

# Description of two new species of the genus *Reticunassa* (Gastropoda: Nassariidae)

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does not belong to *Reticunassa* but should be transferred to the genus *Nassarius* Duméril, 1806.

## Abstract

Two new species of the genus *Reticunassa*, *R. goudi* spec. nov. and *R. microstriata* spec. nov., from the Western Pacific are described.

**Key words.** Gastropoda, Nassariidae, *Reticunassa*, new species, New Caledonia, Fiji, Tonga.

**ZooBank registration.** urn:lsid:zoobank.org:pub:2E1BFB77-3BEF-4751-A5BE-9EBE7E481142

## Introduction

Cernohorsky (1984: 176) treated the *Nassa paupera*-complex as a single, variable species: *Nassarius pauperus* (Gould, 1850). However, intensive study has since showed that this species forms a complex of many species. Several species that he considered synonyms are now valid taxa and additional new species have been described (Kool & Dekker, 2006, 2007). Since the molecular study by Galindo et al. (2017), the species in this complex have been transferred to a separate, reinstated, genus *Reticunassa* Iredale, 1936 within the subfamily Nassariinae. In the three papers by Kool & Dekker (2006, 2007) and Galindo et al. (2017), several taxa have been taken out of the synonymy of *N. pauperus* and 11 species were described as new. This Indo-West Pacific group of species have mostly elongate, slender shells between 5 and 16.5 mm long. Most species in this genus are characterized by having a shell sculpture of primary spiral cords with some fine, evenly spaced secondary spiral striae between these cords. The protoconch is unkeeled and either paucispiral or multispiral. The columellar callus varies in sculpture and shape: it is either strictly confined to the columella or spread over a part of the last whorl. Subadult or worn specimens in this complex are hardly identifiable. In this paper, two new species of *Reticunassa* are described on the basis of empty shells, making a total of 29 species in this genus. *Reticunassa festiva* (Powys, 1835), as included by WoRMS in this genus,

## Abbreviations

CG	Carles Gili collection, Barcelona, Spain
HD	Henk Dekker collection, Winkel, the Netherlands
HK	Hugo H. Kool collection, Dieren, the Netherlands
MNHN	Muséum national d'Histoire naturelle, Paris, France
NBC	Naturalis Biodiversity Center, Leiden, the Netherlands
RMNH	Rijksmuseum van Natuurlijke Historie, Leiden (now part of NBC)
stn	station
[ ]	number of specimens

