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***Terebra monicae* sp. nov., a new Terebridae species
from Reunion Island**

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Abstract: *Terebra monicae* sp. nov. from Reunion Island, Indian Ocean is hereby proposed as new to science and compared with its closest relatives.

Introduction: The group of shells with members such as *Terebra nebulosa* Sowerby, 1825; *Terebra undulata* Gray, 1834; *Terebra paucistriata* (E. A. Smith, 1873); *Terebra kilburni* Burch, 1965; *Terebra flavofasciata* Pilsbry, 1921; *Terebra parkinsoni* Cernohorsky & Bratcher, 1976, and *Terebra columellaris* Hinds, 1844 have always been difficult to separate due to their close similarities, especially at juvenile stage. The positive identification becomes even more challenging when the specimens are lacking protoconch, colours are worn, eroded or overgrown with coralline algae, symbionts/parasites or covered with deposits. The most recent species described within this group are *T. kilburni* and *T. parkinsoni* of which identification and separation from relative species is somewhat facilitated due to their characteristic colouration and arrangement of the axial ridges. Almost all species within the species complex are known to occur in the waters off Reunion Island in the Indian Ocean, except for *T. paucistriata* which is reported in literature to have a strict West-Pacific range (Bratcher & Cernohorsky, 1987: 86). Although known to occur in the waters off Reunion Island, *T. kilburni* has not been found in the investigated area of Baie de St. Paul, Reunion Island, Indian Ocean in recent years (pers. comm. Mr G. Hoarau). While diving and dredging in that area at depths between 60 and 100 m, Mr Guy Hoarau found a number of small

terebrids which he had not found in previous years. We compared the specimens with *T. reunionensis* Bratcher & Cernohorsky, 1985, at first thought the closest relative, but could easily establish that these two species were far from related. Further investigation proved that the species belonged to the aforementioned group of shells. Although the specimens appeared small and hence juvenile at first sight, under magnification it became evident that the shells were almost or fully mature at this small size. All other species in the complex are known to attain much larger sizes at mature stage. These were the first factors to investigate more closely, and now propose the species as new to science.

Abbreviations:

GH	Private Collection Guy Hoarau, Reunion Island
GP	Private Collection Gianluigi Pellifroni, Italy
MNHN	Muséum National d'Histoire Naturelle, Paris, France
RBINS	Royal Belgian Institute of Natural Sciences, Brussels, Belgium
YT	Private Collection Yves Terryn, Belgium

Systematics:

Class GASTROPODA Cuvier, 1797
 Family TEREBRIDAE Mörch, 1852
 Genus *Terebra* Bruguière, 1789

Terebra monicae sp. nov.

Figs 1-6

Type Material:

Holotype: Dredged between 60 and 100 m. Baie de St. Paul, Reunion Island. MNHN. 11.1 x 2.2 mm. Preserved dry, animal presumably dried inside.

Paratypes: Dived and dredged between 60 and 100 m, Baie de St. Paul, Reunion Island. All preserved dry.

Paratype 1: MNHN. 9.9 x 2.1 mm. **Paratype 2:** MNHN. 8.1 x 1.2 mm. **Paratype 3:** YT. 12.5 x 2.3 mm. **Paratype 4:** YT. 10.6 x 2.0 mm. **Paratype 5:** GH. 12.4 x 2.2 mm. **Paratype 6:** GP. 12.2 x 2.2 mm. **Paratype 7:** GH. 10.9 x 2.1 mm. **Paratype 8:** YT. 10.1 x 2.0 mm. **Paratype 9:** GH. 7.2 x 1.7 mm.

Additional material: Several specimens of *T. monicae* in the private collection of Mr Guy Hoarau.

Comparative material: *Terebra kilburni*, *Terebra nebulosa*, *Terebra undulata*, *Terebra paucistriata*, *Terebra parkinsoni* from various localities in the collections of the MNHN and the private collection of the author; *Terebra reunionensis*, holotype, MNHN, 13.0 x 2.1 mm.

