Made you look...again. The description of nine new cryptic species of Terebridae

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KEYWORDS. Terebridae, Terebra, Myurella, Profunditerebra, shell morphology, new species.

ABSTRACT. The ongoing revision of several morphological groups in Terebridae, aided by further dissemination with the aid of molecular results, presently already results in the discovery and description of nine new species of Terebridae in three genera: *Myurella boaretifa* sp. nov., *Profunditerebra baruna* sp. nov., *Terebra agulha* sp. nov., *T. alabaster* sp. nov., *T. caudapotamogalina* sp. nov., *T. ekotokwa* sp. nov., *T. grimwoodi* sp. nov., *T. holfordae* sp. nov. and *T. spraguei* sp. nov.

INTRODUCTION

Recent multi-disciplinary studies in Terebridae (Modica et al., 2019; Fedosov et al., 2020) confirmed the need for certain species-complexes or assumed cryptic species and their allies to be revised.

In many cases, these cryptic species have been under study for a long time, but key features and/or data of the material at hand lacked to distinguish them without a shred of doubt from allied taxa. At the same time, the synonymy of these allied nominative taxa needed revision as the species-concept, with their socalled intra-specific variability and often vast ranges in place since Bratcher & Cernohorsky (1987) did not correspond to what was observed in more recent collections. In all those cases, the lack of data created a hesitant and conservative approach, but the result of molecular phylogeny forces any conchologist facing such situations to look again, with more confidence.

Within those enigmatic complexes of species belong morpho-species allied to Terebra amanda Hinds, 1844, Terebra cumingii Deshayes, 1857 and Terebra quoygaimardi Cernohorsky & Bratcher, 1976, just to name the larger species of which the identity was always considered 'well-known'. In the case of T. amanda, a myriad of morpho-species were labeled as such by various authors; the different morphotypes were simply regarded as intra-specific or regional and ecological differences. Molecular phylogeny on the other hand confirmed that it is in fact a complex of closely related species. An additional problem arose for T. cumingii. There the identity of the type was consecutively misinterpreted by various authors, which lay at the base of 'lumping' several morpho-species together under a single taxon. The task at hand there consisted firstly of delimiting the boundaries of the identity of T. cumingii before allied undescribed species could be segregated. In the

case of *Terebra quoygaimardi*, the issue is more complex. Here the identity is well accepted and presumed well-known (apart from the protoconch).

Differences in apical angle, colour and minor differences in sculpture were in the past (dis)regarded as intra-specific or regional variability. Based on in depth look at this phenomenon, the study of the protoconch, geography and morphology already confirmed that *T. quoygaimardi* consists in fact of a complex of species, which was further confirmed by these multi-disciplinary studies, of which here a second new species (besides *T. aikeni* Terryn & Welsh, 2020) can be described. Unfortunately, more data and specimens from the Indo-Pacific region is needed to further clarify the complexity of this species group.

The present study describes seven new taxa within the above-mentioned species-groups, with an additional two in the morphological group of *Myurella fortunei* (Deshayes, 1857) and the genus *Profunditerebra* Fedosov, Malcolm & Terryn, 2020.

Abbreviations

- AMS: Australian Museum, Sydney, Australia.
- CI: Conchology, Inc., Philippines.
- FN: Private collection of Frank Nolf, Belgium.
- GL: Private collection of Giuseppe Liuzzi, Italy.
- GM: Private collection of Gavin Malcolm, England.
- JR: Private collection of José Rosado, Portugal.
- MM: Private collection of Max Marrow, Australia.

MNHN: Muséum national d'Histoire naturelle, Paris, France.

MZB: Museum of Zoology, Bogor City, West Java, Indonesia.

NHMUK: Natural History Museum of the United Kingdom, London, UK.

SH: Private collection of Steve Hubrecht, Belgium.

SG: Private collection of Sandro Gori, Italy. TM-MT: Taiwan Museum, Taipei, Taiwan. YT: Private collection of Yves Terryn, Belgium. ZSI: Zoological Survey of India, Kolkata, India.

SYSTEMATICS

Species with their generic placement confirmed by molecular results of the holotype (see Fedosov et al., 2020 & Modica et al., 2019) are indicated by *. The generic status of species indicated with ** is presumed with a high degree of confidence as the selected holotype (empty shell) is morphologically identical to specimens with sequenced results of live caught specimens. For information on the types held in the NHMUK, we refer to Salvador & Pickering (2017) in general.

Superfamily **CONOIDEA** Fleming, 1822 Family **TEREBRIDAE** Mörch, 1852 Subfamily **TEREBRINAE** Mörch 1852 Genus *Terebra* Bruguière, 1789

Terebra ekotokwa sp. nov.* Fig. 1A–K

Type material. Holotype MNHN-IM-2013-52390, approx. 64.1 mm. (BOLD ID = CONO2597-19.COI-5P, GenBank accession number = MK851981).

Paratypes: S Mozambique. paratypes 1-4: YT, Inhaca, 2-4 m, 55.2-66.5 mm; paratypes 5-6: YT, Fernão Veloso Bay, 14-16 m, 38.9-56.5 mm; paratype 7: YT, Nacala Bay, 15-25 m, 83.2 mm; paratypes 8-10: JR, Inhaca Island, Ponta Punduine, 26°04.48'S-32°54.27'E, 1–2 m, 60.8–75.3 mm; paratype 11: JR, Inhaca Island, Barreira Vermelha, 26°01.37S-32°54.01E, 2-4 m, 79.4 mm; paratypes 12-15: JR, between Inhaca Isl. and Portuguese Island, 25°59.40S-32°54.70E, 2–6 m, 50.1–66.3 mm: paratypes 16: GL, idem, 40.0 mm; paratype 17: YT, idem, 63.0 mm; paratype 18: SG, off Ponta Santa Maria, Machangulo Peninsula, dredged, 25-35 m, 29.2 mm. South Africa. paratypes 19-20: SH, off Durban Bluff, Natal, 40 m, 58.4-73.6 mm.

Type Locality. Mozambique. Inhaca. 25°59.7'S-32°54.5'E, 2–5 m [INHACA 2011 Stn MR13].

Description. Shell color orangish to reddish light brown, outline of whorls straight. Subsutural band ornamented with densely set arcuate, rounded axials; bordered by a discontinuous groove which is intersected by a secondary, narrower band of shorter, rounded axials, as many as on the subsutural band. Remainder of the whorl predominantly spirally sculptured by 4 ribs; which are intersected by finer and less raised axial ribs, more numerous than those on the subsutural band. Aperture elongate quadrate, columella curved. Habitat and bathymetric range. In sand, between 2–25 m.

