

**A new species of *Rostellariella* Thiele, 1929 from southern Java  
and the introduction of a new genus for *Gladius martinii* Maratt, 1877  
(Gastropoda: Rostellariidae)**

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**Key words:** Rostellariidae, new species, new genus, *Tenuitibia*, Indian Ocean, Pacific Ocean.

**Abstract:** A new species in the genus *Rostellariella* is described based on 3 recently collected shells from south east Java, Indonesia. *Rostellariella turcki* sp. nov. is compared with the fossil species *Rostellariella sumatrensis* Wissema, 1947. The fossil species *Rostellariella perlonga* (Koperberg, 1931) from Timor, Indonesia, is confirmed to be a valid species based on phylogenetic differences. Remarks are made on the possibility that this species is a senior synonym of the Recent *Rostellariella lorenzi* Morrison, 2005 from the Arafura Sea. A new genus *Tenuitibia* is proposed for *Gladius martinii* Maratt, 1877, until now placed in *Rostellariella*.

**Introduction:** Rostellariidae Gabb, 1868, a diverse family within the superfamily Stromboidea Rafinesque, 1815, is a family of charismatic marine snails with many delicate shells and some rare and much sought-after species. This is especially true for the genera *Tibia* Röding, 1798 and *Rostellariella* Thiele, 1929. The difference between the two genera is not that big: in species belonging to the genus *Rostellariella*, the first whorls are devoid of small axial ribs and the parietal edge of the opening shows no protuberance (Thiele 1929: 253). Species of *Tibia* have small axial ribs on the first whorls and are “oben mit einer warzenförmigen Verdickung” (Thiele, 1929).

The new species *R. turcki* is a conchological surprise, just like the rare *R. lorenzi* Morrison, 2005 was a big surprise to collectors of Stromboidea. New fishing grounds and / or methods render these new deep-water species. The new species is only known from 3 shells from the same locality off south Java.

**Methods:** The new species is compared to both Recent and fossil members of the family, based on shells and on literature study. During this study it became sufficiently clear that *Gladius martinii* Maratt, 1877 does not belong to the genus *Rostellariella*. Therefore the new genus *Tenuitibia* is proposed.

**Abbreviations:**

**AMD:** collection Aart Marinus Dekkers, Purmerend

**MNHN:** Musée Nationale d’Histoire Naturelle, Paris

**H:** Height

**W:** width measured on the shoulder, without the aperture

**Systematics:**

Superfamily: Stromboidea Rafinesque, 1815

Epifamily: Neostromboidea Maxwell, Dekkers, Rymer & Congdon, 2019

Family: Rostellariidae Gabb, 1868

Genus: *Rostellariella* Thiele, 1929

Type species by monotypy: *Rostellaria delicatula* G. Nevill, 1881.

Original diagnosis: Gewinde mässig hoch, obere Windungen ungerippt, die übrigen oft mit Spiralskulptur, Spindelschwiele ohne warzenförmige Verdickung (Thiele 1929: 253).

Translated: Shell moderately high, upper whorls unribbed, the rest often with spiral sculpture, callus without wart-shaped thickening.

***Rostellariella turcki* sp. nov.**

**Type material:** **Holotype** MNHN-IM-2000-3575, H 112.1 mm, W 34.4 mm. **Paratype 1:** AMD STR3580, H 116.9, W 34.8 mm. **Paratype 2:** collection Koenraad De Turck, H 113.2 mm.

**Type locality:** Off south coast of Pandagaran Bay, South east Java, Indonesia

**Range:** So far only known from the type locality

**Description:** Shell large, thick, conical, with convex whorls. Nuclear whorls smooth, rounded, not separated from the spire, 3 whorls. Spire angle to 20.1° (Paratype 1) 20.8° (Holotype). On the earlier whorls distinct axial thickenings, somewhat looking like old growth stages occur. There are about 14-15 flat spiral ribs divided by equal grooves on the whorls. Towards the last whorl, starting at the end of the penultimate whorl, the spiral ribbing gradually disappears to become completely obsolete at mid-whorl. On the last whorl only superficial axial growth lines and some spiral lines near the siphonal canal are visible. The suture is rather shallow, because the whorls are little depressed under it. The body whorl, combined with anterior canal, comprises approximately 50% of the length of the shell. The columellar callus is indistinct or obsolete. The outer lip is slightly thickened internally. The posterior canal is distinct and dorsally curved. The outer lip is comprised of a convex thickened section, bearing a distinct dentation of five evenly spaced short digits. The protoconch is white. The outer lip callus is lined with orange. The columellar callus and aperture are white. The shell has a tan color. The body whorl has 5 distinct white spiral lines of about 1.5 mm ending in the 5 dents on the outer lip. These lines are partly visible on the previous whorls.