## Systematics

### Family Nassariidae Iredale, 1916 (1835)

#### Genus *Reticunassa* Iredale, 1936

**Type species.** *Nassa paupera* Gould, 1850, by original designation (Iredale, 1936: 322).

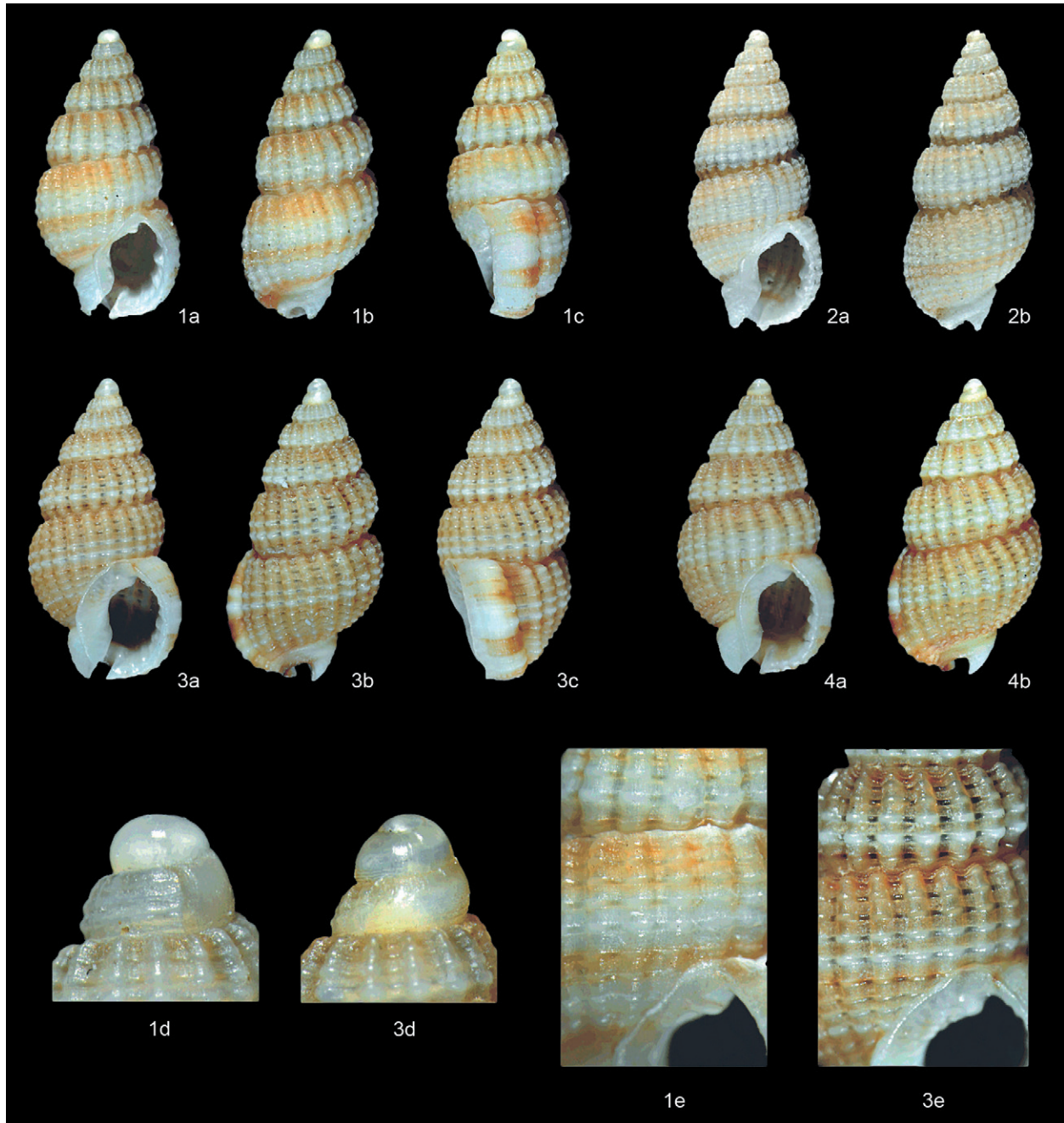
#### *Reticunassa goudi* spec. nov.

Figure 1, 2

**ZooBank registration.** urn:lsid:zoobank.org:act:0BE8C8D5-393A-4080-9E04-66C44F26EF6B

**Holotype.** MNHN IM-2000-33620, SUVA 2 1998 expedition, station BS2, Fiji Islands, Viti Levu, 18°10.1'S 178°28.6'E, depth 24 m, length 6.8 mm, width 3.0 mm.

**Description of holotype.** Protoconch paucispiral, creamy, shiny and smooth, consisting of 1¼ whorls. Shell elongated, teleoconch consisting of 5 whorls; ribs equally thick and round, 17 on penultimate whorl and 15 on last whorl, varix thick and broad, suture deep. Spiral sculpture: primary spiral cords roundish, overriding ribs, equally strong on and between ribs, 6 on penultimate whorl and 10



**Figures 1–4.** *Reticunassa* species. **1, 2.** *Reticunassa goudi* spec. nov. **1a–e.** Holotype MNHN- IM-2000-33620, expedition SUVA 2 1998, station BS2, Fiji Islands, Viti Levu, 18°10.1'S 178°28.6'E, 24 m, length 6.8 mm, width 3.0 mm. **1a–c.** Ventral, dorsal and lateral view. **1d.** Protoconch. **1e.** Axial and spiral sculpture. **2a, b.** Paratype MNHN-IM-2000-33621, same locality as holotype, length 7.1, width 3.0 mm. **3, 4.** *Reticunassa microstriata* spec. nov. **3a–e.** Holotype MNHN-IM-2000-28296, New Caledonia, Touho Region, Haut-Fond de Tié, 20°52.7'S 165°19.5'E, 5–25 m, length 7.1 mm, width 3.7 mm. **3a–c.** Ventral, dorsal and lateral view. **3d.** Protoconch. **3e.** Axial and spiral sculpture. **4a, b.** Paratype MNHN-IM-2000-28295, same locality as holotype, length 7.0 mm, width 3.7 mm.

on last whorl. Siphonal area with 1 strong and 3 low ridges. Sulcus deep and with fine axial growth lines. Fine spiral striae between primary spiral cords, best visible between ribs (magnification 25×). Aperture oval; edge of outer lip thick, inside with 8 lirate denticles, peripheral one strongest; siphonal pleat strong. Columellar callus well bordered and strictly limited to columella, somewhat raised

anteriorly, with 3 low denticles and a stronger parietal pleat; anal canal wide; siphonal canal narrow. Color whitish, with a yellowish to orange subsutural band on and between the first 1–3 primary cords; last whorl with 2 more bands on and between the 2 primary cords just below periphery, and at base, all bands darker near and on varix. Operculum unknown