Distribution. Known from Nacala and Inhaca Bay area, Mozambique. Additionally known from sand dredgings from off the Durban and Natal coasts, South Africa (SH, FN)

Discussion and remarks. The holotype is broken due to tissue extraction and lacks protoconch but the shell has all recognisable features defining the species. Some paratypes have intact protoconchs which consist of about 3.5-4.0 whorls with small nucleus; consistent with T. amanda Hinds, 1844 and allied taxa. The width/volume of the protoconch of Terebra ekotokwa sp. nov is wider/larger than that of similar shaped protoconchs of T. albomarginata Deshayes, 1859 (Fig. 1L-S) and T. amanda Hinds, 1844 (Fig. 1T-U). The protoconchs of both T. amanda and T. albomarginata are somewhat slenderer than that of T. ekotokwa sp. nov. The latter has a broader subsutural band and a uniform brownish colour. Although the overall sculpture of the remainder of the whorl is quite similar in all three species, that of T. ekotokwa sp. nov. is defined by fainter axial riblets thus the spiral ribbing is more obvious. While the range of T. ekotokwa sp. nov. appears limited to the SW Indian Ocean, both allied species have a wider (Indo-)Pacific range.

The identity of the taxon *T. unicolor* Preston, 1908 needs further study to clarify its status and the possibility of cryptic species, although at present regarded a valid separable species (*fide* Fedosov et al., 2020).

T. melamans Iredale, 1929 is here considered a junior synonym of *T. albomarginata* Deshayes, 1859, previously in the synonymy of *T. amanda* pending further information, opportunity to study specimens from E Australia (and molecular results).

Derivatio nominis. Named for its reddish-brown colour, which is in native (form of Bantu language) Mozambiquan language translated to *'eko tokwa'*, reminiscent of the reddish-brown sediment transported by many of the Mozambiquan rivers.

Terebra holfordae sp. nov.* Fig. 2Q–V

Type material. Holotype MNHN-IM-2007-30485, approx. 59.0 mm. (BOLD ID = CONO490-08.COI-5P, GenBank accession number = EU685603). **Paratypes:** Vanuatu. MNHN-IM-2007-30576, Bruaut Channel, N Wékésa Island, 15°36'46.7424"S-167°8'43.1916"E, 3-36 m [SANTO 2006 Stn FR14], approx. 62.3 mm; MNHN-IM-2007-30585, SE corner of Santo [SANTO 2006 Stn FR56], approx. 60.0 mm; MNHN-IM-2013-10984, Papua New Guinea. Madang, Е 5°12'35.3988"S-Airport, 145°47'45.618"E, 5–18 m, 53.9 mm [PAPUA NIUGINI Stn PD04]. **India.** YT, off Madras, dredged, 62.7 mm; SG, idem, 74.0 mm; SH, off Madras, dredged, 65.7–71.4 mm; GM, 58–86 mm; FN 13246, off Madras, 72.2 mm; MM, India, off Rameshwaram, 80.1 mm. **Philippines.** YT, Aliguay Island, trawled at 150–200 m, 73.5–78.0 mm; YT, Bohol, Panglao Island, 70.8 mm; YT, Bohol, Talibon, dived at 20–25 m, 70.4 mm. **Borneo.** GM, 50 mm. **Japan.** GM, 68 mm.

Type locality. Vanuatu, Segond Channel, in front of Maritime College, 15°32'29.1012"S-167°10'32.7792"E, 5–10 m [SANTO 2006 Stn ZR11].

Description. Protoconch consists of about 2.5 whorls. Shell colour white, beige to dark brown occasionally with the subsutural band lighter coloured. Outline of whorls straight, except for the somewhat protruding anterior band of subsutural band, very evident in most specimens, less evident on the early whorls. Subsutural band doubled: posterior band spirally decorated with up to 5 fine, closely set ribs, confined between evenly spaced axial ribs which extend onto the anterior band. Bands are intersected by a spiralling deep furrow, intersected by the axial sculpture of the subsutural band. Remainder of the whorl ornamented with up to 8 fine spiral ribs. Axial sculpture consists of ribs, of identical thickness as the spiral ones, as much as axials on the subsutural band; forming minute beads on the intersections. Columella curved, aperture elongate.

Habitat and bathymetric range. Most specimens were retrieved alive from depths between 3 and 40 m.

Distribution. Known from S India, Japan, Philippines, Indonesia (Borneo) and Vanuatu Islands.

Discussion and remarks. Shells attain a large size for the group, up to 86 mm. Shell colour may vary from light brown to dark chestnut. The species is often confused with *Terebra grimwoodi* sp. nov., but the reticulated pattern on the remainder of the whorl and the spiral striae on the subsutural band, together with a secondary band of nodes just below the subsutural band set it easily apart.

Other taxa with a similar composition of shell morphology *T. holfordae* sp. nov. include *T. kantori* Terryn, 2017 (Fig. 2W), *T. lima* Deshayes, 1857 (Fig. 2X), *T. loebbeckeana* Dunker, 1877 n. stat. and *T. cumingii* Deshayes, 1857 (Fig. 2Y), but separation of these taxa is possible due to the differences in subsutural band morphology and the secondary band of nodes just below (see eg. Figs 2J, 2U, 2W, 2X and 2Y). On the other hand, the taxa *T. lima* and *T. cumingii* remain under further scrutiny themselves. A wide set of specimens originating from Japan, E and S China Sea and the Philippines may reveal both taxa constitute extremes of a single morphological cline (in maturity) yet portray a similar sculpture on the early

teleoconch whorls. On the other hand, it might well be plausible that one or more species are 'hiding' in the seemingly morphological diverse set accredited as either *T. lima* or *T. cumingii*

Derivatio nominis. The species is named for Dr Mandë Holford (CUNY), one of the major driving forces behind the recent developments in terebrid phylogeny and taxonomy.

An additional explanatory note is due for T. loebbeckeana Dunker, 1877 (Fig. 2P). Terebra fujitai was proposed by Kuroda & Habe (1952: 89) for T. pretiosa (pars.) Reeve, 1842 based on Reeve's figure (1860: fig. 30b), not 1842 (pl. 274, fig. 2), which only figures one specimen, retaken in 1860 as fig. 30a. Yet Kuroda & Habe gave no formal description, so this combination is not available as it does not fulfil the requirement of ICZN Art. 13.1.1. T. fujitai as intended by Kuroda & Habe (1952) was accidentally formally validated by Bratcher (1973). None the less, Shikama & Hirokoshi (1963: 126, pl. 102, fig. 9) unintentionally made the taxon T. fujitai available before, presenting a description as: 'T. (M.) fujitai (102-9) about 13 cm in length, sculpture similar to the preceding species (read pretiosa), dark brown square patterns on beautiful yellow color base, pronounced, very rarely obtained by lobster net in Kii (Wakayama Pref.) and Tosa (Kochi Pref.). Presumably, this species is the king of Japanese Terebras'. Here again, the identities of both taxa (pretiosa and fujitai) are mixed up. While emphasizing on the yellowish background, Shikama Hirokoshi unintentionally refer to and the characteristics of T. pretiosa, both in text and figuration, hence the name T. fujitai Shikama & Hirokoshi, 1963 becomes a synonym of T. pretiosa Reeve, 1842. Unfortunate in this history is that the taxon T. loebbeckeana Dunker, 1877 was largely forgotten since its description and was erroneously included in the synonymy of T. lima Deshayes, 1857 by Bratcher & Cernohorsky (1987). T. loebbeckeana is the correct assignment for shells referred to the taxon, de facto nomen nudum, T. fujitai Kuroda and Habe, 1952 in most literature of the last decades (e.g. Terryn, 2007: pl. 23, figs 7–8) since Bratcher (1973).