Periostracum and operculum unknown.

**Etymology:** Named after Koenraad De Turck, Belgium, a specialist in the family and allied families like Strombidae. He contributed much to the plates of "The Family Strombidae" in the Conchological Iconography directed by Guido Poppe & Klaus Groh (Kreipl et al, 1999). Although partially outdated, it is still a popular source for collectors and just like Abbott (1960) a starting point for the study of Strombidae. Many of his shells were depicted on the plates.

**Variation:** the 3 known specimens do not vary much. All 3 have the distinct 5 white bands ending in 5 digits on the apertural rim.

**Comparison:** The new species differs from all current species in *Rostellariella*, except *R. sumatrensis* Wissema, 1947, by the many spiral ribs on the shell. Some specimens of *R. delicatula* have a weak spiral ribbing, but never as prominent as in the new species. *R. sumatrensis* is a slenderer shell, spire angle about 17° (measured on

the photo of the type), though nothing can be said about the last whorl and aperture as that is missing in the holotype of *R. sumatrensis*. On the sixth whorl the whole surface of the whorl is covered by 13 flat spirals (from the original description of *R. sumatrensis*), whereas the new species has 14-15 flat spirals. *R. sumatrensis* is most likely a fossil from the Pleistocene or young Quaternary. This species is likely very closely related to the new Recent species as it shares the general outlook of the new species.

**Remarks:** All 3 types are of low quality. They have cracks on the body whorl, lack dents, lack the anterior spines and paratype 1 lacks the early whorls.

### *Rostellariella perlonga* (Koperberg, 1931)

This fossil species was described by Koperberg as *Rostellaria* (s. str.) *delicatula perlonga* (Koperberg, 1931: 126)

**Original description:** "Schon Kuenen erkannte die Identität der vorliegenden Stücke mit der *R. delicatula* NEVILL von Tesch (95, II), die nachher meinerseits in Delft bestätigt wurde. Nur scheinen die Jonkerschen Exemplare alle schlanker als die rezenten zu sein (R.M.N.H.: Meerbusen von Bengalen) und ist der Hinterrand des Mundes stärker aufwärts gebogen, die Kolumella aber weniger gekrümmt; auch weicht die Form des Protokonchs ab. Unter Hinweis auf die Beschreibung von Tesch wäre noch zu bemerken: ein polygyrer, haubenförmig angesetzter Protokonch mit sehr winzigem Nukleus und gewölbten, glatten Anfangswindungen, gefolgt von konoiden, deren letzte nahe an der Vordersutur eine ziemlich deutliche Karina aufweist. Die Mittelwindungen glatt, die Suturen untief. Erst von dem vierten oder fünften Umgange an treten an der Hintersutur 1- 3 Spiralfalten auf, zu denen sich nachher noch schwächere vordere gesellen ohne die ersteren jemals zu überherrschen. Sonst sind die Schalen fast glatt, und auch nicht mit älteren Mundsäumen verziert wie Tesch für seine Stücke angibt. Doch zeigen einige, wie dieser Autor schon bemerkte, eine mehr auffällige Spiralskulptur (95, II)"

**Translated:** Kuenen already recognised the identity of the present specimens with *R. delicatula* Nevill of Tesch (95, II), which was later confirmed by me in Delft. Only the Jonker specimens seem to be all slimmer than the recent ones (R.M.N.H.: Bay of Bengal) and the posterior edge of the mouth is bent more upwards, but the columella is less curved; the shape of the protoconch also deviates. With reference to the description by Tesch, it

should also be noted: a polygyrid, hood-shaped protoconch with a very tiny nucleus and curved, smooth initial whorls, followed by conoids, the last of which has a fairly clear carina close to the front suture. The middle whorls smooth, the suture shallow. It is only from the fourth or fifth whorl that 1 to 3 spiral folds appear on the posterior suture, to which even weaker ones subsequently join without ever dominating the former. Otherwise, the shells are almost smooth, and are not decorated with older varices, as Tesch says for his pieces. However, as this author has already remarked, some show a more striking spiral sculpture (95, II)

**Type locality:** Timor, Indonesia

**Type stratification:** Pliocene

**Remarks:** The shell characteristics that stand out are the almost straight whorls and the spiral ribs ('carina') immediately under the suture. This (translated) description indicates that this fossil species is not *R. delicatula* and I reinstall it as full species. This fossil from Timor is most similar to *R. lorenzi* Morrison, 2005. It is a pity that all the collected specimens held at NCB Naturalis (= R.M.N.H.) lack the aperture. It is impossible to make clear if *R. perlonga* is the same species as described by Morrison from the Arafura Sea, which is bordered by Timor; almost the same locality. Moreover, the stratification (Pliocene) could be younger as in the past stratifications were determined by the percentage of species that got extinct: the more extinct species, the older the age. This is a very inaccurate method. *R. lorenzi* Morrison, 2005 might be the same species and thus a junior synonym of *R. perlonga*.

