



A new species of *Varicospira* Eames, 1952 from Indonesia (Gastropoda, Stromboidea, Rimellidae)

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ABSTRACT

A new species of *Varicospira* Eames, 1952 from Indonesia is described as *Varicospira marjae* sp. nov. It is compared with *V. kooli* Moolenbeek & H. Dekker, 2007 from the Bay of Bengal, Myanmar. The genus *Varicospira* is with similar genera, based on shell morphology, removed from the Rostellariidae Gabb, 1868 and allocated in the Rimellidae R. B. Stewart, 1927.

Key words – Gastropoda, Rimellidae, *Varicospira*, Indonesia, taxonomy

INTRODUCTION

In the last two years many new species of Gastropoda have been described from Indonesia. New Indonesian tradesmen are selling the freshly collected shells from their home country on the international specimen shell market. Among the shells is a *Varicospira* Eames, 1952 species resembling *V. kooli* Moolenbeek & H. Dekker, 2007, but it differs from the latter species in certain aspects, for instance a larger size and different sculpture. This Indonesian species will be described below as a new species.

Varicospira is a genus with four valid extant species (MolluscaBase) in the tropical Indo-West Pacific. Nine extinct species (MolluscaBase) have been described, mostly from Indonesia (Miocene, and younger). For *Varicospira* and similar rather small shelled species contained in the family Rostellariidae Gabb, 1868 at present (MolluscaBase), another family name is available: Rimellidae R. B. Stewart, 1927. Currently, this family name is considered a synonym of Rostellariidae (MolluscaBase). Here, the family Rimellidae is considered again a valid family.



Abbreviations

L	Shell length
W	Shell width
AMD	(collection of) Aart M. Dekkers, Purmerend, the Netherlands
HD	(collection of) Henk Dekker, Winkel, the Netherlands
GV	(collection of) Goran Vertriest, Gent, Belgium
KdT	(collection of) Koenraad de Turck, Herzele, Belgium
ZMA	(collection of) Naturalis Biodiversity Center, Leiden, the Netherlands

TAXONOMY

Superfamily Stromboidea Rafinesque, 1815
Family Rimellidae R. B. Stewart, 1927 **revised status**

Diagnosis. – R. B. Stewart (1927: 366) coined the name Rimellinae as subfamily of the Strombidae, but he did not provide a diagnosis. The first diagnosis is given by Bandel (2007). Bandel (2007: 124) placed *Varicospira* in the subfamily Rimellinae R. B. Stewart, 1927 of the Rostellariidae, and defined this subfamily as: "Shell shape is spindle-like with whorls of the teleoconch ornamented by axial ribs and variable varices. The body whorl is of about the same height as the spire. The aperture is elongate with open short siphonal canal. Its outer margin is commonly elongate and pointed. The apical end of the outer lip forms together with the continuation of the callus of the inner lip a narrow canal that continues onto the spire. The outer lip may or may not have a distinct stromboid notch, that is a sinus next to the siphon". Squires (2013) used the subfamily Rimellinae in his review of North American species within this group.

Included genera. – *Rimella* Agassiz, 1841; *Dientomochilus* Cossmann, 1904; *Ectinochilus* Cossmann, 1889; *Strombolaria* De Gregorio, 1880; *Varicospira* Eames, 1952.

Discussion. – The herein reinstated family Rimellidae R. B. Stewart, 1927 contains small to medium sized genera (L roughly 20–40 mm) and generally have a stromboid notch. In contrast, Rostellariidae genera like *Rostellaria* Lamarck, 1799; *Rostellariella* Thiele, 1929; *Tenuitibia* Dekkers, 2020 and *Tibia* Röding, 1798, etc., are larger sized (L 40 to >300 mm) and lack a stromboid notch. The family Rostellariidae Gabb, 1868 is defined by Bandel (2007: 128, as Rostellariinae): "The spire consists of many whorls and sometimes is higher than the body whorl. The fully grown shell has a very high spire, a well-developed long rostrum, tooth-like or digit-like projections of the outer lip, and an operculum that seals the aperture. The apical canal that arises from the continuation of the upper end of the outer lip and the callus of the inner lip is short and curved backwards". Due to the distinct differences, both the Rostellariinae and Rimellinae are raised to family level herein. This opinion is shared by Ulrich Wieneke and collaborators (www.stromboidea.de, accessed on 2025-12-14).



Plate 1. *Varicospira* species. Figs 1-2. *Varicospira marjae* sp. nov. Fig. 1. Holotype, Indonesia, Sumbawa, "Labuan Bajo", dived 5-10 m, MNHN-IM-2000-28968, L 33.2 mm. Fig 2. Paratype 3, Indonesia, Sumbawa, "Labuan Bajo", dived, AMD, L 28.6. Fig. 3. *Varicospira kooli* Moolenbeek & H. Dekker, 2007, holotype, Myanmar, Rakhine Province, Ngapali beach, Jha Taw village; 18°15 N 94°20 E, at low tide; ZMA.MOLL.407015, L 23.2 mm. All shells are illustrated to scale.



Genus *Varicospira* Eames, 1952

Type species *Strombus cancellatus* Lamarck, 1822, by original designation

Varicospira was described as a subgenus of *Dientomochilus* Cossmann, 1904 for Eocene species from Pakistan, in the family Strombidae Rafinesque, 1815.

