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A NEW SPECIES OF *HEMIPLECTA* ALBERS, 1850 FROM VIETNAM (GASTROPODA: PULMONATA: ARIOPHANTIDAE)

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ABSTRACT: *Hemiplecta jensi* n. sp. is described from the Pu Luong Nature Reserve, Thanh Hoa Province, northern Vietnam. The new species differs from its congeners in the blunter keel and rougher sculpture.

KEY WORDS: taxonomy, systematics, shell, Pu Luong

INTRODUCTION

Identification of large ariophantids in Southeast Asia is challenging, because many species have never been illustrated, and no comprehensive revision has been done. I aimed to identify two *Hemiplecta*-like shells collected in the Pu Luong Nature Reserve, northern Vietnam. The recently published lists of the Vietnamese (SCHILEYKO 2011) and Lao (INKHAVILAY et al. 2019) molluscs contain all pulmonates described from those countries. I examined the original descriptions, available photographs, and types deposited in the Senckenberg Museum of all species mentioned in those two checklists of the genera *Ariophanta* Godwin-Austen, 1888, *Cryptozona* Mörch, 1872, *Hemiplecta* Albers, 1850 and *Quantula* Baker, 1941. The two which seemed most similar to my shells were *Ariophanta laotica* (Möllendorff, 1899) and *Hemiplecta esculenta* Maassen, 2006. However, they differ considerably from the ones I had. Consequently, the shells I received belong to a species new to science, and are described here as *Hemiplecta jensi* n. sp.

MATERIAL AND METHODS

Shell whorls (± 0.25) were counted according to KERNEY & CAMERON (1979: 13). Shells were measured using a vernier calliper. Multiple photographs were taken using a Nikon camera and a macro lens, and merged to create a single image using Photoshop.

I examined the holotype (SMF 226681) and paratypes (SMF 226682, 3 shells) of *Hemiplecta laotica* (Möllendorff, 1899) (Laos, coll. Möllendorff ex coll. Roebelen).

Abbreviations: HE – Collection Christa Hemmen (Wiesbaden, Germany), SMF – Senckenberg Forschungsinstitut und Naturmuseum (Frankfurt am Main, Germany), RMNH – National Museum of Natural History (formerly Rijksmuseum van Natuurlijke Historie, Leiden, the Netherlands), UMZC – University Museum of Zoology (Cambridge, United Kingdom).

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SYSTEMATIC DESCRIPTION

Family Ariophantidae Godwin-Austen, 1883

Ariophantinae Godwin-Austen, 1883: 79 (subfamily of Zonitidae)

Remarks: BOUCHET et al. (2017) wrongly dated the description of Ariophantidae as 1888.

Genus *Hemiplecta* Albers, 1850

***Hemiplecta* Albers, 1850: 60.**

Type species: *Helix humphreysiana* I. Lea, 1841, by subsequent designation (MARTENS in ALBERS, 1860).

Hemiplecta jensi n. sp.

Figs 1–5

Type material: Vietnam, Thanh Hoa Province, Pu Luong N.R., surroundings of Village Am, 20°28'14.2"N, 105°13'18.1"E, leg. CH. & J. HEMMEN, 03.04.2010, SMF 353501 (holotype, D: 30.9 mm, H: 18.3 mm); Vietnam, Thanh Hoa Province, Pu Luong N. R., waterfall near Ban Hieu, 20°27'37.7"N, 105°13'14.5"E, leg. CH. & J. HEMMEN, 03.04.2010, HE/1 subadult paratype.

Diagnosis: A yellowish *Hemiplecta* species with bluntly keeled body whorl, moderately narrow umbilicus and dashed, relatively strong ribs, which are more prominent on the dorsal than on the ventral side.

Description: Shell dextral, rather large, yellowish on both ventral and dorsal sides; shell depressed globular with a blunt keel; entire shell consists of 5.5 whorls, separated by rather shallow suture; protoconch consists of 1.75–2 whorls, finely ribbed; dorsal side of teleoconch dominated by relatively strong, irregular, dashed ribs (=spiral sculpture cutting into the crests of the radial ribs); ventral surface with generally weaker sculpture, and with more regular spiral striation; aperture oblique to shell axis, white; peristome slightly expanded (mostly in basal and umbilical direction) but not reflected; parietal callus weak, only indicated by fine yellowish calcareous transparent layer; umbilicus open, moderately narrow (6.5 mm in largest diameter), deep, shows all whorls.