> *Terebra grimwoodi* sp. nov.* Fig. 2A, F–J

Terebra cumingii Deshayes, 1857 — Bratcher & Cernohorsky, 1987: col. Pl. C, fig. 4; pl. 13, fig. 44b only! (detail).

Cinguloterebra cumingii (Deshayes, 1857) — Terryn, 2007: pl. 19, fig. 4 (as *Terebra punctatostriata* J. E. Gray, 1834) & pl.21, figs 6–9.

Cinguloterebra anilis (Röding, 1798) — Terryn *in* Poppe, 2008: pl. 697, fig. 10.

Terebra cossignanii Aubry, 2008 — Aubry et al., 2014: pl. 13.

Type material. Holotype.MNHN-IM-2007-30402,

51.4 mm. (BOLD ID = CONO1156-12.12S, GenBank accession number = EU685487.1.

Paratypes: Fiji, Viti Levu. paratype 1: MNHN-IM-2007-30403, 52.6 mm MNHN-IM-2007-30402, 51.4 mm; paratype 2: MNHN-IM-2007-30575, approx. 46 mm; paratype 3: MNHN-IM-2007-30578, approx. 40.4 mm (all from Beqa Lagoon, 18°26'24.0036"S-178°02'23.9748"E, 50–51 m [SUVA 4 Stn CP20]). Further paratypes, all YT: **Philippines.** Bohol, Panglao, 1 spm., 68.0 mm; Mactan, 2 sps., 87.3–98.1 mm; Luzon, Manila Bay, Cavite City, dived at 20 m, 1 spm., 86.8 mm; Mactan, 80.9–92.2 mm; Nucnunan Island, 58.7 mm; Aliguay Island, dredged, 150–200 m, 83.7–101.6 mm; Olango, 75.5–104.0 mm; Samar, 81.0–88.9 mm. **E China Sea.** Trawled at 30 m, 64.1 mm. **Fiji, Viti Levu.** Dredged, 50 m, 43.5–59.1 mm.

Type locality. Fiji, Viti Levu, Beqa Lagoon, 18°26'24.0036"S-178°02'23.9748"E, 50–51 m [SUVA4 Stn CP20].

Description. Protoconch consists of about 2.0 whorls. Shell colour brownish yellow to fan. Outline of whorls straight. Subsutural band slightly swollen in mature whorls only, doubled. The posterior one decorated with broad axial ribs as much as on the remainder, set at an angle, as wide as interspace. The anterior one has only half the width of the posterior one, decorated with beads as many as axial ribs on the posterior band. Both bands are separated by a somewhat crenulated incision. Sculpture on the remainder of the whorl consist of 6 flattened spiral ribs, varying in width; the anterior ones often less wide, separated by an increasingly broader and deeper incision. Columella slightly curved, aperture elongate. **Habitat and bathymetric range.** Known from sandy/muddy bottoms between 5 and 200 m, mostly retrieved alive between 5 and 50 m, the top part of the range.

Distribution. Known from E China Sea, the Philippines and Fiji.

Derivatio nominis. The species is named in honour of Captain Samuel Grimwood, the master shipbuilder who Mr Hugh Cuming engaged for the maiden voyage of his purpose-built sailing yacht *Discoverer*. As this species has been confused for so many decades with the taxon *Terebra cumingii*, the link is maintained with the latter and with the person the taxon honours.

Discussion. A rather common species; the shells are present in virtually all conchological collections, historically mistakenly identified and labelled as "Terebra cumingii Deshayes, 1857, and its incorrect identity has been emphasized in the iconographic work of Bratcher & Cernohorsky (1987). They correctly figured the lectotype (1987: pl. 13, fig. 44a), and a detail of the lower whorls (1987: pl. 13, fig. 44a) but the latter is not a detail of the lectotype itself. The sculptural characteristics of the holotype (Fig. 2Y) can be summarized as: subsutural band swollen with spiral incisions and axial ribs, noded beneath, about 5 spiral rows of uneven coarseness and distance, crossed by faint axial ribs with nodes at the intersections. These characteristics are in large contrast with those of the detail figured by Bratcher & Cernohorsky which is in fact the species here described as T. grimwoodi sp. nov.

For comparison with allied species, see above.

Figure 1

A-K. Terebra ekotokwa sp. nov.

A. Holotype, MNHN-IM-2013-52390, INHACA 2011 Stn MR13, Mozambique, Inhaca, 25°59.7'S-32°54.5'E, 2–5 m, approx. 64.1 mm; B. Paratype 17, YT, Mozambique, between Inhaca and Portuguese Island, 25°59.40'S-32°54.70'E, 63.0 mm; C. Paratype 6, YT, Mozambique, Fernão Veloso Bay, 14–16 m, 56.5 mm; D. Paratype 2, YT, Mozambique, Inhaca, 2–4 m, 58.7 mm; E. Paratype 4, YT, Mozambique, Inhaca, 2–4 m, 66.5 mm; F. Paratype 3, YT, Mozambique, Inhaca, 2–4 m, 63.0 mm; G. Paratype 19, SH, Republic of South Africa, off Durban Bluff, Natal, 40 m, 58.4 mm; H. Paratype 1, YT, Mozambique, Inhaca, 2–4 m, 55.2 mm; I. Paratype 19, SH, Republic of South Africa, off Durban Bluff, Natal, 40 m, 73.6 mm; J. Paratype 5, YT, Mozambique, Fernão Veloso Bay, 14–16 m, 38.9 mm, J'. Detail of protoconch; K. Paratype 7, YT, Mozambique Nacala Bay, 15–25 m, 83.2 mm.

L-S. Terebra albomarginata Deshayes, 1859

L. *Terebra melamans* Iredale, 1929, holotype, AMS C.057863, Australia, NSW, Sydney Harbour, 73.5 mm; M. *Terebra unicolor* Preston, 1908, holotype, ZSI M3999/1, Thailand, Andaman Islands, off Port Blair, 7–10 fms, 43.5 mm; N. YT, Philippines, Bohol, Cabulan, dived at 24 m, 43.7 mm, N'. Detail of protoconch; O. YT, Indonesia, W Papua, Rajat Ampat, 64.3 mm; P. YT, Philippines, Cuyo Islands, dived at 10–25 m, 50.3 mm; Q. *Terebra albomarginata* Deshayes, 1859, lectotype, NHMUK 197979, Australia, 44.5 mm. (©The Trustees of the Natural History Museum, London); R. YT, Australia, NSW, off Brunswick Heads, 60.6 mm; S. YT, Philippines, 80.8 mm.

T-U. Terebra amanda Hinds, 1844

T. YT, USA, Hawaii, Oahu, Makua, dived at 8 m, 30.1 mm, T'. Detail of protoconch; U. YT, USA, Hawaii, Oahu, Makua, dived at 8 m, 31.3 mm.



