

Amphidromus chrisabbasi, a new species (Gastropoda: Camaenidae) from Indonesia

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ABSTRACT A new species of genus *Amphidromus* Albers, 1850 is described from the town of Soe, West Timor Island, Indonesia and compared to six other species of this genus: *Amphidromus marieabbasae* Thach, 2017, *Amphidromus laevus laevus* Müller, 1774, *Amphidromus laevus Janetabbasae* Parsons, 2014, *Amphidromus laevus nusleti* Parsons, 2014, *Amphidromus contrarius baaguiaae* Forcart, 1936 and *Amphidromus reflexilabris* Schepman, 1892. It is characterized by elongated aperture and twin (or coalescent) spiral lines, forming black or red-brown spiral bands on chalky white outer surface.

KEYWORDS Gastropoda, Helicoidea, Camaenidae, *Amphidromus*, Soe, West Timor Island, Indonesia, new taxon.

INTRODUCTION The genus *Amphidromus* Albers, 1850 belongs to the family Camaenidae and has many species collected in Indonesia. In May 2017, a hitherto unknown camaenid was found. It was not listed in the works by Parkinson, Hemmen & Groh (1987), Abbott (1989), Dharma (2005), Stanisic, Shea, Potter & Griffiths (2010), Schileyko (2011), Parsons (2014) and Thach (2005, 2007, 2012, 2016, 2017). It is here described as new to science.

Abbreviations:

FMNH	Field Museum of Natural History, Chicago, USA
NNT	Collection Dr. Thach
JA	Collection John Abbas
AH	Aperture height
BH	Body whorl height
SH	Shell height
SW	Shell width

SYSTEMATICS

Class Gastropoda Cuvier, 1797
 Superfamily Helicoidea Rafinesque, 1815
 Family Camaenidae Pilsbry, 1895
 Genus *Amphidromus* Albers, 1850

Subgenus *Amphidromus* (*Amphidromus*) s.str.
 Type species: *Helix perversus* Linnaeus, 1758
 (subsequent designation by von Martens, 1860)

Amphidromus (*Amphidromus*) *chrisabbasi* n. sp.
 Figures 1-8

Description: Shell medium-sized for the genus (37.1 to 42.9 mm in adult height) elongate tapering and solid with tall spire and deep sutures. Shell width 48% of height (*see* Table 1). Body whorl inflated and occupying 67.7% of shell height, periphery rounded. Outer surface ornamented with sets of twin spiral lines or coalescent lines forming usually three spiral bands on body whorl and two spiral bands on spire whorls. Sculpture consisting of numerous axial striae, extending from suture to suture. Aperture elongate and occupying 49.5% of shell height, outer lip broad, calloused and reflected but not curved and not rolled to form a rounded tube. Columella slightly straight, umbilicus narrowly open. Color chalky white with whitish apex, black or red-brown brown spiral bands.

No	1	2	3	4	5	6
SH(mm)	38.8	37.1	40.4	40.2	42.9	41.9
SW(mm)	18.5	17.3	18.8	19.7	20.5	20.7
SW/SH	0.48	0.47	0.47	0.49	0.48	0.49
Mean SW/SH	0.48					
BH(mm)	26.0	25.3	27.7	26.7	28.5	29.2
BH/SH	0.67	0.68	0.69	0.66	0.66	0.70
Mean BH/SH	0.68					
AH(mm)	18.7	17.9	20.7	19.3	21.5	21.6
AH/SH	0.48	0.48	0.51	0.48	0.50	0.52
Mean AH/SH	0.50					

Table 1. Mean SW/SH, BH/SH and AH/SH

Type Material: Holotype 38.8 mm high in FMNH (Figures 1, 2, 3). Paratypes: all from type locality, Paratype 1: 37.1 mm high (Figure 6) in NNT; Paratype 2: 40.4 mm high (not illustrated) in NNT; Paratype 3: 40.2 mm high (Figures 4, 5, 7, 8) in NNT, Paratype 4, 42.9 mm high (not illustrated) and Paratype 5, 41.9 mm (not illustrated) in JA.

Type Locality: Forest around town of Soe, Indonesia.

Habitat: Found around trees.

Etymology: The new species is named in honor of Christopher Abbas for his help in providing the type material.

DISCUSSION

- *Amphidromus chrisabbasi* n.sp. is close to *Amphidormus marieabbasae* Thach, 2017 (Figure 9) in elongate aperture but differs mainly in opaque (not translucent) shell, no external pattern visible within aperture, not pink early whorls, and chalky opaque white outer lip.

- The new species is also close to *Amphidromus laevus laevus* Müller, 1774 (Figure 10) in pattern with twin spiral lines but differing mainly in more tapering spire, early whorls are not pink and more elongated aperture without external pattern visible within.

- *Amphidormus laevus janetabbasae* Parsons, 2014, (Figure 12) differs mainly from the new species in orange background, numerous spiral lines, presence of orange spiral lines and less elongated aperture.

- *Amphidormus laevus nusleti* Parsons, 2014 (Figure 14) differs mainly from the new species in orange background, swollen body whorl, rounded aperture and black apex.

- *Amphidromus contrarius baaguiae* Forcart, 1936 (Figure 13) is distinguished mainly from the new species in presence of a calloused nodule on parietal wall, situated near posterior end of aperture (marked by green circle on photo).

- *Amphidromus reflexilabris* Schepman, 1892 (Figures 11, 15) is distinguished mainly from the new species in broader shape, outer lip curved and rolled, forming a rounded tube bordering the aperture.

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Figures 1-8: *Amphidromus chrisabbasi* n.sp., Soe, Indonesia: **1:** Holotype 38.8 mm high, FMNH- **2:** Holotype with spire view; **3:** Holotype with dorsal view; **4:** Paratype 3, 40.2 mm high with reflected outer lip, NNT; **5:** Paratype 3 with apex (top) and enlarged umbilicus (bottom); **6:** Paratype 1, 37.1 mm high, NNT; **7:** Paratype 3 with dorsal view; **8:** Paratype 3 with ventral view; **Figure 9:** *Amphidromus marieabbasae* Thach, 2017, 31.4 mm high for comparison; **Figure 10:** *Amphidromus laevis laevis* Müller, 1774, 33.4 mm high for comparison, photo of G.&Ph.Poppe; **Figure 11:** *Amphidromus reflexilabris* Schepman, 1892, 42.2 mm high for comparison, photo of Van der Bijl et al., 2010; **Figure 12:** *Amphidromus laevis janetabbasae* Parsons, 2014 for comparison, photo from Parsons; **Figure 13:** *Amphidromus contrarius baaguiaae* Forcart, 1936, 33 mm high with calloused nodule in green circle on photo for comparison; **Figure 14:** *Amphidromus laevis nusteli* Parsons, 2014 for comparison, photo from Parsons; **Figure 15:** *Amphidromus reflexilabris* Schepman, 1892 with outer lip rolled, forming a rounded tube for comparison, photo of Van der Bijl et al., 2010.