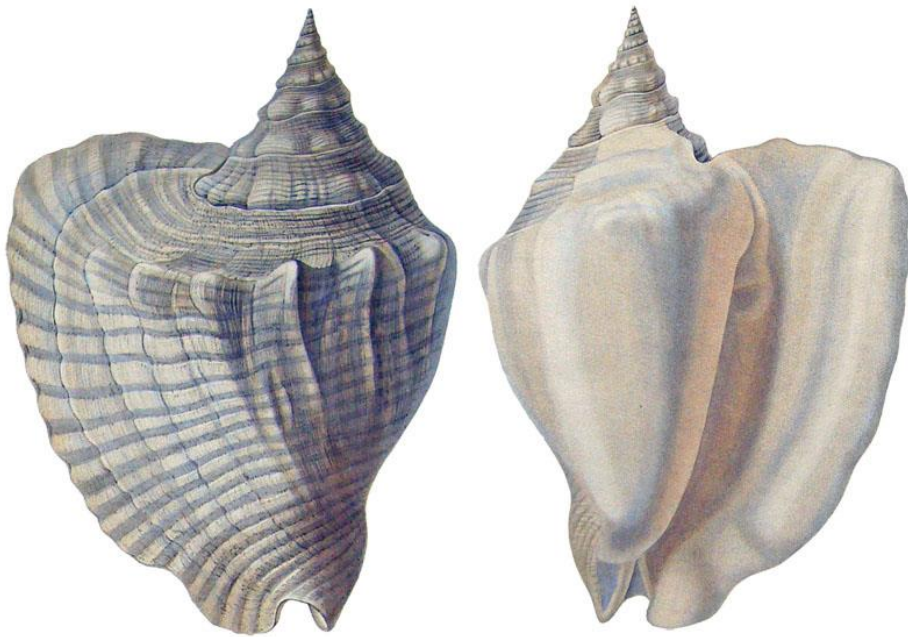


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Front cover: *Strombus inermis* Swainson, 1822 in Duclos, 1844: pl. 25 figs 3-4.



## ***Gourmya magnifica* sp. nov. (Gastropoda: Cerithiidae), a new species from the Miocene of Java**

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### ABSTRACT

*Gourmya* belongs to a group of molluscs, which originated during the Paleogene in the Western Tethys and along the Eastern Atlantic coast but then established in the IWP Region during the Neogene. Similar patterns have been observed by Harzhauser et al. (2007, 2008) for tridacnine bivalves and certain strombids. In this paper we describe an extremely large species from the Middle Miocene Langhian of Java; *Gourmya magnifica* sp. nov.

Key words – Cerithioidea, *Gourmya*, Miocene, Indonesia, new species, taxonomy

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### INTRODUCTION

In this paper we continue the work of Dekkers et al. (2020), Merle et al. (2020), and Landau et al. (2020a, b) on the gastropod assemblage occurring at a locality close to the village of Wonosari, Gunung Kidul Regency, Special Region of Yogyakarta, Java, Indonesia in describing a remarkable large new cerithiid. As discussed by Dekkers et al. (2020: 2), although the exact locality is unknown, the deposit is dated accurately to the Langhian.



Houbrick (1984) gave the genus *Gourmya* as an example of a ‘living fossil’, represented today by a single species *G. gourmyi* (Crosse, 1861), living today on subtidal coral reefs around New Caledonia in the southwest Pacific, the sole survivor of a Tethyan lineage. The genus appeared in the Rupelian (Early Oligocene) where it is represented along the European Atlantic Frontage by two species, according to Magne & Vergneau-Saubade (1972): *G. labrosa* (Grateloup, 1845) [= *Cerithium koninckii* Grateloup, 1845, non d'Archiac, 1843; = *Cerithium ocirrhoe* d'Orbigny, 1852, replacement name for *Cerithium koninckii* Grateloup, 1845, non d'Archiac, 1843; for synonymy see Pacaud (2019: 106)] and *G. gaasense* Magne & Vergneau-Saubade, 1972. In the Lower Miocene Aquitanian and Burdigalian by *Gourmya tuberosa* (Grateloup, 1846) and by *Gourmya delbosi* (Michelotti, 1861) [= *Cerithium romeo* Bayan, 1870] in the western Tethys, documented from Italy (Fuchs, 1870; Oppenheim, 1900; Cossmann, 1906; Menegatti, 1978), Macedonia (Gripp, 1922) and Greece (Harzhauser, 2004). Harzhauser (2004) treated both taxa as separate species based on the second row of tubercles of *G. tuberosa*, but it is possible all occurrences represent a single polymorphic species.

Records of this genus from the Eocene of Turkey, described by Gürsoy & Taner (2012), are based on misidentifications. Similarly, the Eocene records mentioned by Cossmann (1906) from Vicentin in Italy are based on erroneous stratigraphic correlation of the Rupelian locality Trinita di Montecchio Maggiore.

Both species persist in their distribution areas into the Aquitanian (Sacco, 1895; Magne & Vergneau-Saubade, 1972; Lozouet et al., 2001) and may form large populations in nearshore settings (e.g., Sivas Basin, Turkey, own data M.H.). The last occurrences of *Gourmya* in Europe are reported from the Burdigalian of Italy (Sacco, 1895). We can find no Atlantic Burdigalian records for the genus (see Magne & Vergneau-Saubade, 1972; Lozouet et al., 2001).

The genus expanded its range into the Indo-Pacific prior to the closure of the Tethys Seaway during the Early Miocene (Harzhauser et al., 2007), and is known as a fossil in Java from the Lower Miocene Nyalingdung Formation [*G. njalindungense* (Martin, 1921)] and unnamed beds from the Upper Miocene [*G. parungpontengense* (Martin, 1899)] (see Leloux & Wesselingh, 2009). In this paper we complete this stratigraphic gap by describing an extremely large species from the Middle Miocene Langhian of Java.

#### Abbreviations:

NHMW – Natural History Museum Vienna (Vienna, Austria).

#### GEOLOGICAL SETTING

The material originates from the area around the village of Wonosari, Gunung Kidul Regency, Special Region of Yogyakarta, 40 km SE of Yogyakarta, Java, Indonesia. The exact locality is unknown, but the deposits outcrop on the banks of a river or stream.

Based on calcareous nannofossils the age is attributed to NN5 zone (Martini, 1971), which comprises the Upper Langhian and lowermost Serravallian. However based on the similarity of our samples to the nannofossils association described by Marshall et al. (2015), our assemblages can be attributed to the Langhian part of NN5, lower Middle Miocene. The frequent occurrences of small reticulofenestrids (*Reticulofenestra minuta* Roth, 1970) and



ascidian spicules together with discoasters point to shallow, well stratified, warm marine waters. For further discussion see Dekkers et al. (2020).



Figs 1-8. *Gourmya magnifica* sp. nov. 1-3. Holotype NHMW 1901/0034/0091, height 123.8 mm, width 50.5 mm. 4-5. Paratype 1 NHMW 1901/0034/0092, height 112.3 mm, width 47.7 mm. 6-7. Paratype 2 NHMW 1901/0034/0093, height 148.5 mm, width 59.9 mm. 8. Paratype 4 NHMW 1901/0034/0095, height 49.2 mm, width 23.5 mm (juvenile spire fragment).



## MATERIAL AND METHODS

The material described here is deposited in the Natural History Museum Vienna (NHMW).

## TAXONOMY

Subclass Caenogastropoda Cox, 1960  
Order Caenogastropoda [unassigned]  
Superfamily Cerithioidea Fleming, 1822  
Family Cerithiidae Fleming, 1822  
Subfamily Cerithiinae Fleming, 1822  
Genus *Gourmya* P. Fischer, 1884

Type species (by monotypy): *Cerithium gourmyi* Crosse, 1861, present-day, New Caledonia.

*Gourmya* P. Fischer, 1884: 680.

Members of the cerithiid genus *Gourmya* P. Fischer, 1884 are easily recognized by their stocky, solid, moderately broad shells, with a large inflated last whorl and, most importantly, by their apertural characters; the outer lip thickened by a prominent labial varix, a deep anal canal and a centrally placed, tubular, straight siphonal canal, with an abapical extension of the outer lip curling around the ventral portion of the canal, but not attached to it.

### *Gourmya magnifica* sp. nov.

(Figs. 1-8)

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?*Campanile gigas* (Mart.). Beets, 1941: 59, pl. 3, figs 106-114 (non *Telescopium gigas* Martin, 1883).

**Description.** – Shell large and tall-spined for genus, very solid, cerithiform, apical angle 31-34°. Protoconch and earliest teleoconch whorl not preserved. Teleoconch about ten whorls separated by weakly impressed, linear suture. Spire whorl profile flat-sided to slightly concave on penultimate whorl, with periphery at abapical suture. Sculpture of very fine, weak to subobsolete, crowded spirals roughly equal in width to their interspaces. Last whorl moderately inflated, 50-53% of total height; flattened ventrally, at periphery developing prominent, elevated, horizontally-elongated dorsal hump abapically, whorl profile concave adapically, roundly angled at hump, moderately constricted at base. Aperture ovate, 32-33% total height. Outer lip convex, strongly thickened by labial varix, smooth within, flared abapically with hook-like abapical extension of outer lip crossing siphonal canal, but not fused with it. Anal canal narrow, well developed, U-shaped notch, bordered medially by prominent, elevated parietal fold. Siphonal canal straight, relatively short, bent to left, tubular. Columella concave, more strongly excavated abapically, bearing abapical rounded fold



delimiting siphonal canal and parietal fold delimiting anal canal. Columellar callus thin, sharply delimited, adherent, moderately expanded over medial portion of whorl.. The color of the earlier whorls (after the dark colored first whorls) are almost the same as the first part of the body whorl, but there is a mid-whorl small dark grey band that becomes a broader band on the body whorl.

**Variability.** – Specimens in the type series are remarkably constant in shell shape and sculpture. The only notable difference is that in the holotype a slight ridge or hump is also present on the dorsum of the penultimate whorl. This is not an ontogenic character, as it is not present in the much larger paratype 1, nor the similarly sized paratype 2.

**Holotype.** – Holotype NHMW 1901/0034/0091, height 123.8 mm, width 50.5 mm (Figs 1-3).

**Paratypes.** – All from the type locality. Paratype 1 NHMW 1901/0034/0092, height 112.3 mm, width 47.7 mm (Figs 4-5); paratype 2 NHMW 1901/0034/0093, height 148.5 mm, width 59.9 mm (Figs 6-7); paratype 3 NHMW 1901/0034/0094, height 98.1 mm, width 43.7 mm (adult spire fragment); paratype 4 NHMW 1901/0034/0095, height 49.2 mm, width 23.5 mm; (juvenile spire fragment; Fig. 8).