**Variability.** There is no considerable variation in color, but bands often weak. The size varies from 5.3–7.2 mm.

**Type locality.** South Pacific Ocean, Fiji Islands, Viti Levu, South lagoon, 18°10.1'S 178°28.6'E, depth 24 m.

**Paratypes.** Fiji Islands, SUVA 2 1998, stn BS2, Viti Levu, South Lagoon, 18°10.1'S 178°28.6'E, depth 24 m, MNHN IM-2000-33621 [32], NBC RMNH.5006729 [1]; HK 543.01 [2], CG 2590-N [1], HD 47519 [2].

**Other material examined.** **Fiji Islands.** MUSORSTOM 10 1998: stn CP1364, S of Viti Levu, 18°11.9'S 187°34.5'E, depth 80–86 m, MNHN [1]. SUVA 2 1998: stn BS26, Viti Levu, South Lagoon, 18°08.9'S 178°29.7'E, depth 113 m, MNHN [1]; stn BS27, Viti Levu, South Lagoon, 18°08.4'S 178°23.9'E, 63 m, MNHN [2], HK 543.03 [1]. BORDAU 11999: stn DW1439, 17°11'S 178°44'W, depth 173–180 m, MNHN [1]. SUVA 4 1999: stn DW04, Viti Levu, 18°12'S 178°35'E, depth 100–122 m, MNHN, [7], HK 543.02 [1]; stn DW08, Viti Levu, 18°22.3'S 178°02'E, depth 28–30 m, MNHN [1]; stn DW09, Viti Levu, Beqa Lagoon, 18°21.4'S 178°06.3'E, depth 37–41 m, MNHN [2]. **Tonga Islands.** BORDAU 2 2000: stn DW1567, NW Tongatapu, 21°02'S 175°19'W, depth 351–356 m, MNHN [1].

**Habitat.** Living in grayish mud at depths of 28–356 m.

**Distribution.** Only known from the Fiji Islands and Tonga Islands.

**Etymology.** Named after Jeroen Goud, curator malacology at NBC for giving access to the collection and his everlasting willingness to help.

**Remarks.** *Reticunassa goudi* spec. nov. looks like *R. paupera* (Gould, 1850) but the latter has a multispiral protoconch of 2½ whorls. Two other species from the Fiji Islands are *R. poppeorum* (Galindo, Kool & Dekker, 2017) with a multispiral protoconch of 2½–2¾ whorls and *R. tringa* (Souverbie, 1864) with a paucispiral protoconch, but larger in size (up to 12.2 mm), more bulbous and with lower axial ribs, especially on the last whorl.

***Reticunassa microstriata* spec. nov.**

Figures 3, 4

**ZooBank registration.** urn:lsid:zoobank.org:act:19D141A5-EB55-466C-A7BB-9170AC83E93B

**Holotype.** MNHN IM-2000-28296, Expedition Montrouzier 1993, stn 1271, New Caledonia, Touho Region, Haut-Fond de Tié, 20°52.7'S 165°19.5'E, depth 5–25 m, length 7.1 mm, width 3.7 mm.

**Description of the holotype.** Protoconch multispiral, glassy, consisting of 2–2¼ whorls, last 1½ whorls with 3 or 4 fine, wavy ridges (magnification 25×). Teleoconch consisting of 5 whorls of which last 2 obviously convex; penultimate whorl with 14, last whorl with 17 equal, rounded ribs at equal distances; varix broad. Suture deep. Spiral cords prominent, 7 on penultimate whorl and 11 or 12 on last whorl. All cords equally thick. Between cords microscopic spiral striae, hardly visible even at strong magnification

(45×). Siphonal area with 5 or 6 low cords. Some spaces between cords and ribs transparent. Aperture roundish, outer lip thick and with varix, inside with 8–10 low, lirate denticles and a stronger siphonal pleat; columellar callus with weak lirae throughout; parietal denticle strong. Callus somewhat raised and slightly curving over last whorl; anal canal wide; siphonal canal narrow. Color white, with sub-sutural yellowish band, darker at suture; last whorl with 2 more bands, 1 below periphery, and 1 at base; bands darker on varix and siphonal edge; outer lip and columellar callus white. Although several specimens were live taken, but the opercula were lost.

