

## Two new species of *Mitrella* (Gastropoda: Neogastropoda: Columbellidae) from the Philippines

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**KEYWORDS.** Gastropoda, Neogastropoda, Columbellidae, *Mitrella*, Philippines.

**ABSTRACT.** Two new species of Columbellidae: *Mitrella suduirauti* sp. nov. and *Mitrella vosvictori* sp. nov. are introduced as new to science. They originate from the Sulu Sea, Central Philippines and are most often found around Aliguay Island. *Mitrella suduirauti* is compared with its closest congeners: *Mitrella alofa* (Hedley, 1899), *Mitrella mindorensis* (Reeve, 1859), *Mitrella yabei* (Nomura, 1935) and *Mitrella turriculata* (Yokoyama, 1922). *Mitrella vosvictori* is compared with *Mitrella baculus* (Reeve, 1859), *Mitrella conspersa* (Gaskoin, 1852) and *Mitrella puella* (Sowerby, 1844).

### INTRODUCTION

The genus *Mitrella* Risso, 1826 is well-represented throughout the Indo-Pacific region, with high species diversity in Indonesia and the Philippines. However, the family Columbellidae in the region has seldom been subject of recent surveys, apart from Drivas & Jay (1990; 1997) for Reunion Island and the western Indian Ocean and Sleurs (1985; 1987) for northern Papua New Guinea. For other regions, one must always resort to the classic authors from the nineteenth century, such as Reeve, Sowerby and Gaskoin.

Among the many specimens of *Mitrella* acquired from the central Philippines, two unidentifiable species regularly turned up. The first one was at first confused with *M. yabei* due to the juvenile stage of the shells, but additional adult material revealed that we were faced with a yet undescribed species. It is hereby introduced as *M. suduirauti* sp. nov. The other one was usually identified as *M. baculus* due to the unclear figures in Reeve (1859), but examination of the type material in the NHM and Reeve's text revealed that it was a separate, yet undescribed species. It is hereby introduced as *M. vosvictori* sp. nov.

### Abbreviations

AD: Personal collection Aart Dekkers, Blokker, The Netherlands.

ANSP: Academy of Natural Sciences of Philadelphia, Philadelphia, USA.

DG: Personal collection De Donder-Goethaels, Peutie, Belgium.

DM: Personal collection David Monsecour.

KM: Personal collection Kevin Monsecour.

MNHN: Muséum national d'Histoire naturelle, Paris, France.

MV: Personal collection Maria Vos, Rillaar, Belgium.

NHM: Natural History Museum, London, United Kingdom.

NMP: National Museum of the Philippines, Manila, Philippine Islands.

RMBR: Raffles Museum of Biodiversity Research, Singapore.

### SYSTEMATICS

Family COLUMBELLIDAE Swainson, 1840

Subfamily ATILIINAE Cossmann, 1901

Genus *Mitrella* Risso, 1826

Type species by subsequent designation (Cox, 1927):

*Mitrella flaminea* Risso, 1826. Recent, Mediterranean.

*Mitrella suduirauti* sp. nov.

Figs 1-5

**Type locality.** Philippines, Sulu Sea, ENE of Dipolog (northern Mindanao), Aliguay Island, 140-160 m deep.

**Type material.** Holotype, MNHN 20847, length 21.6 mm, width 6.9 mm.

Paratype 1-2, MNHN 20848 (Panglao Marine Biodiversity Project, Stn. L.49: 9°36.5'N, 123°45.3'E, 90 m deep); Paratype 3, ANSP (from type locality); Paratype 4, RMBR ZRC.MOL.2827 (from type locality); Paratype 5, NMP (from type locality); Paratypes 6-7, KM (from type locality); Paratypes 8-9, DM (from type locality); Paratype 10, AD (from type locality).

**Description.** Shell large for the genus, adult size 19.9-27.6 mm; fusiform, elongate. Teleoconch consisting of  $9\frac{1}{2}$  -  $10\frac{1}{2}$  straight whorls; protoconch multispiral, consisting of  $2 - 2\frac{1}{4}$  whorls. Protoconch with microscopic crenulations; transition to teleoconch marked by appearance of axial and spiral sculpture. First five teleoconch whorls with numerous clearly visible, close-set axial ribs, disappearing on further teleoconch whorls. Spiral sculpture strong on uppermost 6 teleoconch whorls, forming beads on intersections with axial sculpture; spiral sculpture thus extending one whorl further than axial sculpture. Lower whorls smooth. Suture straight, shallow. Upper teleoconch whorls strongly shouldered, yet becoming more rounded towards the body whorl. Body whorl about 50-55% of total shell length, adorned with 16-19 basal cords; strong and clearly visible near the abapical end, yet becoming more obsolete adapically. Outer lip thickened, with a strong axial bump, smooth outside, with 7 or 8 denticles on apertural side, not extending into the aperture. Columellar callus thickened, marked by distinct rim. Columella with 7 or 8 central denticles. Siphonal canal short, half-open, slightly curved backwards. Shell colour: protoconch off-white, upper 4 or 5 teleoconch whorls uniformly brown, further teleoconch whorls yellow to chocolate brown, with a band of brown and white dots just below suture. This pattern sometimes covers entire teleoconch whorls. Aperture pinkish off-white, denticles whitish. Animal, operculum and periostracum unknown.