**Type locality.** – Wonosari, Gunung Kidul Regency, Special Region of Yogyakarta, Java, Indonesia.

**Type stratum.** – Langhian portion of NN5, Middle Miocene.

**Distribution.** — Middle Miocene: Yogyakarta, central Java (this paper). Miocene (indeterminate): Mangkalihat Peninsula, East Kalimantan (Beets, 1941).

**Etymology.** – Latin ‘*magnificus*, -a’, adjective meaning splendid, magnificent, describing this large, sumptuous species. *Gourmya* gender feminine.

**Other material.** – Known from type series only. The material illustrated by Beets (1941, pl. 3, figs 106-114) has not been included as type material as it represents juveniles (maximum height 56 mm), and the synonymy is not absolutely certain.

**Comparison.** – *Gourmya magnifica* sp. nov. differs from the only known living species, *G. gourmyi* (Crosse, 1861) in being larger (maximum height 148.5 mm, missing abapical part of aperture; reconstructed height about 160-165 mm vs 30-63 mm for *G. gourmyi*, fide Houbrick, 1981:3), in having a narrower apical angle (31-34° vs 40-45°, fide Houbrick, 1981:3), in having straight sided as opposed to weakly convex whorls, in having the last whorl less strongly inflated, and most striking is the horizontal dorsal hump developed on the last whorl. Some specimens of *G. gourmyi* are weakly humped dorsally, but not as strongly as in this fossil species.

Beets (1941) figured some apical fragments identified as *Campanile gigas* (Martin, 1883) that very similar to the juvenile figured here (Fig. 8). The syntypes of *C. gigas* collected from unnamed beds from the Lower Miocene of Podjok, Java are all ‘steinkerns’, and in our



opinion it is impossible to characterize that species based on this material. Whatever Martin's species may be, it is not *G. magnifica*, as there is no trace on the moulds of a dorsal hump. In the Indo-Pacific record two species have been attributed to the genus; *G.*

*parungpontengense* (Martin, 1899) from unnamed beds from the Upper Miocene of Java was based on an incomplete shell (height about 60 mm), missing its aperture. The spire is low for the genus, even squatter than in *G. gourmyi*, and the last whorl even more strongly inflated. There is also no dorsal hump developed. In these respects it is more similar to the living species than it is to *G. magnifica*. The second species, *G. njalindungense* (Martin, 1921) from the Lower Miocene Nyalindung Formation of Java is immediately separated in having strongly tuberculose surface sculpture. In this respect it is reminiscent of *Gourmya tuberosa* (Grateloup, 1847) from the Atlantic Lower Miocene of France and *G. nimbata* (Rovereto, 1914) (possibly also be a synonym of *G. tuberosa*) from the Proto-Mediterranean Lower Oligocene of Italy, which both have tubercular sculpture.

**Discussion.** – Interestingly, Houbrick (1981: 9) noted that most live-taken specimens of *G. gourmyi* had *Capulus danieli* (Crosse, 1858) attached near the shell apex. We note a similar association in this Middle Miocene material in which at least twelve *Capulus* attachment scars are present on the upper spire in the holotype (Figs 1, 2). We have not seen specimens of *C. danieli* in the assemblage, but the hipponicid *Sabia conica* (Schumacher, 1817), which leaves similar attachment scars, is abundant.

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#### EDITORIAL NOTES

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This contribution was reviewed by anonymous reviewers.



## ***Clithon auxilloi* (Neritidae), a new species from the Central Philippines**

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### ABSTRACT

A new species of *Clithon*, is described from the Central Philippines and named after the discoverer Ogie Auxillo: *Clithon auxilloi* sp. nov. The new species was collected in a in a fast flowing river at Philippines, Leyte Island, Southern Leyte Province, Silago, Barangay Tuba-on, Matal-ay River. The species is only known from the type locality. The species has some unique features that makes it easy identifiable: semi-lunar orange parietal shelf, the pattern of tents on the shell and a dark, bluish-grey operculum with two white spiral bands.

Key words – Mollusca, Gastropoda, Neritimorpha, Neritidae, *Clithon*, Philippines, new species, taxonomy

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### INTRODUCTION

For more than five years Ogie Auxillo has sold me marine and freshwater nerites from Leyte Island. Visiting many localities on travel distance from his place of residence Barangay Pasil, Malitbog, Ogie has provided me with many interesting species. So far in total 60 species of Neritidae; some of them even exceeding the published world record sizes. As he searches intensively in various habitats, it is no surprise that he recently discovered a new species. The new species of *Clithon* has some unique characters that separates it from other species in the genus and is described herein.



**Textfig. 1.** Ogie Auxillo collecting nerites in the Matal-ay River, Leyte, Philippines.  
Photo courtesy Ogie Auxillo.

Abbreviations:

BG — Bavius Gras, Leeuwarden, the Netherlands

HD — Henk Dekker, Winkel, the Netherlands

MNHN — Muséum National d'Histoire Naturelle, Paris.

Naturalis — Naturalis Biodiversity Center, Leiden, the Netherlands

RV — Rob Vink, Vlaardingen, the Netherlands

TAXONOMY

Class Gastropoda Cuvier, 1795

Subclass Neritimorpha Golikov & Starobogatov, 1975

Superfamily Neritoidea Rafinesque, 1815

Family Neritidae Rafinesque, 1815

Subfamily Neritinae Poey, 1852

Genus *Clithon* Montfort, 1810

Type species *Nerita corona* Linnaeus, 1758 (original designation).

***Clithon auxilloi* sp. nov.**

(Plate 1 Fig. 1a-g, Plate 2 Fig. 1a-4g, Textfig. 2)

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*Clithon* sp. i – Eichhorst, 2016: 309, pl. 65 figs 5-7.

**Description.** – Shell of average size for the genus. The smallest adult observed measures 12.5 mm in largest diameter, the largest shell observed measures 22 mm in largest diameter.



Periostracum persistent, greenish brown, and translucent, showing the tents underneath. The base color of the shell is gray with a pattern of white tents (when the periostracum is removed). Small, globose and smooth shell with a thin lip. The juvenile shell is glossy in appearance, without spiral sculpture and with fine growth lines. Adult specimens develop irregular pronounced growth lines on the last whorl. Spire is slightly eroded in juveniles, but in adults the spire and top of shell are for the most part absent. The parietal shelf is smooth and flat, with a sharply defined semi-lunar shape along the rear margin. There is large single protruding tooth on the upper third of the columella and a slight indentation below this tooth with small teeth below and above. The parietal shelf is for the larger part orange colored. The outer side of the operculum (Textfig. 2) is dark bluish-grey colored with two white spiral bands, running from the nucleus to the lateral terminus. One spiral band bordering the lamella and one spiral band across the middle of the operculum. White area around the nucleus. The colors of the operculum in juveniles are bright, while the colors of the operculum in adults are faded. A fragile translucent and red corneous lamella runs along the labral margin of the operculum, from below the nucleus to the lateral terminus. The interior surface of the operculum is dark brown in juveniles, this changes to light brown in adults. The apophysis is thin, flared and swept back at 5°. The substantial nuclear tooth is connected to most of the apophysis and transitions into a small orange peg. There is no medial or lateral tooth.



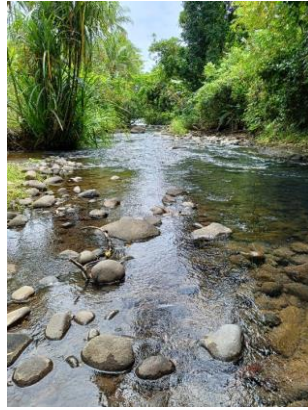
**Textfig. 2.** Operculum of holotype of *Clithon auxilloi* sp. nov.

**Holotype.** – Holotype Height 14.0 mm, width 13.6 mm, Pl. 1 Fig. 1a-g, Coll. Bavius Gras no BG 2633 (pending acceptance of the collection by any museum).

**Paratypes.** – All from the type locality. Paratypes 1-4: Coll. Naturalis, RMNH.MOL.453883; 1. height 17.1 mm, width 18.4 mm; 2. height 16.7 mm, width 18.1 mm; 3. height 13.5 mm, width 13.4 mm. 4. height 15.5 mm, width 17.5 mm, Pl. 2 Figs 2-5.

Paratype 5-9: Coll. MNHN, MNHN-IM-2018-1175; 5. height 12.6 mm, width 12.2 mm; 6. height 12.7 mm, width 12.3 mm; 7. height 13.9 mm, width 13.2 mm; 8. height 17.6 mm, width 17.6 mm; 9. height 18.0 mm, width 18.5 mm; Paratypes 10-13: Coll. HD 52407; Paratypes 14-17: Coll. RV 21076; Paratypes 18-49: Coll. BG 2634.

**Type locality.** – Philippines, Leyte Island, Southern Leyte Province, Silago, Barangay Tubanon, Matal-ay River, 10°32'47.9"N 125°09'44.9"E.



**Textfig. 3.** Scenery of the Matal-ay River, Leyte, Philippines.  
Photo courtesy of Ogie Auxillo

**Habitat.** – Collected in a fast flowing river, mid- to upper stream, on rocks in the shade, (Textfigs. 1 and 3). This species was collected in a rainy period, with a higher water level than normal. Ogie observed that *Clithon auxilloi* sp. nov. lives at 0.3 m depth, while *Septaria cumingiana* (Récluz, 1843) lives deeper on the rocks.

**Distribution.** – At present only known from the type locality.

**Etymology.** – Named after Rogelio Montialto Auxillo (“Ogie”), a shell dealer at Malitbog, Leyte Island, Philippines.

**Comparison.** – Research did not result in a similar species. The combination of the described traits is unique to this new species. There is no other species present in the genus *Clithon* with a semi-lunar orange parietal shelf, the pattern of tents on shell and a dark, bluish-grey operculum with two white spiral bands.

**Remarks.** – The quality of the shells and opercula deteriorates soon after collecting from the river, resulting in fading of the colors of the parietal shelf and the operculum. The red lamella breaks easily from the operculum.

Eichhorst (2016: 309) mentions this species as *Clithon* sp. i. The recorded locality given by the shell dealer of that specimen is “Philippines, Leyte Bay, Barangay Caridad”. Despite several visits to Caridad, Ogie was not able to find the present new species there. So it remains a mystery where these specimens were actually found.