Terebra caudapotamogalina sp. nov.* Fig. 2K–O

Type material. Holotype MNHN-IM-2009-10171, approx. 63.3 mm. (BOLD ID = CONO1337-12.16S, GenBank accession number = JQ808646). **Paratypes: S Madagascar.** N/O MIRIKY.

 15°2974'S-46°5.52'E, 27 m [MYRIKY Stn 3272].

 paratype 1: MNHN-IM-2009-9955, 36.3 mm;

 paratype 2: MNHN-IM-2009-9956, 48.4 mm;

 paratype 3: MNHN-IM-2009-10087, 52.1 mm.

 Mozambique. paratype 4: YT, Quissimajulo Bay, 4–6 m, 61 mm.

Type Locality. S Madagascar, Fort Dauphin area, 25°04.7'S-47°03.4'E, 64–65 m [ATIMO VATAE Stn CP3568].

Description. Shell colour shiny dark brown. Outline of whorls straight; shell slender. Axial sculpture consist of ribs which are inflated into axially elongated pustules on the subsutural whorl, abapically of the subsutural whorl as rounded pustules and as fine pustules on the remainder of the whorl on the intersection with the spiral sculpture. Subsutural band somewhat flattened; has no apparent spiral sculpture, except for fine traces of incisions on the last 2 whorls; is bordered by a row of deep and sharp punctations. Spiral sculpture on the remainder of the whorl a combination of 3 major ribs and 1–2 minor ribs sets between the major ones; forming small pustules at the intersections. Aperture elongate, columella recurved.

Habitat and bathymetric range. In sand/mud, 2–25 m.

Distribution. Known from offshore Mahajanga (Madagascar) and Quissimajulo Bay (Nacala Bay area), Mozambique.

Discussion and remarks. The holotype has no protoconch and has three drill holes dorsally (due to tissue extraction) but the shell has all recognisable features defining the species. Paratype 4 has a worn and overgrown protoconch making whorl count difficult but is tentatively estimated at about 2.5 whorls. The specimens show some intraspecific variation and variation between the juvenile and adult general sculpture: incisions on the subsutural band may vary between 0-3; secondary spiral cords vary between 0-2.

Terebra caudapotamogalina sp. nov. can be compared to *T. cumingii*, but the latter has a rounded subsutural band with evident and constant spiral incisions, a white color, and a constant sculpture of 3 spiral ribs, without secondary spiralling ribs. The sculpture can be compared to the sculpture of *T. kantori* Terryn, 2017 (see Terryn, 2017) but the slender form and finer sculpture of *T. caudapotamogalina* sp. nov. easily distinguishes it from *T. kantori*.

Derivatio nominis. The name refers to the insectivore shrewlike-genus *Potamogalina* (otter shrews) [Tenrecidae]. The family Tenrecidae comprises about 30 species of shrew and/or hedgehog-like animals, most of which are endemic to Madagascar except for the otter shrews, which are endemic to Central East Africa. Their general appearance is that of an otter with a characteristic muscular dark brown, pointed, hairy tail. The species of *Terebra* is named for the tail (latin: *cauda*) of an otter shrew.

Terebra agulha sp. nov.* Fig. 3A–G

Type material. Holotype. MNHN-IM-2009-07117, 43.0 mm. (BOLD ID = CONO2216-19.16S, GenBank accession number = EU685603).

Paratypes: Mozambique. From type locality. paratypes 1–4: MNHN-IM-2009-07116, 43.7 mm; MNHN-IM-2009-07118, 41.0 mm; MNHN-IM-2009-07119, 47.2 mm; MNHN-IM-2009-09946, 45.7 mm. Mozambique. Maputo Bay. WNW off Inhaca Island, 5–10 m. Paratypes 5–10, YT, 38.6–50.7 mm; Paratype 16: YT, 45.2 mm

Mozambique. Between Inhaca Island and Portuguese Island. Paratypes 11–14: JR, 25°59.40S-32°54.70E, in sand near sea grass, 4–6 m, 40.6–45.9 mm; paratype 16: SG, 25°59'593"S-32°54'432"E, 4 m, 39.8 mm. Mozambique. Fernão Veloso area. Paratype 15: SG, in sand, 5–10 m, 53.3 mm.

Additional material: Mozambique. Maputo Bay. WNW off Inhaca Island. MNHN-IM-2013-52398, 25°59.0'S-32°54.3'E, 1 sp., 3–5 m [INHACA_2011 Stn MR06]; MNHN-IM-2013-52401, 25°59.0'S-32°54.3'E, 1 sp., 3–5 m [INHACA_2011 Stn MR06]; MNHN-IM-2013-52408, 26°00.0'S-32°54.4'E, 1 sp., 0–4 m [INHACA_2011 Stn MR15]; MNHN-IM-2013-52399, 26°02.3'S-32°54.1'E, 1 sp., 0–1 m [INHACA_2011 Stn MM1]; SG, 25°59'593''S-32°54'432''E, 1 sp., 30.1 mm. Mozambique. Nampula Province. SG & YT, various localities, 13 sps.

Type Locality. Mozambique, Maputo Bay, NW off Inhaca Island, 25°59.0'S-32°54.5'E. [INVMAR Stn Hors Campagne].

Description. Protoconch consists of about 1.5 whorls, with a broad nucleus. Shell colour overall shiny white. Outline of whorls straight to slightly concave, with bulging subsutural band. Subsutural band ornamented with broad, flattened bulbs, wider than interspace; bordered by a sharp, wavy, deep and narrow spiralling furrow. Remainder of whorl spirally incised by two equidistant furrows. Aperture quadrate, columella curved.

Habitat and bathymetric range. Shallow water (0–10 m), in sand.

Distribution. Known from Mozambique (Maputo Bay and Nacala Bay area).

Discussion. There is some variability between the different specimens from the different localities: while most specimens found at or near the type locality have a shiny white colour, some found further south showed a faint brownish colour; and those from Madagascar and N Mozambique (wider Nacala Bay area) are usually pale to dark chestnut brown. Little variation is noted on the sculpture of the subsutural band, yet the spiral incisions on the remainder of the whorl vary between 2 (Mozambique) and 4 (Madagascar). The latter ones are here preliminarily regarded separate awaiting further data.

Terebra agulha sp. nov. is molecularly and conchologically to closely related T. quoygaimardi Cernohorsky & Bratcher, 1976 (Fig. 3I-K), and subsequently historically often confused with the latter. T. agulha sp. nov. has a broader outline with straight to slightly concave whorls, while T. quoygaimardi is slenderer with a straight general outline. The spiral sculpture of T. quoygaimardi is either absent or not exceeding 2 furrows, while in T. agulha these are always present, varying in number from 2 (to 4). Moreover T. quoygaimardi has a slenderer protoconch that consists of about 2 whorls with a smaller nucleus. T. agulha sp. nov. can also be morphologically grouped with T. aikeni Terryn & Welsh, 2020 (Fig. 3H) but the latter has more numerous spiral incisions (6-7) on the remainder of the whorl, a different protoconch morphology and appears to be limited to the wider Solomon Island area.