Type Locality: 60-100 m, Baie de St. Paul, NW Reunion Island, Indian Ocean.

Description: Shell light for the group of species, shiny, of small size, up to 12.5 mm. Colour pattern greyish white mottled with irregular blotches of all shades of reddish brown or fawn randomly arranged all over the shell. Outline of whorls straight to slightly convex. Small, conical, glassy white to pinkish protoconch, consisting of about 3.5 convex whorls. Subsutural band bordered by deep punctuations between the axial ribs, which cut slightly into the ribs, ornamented with nodes which are the continuation of the axial ribs on the remainder of the body whorl. Axial sculpture consists of straight to slightly bent, faint ridges which extend from suture to suture and are slightly indented at the punctuations bordering the subsutural area and are weakly pronounced at the posterior end of the body whorl above the periphery. Area between ridges about 50% wider than ridges. Spiral sculpture consists of 3-5 fine grooves, confined between the axial ridges. Sculpture beneath the periphery consists of continuous spiral grooves and the area has a fawn or dark brown colour. Aperture elongate. Columella curved.

Animal and operculum unknown.

Habitat: The type specimens were collected on a sandy bottom by means of a dredge between 80 and 100 m and hand collecting while diving at 60 m on a sandy bottom.

Distribution: Only known from the type locality until now, a probable endemic to Reunion Island.

Discussion: *T. monicae* sp. nov. can be compared with its closest relatives: *Terebra columellaris* Hinds, 1844; *Terebra nebulosa* Sowerby, 1825; *Terebra undulata* Gray, 1834; *Terebra paucistriata* (E. A. Smith, 1873); *Terebra kilburni* Burch, 1965; *Terebra flavofasciata* Pilsbry, 1921 and *Terebra parkinsoni* Cernohorsky & Bratcher, 1976. Comparison is illustrated by means of Table 1.

	<i>columellaris</i>	<i>nebulosa</i>	<i>undulata</i>	<i>paucistriata</i>	<i>kilburni</i>	<i>flavofasciata</i>	<i>parkinsoni</i>	<i>monicae</i>
max. recorded size (mm)	66	96	55	40	46	35	52	13
protoconch whorls	3.5	3.5	3.5	3.5	2.5	3.5	3.5	3.5
subsutural band	marked by deep punctations between axial ribs	faint ribs, elongate nodes or appear smooth on later whorls, bordered by interstitial punctation which can coalesce into a single punctate groove in adult specimens	bordered by punctations between the axial sculpture, spirally decorated with u to 2 rows of punctations between the ribs	numerous nodes, bordered by a deep groove or punctations between the ribs.	elongated nodes, bordered by deep punctations between the ribs	elongate nodes with up to 6 spiral cords in interspace.	weakly noded bordered by punctations between the ribs	ornamented with nodes, bordered by deep punctations between the axial ribs, which cut slightly into the ribs
axial sculpture	axial ribs broad, curved, noded at posterior end, as wide as the shallow interspaces	curved and rounded, axial ribs which often become obsolete in adult or gerontic specimens	numerous, rounded, straight to almost sinuous ribs; interspaces as wide as ribs.	numerous rounded ribs	ribs very closely set, from suture to suture starting at the nodes on the subsutural band	numerous, rounded and broad ribs, continuing from the subsutural nodes	ribs fine, sharp, slightly curved on early whorls, becoming arcuate in mature specimens	straight to slightly bent faint ridges which extend from suture to suture and are slightly indented at the punctations bordering the subsutural area
spiral sculpture	about 5-12 fine, short spiral grooves not crossing over the ribs	grooves in the interspaces of the axial ribs, not crossing the ribs except when ribs have become obsolete	grooves, numerous, from 4 to up to 15, consisting of punctations between the axial ribs	2-6 grooves which are confined to the interspaces	4-8 grooves, confined to the narrow interspaces	4-9 spiral cords riding up ribs, denser set below subsutural band (cords are most prominent in this species, hence description)	4-10 spiral grooves confined to interspace	3-5 fine grooves, confined between the axial ridges
aperture	elongate	slightly elongate	elongate	elongate quadrate	elongate	elongate quadrate	elongate	elongate
colour	shiny white mottled with beige or rusty stains, white band at the periphery of body whorl, subsutural nodes and axial ribs white or lighter tanned than background.	pinkish to red and reddish brown mottled with irregularly dispersed ivory white or yellowish flecks on the subsutural band	cream to rusty yellow or orange with white nodes on the subsutural band and usually darker tanned or brown axial interspaces	white, light yellow or light orange-brown with white nodes on the subsutural band and usually with white coloration of the posterior part of the axial ribs on the remainder of the whorl giving the impression of a second row of nodes	ivory white mottled with bright brownish, purplish or wine-red blotches all irregularly dispersed all over the shell	beige with white subsutural nodes and usually with 2 white bands on the body whorl	shiny white, yellow to reddish beige ornamented with rusty brown between most of the axial ribs	greyish white mottled with irregular blotches of all shades of reddish brown or fawn randomly arranged all over the shell