#### ACKNOWLEDGEMENTS

Many thanks to Rob Vink for photographing the types and making the excellent plates of the types. Also thanks to Henk Dekker for critical reading the manuscript and his suggestions.

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**Plate 1.** *Clithon auxilloi* sp. nov. Philippines, Leyte Island, Southern Leyte Province, Silago, Barangay Tuba-on, Matal-ay River. 1. Holotype, height 14.0 mm, coll. BG.



**Plate 2.** *Clithon auxilloi* sp. nov. – Philippines, Leyte Island, Southern Leyte Province, Silago, Barangay Tubanon, Matal-ay River, coll. Naturalis RMNH.MOL.453883. 2. Paratype 1, height 17.1 mm. 3. Paratype 2, height 16.7 mm. 4. Paratype 3, height 13.5 mm. 5. Paratype 4, height 15.5 mm.

EDITORIAL NOTES

Editor in charge: Aart Dekkers.



## A new large *Vexillum* species (Gastropoda, Costellariidae) from Indonesia

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### ABSTRACT

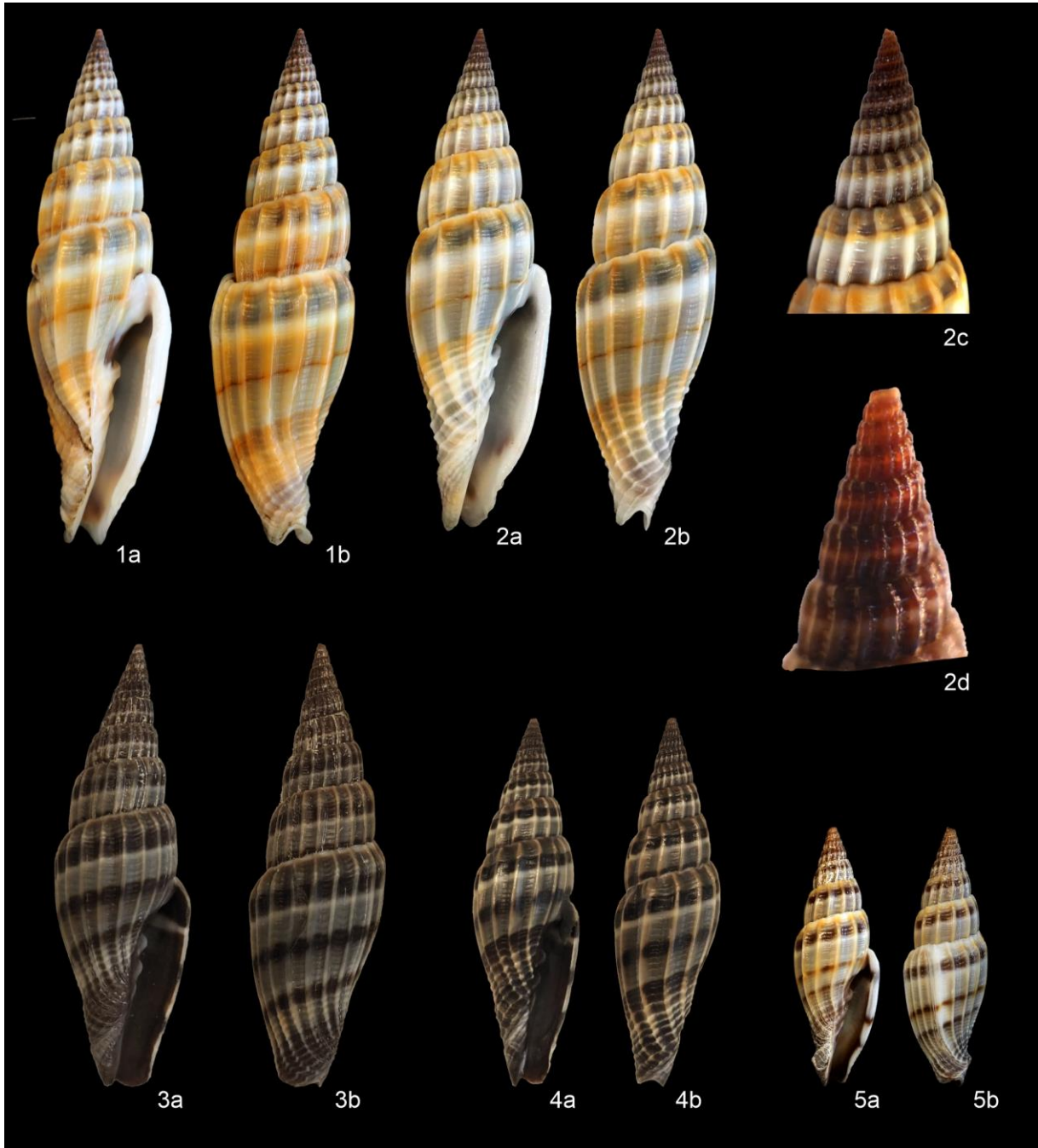
A new *Vexillum* species from Indonesia, Sumbawa, is described. It is compared to the similar but smaller *Vexillum lyratum* (Lamarck, 1811).

Key words – Costellariidae, *Vexillum lyratum*, Indonesia, Madagascar, Pacific, taxonomy

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### INTRODUCTION

With the recent introduction of Indonesian sellers on the internet sales platforms, a multitude of shells are offered that are from local origin of Sumbawa Island, Indonesia, or its surroundings. These shells are all dived by local gypsy divers. The location is in most cases Labuan Bajo, Sumbawa, Indonesia, which is a small fisherman village located on a mangrove surrounded small peninsula. The multitude of dived, colorful, shells can never live in the mangroves; this implicates the location is from further away, likewise from the islands in front of Sumbawa. Huang (2024) in his recent article describing four new *Vexillum* species uses Labuan Bajo as type locality in error, likewise following the labels provided with the bought shells. Dekkers & S.J. Maxwell (2024) use Indonesia, Sumbawa Island as type locality, thus not the exact place as that is not registered, which is followed herein. One of the many offered shells is recognized as an undescribed, large *Vexillum* species similar to *Vexillum lyratum* (Lamarck, 1811) and mostly offered under that name.



**Plate 1. 1a-2d. *Vexillum indolyratum* sp. nov.** 1a-b. holotype NCB RMNH.MOL.453916, H 55.9 mm, from the type locality; 2a-2d. Paratype 5, AMD unnumbered, H 54.1 mm, from the type locality. **3a-5b, *Vexillum lyratum* (Lamarck, 1811).** 4a-b. AMD unnumbered, Indonesia, Sumbawa, H 39.9 mm; 5a+b. AMD unnumbered, Madagascar, H 28.1 mm.

*Vexillum lyratum* has a wide range with best known locations Madagascar (Indian Ocean) and the Philippines (north west Pacific). The new species is in the middle of the occurrences of *V. lyratum* which makes it an interesting new find. The new species is larger and has a different



coloration: most of the *V. lyratum* have a dark coloration with a greenish-brown ground colour with 2 small dark brown spiral bands and a few smaller on the anterior part of the shell. The new species has a different coloration: it has a whitish ground color with neat broad spiral bands of a greyish kind or light olive green and small brown spiral bands.

#### Abbreviations:

AMD – (the collection of) Aart M. Dekkers, Purmerend, the Netherlands

H – height of the shell (shell length)

HD – (the collection of) Henk Dekker, Winkel, the Netherlands

MNHN – Muséum National d’Histoire Naturelle, Paris, France

NBC – Naturalis Biodiversity Center, Leiden, the Netherlands

RMNH.MOL – Mollusk collection of NBC and the former Rijksmuseum van Natuurlijke Historie, Leiden

W – width of the shell at the broadest point

#### METHODS

This study uses acquired shells. The study is based on empty shells freshly caught by local fishermen from Sumbawa Island, Indonesia. The new species is compared to *V. lyratum* from the Indian Ocean (Madagascar) and from the type locality of the new species (off Sumbawa Island, Indonesia). Photos by the author, Olympus digital camera OM-D 5II with 30mm macro lens.

#### TAXONOMY

Family Costellariidae MacDonald, 1860

Genus *Vexillum* Röding, 1798

Type species *Vexillum plicatum* Röding, 1798 (= *Voluta plicaria* Linnaeus, 1758) by

Subsequent designation, Woodring, 1928

#### *Vexillum indolyratum* sp. nov.

(Figs 1-2)

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*Vexillum lyratum* – Pechar, Prior & Parkinson 1980: pl. 40 fig. 6

*Vexillum lyratum* – Robin, A. & Martin, J-C. 2004: pl C-2 right figure, Thailand

**Description.** – Medium to large slender and solid shell. Whorls regularly enlarging, dark brown, almost black, near the apex which is mostly worn or broken off. In the third or fourth whorl from the apex, the shell colour of the body whorl starts to commence. In total (excluded the embryotic whorls) about nine whorls. The whorls bears 11 to 13 sharp edged axial ribs with many small flat spiral ribs divided by very small groves in between. Towards the siphonal canal the spiral ribs get stronger. The axial ribs are yellowish in color. Aperture about half the length of the shell. Columella with enamel, well bordered, in shell color,



bearing 6 paired lirae, decreasing in size. Above the first (largest) pair of lirae a brown colored field, the costellarid apertural entrance field, entering the aperture. Apertural rim thickened, white and shiny; on some specimens two small dark bands on the body whorl reach the apertural rim. Inside aperture smooth (the lirae are shining through and are enameled flat), with three colored fields: first a ca. 2 mm broad greyish band entering the aperture, then a 1 mm white part, then the second greyish band of approx. 1.2 mm, again a ca 2 mm white part and finally a brown band of ca. 2 mm followed by a white band of 2 mm at the anterior end of the aperture. At the posterior end of the apertural rim, a flat intention is situated of approx. 5-6 mm. Siphonal canal strongly bend upwards.

Color of the body whorl consists of several spiral bands. First a very small subsutural white band, followed by a very small yellowish band flowing over in the first broader greyish band of approx. 4 mm; followed by a white band of approx. 1 mm. Then again a very small yellowish band flowing over in the second broader greyish band of approx. 3 mm, followed by a clear small brown band which is followed by a broader, approx. 5 mm, lighter grey band. Where the coarser spiral ribbing start, a band of approx. 2 mm darker grey and after that ca. 4 mm. yellowish band, ending in a band of light grey with tinges of purple on the fasciole. The color of the earlier whorls (after the dark colored first whorls) are almost the same as the first part of the body whorl, but there is a mid-whorl small dark grey band that becomes a broader band on the body whorl.