Derivatio nominis. The species is named for the old-Portuguese word 'agulha' (*feminine*), which in itself is derived from old latin 'acucla' (i.e. = latin 'acus'), meaning needle; a typical referral to any terebrid (e.g. the genus Acus Gray, 1847 = junior homonym of Acus Lacépède, 1803 [Pisces]; Oxymeris is a replacement name). Coincidently, the Agulhas current running between Madagascar and S Africa, creates an eddy around the type locality of Maputo Bay / Inhaca island area.

Terebra alabaster sp. nov.* Fig. 3L–N

Type material. Holotype MNHN-IM-2013-52372, 19.4 mm. (BOLD ID = CONO2561-19.COI-5P, GenBank accession, number = MK852057).

Paratypes: Mozambique. Paratype 1: off Quissico, 40–60 m, 41.7 mm; paratypes 2–6: YT, Maputo Bay, 23.8–36.1 mm; paratypes 7–8: SH, Maputo Bay, 21.8–37.9 mm; paratypes 9–11: JR, S Inhaca Island, Ponta Abril, 26°06.32S-32°57.90E, in sand with flat rocks, 18–20 m, 26.4–34.1 mm; paratypes 12–15: YT, idem, 23.2–28.5 mm; paratypes 16–17: JR, Inhaca Island, Ponta Torres, 26°04.30S-32°57.21E, in sand with flat

rocks 3–4 m, 38.1–39.3 mm; paratype 18: JR, N of Ponta Mucombo, 26°06.320S-32°57.90E, in sand with flat rocks, 12–14 m, 25.1 mm; paratype 19: JR, Fernão Veloso Bay, 14°25.90S-40°41.78E, in sand with rocks, dived 17–20 m, 28.8 mm; paratypes 20–23: SG, Ponta Santa Maria, Machangulo Peninsula, Maputo Province, 26°06'255"S-32°53'066'E, 10 m, 18.0–26.8 mm; paratypes 24–25: YT, Fernão Veloso Bay, 33.8– 35.6 mm.

Additional material. Mozambique. SG, Ponta Abril, Machangulo Peninsula, Maputo Province, 15 m, 1 spm., 22.8 mm; SG, Napala, Fernão Veloso, Nampula, 6 m, 1 spm., 18.8 mm.

Type Locality. Mozambique, Maputo Bay, Ponta Abril, 26°06'18"S-32°58'0.0012"E, 17–19 m [INHACA 2011 Stn MR4].

Distribution. Only known from Inhaca and Maputo Bay area, Mozambique.

Description. Protoconch multispiral of about 3.5 whorls. Colour uniformly shiny creamy white. Outline of whorls straight. Subsutural band noded, sometimes with fine striae. A similar noded band just below the suture. Remainder of the whorl on early whorls appearing as 3 spiral bands of small nodes, as a single thread. On later whorls evolving into a fine reticulated pattern; depressions squarish with the top arched. No apparent axial sculpture except for growth striae. Aperture quadrate, columella curved.

Habitat and bathymetric range. In sand, between 10 and 20 m.

Discussion. Terebra alabaster sp. nov. has historically been labelled as a local (Mozambiquan) white form of *T. amanda* (sensu Bratcher & Cernohorsky, 1987) and can additionally be confused with *T. albomarginata* Deshayes, 1859 and *T.* erythraeensis Terryn & Dekker, 2017 (Fig. 3Y), yet its general broader, somewhat turreted outline, specific sculpture of the remainder of the whorl, smaller adult shell size and white coloration easily distinguishes it from allies.

Derivatio nominis. Named for its shiny creamy white colour, reminiscent of the Egyptian containers (*a-labaste*), named in honour of the goddess *Bast* and since then used in common language to illustrate both the colour and mineral (calcite alabaster).

Terebra spraguei sp. nov.** Fig. 3O–W

Type material. Holotype MNHN-IM-2000-29996, 35.3 mm.

Paratypes: Philippines. Paratypes 1–2: YT, Palawan, from local fishermen, 20–25 m, 39.4–41.0 mm;

Figure 2

A. *Terebra grimwoodi* sp. nov., YT, Philippines, Sulu Archipelago, Jolo Island, 42.7 mm. **B-C.** *Terebra straminea* Gray, 1834

B. YT, India, off Cuddalore, trawled at 40–80 m, 57.3 mm; C. *Terebra straminea* Gray, 1834, lectotype, NHMUK 1979158, no type locality stated, 63.0 mm. (©The Trustees of the Natural History Museum, London) **D-E.** *Terebra* species

D. YT, Papua New Guinea, Hansa Bay, 81.5 mm; E. YT, Papua New Guinea, Hansa Bay, 81.4 mm. **F-J.** *Terebra grimwoodi* sp. nov.

F. YT, Philippines, Talibon, dived at 10–25 m, 104.7 mm: G. Paratype 11, YT, Philippines, Aliguay Island, dredged, 150–200 m, 83.7 mm; H. Paratype 19, YT, Fiji, Viti Levu, dredged at 50 m, 59.1 mm. H'. Detail of protoconch; I. Paratype 1, MNHN-IM-2007-30403, SUVA4 Stn CP20, Fiji, Viti Levu, Beqa Lagoon, 18°26'24.0036''S-178°02'23.9748''E, 50–51 m, 52.6 mm; J. Holotype, MNHN-IM-2007-30402, SUVA4 Stn CP20, Fiji, Viti Levu, Beqa Lagoon, 18°26'24.0036''S-178°02'23.9748''E, 50–51 m, 51.4 mm. K-O. *Terebra caudapotamogalina* sp. nov.

K. Paratype 3, MNHN-IM-2009-10087, MYRIKY Stn 3272, S Madagascar, N/O MIRIKY, 15°2974'S-46°5.52'E, 27 m, 52.1 mm; L. Holotype, MNHN-IM-2009-10171, ATIMO VATAE Stn CP3568, S Madagascar, Fort Dauphin area, 25°04.7'S-47°03.4'E, 64–65 m, approx. 63.3 mm; M. Paratype 4, YT, Mozambique. Quissimajulo Bay, 4–6 m, 61 mm. M'. Detail of protoconch; N. Paratype 1, MNHN-IM-2009-9955, MYRIKY Stn 3272, S Madagascar, N/O MIRIKY, 15°2974'S-46°5.52'E, 27 m, 5236.3 mm; O. Paratype 2, MNHN-IM-2009-9956, MYRIKY Stn 3272, S Madagascar, N/O MIRIKY, 15°2974'S-46°5.52'E, 27 m, 5248.4 mm. **P. Terebra loebbeckeana** Dunker, 1877, holotype, MNHUB, 'Japan Seas', 76.5 mm.

O-V. Terebra holfordae sp. nov.