*Rostellariella barbieri* Morrison, 2008 from the Philippines is very similar to *R. lorenzi* and only differs in minor details, especially in having a different number of dents on the outer lip. Only 3 examples of this species are known. The number of dents can be variable in this genus (synonyms of *R. delicatula*: *Tibia delicatula* var. *quatuordenticulata* Melvill & Standen 1905; *Tibia delicatula* var. *quinquedenticulata* Melvill & Standen 1905; *Tibia delicatula* var. *tridenticulata* Melvill & Standen 1905) and in *Tibia*. Thus the variability in the number of teeth is of little value to determine a species. Considering the large distance from the other species in the genus *R. barbieri* Morrison, 2008 is found at and the ultimate rarity, *R. barbieri* Morrison, 2008 might be a synonym of *R. lorenzi* Morrison, 2005.

## *Tenuitibia* gen. nov.

**Type species:** *Gladius martinii* Murrat, 1877, pl. 1

**Diagnosis:** Shells lightweight, thin-walled, upper whorls are not costate, closely-placed and remarkably fine striae, body whorl bulbous, aperture elongated with outer edge of the lip bearing 5-6 short teeth, the rim does not reach the suture of the body whorl, posterior canal present and straight, the anterior canal short and straight.

**Etymology:** A combination of the Latin verb 'tenuis' meaning thin and *Tibia*, the well-known genus it looks like.

**Range:** East China Sea and Philippines.

**Included species:** Only the type species.

**Comparison:** The proposed genus is introduced to contain the single known species with shell characteristics that stand out from *Tibia* and *Rostellariella*. It differs from *Rostellariella* by its thin-walled shell instead of being thick and heavy, the shape of the shell, which is more bulbous in the final whorl and its straight instead of bent anterior canal. It mainly differs from *Tibia* in not having the axial ribbing in the early spire whorls and by being thin-walled instead of thicker-walled and its straight instead of dorsally recurved posterior canal.

**Remarks:** *Gladius Martinii* Murrat, 1877, a well-known deep-water species from China Seas and the Philippines is markedly different and does not fit in either of the genera *Rostellariella* and *Tibia*. It has until now been placed in *Rostellariella* due to the missing axial ribs on the early whorls, but the shell is more bulbous, the dentition on the apertural rim is different and the shell is very thin and lightweight compared to the other members of the genus. Moreover, almost all other members of *Rostellariella*, except for *R. barbieri* Morrison, 2008 from the Philippines, live in a small band ranging from India/Birma/ Andaman Sea (*R. delicatula* (Nevill, 1881)) and fossil from Indonesia, Nias Island west of Sumatra (*R. sumatrensis* Wissema, 1947) and Recent from south Java (*R. turcki* new species, herein) to the Arafura Sea of Indonesia (*R. lorenzi* Morrison, 2005).

*Gladius martinii* Murrat, 1877 also lives in deep waters of the China Sea and the Philippines. There is a large distance in distribution compared to the members in

*Rostellariella*, also supporting the wrong placement in this genus. Therefore, the new genus *Tenuitibia* is introduced herein.

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### Plate 1:

1-2: *Rostellariella turcki* sp. nov.

1: Holotype

2: Paratype 1. AMD STR3580. H 116.9

3: *Rostellariella delicatula* Nevill, 1881

AMD STR0235. Dredged off Madras, India, September 1992. H 81.8 mm.

4: *Rostellariella lorenzi* Morrison, 2005.

AMD STR3571. North West Australia, trawled in deep water, 2008.

### Plate 2:

5: *Rostellariella sumatrensis* Wissema, 1947

Holotype; pl. 4, fig. 107, 108.

H 71.0 mm, W. 20.8 mm.

