

## *Amphidromus setzeri*, a new species (Gastropoda: Camaenidae) from Vietnam

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**Keywords:** GASTROPODA, HELICOIDEA, CAMAENIDAE, *Amphidromus*, southern Vietnam, new species.

**Abstract:** A new *Amphidromus* Albers, 1850 is described from Vĩnh An area, Vĩnh Cửu District, Đồng Nai Province, southern Vietnam and compared with five species of this genus: *Amphidromus mouhoti* (Pfeiffer, 1861), *Amphidromus smithi* Fulton, 1896, *Amphidromus ventrosulus* Möllendorff, 1900, *Amphidromus roseolabiatus* Fulton, 1896 and *Amphidromus sylheticus* (Reeve, 1849).

**Introduction:** *Amphidromus* is a genus within **Camaenidae** with many species collected in Vietnam. In the summer of 2015, another species belonging to this genus was collected. It was not included in the works by Schilenko (2011) and Thach (2005, 2007, 2012). In this article, it is described as new to science.

### Abbreviations:

ANSP: Academy of Natural Sciences Philadelphia, USA

KBIN: Koninklijk Belgisch Instituut voor Natuurwetenschappen, Brussels, Belgium

NNT: Collection Dr N.N. Thach

SS: Collection Steve Setzer

AH: Aperture height

SH: Shell height

SW: Shell width

### Systematics:

Class **Gastropoda** Cuvier, 1797

Superfamily **Helicoidea** Rafinesque, 1815

Family **Camaenidae** Pilsbry, 1895

Subfamily **Camaeninae** Pilsbry & Olsson, 1954

Genus *Amphidromus* Albers, 1850

Type species: *Helix perversus* Linnaeus, 1758 (subsequent designation by Martens, 1896)

Subgenus *Syndromus* Pilsbry, 1900

Type species: *Amphidromus contrarius* Müller, 1774

### *Amphidromus (Syndromus) setzeri* sp.nov.

Figs 1-7

**Type material:** **Holotype** 26.0 mm in ANSP (Figs 1-3, 4b). **Paratype 1:** 26.5 mm in KBIN (Figs 5-6); **Paratype 2:** 26.0 mm in NNT (Fig. 4a,7a); **Paratype 3:** 31.0 mm in SS (Fig.7b); **Paratype 4:** 29.9 mm in SS; **Paratype 5:** 25.0 mm in SS; **Paratype 6:** 29.0 mm in SS. [Paratypes 4-6 not illustrated; All Paratypes from type locality.]

**Type locality:** Vĩnh An area, Vĩnh Cửu District, Đồng Nai Province, southern Vietnam.

**Description:** Shell small for the genus (height range 25-31 mm), thin, always sinistral and elongate-ovate. Spire moderately tall with red apex, sutures shallow. Outer surface smooth, last whorl swollen and crossed by a very weak spiral riblet at midwhorl. Shell width rather large, 56.2% of shell height (see Table 1). Aperture sublunate and wide (49.2% of shell height, see Table 1), outer lip reflected, slightly calloused and touching mid-body whorl. Ornamentation with a reddish brown stripe around the base of the columella. Moreover, a blackish brown spiral band around the columella is often seen inside the aperture (Fig. 4b, 6b).

Colour yellowish with greenish oblique axial stripes at outer surface and white outer lip.

**Range and habitat:** Only known from the type locality. The specimens were found around trees.

Specimen No	SH (mm)	SW (mm)	SW/SH	Mean SW/SH	AH (mm)	AH/SH	Mean AH/SH
1	26.0	14.4	0.554	0.562 (56.2%)	13.3	0.512	0.492 (49.2%)
2	26.5	14.6	0.551		13.8	0.521	
3	26.0	14.9	0.573		13.7	0.527	
4	31.0	16.3	0.526		14.0	0.452	
5	29.9	17.0	0.569		14.0	0.468	
6	25.0	14.9	0.596		12.1	0.484	
7	29.0	16.3	0.562		14.0	0.483	

**Table 1:** Shell width/Shell height & Aperture height/Shell height of *Amphidromus setzeri*

**Comparison:** *Amphidromus setzeri* differs from all known species of *Amphidromus* by its small adult size (25-30mm high), red apex, presence of oblique axial stripes on the outer surface and the posterior end of the outer lip (marked by x in Fig.1) extending over the parietal wall and touching mid-body whorl.

*Amphidromus setzeri* sp. nov. is close to *Amphidromus mohouti* (Fig. 8) in having a white outer lip and greenish oblique stripes, but differs by its smaller adult size, swollen body whorl, more convex outer lip, less calloused columella and lack of a subsutural groove on the dorsum of the body whorl.

*Amphidromus setzeri* sp. nov. is close to *Amphidromus smithi* Fulton, 1896 (Figs 9-10) in having greenish oblique stripes, but differs by its white (not black) columella, not slender shape, wider aperture and shallower sutures.

*Amphidromus setzeri* sp. nov. is close to *Amphidromus ventrosulus* Möllendorff, 1900 (Figs 11-12) in having greenish axial stripes, but differs by its smaller adult size, red apex, white (not red) outer lip and columella.

*Amphidromus setzeri* sp. nov. is close to *Amphidromus roseolabiatum* Fulton, 1896 (Figs 13-14), but differs by its red apex, more elongate aperture, weaker and white (not red) columella.

*Amphidromus setzeri* sp. nov. is also close to *Amphidromus sylheticus* (Reeve, 1849) (Figs 15-16) in having a white outer lip, but differs by its thinner shell, more inflated body whorl, red apex, shallower sutures and lack of oblique ribs on the outer surface.

**Etymology:** This new species is named in honour of Steve Setzer (USA) for supplying the type material.

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## PLATE

### 1-7: *Amphidromus setzeri* sp. nov.

Vĩnh An area, Vĩnh Cửu District, Đồng Nai Province, southern Vietnam

**1-4b:** Holotype (26.0 mm) in ANSP

**4a:** Apex of paratype 2 (26 mm) in NNT

**5-6:** Paratype 1 (26.5 mm) in KBIN

**7a:** Paratype 2 (26 mm) in NNT

**7b:** Paratype 3 (31 mm) in SS

**8: *Amphidromus mouhoti*** (Pfeiffer, 1861)  
(Photo National History Museum, London)

**9-10: *Amphidromus smithi*** Fulton, 1896  
(Photo National History Museum, London)

**11-12: *Amphidromus ventrosulus*** Möllendorff, 1900  
(Photo of London National History Museum)

**13-14: *Amphidromus roseolabiatum*** Fulton, 1896  
(Photo National History Museum, London)

**15-16: *Amphidromus sylheticus*** (Reeve, 1849)  
(Photo Richard Goldberg)