Q. Paratype 1, MNHN-IM-2007-30576, SANTO 2006 Stn FR14, Vanuatu, Bruaut Channel, N Wékésa Island, 15°36'46.7424"S-167°8'43.1916"E, 3–36 m, approx. 62.3 mm; R. Holotype, MNHN-IM-2007-30485, SANTO 2006 Stn ZR11, Vanuatu, Segond Channel, in front of Maritime College, 15°32'29.1012"S-167°10'32.7792"E, 5–10 m, approx. 59.0 mm; S. Paratype 3, MNHN-IM-2013-10984, PAPUA NIUGINI Stn PD04, Papua New Guinea, Madang, E Airport, 5°12'35.3988"S-145°47'45.618"E, 5–18 m, 53.9 mm; T. Paratype 12, YT, Philippines, Minadanao, Dipolog, Aliguay Island, trawled at 150–200 m, 74.0 mm; U. Paratype 4, YT, India, off Madras, dredged, 62.7 mm; V. Paratype 15, YT, Philippines, Bohol, Talibon, dived at 20–25 m, 70.4 mm. W. *Terebra kantori* Terryn, 2017, paratype 4, MNHN IM-2000-32847, ATIMO VATAE Stn CP3584, S Madagascar, SE Point Barrow, 25°28'S-44°25'E, trawled, 203–211 m, 76.8 mm.

X. *Terebra lima* Deshayes, 1857, lectotype, NHMUK 197965, 'China Seas', 76.5 mm. (©The Trustees of the Natural History Museum, London)

Y. *Terebra cumingii* Deshayes, 1857, lectotype, NHMUK 197957/1, 'China Seas', 93.0 mm. (©The Trustees of the Natural History Museum, London)



paratype 3: SG, from the type locality, 37.2 mm; paratype 4: TK, idem, 37.4 mm. **Indonesia, Irian Jaya.** Paratype 5: YT, W of Waigeo Island and Djoe Island, 0°20'519S-130°08'940E, 5–15 m, 40.2 mm. **Papua New Guinea.** Rabaul. Paratype 6: MK, 36.5 mm; paratype 7: YT, 46.9 mm. **Fiji.** Paratype 8–9: YT, no further data, 37.5–42.6 mm. **Mauritius.** Paratypes 10–13: YT, dredged 3 km NW offshore at 80–100 m, 14.8–37.7 mm; paratype 14: DM, idem, 32.1 mm; paratype 15: GL, idem, 25.8 mm.

Additional material. Various specimens from the Philippines and Indonesia (Kai Islands) (MNHN, YT).

Type Locality. Philippines. Off N Bohol, Nocnocan, 25–35 m.

Distribution. Known from the Philippines, Indonesia, Papua New Guinea, Fiji and Mauritius.

Description. Elongated multispiral protoconch of about 3.5 whorls. Shell colour orangish with a white subsutural band, light orange just below. Outline of whorls slightly concave to straight, shell elongate and slender. Axial sculpture on the subsutural band consists of nodes which become swollen ribs later on, set at an angle; this sculpture is doubled just below the subsutural band and continues, minorly visible and fading on the remainder of the whorl as axial growth

striae. Subsutural furrow rather deep, continuous, with a wavy impression due to the axial sculpture both adapically and abapically. Spiral sculpture on the remainder of the whorl consists of 4-6 rows of squarish indentations, irregularly spaced. Aperture elongate quadrate, columella curved.

Habitat and bathymetric range. Collected alive in sand at depths averaging 15–30 m, collected (fresh) dead at 80–100 mm off Mauritius.

Discussion. Closely related to *Terebra amanda* and *T. albomarginata* Deshayes, 1859 (Fig. 3X) and thus historically often confused with them. *T. spraguei* sp. nov. has a slenderer outline, riblets on the subsutural band and up to 6 spiral rows of squarish indentations while *T. albomarginata* has a wider outline, a heavier shell and has 4 spiralling, equidistant rows of squarish pitting.

Derivatio nominis. The species is named for longtime friend of the first author and conchologist Mr Jason Sprague (Australia) who has been a persistent drive to re-evaluate the "*amanda*-complex" (*sensu* Bratcher & Cernohorsky, 1987) over the years and for providing several specimens, which were the early instigators to make the distinction of this species among its allies.

Figure 3

A-G. *Terebra agulha* sp. nov.

A. Holotype, MNHN-IM-2009-07117, INVMAR Stn Hors Campagne, Mozambique, Maputo Bay, NW off Inhaca Island, 25°59.0'S 32°54.5'E, 43.0 mm; B. Paratype 1, MNHN-IM-2009-07118, idem, 41.0 mm;

C. Paratype 3, MNHN-IM-2009-07119, 47.2 mm; D. Paratype 4, MNHN-IM-2009-09946, 45.7 mm; E. Paratype 16, YT, Mozambique, Maputo Bay, WNW off Inhaca Island, 5–10 m, 45.2 mm. E'. Detail of

protoconch; F. Paratype 10, YT, idem, 50.7 mm; G. Paratype 7, YT, idem, 42.0 mm.

H. *Terebra aikeni* Terryn & Welsh, 2020, paratype 1, YT, Solomon Islands, Marau Sound, Siwairuka Island, 24.4 mm. H'. Detail of protoconch.

I-K. Terebra quoygaimardi Cernohorsky & Bratcher, 1976

I. *Terebra monile* Quoy & Gaimard, 1833, holotype, MNHN-IM-2000-2391, 'probably the Marianas or Carolinas Islands', 44 mm; J. YT, Papua New Guinea, Wongat Island, 44.8 mm. J'. Detail of protoconch; K. YT, Philippines, Luzon, Zambales, 37.9 mm.

L-N. Terebra alabaster sp. nov.

L. Paratype 14, YT, Mozambique, S Inhaca Island, Ponta Abril, 26°06.32'S-32°57.90'E, in sand with flat rocks, 18–20 m, 24.9 mm. L'. Detail of protoconch; M. Paratype 12, YT, idem, 23.2 mm; N. Holotype, MNHN-IM-2013-52372, INHACA 2011 Stn MR4, Mozambique, Maputo Bay, Ponta Abril, 26°06'18"S-32°58'0.0012"E, 17–19 m, 19.4 mm.

O-W. Terebra spraguei sp. nov.

O. Paratype 8, YT, Fiji, 37.5 mm; P. Holotype, MNHN-IM-2000-29996, Philippines, off N Bohol, Nocnocan Island, 25–35 m, 35.3 mm; Q. Paratype 6, MK, Papua New Guinea, Rabaul, 36.5 mm; R. SH, Philippines, Aliguay Island, tangle nets at 200-240 m, 28.3 mm; S. SH, Philippines, Leyte, Kinegoa Island, dived at 10-12 m, 29.5 mm; T. SH, Papua New Guinea, New Britain, dredged at 18-20 m, 38.0 mm; U. SH, Philippines, Sulu Sea, 45.5 mm; V. Paratype 5, YT, Indonesia, Irian Jaya, W of Waigeo Island and Djoe Island, 0°20'519S-130°08'940E, 5–15 m, 40.2 mm; W. Paratype 1, YT, Philippines, Palawan, from local fishermen, 39.4 mm. W'. Detail of protoconch.