**Holotype.** – Indonesia, off Sumbawa Island, NBC RMNH.MOL.453916, H 55.9 mm.

**Paratypes.** – All from the type locality. See Table 1.

**Table 1. Sizes of types**

	Repository	figured	height	width	H / W ratio
Holotype	NBC RMNH.MOL.453916	Fig. 1	55.9 mm	15.9 mm	3,52
Paratype 1	MNHN-IM-2000- 29200	-	51,7 mm	15.3 mm	3,38
Paratype 2	AMD unnumbered	-	54.2 mm	15,9 mm	3,41
Paratype 3	AMD unnumbered	-	43.5 mm	12,9 mm	3,37
Paratype 4	AMD unnumbered	-	53.8 mm	15.1 mm	3,56
Paratype 5	AMD unnumbered	Fig. 2	54.1 mm	15.7 mm	3,45
Paratype 6	AMD unnumbered	-	55.2 mm	16.0 mm	3,45
Paratype 7	HD 52300	-	54.6 mm	14.9 mm	3,67

**Type locality.** – Indonesia, off Sumbawa Island, northern side.

**Range.** – At present only known from the northern side of Sumbawa Island, Indonesia and Malaysia (website of conchology.be catalogue nr. 634785 from Malaysia. Pulau Borneo, as *V. lyratum*).



**Habitat.** – Not known. The species are said to be dived in about 5 meters of depth (fide the labels accompanying the shells).

**Etymology.** – The name is derived from Indonesia and *lyratum* combined to *indolyratum*.

**Other studied material.** – *Vexillum lyratum* from Madagascar (2x), darker colored (2x) from off Sumbawa and one light colored from off Sumbawa. All coll. AMD. See Table 2.

**Table 2. Sizes of other studied material**

	figured	height	width	H / W ratio
<i>V. lyratum</i> , Madagascar	AMD, Fig. 3	47.4 mm	14.4 mm	3,29
<i>V. lyratum</i> , Madagascar	AMD, Fig. 5	28.1 mm	9.1 mm	3,09
<i>V. lyratum</i> , Sumbawa	AMD, Fig. 4	39,9 mm	11.5 mm	3,48
<i>V. lyratum</i> , Sumbawa	AMD, not fig.	33.6 mm	9,9 mm	3,37
<i>V. lyratum</i> , Sumbawa	AMD, not fig.	43.6 mm	12,9 mm	3,38

**Comparison.** – The new species is distinguished from *Vexillum lyratum* by its much larger size, the typical coloration which more complex and delicate in the new species. The yellowish color in a part of the banding is not seen in *V. lyratum*. This more complex and vivid coloration makes it stand out from the *V. lyratum*. The yellowish color on the axial ribbing is also present on *V. lyratum*, but not so prominent. The axial ribbing on the new species is less in number (11-13) on the body whorl; they are also broader and less sharp; the interstices are broader on *V. lyratum* than on the new species.

**Discussion.** – Typical *Vexillum lyratum* are also acquired from the same dealers from the same location, but it's not known if they live sympatrically (collection AMD). *Vexillum lyratum* was described from the Indian Ocean (Lamarck, 1822: 309). A lectotype was designated by Cernohorsky (1969: 967), of unknown origin. The lectotype specimen has 7 whorls and a missing protoconch; it is off-white in colour, ornamented with dark brown spiral bands. Sculpture consists of 20 slender axial ribs on the body whorl and 19 on the penultimate whorl; the interstices have finely incised spiral lines, and the siphonal fascicle has nodulose spiral cords. The aperture is narrow, lirate within and the columella has 4 folds (fide Cernohorsky). Cernohorsky's "off-white in colour" (see above) is herein seen as a light grey color. The *V. lyratum* from off Sumbawa Island (Fig. 5) are generally darker in colour than the ones from Madagascar (Fig. 3 and 4); probably the freshness of the Indonesian shells do play a role in that. However, a light colored specimen was also acquired from the same off Sumbawa location (not figured).

The smallest specimen of the new species (Paratype 3) is the only shell under 50 mm in height (43.5 mm). The large one from Madagascar (Fig. 3, H 47.4 mm) is not a neat shell, but a giant from that location just a few mm larger than the smallest of the new species. The H/W ratio of the new species is not much different from *V. lyratum*, Sumbawa Island (Table 1 and 2). Surprisingly, the H/W ratio from the two specimens from Madagascar is slightly different.



It may be a different species compared from those of Sumbawa Island. But much more specimens are needed to investigate that.

#### ACKNOWLEDGEMENTS

I thank Henk Dekker, Winkel, the Netherlands for mounting the plates. I thank Andrea Nappo, Italy, for reading and improving the text.

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#### EDITORIAL NOTES

Editor in charge: Henk Dekker



## ***Nerita taiwanensis* Thach, 2023: a synonym of *Nerita (Linnerita) polita* Linnaeus, 1758**

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### ABSTRACT

In 2023 N.N. Thach published his book “New shells of South Asia and Japan, Taiwan, China”, which included descriptions of 1 new genus, 1 new subgenus and 123 new species and subspecies. One of his new species is *Nerita taiwanensis* Thach, 2023. The figure in his book is of a very poor quality, but photos of the holotype provided by the Muséum National d’Histoire Naturelle (Paris) clearly show a specimen of *Nerita polita* Linnaeus, 1758. Therefore the new name introduced by Thach and based on one specimen only is a junior synonym of the well-known species *Nerita polita*.

Gastropoda, Neritidae, *Nerita*, synonymy, Taiwan

### INTRODUCTION

In 2023 N.N. Thach published his book “New Shells of South Asia and Japan, Taiwan, China”. This is a next book in similar style as several of his previous books. He named 123 new species and subspecies, but it seems that he has created many synonyms. If these new names remain the valid name for species after a careful study of the descriptions and (usually poor photographs) is in many cases doubtful. Herein, as a collector / specialist on Neritidae, I only treat his new species *Nerita taiwanensis* Thach, 2023.

Abbreviations:

MNHN — Muséum National d’Histoire Naturelle, Paris.



## TAXONOMY

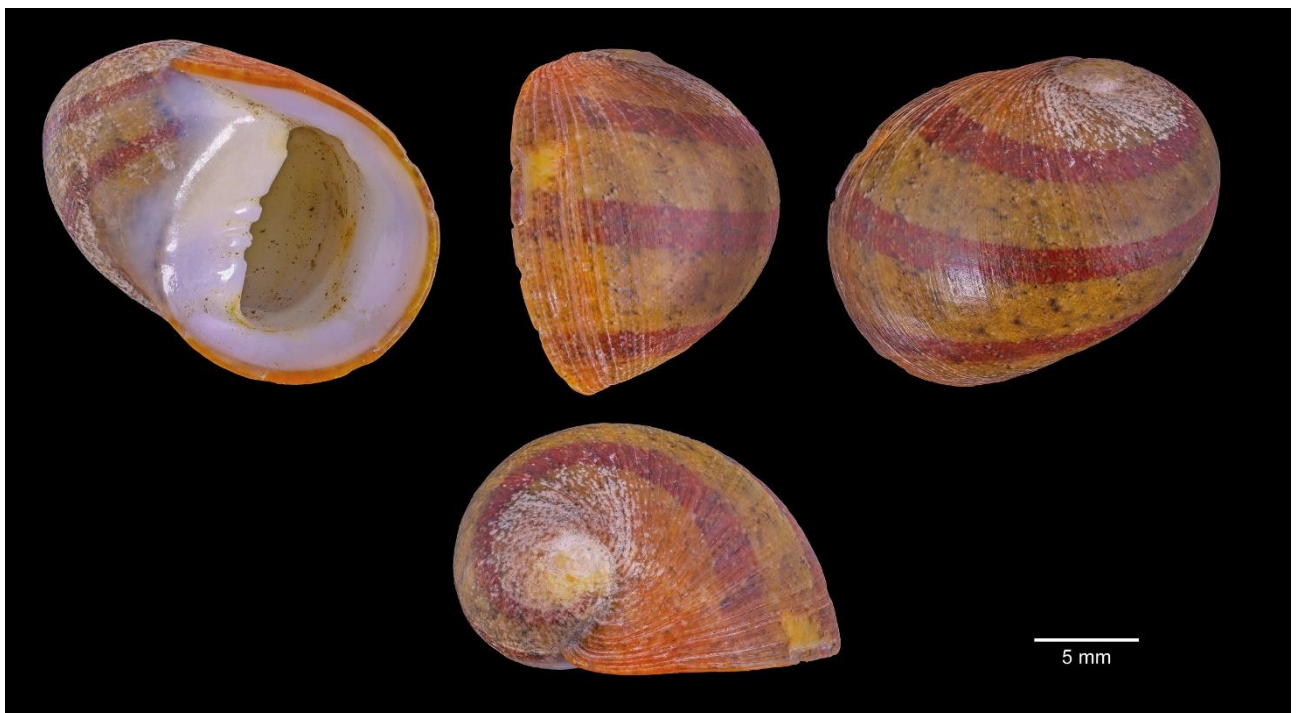
Class Gastropoda Cuvier, 1795  
Subclass Neritimorpha Golikov & Starobogatov, 1975  
Superfamily Neritoidea Rafinesque, 1815  
Family Neritidae Rafinesque, 1815  
Subfamily Neritinae Poey, 1852  
Genus *Nerita* Linnaeus, 1758  
Subgenus *Linnerita* Vermeij, 1984

*Nerita polita* Linnaeus, 1758 (type by original designation)

*Nerita taiwanensis* Thach, 2023, new synonym of *Nerita polita* Linnaeus, 1758  
(Figs. 1)

*Nerita taiwanensis* – Thach, 2023: 19, pl. 9 fig. 79 upper row.

Type material: holotype (20 mm long, 15 mm wide), Muséum National d'Histoire Naturelle, Paris, no. MNHN-IM-2000-38137, Type locality Taiwan, Orchid Island, Habitat: at intertidal area.



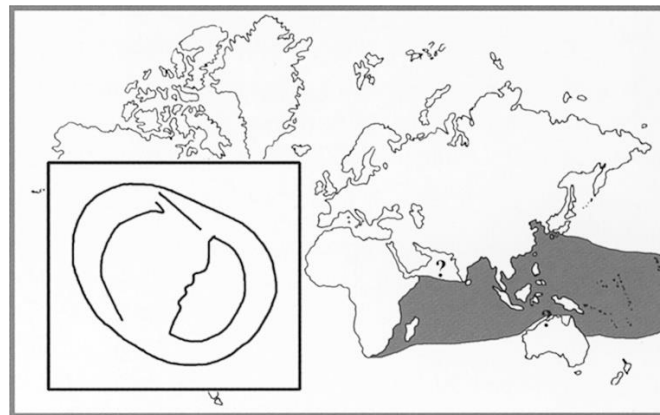
**Fig. 1.** Holotype of *Nerita taiwanensis* Thach, 2023. MNHN-IM-2000-38137. Photo courtesy Ms. P. Gaël Bourguignon, MNHN.