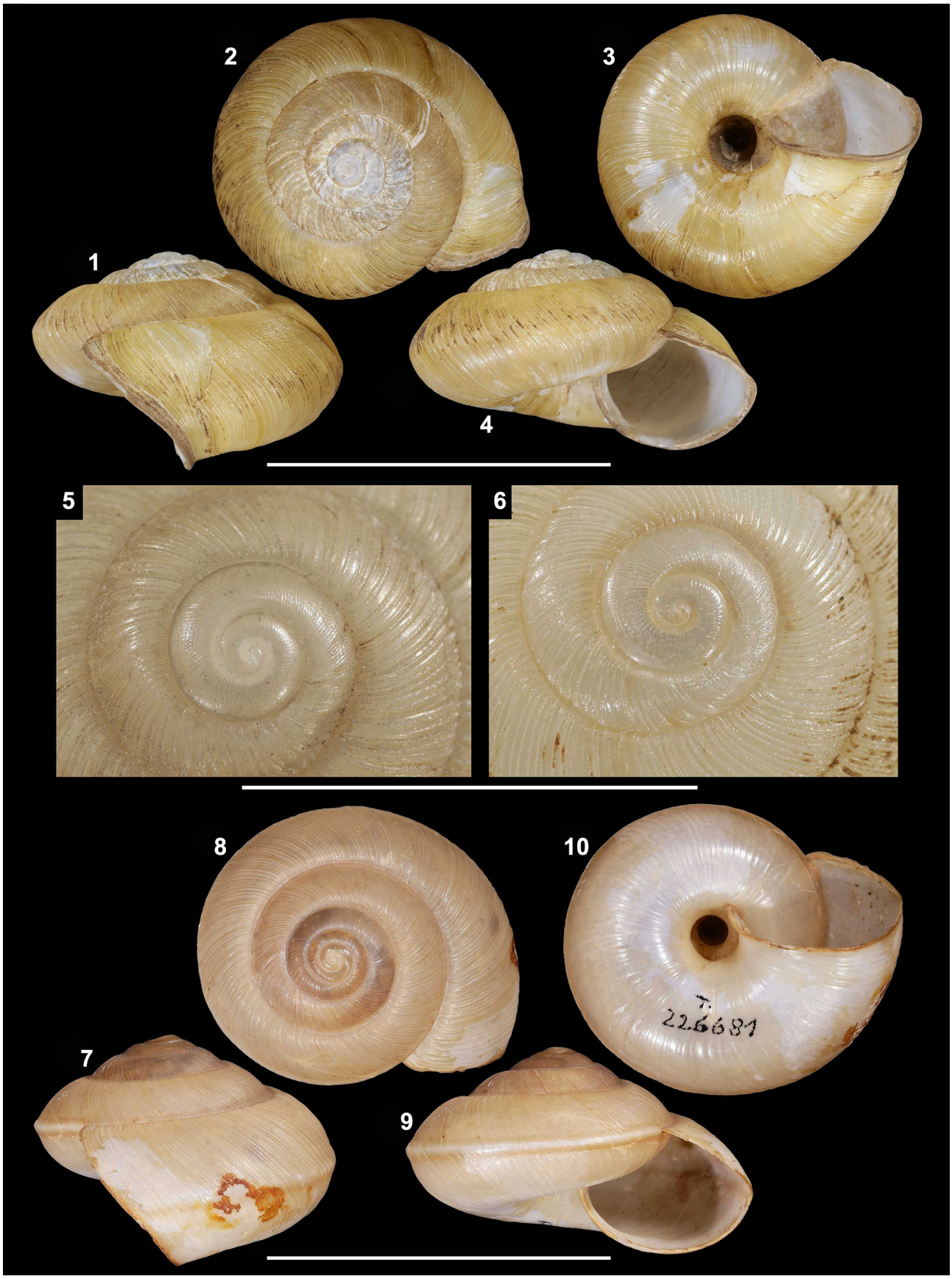
Measurements (in mm): D = 30.9, H = 18.3 mm (holotype).

Differential diagnosis: *H. laotica* (Möllendorff, 1899) (Figs 6–10) has a more prominent keel, a narrower umbilicus, and an overall weaker sculpture, especially on the ventral side. *Hemiplecta esculenta* Maassen, 2006 has a darker shell colouration, a sharper keel and a finer shell sculpture. *H. laotica* was placed in *Ariophanta* by INKHAVILAY et al. (2019), but due to its resemblance to *H. esculenta* it should rather be included in *Hemiplecta*.