X. *Terebra albomarginata* Deshayes, 1859, lectotype, NHMUK197979, Australia, 44 mm. (©The Trustees of the Natural History Museum, London)

Y. *Terebra erythraeensis* Terryn & Dekker, 2017, paratype 10, YT, Egypt, Giftun Kebir, 43.5 mm. Y'. Detail of protoconch.



Genus Myurella Hinds, 1845

Myurella boaretifa sp. nov. ** Fig. 4J–L

Type material. Holotype MNHN-IM-2000-29997, 31.9 mm.

Paratypes: Solomon Islands. paratype 1: MNHN-IM-2007-30523, S Gatukai Island, N/O Alis, 9°07'S-267-329 26.0 158°21'E, m, approx. mm [SALOMON2 Stn DW2301]. Papua New Guinea. paratype 2: MNHN-IM-2013-52294, Papua New Guinea, off Lancasay Islands and reefs, N/O Alis, 8°15'46.8"S-150°29'34.7856"E, 389 m, 1 d, 19.0 mm, [BIOPAPUA Stn DW3734]; paratype 3: MNHN-IM-2000-29998, 1d, 19.2 mm, [BIOPAPUA Stn DW3669]; paratype 4: YT, 1d, 23.2 mm, [BIOPAPUA Stn DW3669].

Type Locality. Papua New Guinea, off Lancasay Islands and reefs, N/O *Alis*, 08°16'S–150°30'E, 389 m. [BIOPAPUA Stn DW3734].

Description. Protoconch missing in holotype. Shell colour dull white with a discontinuous brown band covering the adapical half of the whorl; a fainter thinner band encompasses 1/5th of the whorl abapically; a distinct brown fine line is visible at periphery. Outline of whorls convenx. Axial sculpture consisting of broad, rounded ribs with flattened sides, from suture to suture; intersected at the border of the

subsutural band only by an almost obsolete depression. Subsutural band ornamented by the axial sculpture; spirally sculptured by 2 rows of faint incisions, intersecting with the elevated straight section of the axials, confined to interspace. Spiral sculpture on the remainder of the whorl consisting of 7 faint riblets, confined to interspace of the axials, continuing on the straight side of the axials, not intersecting the rounded crest of the axials. The 7 ribblets can be divided into two groups: on the adapical half they are fainter, shorter and denser set while the abapical 4 others are coarser, longer and wider set. Aperture elongate, columella straight to slightly curved.

Remarks and comparison. The protoconchs of the holotype and paratypes are incomplete or eroded; except for paratype 2 (an immature specimen) which has a complete protoconch of about 3.0-3.5 whorls. Shells of *Myurella boaretifa* sp. nov. are somewhat similar to *M. joelbartschi* (Poppe, Tagaro & Goto, 2018) (Fig. 4M), but the outline of the whorls of *M. boaretifa* is more convex, generally has deep incision as a subsutural border and a different colour pattern. *M. boaretifa* sp. nov. is morphologically closely related to *M. pseudofortunei* (Aubry, 2008) (Fig. 4N) with which it shares a similar colour pattern and sculpture composition, yet the shorter and rounder whorls, broader axial ribs of *M. boaretifa* sp. nov. are a constant characteristic that separates it from allies.

Figure 4

A-H. Profunditerebra baruna sp. nov.

A. Holotype, MNHN-IM-2000-20652, KARUBAR Stn DW49, Indonesia, Arafura Sea, E off the Tanimbar Islands, $08^{\circ}00^{\circ}S$, $132^{\circ}59^{\circ}E$, 206-210 m, 18.7 mm; B. Paratype 7, MNHN-IM-2000-20656, KARUBAR Stn DW15, Indonesia, Arafura Sea, $05^{\circ}17^{\circ}S$, $132^{\circ}41^{\circ}E$, 212-221 m, 14.8 mm; C. Paratype 5, YT, KARUBAR Stn DW15, Indonesia, Arafura Sea, $05^{\circ}17^{\circ}S$, $132^{\circ}41^{\circ}E$, 212-221 m, 19.1 mm; D. Paratype 2, MNHN-IM-2000-20653, KARUBAR Stn DW49, Indonesia, Arafura Sea, E off the Tanimbar Islands, $08^{\circ}00^{\circ}S$, $132^{\circ}59^{\circ}E$, 206-210 m, 17.0 mm; E. Paratype 6, MNHN-IM-2000-20656, KARUBAR Stn DW15, Indonesia, Arafura Sea, C off the Tanimbar Islands, $08^{\circ}00^{\circ}S$, $132^{\circ}59^{\circ}E$, 206-210 m, 17.0 mm; E. Paratype 6, MNHN-IM-2000-20656, KARUBAR Stn DW15, Indonesia, Arafura Sea, $05^{\circ}17^{\circ}S$, $132^{\circ}41^{\circ}E$, 212-221 m, 14.6 mm; F. Paratype 3, MNHN-IM-2000-20654, KARUBAR Stn DW80, Indonesia, Arafura Sea, $09^{\circ}37^{\circ}S$, $131^{\circ}02^{\circ}E$, 199-201 m, 18.4 mm; G. Paratype 4, MNHN-IM-2000-20655, KARUBAR, Stn DW64, Indonesia, Arafura Sea, $09^{\circ}13^{\circ}S$, $142^{\circ}31^{\circ}E$, 179-180 m, 18.7 mm; H. Paratype 1, MZB, KARUBAR Stn DW49, Indonesia, Arafura Sea, E off the Tanimbar Islands, $08^{\circ}00^{\circ}S$, $132^{\circ}59^{\circ}E$, 206-210 m, 17.8 mm. H'. Detail of protoconch, scale bar = $200 \,\mu$ m. H''. Detail of aperture, scale bar = $2 \,m$ m. I. *Punctoterebra contracta* (E. A. Smith, 1873), lectotype, NHMUK 19790137, no type locality stated, about 16 mm. (©The Trustees of the Natural History Museum, London)

J-L. Myurella boaretifa sp. nov.

J. Holotype, MNHN-IM-2000-29997, BIOPAPUA Stn DW3734, Papua New Guinea, off Lancasay Islands and reefs, N/O *Alis*, 08°16'S-150°30'E, 389 m, 31.9.0 mm; K. Paratype 1, MNHN-IM-2007-30523, SALOMON2 Stn DW2301, S Gatukai Island, N/O *Alis*, 9°07'S-158°21'E, 267–329 m, approx. 26.0 mm; L. Paratype 2, MNHN-IM-2013-52294, BIOPAPUA Stn DW3734, Papua New Guinea, off Lancasay Islands and reefs, N/O *Alis*, 8°15'46.8"S, 150°29'34.7856"E, 389 m, 19.0 mm.

N. Myurella pseudofortunei (Aubry, 2008), YT, RSA, off Natal, trawled at 60-120 m, 37.6 mm.

M. *Myurella joelbartschi* (Poppe, Tagaro & Goto, 2018), holotype, CI, Philippines, Mactan, Punta Engaño, 400 m, 30.4 mm.