**Discussion.** – As Thach is already active in the field of malacology for several decades, it is disappointing that he did not reviewed earlier literature before describing this new species. In his references important sources are absent: Krijnen et al. (1999), Eichhorst & Neville (2004), Eichhorst (2016). The first two sources already give excellent descriptions, but especially Eichhorst (2016)



provides us with detailed descriptions and plates of all known species of Neritidae with their variations and forms.

It is curious that Thach does not compare his new species with species that include Taiwan in their distribution. He compared his supposed new species with *Nerita erythrostoma* Eichhorst & Neville, 2004 (Thach, 2023: 19, pl. 9 fig. 79 lower row; Western Australia, NMR 75515, photo by Trausel & Slieker), which is restricted to northern Australia and with *Nerita orbignyana* Récluz, 1841 (Thach, 2023: 19, pl. 10 fig. 87, photo by H. Dekker), a species only to be found from the Red Sea to the Persian Gulf. The *Nerita* species belonging to the subgenus *Linnerita* known from Taiwan are *Nerita antiquata* Récluz, 1841, *Nerita litterata* Gmelin, 1791 and *Nerita polita* Linnaeus, 1758 (**Fig. 2**). A comparison with these three species would have been more appropriate. It is quite remarkable that many images of shells in the book of Thach are of very poor quality, but this is consistent with his earlier books. In the case of *Nerita taiwanensis* (Thach, 2023: fig. 79), it looks like that the holotype has a smooth concave parietal shelf and small columellar teeth, which points towards *Nerita litterata* as possible identification. But the excellent photos of the holotype of *Nerita taiwanensis* show clearly that there are no spiral cords present on the first teleoconch whorls, and the columella has one large square upper tooth and 2 or 3 weak central teeth. Only one *Linnerita* species qualifies to be identical: *Nerita polita* Linnaeus, 1758.



**Fig. 2. Distribution map of *Nerita polita* (Eichhorst, 2016: 553).**

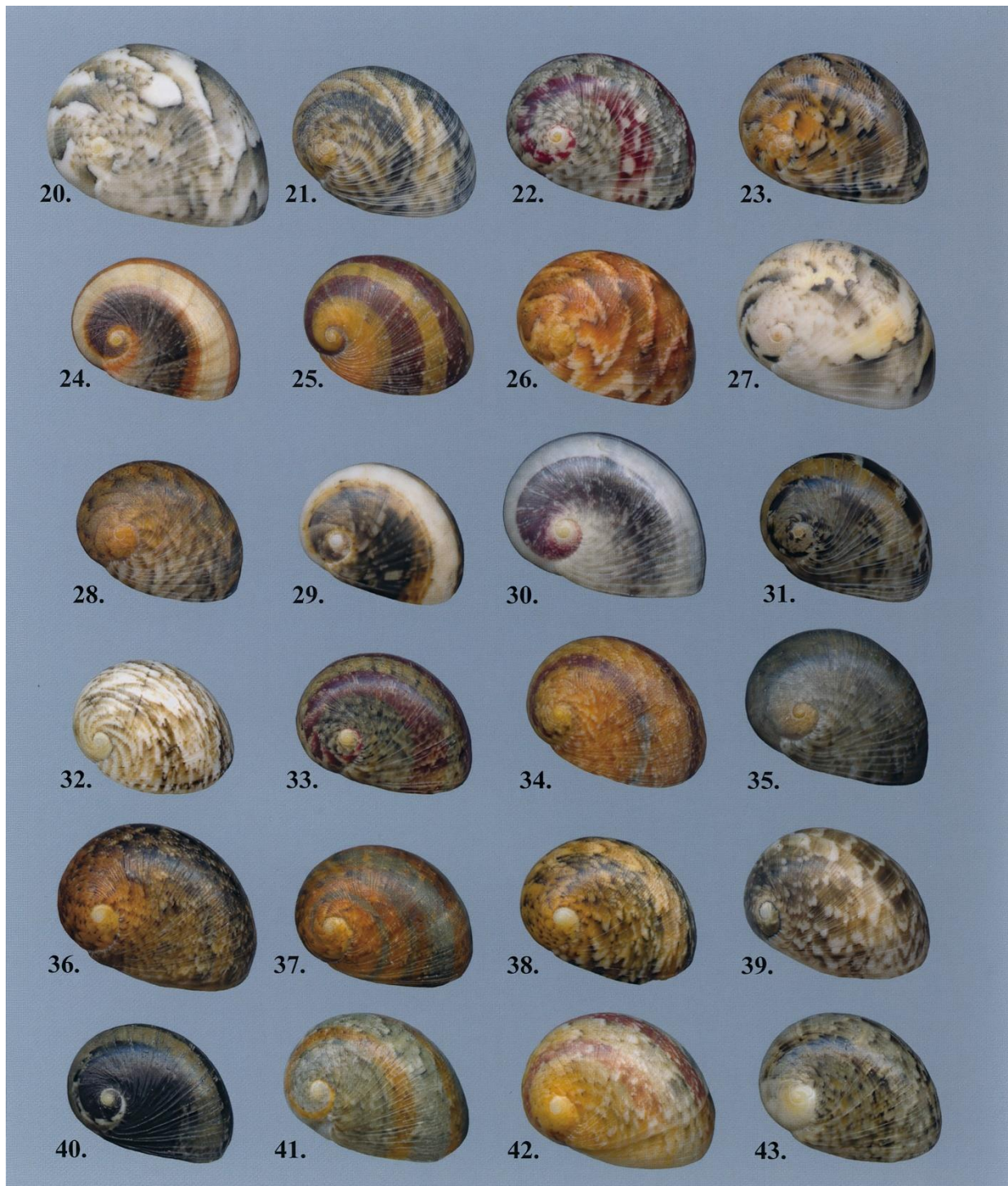
Many species of *Nerita* are known to be quite variable in color and color patterns. It is therefore strange that Thach based his description on just one specimen, especially as this species is common in Taiwan. The color form of the holotype of Thach's new species is similar to some of the many color forms figured by Eichhorst (2016: pl. 168 figs 25,34; **Fig. 3**).

For a comparison of all *Linnerita* species see **Table 1**. Eichhorst (2016) mentions as key identification features for *Nerita polita*: the operculum, no spiral cords on the first teleoconch whorls, a smooth, convex to flat parietal shelf, and on the columella one large square upper tooth and 2 or 3 weak central teeth.

**Conclusion.** – In the light of the discussion above, I conclude that the supposed new species name *Nerita taiwanensis* Thach, 2023 is a junior synonym of *Nerita polita* Linnaeus, 1758.

#### ACKNOWLEDGEMENTS

First of all I want to thank Mrs. V. Heros for informing me on getting type photos and Ms. P. Gaël Bourguignon (MNH) for photographing the holotype of *Nerita taiwanensis*. Thanks to Tom Eichhorst for his permission to use parts of his book *Neritidae of the World* (2016). Also thanks to Henk Dekker for his suggestions on an earlier draft of the manuscript and to Rob Vink for improving the quality of the photos and plates, and for commenting on the manuscript.



**Fig 3.** *Nerita (Linnerita) polita* Linnaeus, 1758 (Eichhorst, 2016: 663, plate 168). **Figs 20-23.** Sizes 26-30 mm, Philippines. **Figs 24-43.** Sizes 25-29 mm, Thailand, Andaman Sea

EDITORIAL NOTES

Editor in charge: Aart Dekkers.



**Table 1. Characteristics for identification of species within the subgenus *Linnerita* (Eichhorst, 2016: 514).**

Name	1. <i>N. polita</i> Linnaeus, 1758	2. <i>N. antiquata</i> Récluz, 1841	3. <i>N. erythrostoma</i> Eichhorst & Neville, 2004	4. <i>N. litterata</i> Gmelin, 1791	5. <i>N. orbignyana</i> Récluz, 1841	6. <i>N. vitiensis</i> Hombron & Jacquinot, 1854
<b>Shell shape &amp; structure</b>	Spherical, globose; fine axial growth striae, no spiral grooves	Spherical, globose; heavy axial growth striae, flat spiral grooves near apex	Elongate to spherical; fine to heavy axial growth striae, spiral grooves near apex	Elongate; fine axial growth striae, spiral grooves near apex	Elongate; fine axial growth striae, spiral grooves rare	Spherical; fine axial striae, spiral ridges from apex to aperture
<b>Operculum</b>	Central area green or gray, outer edge pale, apophysis cream w/ yellow	Unicolor, both central; area & outer edge pale cream or gray, apophysis greenish tan	Central area gray or brown, outer edge pale, apophysis gray w/ yellow	Central area green or gray, outer edge pale, apophysis cream w/ yellow	Central area green, outer edge pale, apophysis cream to yellow	Dark green to black, outer edge pale, apophysis yellow
<b>Parietal shelf</b>	Convex to flat, smooth, wrinkles behind teeth	Convex, wrinkles & pustules behind teeth & on lower half	Flat to concave, smooth, short grooves behind teeth	Flat to concave, smooth, grooves behind teeth	Flat, smooth, curved and/or pustules behind teeth	Flat to convex, smooth, short grooves behind teeth
<b>Columellar teeth</b>	Large square upper tooth & 2 or 3 weak central teeth	Large square upper tooth & 2 or 3 central teeth	Faint square upper tooth & 2 to 4 central teeth	Faint square upper tooth and 3 to 4 small central teeth	Square upper tooth & 2 or 3 weak central teeth	Square upper tooth & 2 to 4 central teeth
<b>Aperture color</b>	White, occasional yellow tints around columella	Yellow, orange, or red; white interior	White w/ a band of yellow, orange, or red	White to cream	White to yellow	White w/ pale to dark yellow staining
<b>Outer lip teeth</b>	No	2 on upper side	No	No	Small	No
<b>Outer lip crenulation</b>	Faint	Distinct	None	Distinct	Faint	Faint
<b>Distribution</b>	Indo-Pacific from Hawaii to W. Africa & S. Japan to New Guinea & Australia	S. Japan, through the Philippines, to Indonesia, and N. & N.W. Australia	Queensland, Australia, & New Caledonia	Indian Ocean to W. Pacific; Madagascar to Fiji & S. Philippines to Japan	Red Sea, Arabian Sea, & Persian Gulf	American Samoa, Fiji, & Vanuatu

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***Cosmetalepas scrobiculata* (G. Nevill & H. Nevill, 1869), a first find after its original description, with a discussion on the genus *Cosmetalepas* (Gastropoda, Fissurellidae)**

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**ABSTRACT**

After more than 150 years a second find of *Cosmetalepas scrobiculata* (G. Nevill & H. Nevill, 1869) is recorded from the south coast of Sri Lanka. Of the other three species in the genus *Cosmetalepas*, i.e. *C. concatena* (Crosse & Fischer, 1864), *C. africana* (Tomlin, 1926) and *C. massieri* Poppe, Tagaro & Sarino, 2001, respectively from the south coast of Australia, South Africa and Namibia, the latter species should be put in another genus.