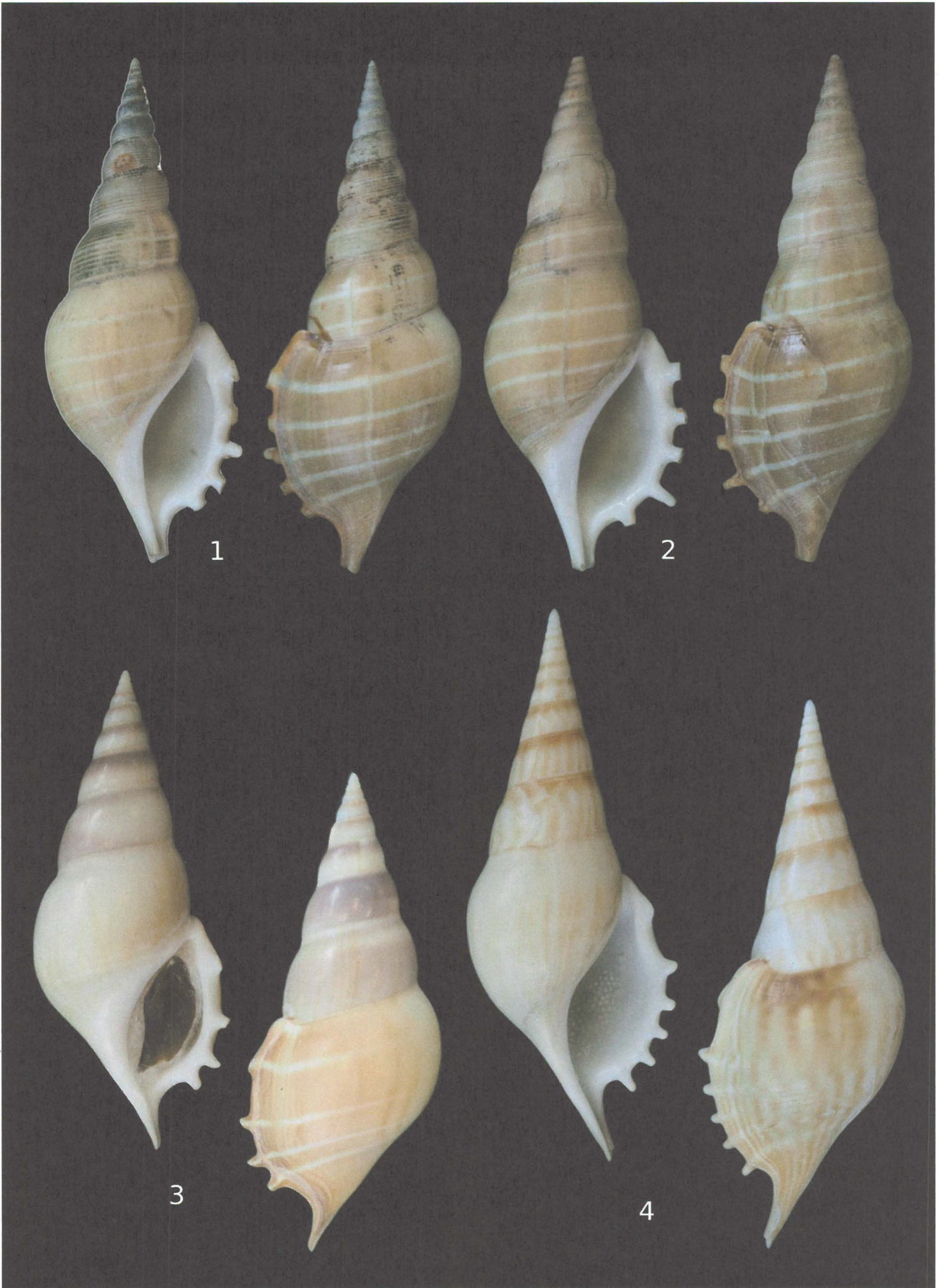
6: *Rostellariella perlongata* (Koperberg, 1931)

*Rostellaria delicatula perlonga* Koperberg, 1931, Pliocene; Timor Island, Indonesia; 61 mm; Coll. Naturalis

(Copyright Naturalis)

7: *Tenuitibia martinii* (Marrat, 1877)

AMD STR1373. Philippines, Calituban Island. By scuba diver in sand at 20-30 metres, January 2004.





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St: 17792.

ROSTELLARIA (S.STR.) DELICATULA NEVILL  
 SUBSPEC. PERLONGA N. SPEC.  
 TIMOR

INDO-PACIFIC COLLECTIE  
 Lade: IP 353  
 Land: Indonesia, Timor  
 Age: Pliocene  
 Coll.: Van Dijk coll., det.  
 K. Martin/Koperberg



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