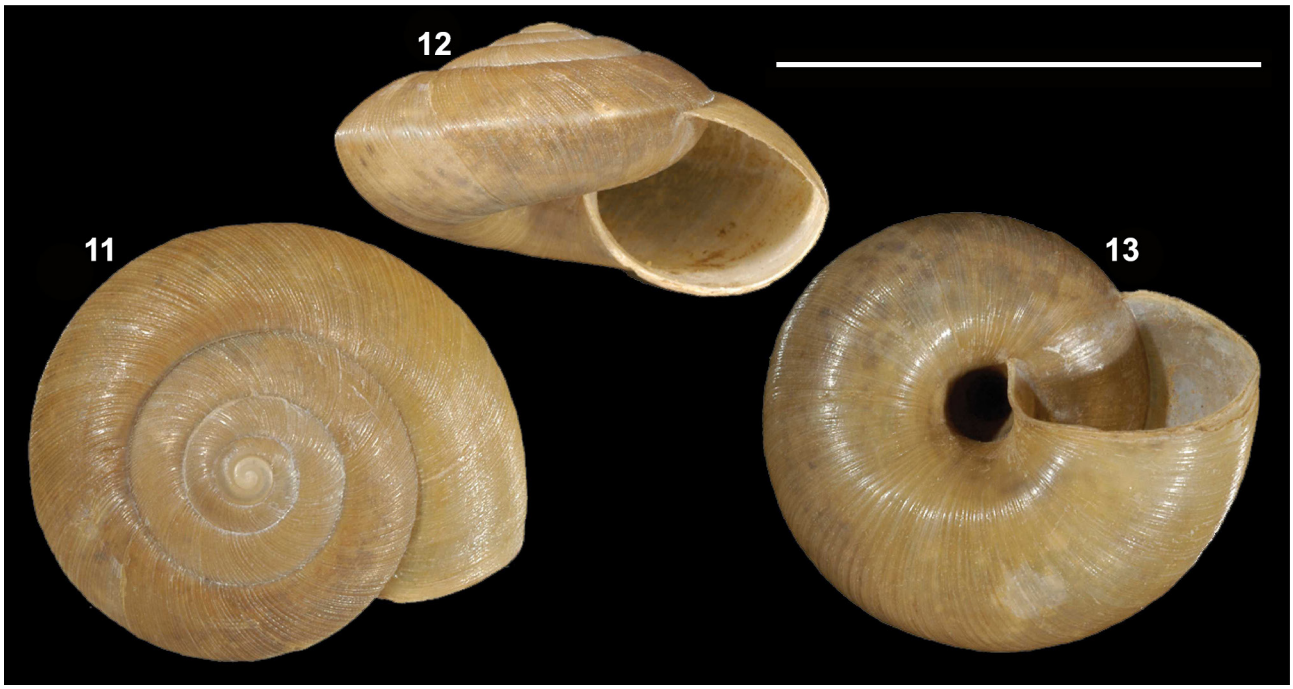
Etymology: *Hemiplecta jensi* n. sp. is named after JENS HEMMEN (1944–2012), who, together with his wife, CHRISTA, collected the specimens. Although I had no chance to meet him in person, he kindly provided valuable material and support for my study of Southeast Asian land snails.

Remarks: The inclusion of the new species in *Hemiplecta* is questionable, because most other species have a narrower umbilicus. I fully agree with MAASSEN (2006), who faced similar problems when describing *H. esculenta* (Figs 11–13). As MAASSEN (2006) noted, the genus *Elaphroconcha* Gude, 1911 has a half hidden umbilicus and a multicoloured shell, and thus was also not considered a good candidate. Another option could be the genus *Oxytesta* Zilch, 1956 (replacement name for *Oxytes* L. Pfeiffer, 1855), which includes some species with the shell shape and sculpture resembling *H. jensi* n. sp. (e.g. *O. prionotropis* Möllendorff, 1898, *O. cycloplax* (Benson, 1852)). However, the type species of that genus (*Helix oxytes* Benson, 1836) has simple growth wrinkles in the protoconch and teleoconch, not dashed ribs (=spiral sculpture not cutting into the crests of the radial ribs) (examined specimen: UMZC I.102145, probably syntype). Consequently, it might seem reasonable to erect a genus for the characteristically sculptured, relatively widely umbilicated taxa occurring in Southeast Asia, but it should be done only after ethanol-preserved specimens become available. The genus *Phuphania* C. Tumpeesuwan, Naggs et Panha, 2007 was described based on a single Thai species, *Phuphania globosa*, C. Tumpeesuwan, Naggs et Panha, 2007. *Phuphania globosa* has a globular shell with a narrow umbilicus, but its sculpture is different from those of the species discussed herein. Further information might reveal that *H. jensi* n. sp. and the similar species in Southeast Asia belong to *Phuphania*.

Based on its description, *Hemiplecta denserugata* (Möllendorff, 1901) (originally described as *Xestina*) seems to be similar to the new species. However, that species has not been ever figured in the literature, and the type specimens were not present in the SMF during my last visit (November 2018). According to the original description it has 6.5 whorls, and was described from southern Vietnam ("Berg Dran und Hong-gong, Süd-Annam"), which represents a biogeographically very different area.



Figs 1–10. Shells of *Hemiplecta* Albers, 1850 species: 1–5 – *Hemiplecta jensi* n. sp. (1–4 – SMF 353501, holotype; 5 – paratype). 6–10 – *Hemiplecta laotica* (Möllendorff, 1899) (6 – SMF 226682, paratype; 7–10 – SMF 226681, holotype). Scale bar 30 mm in 1–4 and 7–10, scale bar 10 mm in 5–6. All photos: BARNA PÁLL-GERGELY



Figs 11–13. Holotype of *Hemiplecta esculenta* Maassen, 2006 (RMNH 99424). Photos: WIM MAASSEN (obtained from CHIRASAK SUTCHARIT)

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