Keywords - Fissurellidae, *Cosmetalepas*, *Cosmetalepas scrobiculata*, Sri Lanka, new record

**INTRODUCTION**

In December 2004, Sylvia van Leeuwen found three shells (length, 11-15 mm, width 7-10 mm) at a sandy beach with rocks in Sri Lanka, Tangalle-Rekawa, of which one is shown in Fig. 1. It is conspecific with *Fissurella scrobiculata* G. Nevill & H. Nevill, 1869, reported from the Southern Province of Ceylon. Ceylon is presently known as Sri Lanka. In 1924 Iredale established the new genus *Cosmetalepas* for *Fissurella concatena* Crosse & Fischer, 1864. The latter is the type species of his new genus and was reported from South Australia, Port Lincoln. Presently, in MolluscaBase, four living species are recognized in this genus (MolluscaBase, 2023). Besides the two already mentioned above, there is another species living in South Africa, *Cosmetalepas africana* (Tomlin, 1926), and an additional one is described from Namibia, *Cosmetalepas massieri* Poppe, Tagaro & Sarino, 2011.



## TAXONOMY

Class Gastropoda Cuvier, 1795  
Subclass Vetigastropoda Salvini-Plawen, 1980  
Order Lepetellida Moskalev, 1971  
Superfamily Fissurelloidea J. Fleming, 1822  
Family Fissurellidae J. Fleming, 1822  
Subfamily Diodorinae Odhner, 1932  
Genus *Cosmetalepas* Iredale, 1924

Typespecies – *Fissurella concatenata* Crosse & P. Fischer, 1864 accepted as *Cosmetalepas concatenata* (Crosse & P. Fischer, 1864) (type by original designation)

*Cosmetalepas scrobiculata* (G. Nevill & H. Nevill, 1869)  
(Fig. 1)

*Fissurella scrobiculata* G. Nevill & H. Nevill, 1869: 163, pl. 17 fig. 15  
*Glyphis? scrobiculata* (Nevill) – Pilsbry, 1890-1891: 227, pl. 41 fig. 38



**Fig. 1.** *Cosmetalepas scrobiculata* (G. Nevill & H. Nevill, 1869), Sri Lanka, Tangalle-Rekawa, December 2004, sandy beach with rocks, leg. Sylvia van Leeuwen.

**Discussion.** – Crosse & Fischer published a Latin description of their new species *Fissurella concatenata* in 1864 and a French description with figures in 1865. Their description is only based on the shell; the same applies to Iredale (1924) when proposing the genus. Tomlin (1926) and Poppe, Tagaro & Sarino (2011) also described the shell only. However, the species introduced by the latter authors does not have a pitted surface, but a striated one. They



wrote “But the species may need a new genus as the shell, with its chalky and fragile texture it is quite special”. Nevill & Nevill (1869) mentioned in their description of *Fissurella* (?) *scrobiculata* the diamond-shaped scrobiculations and that perhaps the shell was covered by the mantle of the animal. They added “in which case, this species will have to be removed to *Macroschisma*”. This explains the question mark in their original name. Later Kilburn & Rippey (1982) wrote on *Cosmetalepas africana* “The shell is completely internal, showing only through the exhalant hole near the centre of the creature’s back”. Steyn & Lussi (1998) described this species in a similar way. This is also true for the description of *Cosmetalepas concatenata* by Wilson (1993), he added that there are several Tertiary fossil species in southern Australia.

**Conclusion.** – I was unable to find any additional record of *Fissurella scrobiculata* after its original description. Thus, after more than 150 years a second find is published of this species. Both records are from the south coast of Sri Lanka. *Cosmetalepas scrobiculata*, *C. concatenata* and *C. africana* have the characteristic pitted surface of the genus. This is not true for *C. massieri*. Furthermore, the first three species have internal shells. It is doubtful if the chalky and fragile shell of *C. massieri* is internal too. Thus, *C. massieri* should be transferred into another genus.

#### ACKNOWLEDGEMENTS

Sylvia van Leeuwen, Bilthoven, the Netherlands is thanked for putting the shells of *Cosmetalepas scrobiculata* from her collection at my disposal for study.

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#### EDITORIAL NOTES

Editor in charge: Henk Dekker.



## On a *Trimusculus* species (Gastropoda: Trimusculidae) from Sri Lanka

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### ABSTRACT

*Trimusculus semicorneus* (Preston, 1908) was reported from the southwest coast of Sri Lanka, Unawatuna-Koggala (van Gemert, 2010). But according to Raven (2021), *Acmaea semicornea* Preston, 1908 is a brachiopod and its valid name was established as *Discradisca semicornea* (Preston, 1908). Comparison of the *Trimusculus* species from Sri Lanka with the other two described species of the same genus living in the Indian Ocean showed that, based on the morphology of the shells, the Sri Lankan species is conspecific with *Trimusculus mauritianus* (E. von Martens, 1880). The position of the Trimusculidae and the habitats of *Trimusculus* species are briefly discussed.

Keywords - *Trimusculus mauritianus*, Sri Lanka, distribution record

### INTRODUCTION

Van Gemert (2010) reported finding *Trimusculus semicorneus* (Preston, 1980) at the southwest coast of Sri Lanka, Unawatuna-Koggala. The determination of the shells was partly based on the similarity to the figure given by Preston (1908: 203, pl. 16 fig. 46) of his new species *Acmaea semicornea* and partly on suggestions from the literature. However, Raven (2021) showed that this species is actually a brachiopod, and its valid combination was determined to be *Discradisca semicornea* (Preston, 1908). The specimen figured by van Gemert (2010: fig. 1) is, also according to Raven (2021), clearly a species of *Trimusculus* F. C. Schmidt, 1818, but is left without a correct identification, which is clarified hereafter.



## TRIMUSCULIDAE J. Q. Burch, 1945 (1840)

In WoRMS (2024) the family Trimusculidae forms together with the families Ellobiidae and Otinidae the superfamily Ellobioidea, which belongs to the superorder Eupulmonata. Species from these three families are air breathing pulmonated gastropods and are living at the sea shore. There is only one genus in the family Trimusculidae and 15 living *Trimusculus* species are known (WoRMS, 2024). The other limpet-like pulmonate air-breathing family Siphonariidae belongs to a different superorder, Siphonarimorpha, so this family is not closely related to the Trimusculidae.

Only a few *Trimusculus* species have been the subject of investigations concerning their habitat. Plate (1893) found in Chile *T. peruvianus* (G.B. Sowerby I, 1835), living at the west coast of South America, in rock crevices. According to Yonge (1958) *T. reticulatus* (G.B. Sowerby I, 1835), occurring along a part of the west coast of North America, is living under the roof of overhanging rocks and caves in the lower intertidal zone. Haddock (1989) found *T. reticulatus* living subtidal in air pockets trapped beneath rock ledges. Haven (1973) found the animals of *T. conicus* (Angas, 1867) clustered on the underside of the roofs of rocky overhanging's and caves. This species is living in Australia from Queensland to the south coast of Western Australia. The habitat descriptions above can be classified as physical. The habitat descriptions of the in the Mediterranean Sea living *T. mammillaris* (Linnaeus, 1758) are more ecological, i.e. with which other marine organisms it lives together. According to Scaperrotta et al. (2011). This species is living in the infralittoral zone and is very often found at the base of the sea anemone *Actinia equina* (Linnaeus, 1758). Gofas, Moreno & Sallas (2011) write in their book on Andalusian shells that *T. mammillaris* is often found near the calcareous algae *Lithophyllum byssoides* (Lamarck, 1801) Foslie, 1900 or, when this algae is absent, in crevices. This connection between a calcareous algae and *T. mammillaris* was already noted more than one century before (Lacaze-Duthiers, 1885). The habitat of the Japanese *T. kurodai* Habe, 1958 and *T. yamamotoi* Habe, 1958 has been described as “rocky bottoms to 10 m depth” Kurozumi (2017). The rocky bottoms are very plausible, but it is difficult to belief that an air breathing animal is living at a depth of 10 m.

## TAXONOMY

Superfamily Ellobioidea L. Pfeiffer, 1854 (1822)

Family Trimusculidae J. Q. Burch, 1945 (1840)

Genus *Trimusculus* F.C. Schmidt, 1818

Typespecies – *Patella mammillaris* Linnaeus, 1758 accepted as *Trimusculus mammillaris* (Linnaeus, 1758) (type by subsequent designation)

***Trimusculus mauritianus* (E. von Martens, 1880)**

(Fig. 1)

*Gadinia mauritiana* E. von Martens, 1880: pl. 12, figs 3,3a-b

*Trimusculus mauritianus* (Von Martens, 1880) – Drivas & Jay, 1988: 132, pl. 51 fig. 20

*Trimusculus semicorneus* (Preston, 1908) – van Gemert, 2010: 45, fig. 1



**Distribution.** – Mauritius & Réunion (E. von Martens, 1880; Drivas & Jay, 1988), southern Yemen (H. Dekker collection, Winkel, the Netherlands); Sri Lanka (van Gemert, 2010; this publication).

**Discussion.** –Twenty specimens of the *Trimusculus* species from Sri Lanka are shown in Fig. 1. All specimens were found in shell grit collected on the beach, and thus are more or less worn out. Comparison with the two other *Trimusculus* species known from the Indian Ocean gave the following results. *Trimusculus costatus* (Krauss, 1848), pictured in Kilburn & Rippey (1982) and Steyn & Lussi (1998), is known from South Africa and Mozambique. It is a species different from the Sri Lankan specimens as the radial ribs are strong and rough, and fresh specimens have a light brown colour.