Derivatio nominis: The species is named in honour of the wife of Mr Guy Hoarau, Monica.

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Selected references:

Bratcher T. & Cernohorsky W.O., 1987. Living Terebras of the World. American Malacologists, Inc., Melbourne, FL, USA. 240 pp.

Summarizing Translation into Dutch / Samenvattende Nederlandse Vertaling

Dit artikel introduceert een nieuwe *Terebra* (**Terebridae**) van Baie de St. Paul, NW Reunion (Indische Oceaan): *Terebra monicae* sp. nov. Het gaat om een tot 13 mm grote, grijze soort met roodbruine of geelbruine vlekken over de gehele schelpoppervlakte. De protoconch bestaat uit 3,5 witte, conische omgangen. De omgangen van de teleoconch zijn recht of licht convex en vertonen een axiale sculptuur bestaande uit zwakke, recht of lichtgebogen ribbels die van sutuur tot sutuur reiken. Nabij het subsuturale gebied zijn deze lichtjes uitgestulpt en de tussenruimten zijn dubbel zo groot als de ribbels zelf. De spiraalsculptuur bestaat uit 3-5 groeven tussenin de axiale ribbels. De soort wordt bovendien vergeleken met de meest verwante soorten die eveneens op Reunion voorkomen.

Plate 1 :

- Fig. 1: *Terebra monicae* sp. nov., holotype, MNHN, 11.1 x 2.2 mm.
 Fig. 2: *Terebra monicae* sp. nov., paratype 3, YT, 12.5 x 2.3 mm.
 Fig. 3: *Terebra monicae* sp. nov., paratype 5, GH, 12.4 x 2.2 mm.
 Fig. 4: *Terebra monicae* sp. nov., paratype 2, MNHN, 8.1 x 1.2 mm.
 Fig. 5: *Terebra monicae* sp. nov., paratype 6, GP, 12.2 x 2.2 mm.
 Fig. 6: *Terebra monicae* sp. nov., paratype 7, GH, 10.9 x 2.1 mm.
 Fig. 7: *Terebra columellaris*, MNHN, New Caledonia, Touho, Stn 1240, 18.4 mm.
 Fig. 8: *Terebra kilburni*, MNHN, New Caledonia, Koumac, Stn 1287, 31.5 mm.
 Fig. 9: *Terebra paucistriata*, MNHN, New Caledonia, Poum, Stn 990, 22.2 mm.
 Fig. 10: *Terebra undulata*, MNHN, New Caledonia, Lifou, Stn 1421, 37.3 mm.
 Fig. 11: *Terebra nebulosa*, MNHN, New Caledonia, Koumac, Stn 1319, 27.1 mm.



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