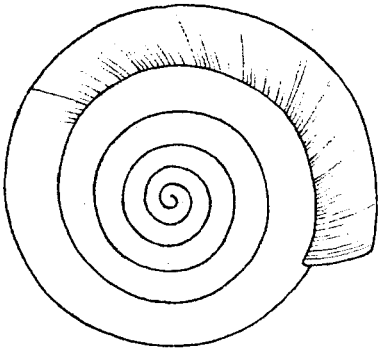

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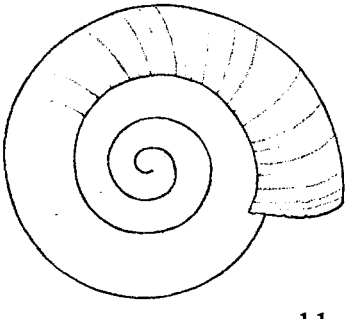

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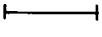

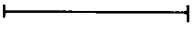

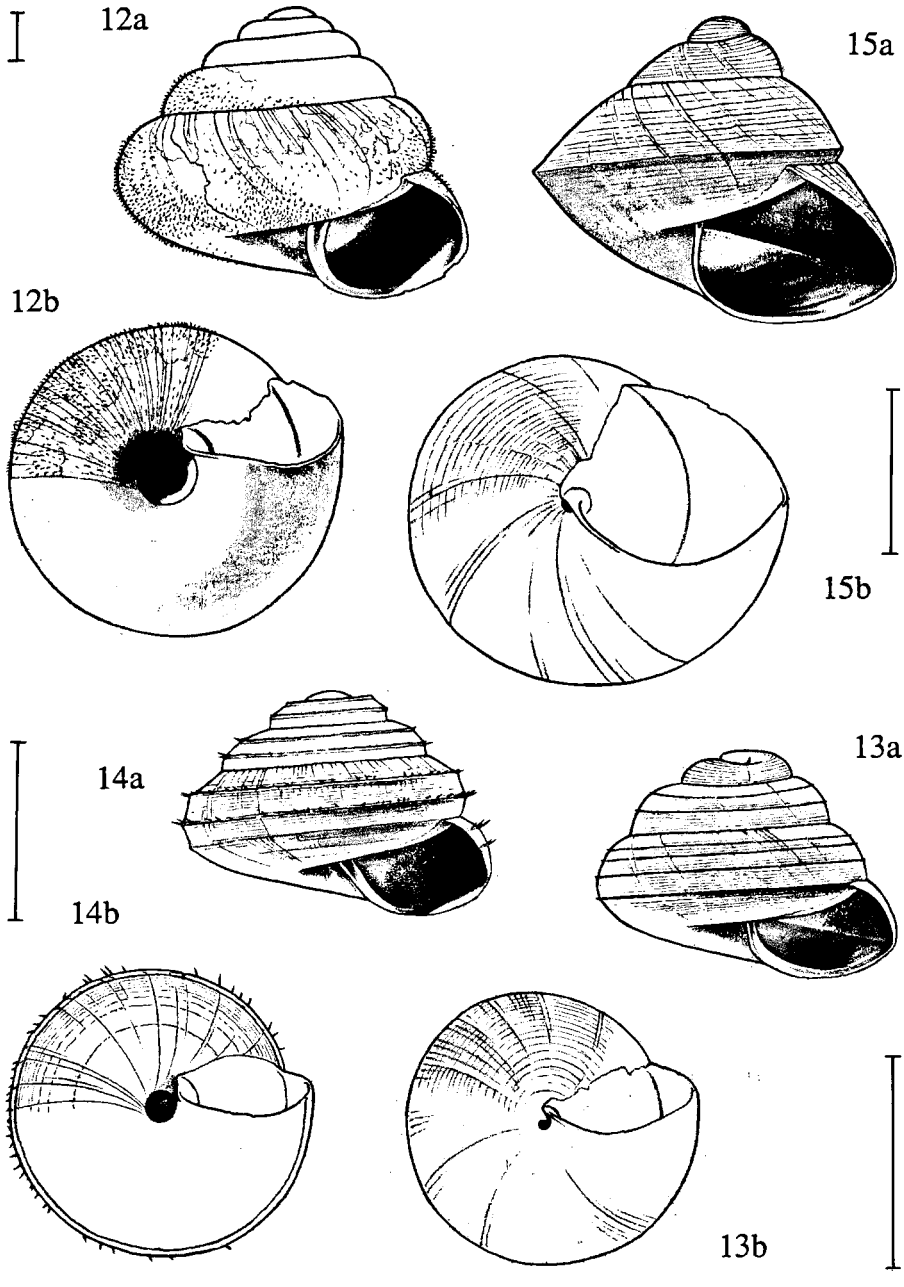
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