**Variability.** The size varies between 5.5–7.4 mm; dead-collected specimens uniformly whitish to yellowish.

**Type locality.** New Caledonia, Touho Region, Haut-Fond de Tié, stn 1271, 20°52.7'S 165°19.5'E, depth 5–25 m.

**Paratypes.** **New Caledonia.** Expedition Montrouzier 1993: stn 1269, Touho Region, Lagon du grand Récif Mangalia, 20°35.1'S 165°08.1'E, depth 15–20 m, MNHN IM-2000-17651 [14], NBC RMNH.5006730 [1], HK 542.02 [2], HD 47518 [2]; type locality, MNHN IM-2000-28295 [20], HK 542.01 [2], CG 2591-N [1].

**Other material examined.** **New Caledonia.** LAGON 1986, Richer-ORSTOM Coll.: Secteur de Yaté, stn 619, 22°03'S 166°54'E, 27–42 m, MNHN [3]; Secteur de Yaté, stn 621, 22°01'S 166°53'E, depth 55–56 m, MNHN [1]; Secteur de Thio, stn 677, 21°37'S 166°22'E, depth 32 m, MNHN [1]; Secteur de Canala, stn 729, 21°19'S 165°54'E, 42–45 m MNHN [1]. Expedition Montrouzier 1993, Secteur de Touho: stn 1251, Baie de Touho, 20°46.0'–20°46.5'S 165°13'–165°14'E, depth 6–15 m, MNHN [1]; stn 1256, Lagon devant Vieux-Touho, 20°45.0'S 165°09.8'E, depth 15–20 m, MNHN [5]; stn 1260, Banc de Touho, 20°44'S 165°14'E, depth 49–59 m, MNHN [2], HK 542.04 [1]; stn 1261, Chenal de Touho, 20°46'–20°47'S, 165°15'–165°16'S, depth 45–56 m, MNHN [40]; stn 1265, Lagon du Grand Récif Mangalia, 20°40.8'S 165°14.2'E, depth 15–30 m, MNHN [1]; stn 1270, Grand Récif Mangalia, 20°45.5'S 165°16.5'E, depth 10–35 m, MNHN [1]; stn 1272, Passe de Touho, 20°49.5'S 165°19.6'E, depth 10 m, MNHN [1]; stn 1273, Passe de Touho, 20°50.4'S 165°22.8'E, depth 20 m, MNHN [12]; stn 1275, Passe de Touho, 20°49'S 165°17'E, depth 50–62 m MNHN [4], HK 542.03 [1]. BATHUS 1 1993: stn DW1233, Canal Woodin, 22°23.5'S 166°47.6'E, depth 45–50 m, MNHN [2]. **Vanuatu.** SANTO 2006: stn DS99, NW Tutuba Island, 15°32.5'S 167°16.9'E, depth 100–105 m, MNHN [2]; stn EP19, NW coast of Malo Island, 15°37.5'–38.0'S 167°05.1'–05.6'E, depth 80–94 m, MNHN [2]; stn EP34, E Aoré Island, off Aimbué Bay, 15°33.2'–33.3'S 167°12.8'–12.9'E, depth 40–60 m, MNHN [1]; stn EP39, W Tutuba Island, 15°33.6'–33.7'S 167°16.3'–16.5'E, depth 75–80 m MNHN [1].

**Habitat.** Living at depths of 5–105 m, in sand and mud.

**Distribution.** Only known from New Caledonia and Vanuatu.

**Etymology.** The name is derived from the ultrathin microscopic spiral striae between the primary spiral cords.

**Remarks.** The somewhat wavy ridges on the last whorl of the protoconch are comparable with those on the protoconch of *Reticunassa silvardi* Kool & Dekker, 2006, but the latter has axial striae between the cords (Galindo et al., 2017: fig. 2B, D), whereas *R. microstriata* spec. nov. has spiral striae between the primary cords. The regular and decorative sculpture of *R. microstriata* spec. nov. is comparable with the appearance of *R. paupera* (Gould, 1850) as figured by Galindo et al. (2017: fig. 3A–C), but the protoconch of the latter is pointy and the columellar callus is not raised. The most distinguishing character between *R. microstriata* spec. nov. and *R. goudi* spec. nov. is the protoconch: multispiral in the former and paucispiral in the latter. *Reticunassa goudi* spec. nov. as well as *R. microstriata* spec. nov. are among the smallest species of their genus.

Nowadays, 29 species of *Reticunassa* Iredale 1936 are known, including the two species described as new here. *Reticunassa festiva* (Powys, 1835) does not belong to this genus, as included in WoRMS (2022). There is no underlying research justifying this position, the originally named *Nassa festiva* Powys, 1835 has a shell shape and sculpture differing from *Reticunassa* species. The correct genus for this species is *Nassarius*.

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