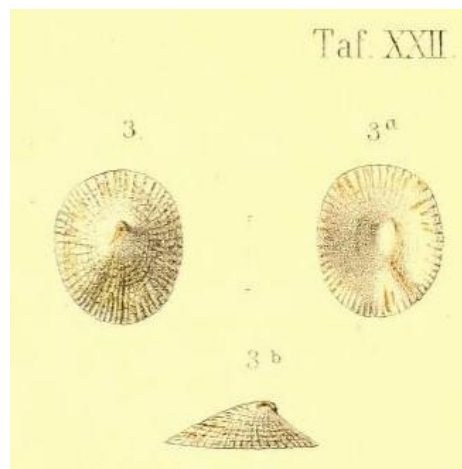
**Fig. 1.** Dorsal view of twenty shells of *Trimusculus mauritianus* (E. von Martens) from Sri Lanka, Unawatuna-Koggala. The shell at the upper left corner has been pictured before in van Gemert, 2010 (dimensions in mm: length 11, width 10, height 3). Collection of the author.

The second species, *T. mauritianus* (E. von Martens, 1880), has been collected on the islands Mauritius and Réunion and his original drawings (pl. 12, figs 3,3a-b) are shown in Fig. 2. The radial ribs of this species are much more like the ones on the *Trimusculus* specimens from Sri Lanka. In the literature only one picture was found (Drivas & Jay, 1988: 132, pl. 51 fig. 20).



However, this picture is not very useful as it is small and not clear. In AnimalBase (2024) more pictures are shown of *T. mauritianus*. Only in the two photographs at the lowest row a *Trimusculus* species is shown. The other photographs show a *Cheilea* Modeer, 1793 species (Family Hipponicidae). The same applies to the pictures shown on the website of mollusks from Mauritius and Réunion (Vieocean, 2024). Here *T. mauritianus* is shown only in the middle row.

*Trimusculus semicorneus* (Preston, 1908) is also mentioned in Dey (2016: 627) in his book on Indian chitons and gastropods. Dey listed five records published in the period 1908-2012, of which the oldest one of Preston is the only one based on an actual find. For replacing the original genus *Acmaea* by *Trimusculus* he refers to WoRMS, which followed van Gemert (2010). This indicates that a *Trimusculus* species has not been reported from India.



**Fig. 2.** *Trimusculus mauritianus* (E. von Martens). Source: Martens, 1880; dimensions of the collected specimens in mm: length 7.5-10, width 6.5-9, height 2-4.5.

Hubendick (1946: 73) considered *T. mauritianus* to be a synonym of *T. mammillaris*, the species living in the Mediterranean Sea. However, it is very unlikely that the same species lives in the Mediterranean Sea and in the western part of the Indian Ocean. I could not find any record in the literature of a *Trimusculus* species from the Seychelles or the Maldives, island groups lying in the Indian Ocean between Mauritius and Réunion and Sri Lanka. Specimens of *Trimusculus* were found in four localities in southern Yemen, Al-Mahrah governorate, which are similar to the Sri Lankan specimens (H. Dekker, pers. comm. 2024).

I consider the *Trimusculus* species found at Sri Lanka to be conspecific with *T. mauritianus*, with the following citation in mind: "... *Trimusculus* seems to be a taxon in which species limits should probably be studied using DNA techniques in addition to morphology, as it is unclear whether morphology alone will provide enough features to separate species" (Tseng & Dayrat, 2014: 206).

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WoRMS: [www.marinespecies.org](http://www.marinespecies.org) (consulted at 14 August 2024).

#### EDITORIAL NOTES

Editor in charge: Henk Dekker.



## ***Nassaria koenfrausseni*, a synonym of *Nassaria pusilla* (Gastropoda, Nassariidae)**

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### ABSTRACT

Recently a supposed new species of *Nassaria* Link, 1807 was described from India. The comparison with the most likely similar species was missing in the original description and the published review of this genus was missing from the references. This poorly described new species is just a synonym of the well-known *Nassaria pusilla* (Röding, 1798).

Key words – Nassariidae, *Nassaria*, synonymy

### INTRODUCTION

One of the problems in Malacology of this moment is the description of supposed new species, of which the needed research of former literature is entirely lacking and the comparison with similar species is poorly executed. As an additional problem, the publications are also not properly reviewed by other malacologists, so errors are not detected. This results in quite a number of “new” species descriptions, which are not new but only add new synonyms to the often already extensive list. Herein is a beautiful example of such a poorly researched supposed new species, belonging to the genus *Nassaria* Link, 1807.

### TAXONOMY

Family Nassariidae Iredale, 1916 (1835)

Genus *Nassaria* Link, 1807 [syn. *Hindsia* A. Adams, 1851]

Type species *Nassaria lyrata* Link, 1807 by subsequent designation (= *Nassaria pusilla* (Röding, 1798))



### *Nassaria pusilla* (Röding, 1798)

Selected synonymy:

Chemnitz, 1780: 21, pl. 122 figs 1122-1123

*Buccinum niveum* Gmelin, 1791: 3495 (not *Buccinum niveum* Gmelin, 1791: 3471)

*Neptunea pusilla* Röding, 1798: 116

*Nassaria lyrata* Link, 1807: 123

*Tritonium niveum* L. Pfeiffer, 1843: 139

*Nassaria alba* H. Adams & A. Adams, 1853: 123-124, pl. 13 fig. 1

*Nassaria koenfrausseni* Cossignani, 2024: 22-23, figs (**syn. nov.**)

Additional synonyms, mainly form names, can be found in Cernohorsky, 1981: 13

This species was originally figured from India in the non-binomial work of Chemnitz from India, Tranquebar. Early authors referred to his figures, and introduced the names *Buccinum niveum*, *Neptunea pusilla*, *Nassaria lyrata*, *Tritonium niveum* and *Nassaria alba* (partly) based on these figures.

Comparing the figures of the holotype of *Nassaria koenfrausseni* Cossignani, 2024 with published figures and material in my own collection leaves no doubt that it is identical to *Nassaria pusilla* (Röding, 1798).

Apparently, Cossignani seems to be not familiar with the review of the genus *Nassaria* written by Cernohorsky (1981), as it is not mentioned in his article. *Nassaria pusilla*, however, is mentioned as the type species of the genus *Nassaria*, but he did not compare his supposed new species with this type species.

Before one describes a new species from a certain region, it is necessary to look in regional literature if names are available for your shell. This technique, called “determination”, was clearly neglected, otherwise he would have found readily figures of *Nassaria pusilla* in e.g. Pinn (1990: 81, fig. 147), the well-known work of Subba Rao (2003: 255, pl. 61 fig. 7) or in Patterson Edward et al. (2022: 186, textfig.). Dey (2016: 342) gives a number of additional references of *Nassaria pusilla* from India. Over and above that, the species name is already at hand in popular books like the Encyclopedia of Marine Gastropods (Robin, 2008: 186, fig. 7) and others.

Most remarkable is the fact that the supposed new *Nassaria* species is compared with *Nassarius conoidalis* (Deshayes, 1833) [with the wrong date 1813], and *Cancellaria albida* Hinds, 1843 from El Salvador. Especially the latter is very curious, as it is from a completely different faunal province and the shell with strong spirals on the columella has no resemblance to the *Nassaria* species. When compiling the references (bibliography), it is a common use to list only publications which are referred to in the text. If the paper would have been properly reviewed, then several such references not mentioned in the text would have been erased.

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## EDITORIAL NOTES

Editor in charge: Aart Dekkers



## A new *Quasimitra* species (Gastropoda, Mitridae) from Indonesia

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### ABSTRACT

A new Mitridae species from Indonesia, Sumbawa Island, is described as *Quasimitra yanseni* sp. nov. It is compared with *Q. propinqua* (A. Adams, 1853), *Q. stossieri* (Herrmann, 2016) and *Q. lamarckii* (Deshayes, 1832).

Key words – *Quasimitra*, new species, Indonesia, Sumbawa

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### INTRODUCTION

The neogastropod family Mitridae (miter shells or mitres) is a distinctive and familiar group of benthic gastropods, its key features are having a solid, usually fusiform, colourful shell with strong columellar folds, predominant spiral sculpture and a smooth inner side of the labrum (Fedosov et al., 2018).

The species herein described as new belongs to the species complex around *Quasimitra nubila* (Gmelin, 1791). This complex of species is recognized as a separate group of species, but not formally named. A review of the species belonging to this complex was published several years ago (Herrmann, 2016). Fedosov et al. (2018) included this complex and other species in their genus *Quasimitra* Fedosov et al., 2018. This article is followed here, and the new species is described as a *Quasimitra*. The species Herrmann (2016) originally treated in his review are *Q. bretteinghami* (E.A. Smith, 1906); *Q. lamarckii* (Deshayes, 1832); *Q. nubila* (Gmelin, 1791); *Q. propinqua* (A. Adams, 1853) and *Q. stossieri* (Herrmann, 2016).

The new species is the smallest species of this *Quasimitra* species complex, and it differs from the congeners by its sculpture and colour. The new species is compared with *Q. propinqua* from the Indian Ocean (Mozambique) and similar species known from Indonesia.

**Abbreviations:**

AMD – (the collection of) Aart M. Dekkers, Purmerend, the Netherlands

H – height of the shell (shell length)

HD – (the collection of) Henk Dekker, Winkel, the Netherlands

MNHN – Muséum National d’Histoire Naturelle, Paris, France

NBC – Naturalis Biodiversity Center, Leiden, the Netherlands

SG – (the collection of) Sandro Gori, Livorno, Italy

W – width of the shell at the broadest point

**METHODS**

The study is based on shells from Indonesia, Sumbawa Island, freshly caught by local fishermen. Photos made with an Olympus digital camera OM-D 5II with a 30 mm macro lens.

**TAXONOMY**

Superfamily Mitroidea Swainson, 1831

Family Mitridae Swainson, 1831

Subfamily Mitrinae Swainson, 1831

Genus *Quasimitra* Fedosov, Herrmann, Kantor & Bouchet, 2018

Type species *Mitra sanguinolenta* Lamarck, 1811, original designation

***Quasimitra yanseni* sp. nov.**

Pl. 1 Fig. 1a-c

urn:lsid:zoobank.org:act:D597EA50-EF4A-49DE-AEFF-4E3EE2CB319F

**Description.** – Shell of medium size for the genus, fusiform, semi slim, solid. Shell length 30-41 mm. Width around 36% of length.

