

***Pterocyclos huberi*, a new species from Vietnam
(Gastropoda: Caenogastropoda: Cyclophoridae)**

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ABSTRACT. A new species of genus *Pterocyclos* Benson, 1832 is described from Lạc Dương, Lâm Đồng, Vietnam and compared to four other species of this genus: *Pterocyclos frednaggsi* Sutcharit & Panha 2014, *Pterocyclos anguliferus* (Souleyet, 1841), *Pterocyclos tenuilabiatus* (Metcalf, 1852) and *Pterocyclos birostris* (Pfeiffer, 1854).

INTRODUCTION

Pterocyclos is a genus of the family Camaenidae which has many species occurring in Vietnam. In mid-2014, a species of this genus was collected and it is not found in Schileyko (2011) or Thach (2005, 2007, 2012). In this article, it is described as new to science.

Abbreviations

ANSP: Academy of Natural Sciences Philadelphia, USA

FH: Collection Franz Huber

IRSNB: Institut royal des Sciences naturelles de Belgique

NNT: Collection Dr Thach

SH: Shell height

SW: Shell width

SYSTEMATICS

Superfamily **CYCLOPHOROIDEA** Gray, 1847

Family **CAMAENIDAE** Gray, 1847

Subfamily **CAMAENINAE** Gray, 1847

Tribe **Pterocyclini** Kobelt & Möllendorff, 1897

Genus ***Pterocyclos*** Benson, 1832

Type species: *Pterocyclos rupestris* Benson, 1832, by monotypy, Jharkand, northeastern India to Sri Lanka.

***Pterocyclos huberi* n. sp.**

Figs 1-8

Type material. Holotype 17.3 mm wide IRSNB I.G. 32975/M.T. 3220 (Fig. 1).

Paratypes: all from type locality. Paratype 1: 17.4 mm wide, ANSP 464666 (Fig. 2). Paratype 2: 19.7 mm wide in NNT (Fig.3). Paratype 3: 18 mm wide in FH (Fig.4). Paratype 4: 19.6 mm wide in FH (Fig.6).

Type locality. Lạc Dương area (Lâm Đồng Province) near the new road from Đà Lạt to Nha Trang.

Distribution. Known only from the type locality, midway on the road between Đà Lạt and Nha Trang, Vietnam. The specimens were found among leaf litter.

Diagnosis. Characterized by small adult size, sunken spire, expanded and wavy outer lip.

Description. Shell small with mean adult width 17-20 mm, dextral and discoidal in shape. Height much smaller than width (about 36.9% SW, Table 1). Whorls inflated and rapidly increasing, periphery rounded. Dorsal side flat and concave at central part, ventral one strongly convex. Spire very low, suture constricted. Ornamentation consists of numerous brown transverse bands that can be widely spaced or separated by thin white lines. Sculpture consists of many fine and closely set axial riblets that are strongest at the middle of each whorl. Aperture wide and circular with external pattern visible within, outer lip double with interior lip simple and continuous while exterior one is expanded and wavy at upper part. Umbilicus widely open and deep, air tube wide moderately long and touching body whorl. Periostracum thick, operculum with raised concentric ribs. Color variable from whitish to dark brown.

Specimen No	SW (mm)	SH (mm)	SH/SW	Specimen No	SW (mm)	SH (mm)	SH/SW	Mean SH/SW
1	17.3	6.4	0.37	7	18.4	6.6	0.36	0.369 (36.9%)
2	17.4	6.3	0.36	8	19.8	7.3	0.37	
3	19.7	7.5	0.38	9	19.8	7.5	0.38	
4	18.0	6.4	0.36	10	16.6	6.1	0.37	
5	19.6	7.3	0.37	11	17.2	6.4	0.37	
6	18.1	6.9	0.38	12	19.3	6.9	0.36	

Table 1. SH/SW of *Pterocyclos huberi* n.sp.

Discussion. This species is uncommon in Vietnam. *Pterocyclos huberi* n. sp. differs from *Pterocyclos frednaggsi* Sutcharit & Panha 2014 (Fig.9) in its smaller adult size, its wavy outer lip, its green (not yellowish) periostracum, the presence of a brown peripheral band and the air tube touching (but not perpendicular to) last whorl.

Pterocyclos huberi differs from *Pterocyclos anguliferus* (Souleyet, 1841) (Fig. 10) in its smaller adult size, its wavy (not pointed) outer lip and its dorsum that is concave at central part.

Pterocyclos huberi differs from *Pterocyclos tenuilabiatus* (Metcalf, 1852) (Fig.11) in its smaller adult size, its wavy outer lip and by the presence of a well visible air tube.

Pterocyclos huberi differs from *Pterocyclos birostris* (Pfeiffer, 1854) (Fig. 12) in its smaller adult size, its wavy outer lip and fewer horns (only one, not two horns).

Etymology. This new species is named in honor of Frank Huber from Austria for his enthusiasm in collecting terrestrial snails of Vietnam.

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Figures 1-12

1-8. *Pterocyclos huberi* n.sp., Lâm Đồng, Vietnam. 1. Holotype IRSNB I.G. 32975/M.T. 3220, 17.3 mm SW; 2. Paratype 1, ANSP 464666, 17.4 mm SW; 3. Paratype 2, 19.7 mm SW, NNT; 4. Paratype 3, 18 mm SW, FH; 5. Live animal; 6. Paratype 4, 19.6mm SW, FH (top) & Enlarged outer lip of holotype (bottom); 7. Dorsal and ventral views of the animal inside the shell; 8. Operculum (a) and live animal (b); 9. *Pterocyclos frednaggsi* Sutcharit & Panha 2014, 21.8-32 mm, photo from Sutcharit et al., 2014 for comparison; 10. *Pterocyclos anguliferus* (Souleyet, 1841), 30 mm, photos from Abbott, 1989 & Bagni Liggia for comparison; 11. *Pterocyclos tenuilabiatatus* (Metcalf, 1852), 23-28 mm, photo from Dharma for comparison; 12. *Pterocyclos birostris* (Pfeiffer, 1854), 25 mm, photo from Abbott, 1989 for comparison.