**Comparison.** *Mitrella suduirauti* differs from *M. yabei*, the species it was at first confused with, by its larger size (about 2.5 X) and the spiral sculpture on the first 5 teleoconch whorls. *M. yabei* only shows axial sculpture.

The most similar species known is *M. alofa*, which differs from *M. suduirauti* by its smaller size, lower number of teleoconch whorls (about  $7 - 7\frac{1}{2}$ ) and its paucispiral protoconch. They share the axial and spiral sculpture on the first teleoconch whorls and the overall shape of the aperture.

*Mitrella mindorensis* differs by its smaller size (1/2 X), the lack of spiral and axial sculpture, the semi-

translucent shell, the wider, more rounded aperture, the less strong columellar callus and the general shape of the upper teleoconch whorls which are not shouldered.

*Mitrella turriculata* differs by the smaller size (1/2 X), the more convex whorls, the smooth teleoconch whorls, the smaller number of teleoconch whorls (about 5), the more bulbous protoconch and the less strong columellar callus without rim.

**Etymology.** *Mitrella suduirauti* is named in honour of Mr. Emmanuel Guillot De Suduiraut (Lapu Lapu City, Philippines) for bringing this species to our attention and for his kind donation of the holotype.

*Mitrella vosvictori* sp. nov.

Figs 9-13

**Type locality.** Philippines, Sulu Sea, ENE of Dipolog (northern Mindanao), Aliguay Island, 160-300 m deep. (actual depth to be confirmed).

**Type material.** Holotype, MNHN 20816, length 21.3 mm, width 8.3 mm.

Paratypes 1-2, MNHN 20817 (Philippines, Panglao Region, Balicasag Island. In tangle nets and Lumun Lumun. 'deep water'), Paratype 3, RMBR ZRC.MOL.2828 (from type locality); Paratype 4, ANSP (from type locality); Paratype 5, NMP (from type locality); Paratypes 6-7, KM (from type locality); Paratypes 8-9, DM (from type locality); Paratypes 10-14, DG (from type locality); Paratype 15, MV (from type locality).

**Description.** Shell large for the genus, adult size 19-24.5 mm; fusiform, elongate. Teleoconch consisting of  $7\frac{1}{3}$  -  $7\frac{3}{4}$  straight whorls; protoconch multispiral, consisting of  $2 - 2\frac{1}{3}$  bulbous whorls. Protoconch with microscopic crenulations; transition to teleoconch very gradual, almost invisible. Axial and spiral sculpture absent; whorls completely smooth. Suture straight, shallow. Upper teleoconch whorls strongly shouldered, yet becoming less shouldered towards the final whorl. Body whorl about 60% of total shell length, adorned with 11-13 basal cords;