Only fragments of white, translucent protoconch present. Teleoconch consisting of 7-8 slightly convex whorls. Suture well defined, shallow, slightly crenulated under the suture, corresponding with a pattern composed of white dots. Straight outline of spire, but penultimate and body whorl more convex. Body whorl and 1-2 penultimate whorls covered with about 15-16 flat spiral ribs with regularly punctuated interstices. Three subsutural smaller spiral lines before the beginning of the flat spiral ribbing, also punctuated in between, or dissected by minute axial threads. All spiral ribs covered with fine axial threads, the white dots (see below) are slightly raised.

Aperture slightly less in length compared to the spire, moderately narrow, about three times longer than broad. In adult specimens, outer lip thin, crenulated, and rounded at the anterior end, with a straight posterior part.

Columella with 4 oblique folds, rapidly becoming smaller in strength anteriorly; the fourth is almost obsolete. Columellar callus moderately thin and only a little expanded, but well defined. Siphonal canal slightly longer than outer lip, almost straight with a small dorsal notch. Fasciole bearing small spiral ribbing.



Background colour pattern whitish to cream, decorated with a spiral pattern and an axial pattern. The spiral pattern is confined to the spiral ribbing; the colour is yellowish to light brown with irregular (slightly raised) white dots, often stretched in the spiral length, with some spiral ribs being more crowded with larger white streaks giving the shell a banded appearance. The axial pattern consists of darker brown irregular streaks running over the complete whorl, about 7-9 on the body whorl. The white slightly raised dots are mostly located on the axial streaks. Tips of crenulated lip dotted brown. Aperture white.

**Type material.** – Holotype, dived at 5 m, NBC no. RMNH.MOL.453917, H 41.08 W 13.5 mm. Paratypes all from the type locality: paratype 1, H 39.15 mm, MNHN-IM-2000-29205; paratypes 2-4, H 37.91, 37.91 and 36.67 mm, AMD unnumbered; paratype 5, H 38.1 mm, SG; paratype 6, H 26.0 mm, slightly juvenile, HD 51682; paratypes 7-14, H 30.4-32.7 mm, AMD unnumbered; paratype 15, H 34.4 mm, HD 50482; paratype 16, H 40.3 mm, HD 52581.

**Type locality.** – Indonesia, off Sumbawa Island, northern side.

**Distribution.** – At present only known from Indonesia, the northwestern side of Sumbawa.

**Habitat.** – Not known. The type specimens are dived at 5 m, according to the labels accompanying the shells.

**Etymology.** – The new species is named after Chen Yansen from Indonesia, who kindly offered the holotype for description when the new species became available.

**Comparison.** – *Quasimitra yanseni* sp. nov. is distinguished from *Q. propingua* (A. Adams, 1853) (Pl. 1 Fig. 2) from eastern Africa by its much smaller size (*Q. propingua* is around 55 mm) and the typical coloration, which is more complex and delicate in *Q. yanseni* sp. nov. *Q. propingua* has brownish irregular axial streaks whereas *Q. yanseni* sp. nov. has spiral bands decorated with bright white dots arranged in bands. Both species have flat spiral bands divided by pitted incised lines, but the spiral bands of *Q. propingua* are broader and flatter. *Q. yanseni* sp. nov. has subsutural bands of a whitish color whereas *Q. propingua* has the same spiral ribbing as the other part of the body whorl.

The relatively newly described species *Q. stossieri* (Herrmann, 2016), of which *Q. houarti* Dharma, 2021 is a synonym (Dekkers, 2022), has a more elongated spire with a more or less swollen body whorl and a more reddish-brown color with stretches of white and mostly small red dot like patches on the subsutural band. This species is therefore readily separable from *Q. yanseni* sp. nov. *Q. lamarckii* (Deshayes, 1832) (Pl. 1 Fig. 3), originating from the Philippines to the eastern part of Indonesia (Herrmann, 2016), is much larger than *Q. yanseni* sp. nov. (ca. 45-60 mm) and has a very distinctive pattern of square brown blotches on an ivory-white shell and a similar spiral band as *Q. propingua*. *Q. yanseni* sp. nov. is slenderer compared to *Q. propingua* and *Q. lamarckii*, which are more swollen.



**Plate 1.** Fig. 1a-c. *Quasimitra yanseni* sp. nov., holotype, Indonesia, off Sumbawa Island, dived at 5 m, NBC no. RMNH.MOL.453917, H 41.08 mm, 1c enlarged detail of spire. Fig. 2a-b. *Quasimitra propinqua* (A. Adams, 1853), Mozambique, Nacala Bay, dived on sand at 2-10 m, H 46.7 mm, AMD unnumbered. Fig. 3a-b. *Quasimitra lamareckii* (Deshayes, 1832), Philippines, Balut Island, tangle nets at 400 m, H 50.5 mm, AMD unnumbered.



**Discussion.** – Only the holotype has a larger shell length compared to width than the paratypes and stands slightly apart: width 33% of length instead of around 36%. All others are remarkably constant in this ratio. The new species is only compared with the most common representative of the unnamed subgroup of species within *Quasimitra*, *Q. propingua* from the east Africa coast (Robin & Martin 2004 pl. M-5, Mozambique, wrongly named *Mitra nubila*), and two other species also found in the Indonesian waters the new species can be confused with.

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#### EDITORIAL NOTES

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## **New record of Anulidentaliidae (Scaphopoda: Dentaliida) from the East China Sea**

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### ABSTRACT

Fresh shells of a rare and intriguing scaphopod, *Anulidentaliium bambusa* Chistikov, 1975 are reported from the East China Sea, confirming the presence of this species from this area. Images and measurements of the newly obtained shells are provided.

Key words – Scaphopoda, tusk shell, *Anulidentaliium bambusa*, East China Sea, new record

### INTRODUCTION

Scaphopoda, colloquially referred to as the tusk shells, is among the least studied classes in Mollusca (Souza et al., 2020; Zhang et al., 2023), despite their global distribution and ecological significance (Reynolds, 2002). Particularly, little taxonomic research about the scaphopods in the East China Sea has been conducted (Qi & Ma, 1989). During the past two decades, the Chinese commercial trawler fleet has gained better access to the East China Sea and collected copious amounts of mollusk samples as bycatch, resulting in an increase in knowledge about the malacofauna of the East China Sea (e.g. Brown, 2010). The recent finding of two largely intact shells of *Anulidentaliium bambusa* Chistikov, 1975 trawled in the East China Sea is herein reported to establish the regional occurrence of this obscure and unusual scaphopod species.



**Figure 1.** *Anulidentaliium bambusa* Chistikov, 1975. A. ANUD-A, depth 150~200 m, trawled in early 2022. B. ANUD-B, depth 100~200 m, trawled in 2021. Scale bars = 5 mm..

## MATERIAL AND METHODS

Two specimens of *Anulidentaliium bambusa* were collected in the East China Sea by trawlers based in Taizhou, Zhejiang Province, China. They were acquired from local fisherman and lodged in the malacological reference collection of the author. The specimens were visually examined and identified under a portable microscope with 45x magnification. Measurements were made using a digital vernier caliper to the nearest 0.1 mm according to the paradigm by Souza & Caetano (2020).

## TAXONOMY

Family Anulidentaliidae Chistikov, 1975

Genus *Anulidentaliium* Chistikov, 1975

Type species *Anulidentaliium bambusa* Chistikov, 1975 by original designation

***Anulidentaliium bambusa* Chistikov, 1975**

(Fig. 1A-B, Tab. 1)



*Anulidentarium bambusa* Chistikov, 1975: 19 (as cited in Habe, 1977 and Qi & Ma, 1991); Chistikov, 1979: 112-113, fig. 4 (subsequent type designation); Qi & Ma, 1991: 91; Scarabino, 1995: 290-291, fig. 94,95g; Ma, 2004: 204, pl. 110 fig. F..

**Material examined.** – East China Sea: ANUD-A, depth 150~200 m, trawled in early 2022; ANUD-B, depth 100~200 m, trawled in 2021 (collection of the author).

	ANUD-A	ANUD-B
L	25.6	31.5
Dmax	0	0
Ha	1.1	1.2
Wa	1.1	1.2
Hp	0.6	
Wp	0.6	

**Table 1.** Measurements of shells of *Anulidentarium bambusa* Chistikov, 1975. L, length; Dmax, the distance of the point of maximum diameter from anterior aperture; Ha, aperture height; Wa, aperture width; Hp, apex height; Wp, apex width. The maximum diameter (Max) is omitted, since Dmax = 0. Wa and Wp of ANUD-2 are not measured because of its extreme brittleness.

**Distribution.** – Gulf of Tonkin (type locality), Philippines, Indonesia (Scarabino, 1995), South China Sea (Qi & Ma, 1991; Ma, 2004), East China Sea (Qi & Ma, 1991; Ma, 2004; present study).

**Discussion.** – *Anulidentarium bambusa* is morphologically unmistakable by the swollen rings which give the delicate shell a unique, bamboo-like appearance. *A. bambusa* was originally classified by Chistikov (1975) in an individual subfamily in Dentaliidae, which was later elevated to family level by Steiner (1999) based on anatomical and radula features. Currently, Anulidentaliidae comprises only two monotypic genera, viz. *Anulidentarium* and *Epirhabdoides* Steiner, 1999 (type species: *E. ivanovi* Steiner, 1999). Both species in Anulidentaliidae are seldom mentioned in literature apart from checklists (Steiner & Kabat, 2004; Zhang, 2008), and are apparently quite scarce in collections. Qi & Ma (1991) & Ma (2004) included the East China Sea in the range of distribution of *A. bambusa*, yet not referring to any voucher specimen. This record was then incorporated within the work by Zhang (2008). Moreover, *A. bambusa* is absent in the catalog by Wu & He (2019) which listed all mollusk species identified by those authors in the catches of Chinese trawlers operating in the East China Sea since 2004.

Remains of the soft parts could not be found in either ANUD-A or ANUD-B, these specimens were dead-taken. ANUD-A is chalky white, which corresponds to the eroded state in many scaphopods whose fresh shells are translucent (Henderson, 1920; Scarabino, 1995, 2008). ANUD-B, which is more intact than ANUD-A, is translucent and glossy, showing growth



lines. Unfortunately, the nature of the origin of these specimens precludes more accurate documentation of the environment from which they were collected. It is possible that, at one point in their life stages, the two individuals moved into the East China Sea in a single dispersal event. Further sampling is required to determine whether there is an established population of *A. bambusa* in the East China Sea.

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#### EDITORIAL NOTES

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