***Varicospira marjae* sp. nov.**

(Pl. 1 Figs 1-2)

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Description. – Shell slender, rather solid with about 10 whorls. Holotype L 33.2 mm, W 9.5 mm, the paratypes vary in length between 22.5 and 37 mm. Protoconch of three rather rounded, smooth whorls, followed gradually by a sculpture of only axial riblets. After about two whorls with axial riblets, spiral riblets gradually appear divided by narrow grooves; on the penultimate whorl about 17-18 spiral riblets. The axial ribs are always more prominent than the spiral riblets, which continue across the axial ribs and the interstices. On the penultimate whorl about 30 rather strong axial ribs. Body whorl generally only with axial ribs on the dorsal side, but sometimes also on the ventral side. Suture well marked; whorls half rounded. Spire with many dispersed varices.

Ventral side of the body whorl almost smooth, but axial ribbing faintly visible, especially on the upper and lower parts. The greater part of the ventral side of the body whorl is (glossy) smooth with hardly visible minor spiral grooves.

Anterior canal short and upturned. Posterior canal open, long, weakly curved (opisthocline), ending three whorls beyond the body whorl. Outer lip (varix) strong, heavy, with only a few axial growth lines on the flat outer part; on the dorsal side a clear gutter on which the spiral ribbing continues; the spiral ribbing continues over the flat part of the outer lip and turns into tiny dents on the rim; two or three of them form tiny denticles near the anterior canal. The strong outer lip is slightly curved with a hardly visible “stromboid notch” and with ridges on the inner side, the anterior ones the best visible and towards the posterior part of the rim becoming weaker to almost obsolete; the upper columellar side is smooth.

Colour dark brown to creamy tan with irregular brown blotches finally ending in three indistinct brown spiral bands on body whorl, more pronounced on the upper part of the cream coloured varix. On the ventral part of body whorl the three bands continue, losing the solidness; instead lots of brown zig-zags are present.

Aperture (inside) inner part of the labrum of purplish colored; broad, highly glossy, white columellar callus, becoming smaller towards the posterior part and ending on the ventral part of the second whorl, going further posteriorly as a brown left part of the posterior canal. Posterior canal brown, strongly curved (opisthocline), ends three whorls beyond the body whorl. Anterior canal violet in side, upturned, bending to the left (in dorsal view).

Variation. – The new species shows color variation, with some shells appearing notably lighter.



Holotype. – Indonesia, West Nusa Tenggara, Sumbawa, "Labuan Bajo", handpicked by divers from 5-10 m, MNHN-IM-2000-28968, L 33.2 mm, W 13.3 mm (Pl. 1 Fig. 1).

Paratypes. – All from Indonesia:

West Nusa Tenggara, Sumbawa, "Labuan Bajo": Paratype 1, AMD, L 36.1 mm; Paratype 2, AMD, L 35.9 mm; Paratype 3, AMD, L 28.6 mm (Pl. 1 Fig. 2); Paratype 4, AMD, L 24.5 mm; Paratype 5, AMD, L 26.31 mm; Paratype 6, AMD, L 25.9 mm; Paratype 7, HD 52153, L 37.0 mm; Paratype 8, HD 55535, L 36.9 mm; Paratype 9, HD 55542, L 31.2 mm; Paratype 10, KdT, L 27.6 mm; Paratype 11, KdT, L 24.3 mm; Paratype 12, KdT, L 34.7 mm; Paratype 13, KdT, L 27.3 mm; Paratype 14, GV, L 27.0 mm; Paratype 15, AMD, L 34.8; Paratype 16, AMD, L 37.7; paratype 17, HD 56917, L 23.8.

West Nusa Tenggara, Sumbawa, Bima: Paratype 18, AMD, L 33.5 mm; Paratype 19, AMD, L 26.3 mm; Paratype 20, AMD, L 25.3 mm; Paratypes 21-24, HD 56918, L 23.8, 23.4, 23.3, 22.5.

West Nusa Tenggara, Sumbawa, Rontu: Paratype 25, AMD, L 33.9 mm.

East Nusa Tenggara, East Flores, Lamakera: Paratype 26, AMD, L 25.9 mm.

Type locality. – Indonesia, West Nusa Tenggara, Sumbawa, "Labuan Bajo".

Distribution. – Only known from Indonesia, the coastal waters around the islands Sumbawa and Flores. Might be more widespread in Indonesian waters.

Etymology. – This species is named for Marja Hogenes, the author's wife, who has continually supported shell collecting on trips and holidays.

Comparison. – The new species is rather similar to *Varicospira kooli* Moolenbeek & H. Dekker, 2007 (Pl. 1 Fig. 3) described from the Bay of Bengal, Myanmar. This species is also known from India, Tamil Nadu (AMD, HD), Western Thailand (HD) and Sri Lanka. It is usually smaller (L around 22-27 mm), of a lighter color, and characteristic with a smooth thickened outer rim of the labrum, not bearing strong ribblets as in the new species. The open posterior canal, weakly curved (opisthocline), ends two whorls beyond the body whorl in *V. kooli* whereas in *V. marjae* sp. nov. it is stronger curved ending on the third whorl from the body whorl.

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