## Figures 1-16

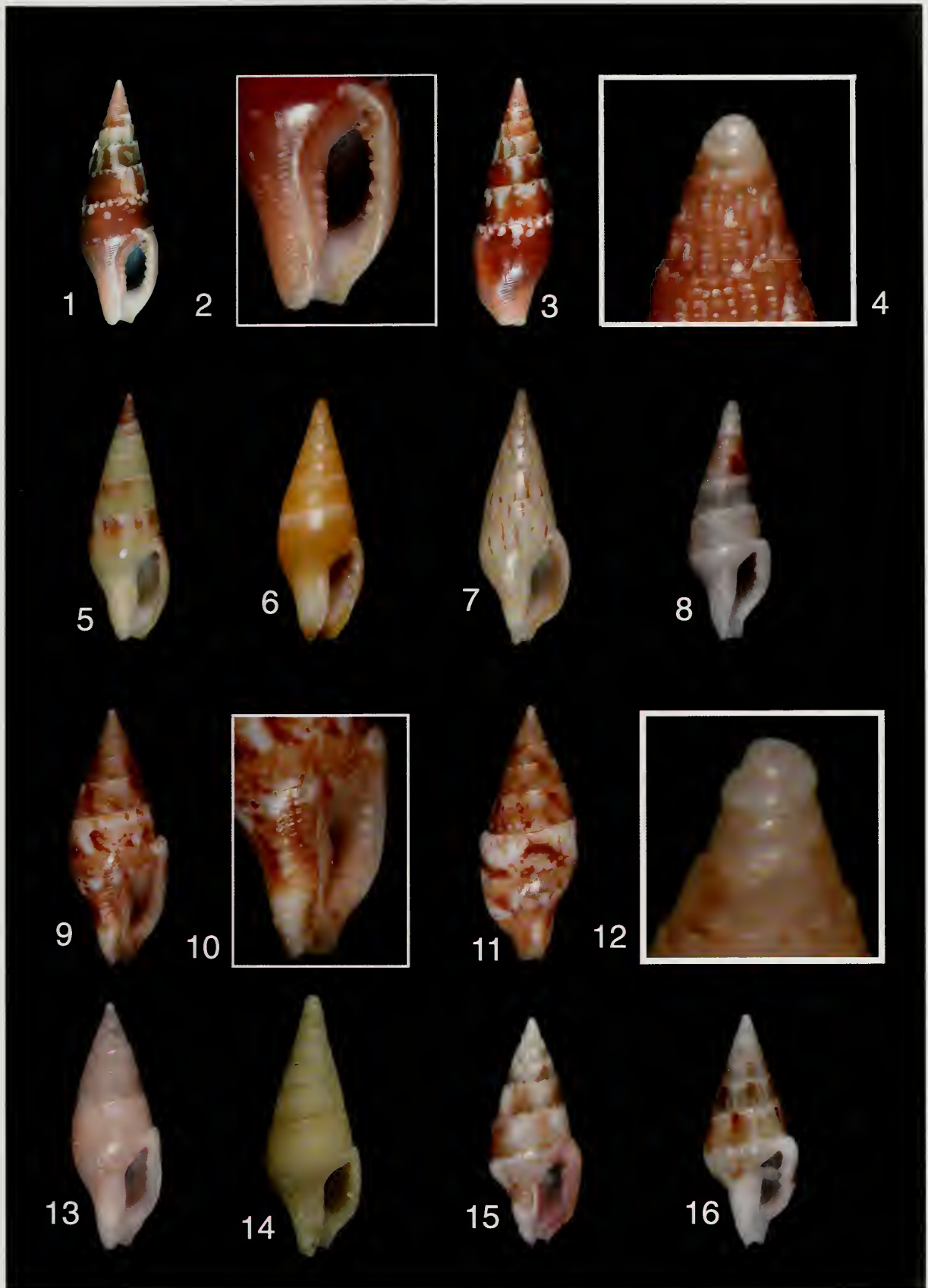
1-5. *Mitrella suduirauti* n. sp., Aliguay Island, Philippines 140-160m deep. 1-4. Holotype MNHN, 21.6mm. 5. Paratype KM, 22.6mm.

6. *Mitrella alofa* (Hedley, 1899), New Caledonia, 12.4mm; 7. *Mitrella mindorensis* (Reeve, 1859), Mactan Island, Philippines, 2-3m, 13.1mm; 8. *Mitrella turriculata* (Yokoyama, 1922), East China Sea, dredged at 200-300m, 9.1mm.

9-13. *Mitrella vosvictori* n. sp. Aliguay Island, Philippines, 160-300m deep. 9-12. Holotype MNHN, 21.3mm.

13. paratype KM, 20.2mm; 14. *Mitrella baculus* (Reeve, 1859), syntype NHM, "China Seas", 16.8mm; 15.

*Mitrella conspersa* (Gaskoin, 1852), Mactan Island, Philippines, at 3-6m, 10.5mm; 16. *Mitrella puella* (Sowerby, 1844), Masbate Island, Philippines, at 8m, 10.8mm.





strong and clearly visible near the abapical end, yet becoming more obsolete adapically. Outer lip thickened, with an axial bump, smooth outside, with 8 or 9 denticles on apertural side, not extending into the aperture. Columellar callus thickened, marked by a distinct rim. Columella with 4 or 5 indistinct denticles, somewhat extending into the aperture. Siphonal canal short, half-open, slightly curved backwards.

Shell colour: protoconch off-white to pinkish, teleoconch whorls uniformly pale salmon or off-white with brown and white flammules; aperture salmon-coloured, denticles paler.

Operculum with numerous fine growth lines, nucleus terminal, yellowish brown.

Animal and periostracum unknown.

**Comparison.** *Mitrella vosvictori* has always been misidentified as *M. baculus*, yet stands out from it by the more bulbous protoconch, the more convex whorls, the smaller number of basal cords (about 18 in *M. baculus*), the more shouldered teleoconch whorls, the higher and narrower aperture and the absence of the subsutural colour band of orangish and white markings.

It differs from *M. conspersa* by the larger size (about 2 X), the bulbous protoconch, the smooth teleoconch whorls (*M. conspersa* shows axial ribs on the first two teleoconch whorls), the more numerous basal cords and the colour of the aperture, which is always bright purple in *M. conspersa*.

*M. puella* differs by the presence of a strong axial sculpture, especially on the uppermost teleoconch whorls, the more elongate protoconch with 3 whorls,

the more shouldered teleoconch whorls, the smaller size, the lower number of basal cords (8 or 9) and the colour pattern consisting of an off-white spiral band below the suture and at mid-whorl.

**Etymology.** *M. vosvictori* is named in honour of the late Mr. Louis Victor Vos, grandfather to the present authors.

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