M. pseudofortunei was described from Mozambique and can be found off the Natal coast of the Republic of South Africa, generally at depths between 100–300 m. Similar appearing specimens (often represented by singletons in poor condition, coll. MNHN & YT) are known from deep waters (200–500 m) of Papua New Guinea and New Caledonia. It is highly likely that these concern *M. boaretifa* sp. nov. but remain preliminarily under further study.

Derivatio nominis. Named for "boare tifá", the Tufian (Papuan tribe) name for a stylus-shaped tattooing tool used for traditional dark brown or black facial and body tattooing. The name *boaretifa* is reminiscent for a sharp tool, as well as for the alternating dark and skin-coloured pattern of the tattoo, also present on the shell of this species.

Genus *Profunditerebra* Fedosov, Malcolm & Terryn, 2020

Profunditerebra baruna sp. nov. ** Fig. 4A–H

Terebra cf. *contracta* E. A. Smith, 1873 — Gargiulo, 2015: Fig. 2 on p. 14 only.

Type material. Holotype MNHN-IM-2000-20652, 18.7 mm.

Paratypes: Indonesia. From type locality, 4 spms (paratype 1, MZB, 17.8 mm; paratype 2, MNHN-IM-2000-20653, 17.0 mm; paratypes 8-9, YT, 14.6 and 17.4 mm).- KARUBAR Stn DW80, 09°37'S-131°02'E, 199-201 m, 1 spm (paratype 3, MNHN-IM-2000-20654, 18.4 mm).- KARUBAR, Stn DW64, 09°13'S-142°31'E, 179-180 m, 1 spm (paratype 4, MNHN-IM-2000-20655, 18.7 mm).- KARUBAR, Stn DW15, 05°17'S-132°41'E, 212-221 m, 3 spms (paratype 5, YT, 19.1 mm; paratypes 6-7, MNHN-IM-2000-20656, 14.8 mm). Papua New Guinea. New **KAVIENG** 2014 DW4477, Ireland, Stn 2°45'24.0012"S-150°43'16.1796"E (paratype 17. MNHN-IM-2013-58775). Philippines. Mactan Island, off Punta Engano, 100-200 m, 6 spms (paratype 10: WF, 16.3 mm; paratypes 11–14: YT, 14.8 to 18.0 mm; paratype 15: GM, 15.9 mm) - Tayud, Liloan, 180-250 m, 1 spm (paratype 16, GM, 15.7 mm); paratypes 18-23: YT, off Maribago, trawled at 100-200 m, 15.5-19.0 mm; paratype 24: YT, off Balicasag, tangle nets at 120-150 m, 17.2 mm.

Type locality. Indonesia, Arafura Sea, E off the Tanimbar Islands, 08°00'S-132°59'E, 206–210 m [KARUBAR Stn DW49].

Distribution. Only known from off the Kai and Tanimbar Islands (Arafura Sea), Papua New Guinea and the central Philippines, in approximately 180–210 m.

Description (holotype). Shell small, narrow and slender; colour uniformly faded pinkish brown. Protoconch consisting of about 3.5 smooth and distinctly convex teleoconch whorls. Subsutural furrow starting as a series of deep punctuations on early whorls, in later whorls coalescing into a continuous, broad and deep channel, barely interrupted by the axial ribs. Axial sculpture consisting of strong and even, weakly prosocline, straight ribs, forming a bulbous knob in subsutural band, higher and stronger abapically of subsutural furrow and then gradually becoming weaker on shell base; 14 ribs on penultimate whorl of holotype. Spiral sculpture consisting of raised cords, 1-3 densely set and finer on subsutural band, up to 5 on remainder of exposed part of whorl and between the bulbous ends of the axial ribs below the subsutural band demarcation (0-3); in some specimens giving the impression of a double subsutural band. Aperture elongate, inner lip callused, columella straight.

Comparison and discussion. Shell height up to 19.9 mm. The shells are all characterized by a dull brown appearance, a very narrow shell with a widening furrow demarcating the subsutural band and heavily beaded and/or reticulate pattern. The species has often been labelled as *Terebra contracta* [= *Punctoterebra* contracta (E. A. Smith, 1873] (see Gargiulo, 2015 for discussion), of which the current generic placement is provisional, with which it shares only superfluous similarities. Profunditerebra contracta (Fig. 4I) has a wider apical angle and its flattened subsutural area is bordered by fine and long incisions, which sits in contrast to the rounded, swollen subsutural band bordered by a deep and wide furrow in *P. baruna* sp. nov. None the less, both have a similar composition of axial and spiral sculpture.

Derivatio nominis. *M. baruna* is named after the oceanographic vessel used during the KARUBAR expedition, the *Baruna Jaya 1* (see Crosnier et al., 1997).

ACKNOWLEDGEMENTS

The molecular material in this paper originates from various shore-based expeditions and deep-sea cruises conducted, respectively by MNHN and Pro-Natura International (PNI) as part of the *Our Planet Reviewed* programme, and by MNHN and Institut de Recherche pour le Développement (IRD) as part of the *Tropical Deep-Sea Benthos* programme in the following regions: Madagascar (MIRIKY), eastern Indonesia (KARUBAR), Papua New Guinea (BIOPAPUA, KAVIENG), Solomon Islands (SALOMON 2), and Vanuatu (SANTO 2006). Access to ship time was made possible through the Flotte Océanographique Française, and gratitude is expressed to the cruise leaders and co-PI's: Philippe Bouchet, Alain Crosnier, Kasim Moosa, Bertrand Richer de Forges and Sarah Samadi. Funders, sponsors and partners include the Total Foundation, Prince Albert II of Monaco Foundation, Stavros Niarchos Foundation, University of Papua New Guinea, and the National Fisheries College, Kavieng. For the context of these expeditions, see Bouchet et al. (2008). Further specimens were obtained in Mozambique during the INHACA 2011 expedition (with Universidade Eduardo Mondlane through Jose Rosado) and in Fiji during the SUVA 4 survey (PI B. Richer de Forges). The following persons are sincerely thanked for their valued contributions in the various stages of the study of these specimens (in alphabetical order): Umberto Aubry (Italy), Dr Philippe Bouchet (MNHN), Barbara Buge (MNHN), Alexander Fedosov (RAS, Severtsov Institute of Ecology and Evolution, Moscow Russia), Rosa Gargiulo (Italy), Sandro Gori (Italy), Juliette Gorson (CUNY), Virginie Heros (MNHN), Dr Mandë Holford (CUNY), Steve Hubrecht (Belgium), Yuri Kantor (RAS, Severtsov Institute of Ecology and Evolution, Moscow, Russia), Gavin Malcolm (UK), Philippe Maestrati (MNHN), Maria Vittoria Modica (Stazione Zoologica Anton Dohrn, Naples, Italy), Frank Nolf (Belgium), Guido Poppe (CI), Philippe Poppe (CI), Dr Nicolas Puillandre (MNHN), Claudia Ratti (MNHN), José Rosado (Portugal), Andreia Salvador (NHMUK) and Sheila Tagaro (CI).

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