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A new species of *Coptocheilus* Gould, 1862 (formerly *Schistoloma* Kobelt, 1902) from Vietnam (Caenogastropoda: Cyclophoroidea: Pupinidae)

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Abstract. *Coptocheilus maunautim*, new species, is described from Vietnam's Thua Thien-Hue Province. The closest relative of the new species is probably *Coptocheilus maydelineae* (Páll-Gergely, P.K. Nguyen & Y. Chen, 2019), which also has a "double suture", but differs in its much stronger shell sculpture. *Coptocheilus* Gould, 1862, is reinstated for this genus group. The widely used *Schistoloma* Kobelt, 1902, is an unnecessary replacement name and cannot be conserved. An updated checklist of the members of this genus is appended.

Key words. taxonomy, systematics, *Coptocheilus*, *Schistoloma*, new species

INTRODUCTION

Schistoloma Kobelt, 1902, is a genus of the Pupinidae, ranging from the southern Himalaya region to the Philippines (Benson, 1838, 1852; Bartsch, 1916; Egorov, 2013). A newly collected species from Thua Thien-Hue Province does not correspond to any of the four *Schistoloma* species known from Vietnam in the recent review of the genus by Páll-Gergely et al. (2019). It is therefore described as new to science. In addition, we restore the genus *Coptocheilus* Gould, 1862, and relegate the unnecessary replacement name *Schistoloma* to its synonymy (see Remarks under genus).

MATERIAL AND METHODS

The counting of the shell whorls (to the closest 0.25 whorl) follows Kerney & Cameron (1979: 13).

Abbreviations.
AH: aperture height
AW: aperture width
H: shell height
HA: Collection András Hunyadi (Budapest, Hungary)
HNHM: Hungarian Natural History Museum (Budapest, Hungary)
LZ–HUE: Laboratory of Zoology, Hue University of Education (Hue city, Vietnam)
MNHN: Muséum National d'Histoire Naturelle (Paris, France)
SMF: Senckenberg Forschungsinstitut und Naturmuseum (Frankfurt am Main, Germany)
VNMN_IZ: National Museum of Nature (Hanoi, Vietnam)
W: shell width
ZRC: Zoological Reference Collection, Lee Kong Chian Natural History Museum (NUS, Singapore)

TAXONOMY AND SYSTEMATICS

Family Pupinidae L. Pfeiffer, 1853

Coptocheilus Gould, 1862

Coptocheilus Gould, 1862: 282.
Schistoloma Kobelt, 1902: 298 (nom. nov. pro *Coptocheilus* Gould, 1862).
Pinteria Varga, 1972: 134 (type species: *Pinteria croesus* Varga, 1972, by original designation).

Type species. *Cyclostoma altum* G.B. Sowerby I, 1842, by original designation.

Remarks. Kobelt (1902) established *Schistoloma* as a nom. nov. for *Coptocheilus* Gould, 1862, claiming that it is a junior homonym of *Coptochilus* Amyot & Serville, 1843 (Insecta: Hemiptera). However, *Coptocheilus* Gould, 1862, is not a junior homonym of *Coptochilus* Amyot & Serville, 1843, based on the one letter difference (see Article 56.2 of the International Code of the Zoological Nomenclature, hereafter the Code [ICZN, 1999]), thus Kobelt's replacement name is unnecessary. *Coptochilus* F. Sandberger, 1871, is also considered to be an unjustified emendation of *Coptocheilus* Gould, 1862. A reversal of precedence (Article 23.9 of the Code) cannot be used to conserve the widely used *Schistoloma* because *Coptocheilus* has been used as valid after 1899 (e.g., Fulton, 1903; Bartsch, 1909).

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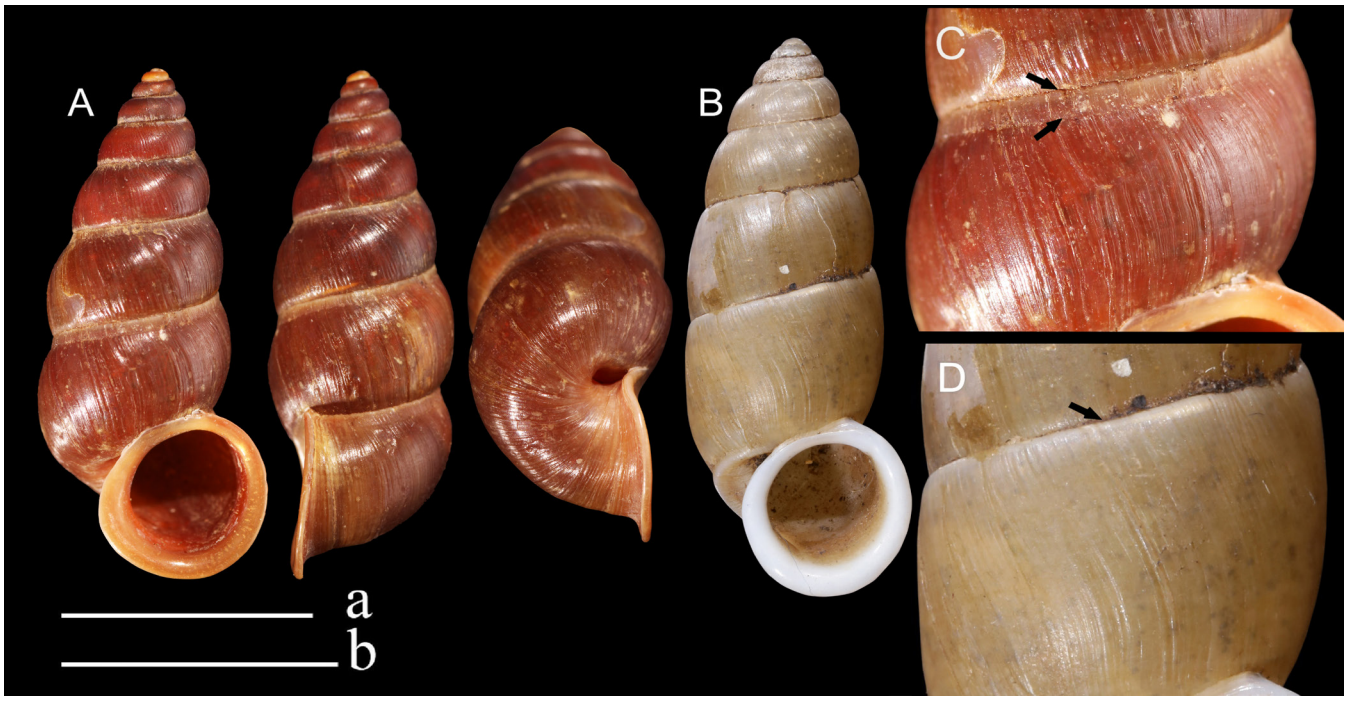

Fig. 1. A, C, holotype of *Coptocheilus maunautim*, new species (MNHN-IM-2000-35697), with "double suture" indicated by arrows; B, D, *Coptocheilus messageri* (SMF 192263) with simple suture indicated with an arrow. Scale a represents 10 mm and refers to fig. A and B, scale b represents 5 mm and refers to fig. C and D.

***Coptocheilus maunautim*, new species**
(Fig. 1A, C)

Material examined. Holotype (H: 21.7 mm, W: 9.2 mm) (MNHN-IM-2000-35697), Vietnam, Thua Thien-Hue Province, Nam Dong District, limestone mountain (16°06′56″N, 107°38′32″E, 220 m), coll. T.C. Bui, 10 June 2018. Paratypes: 1 ex. (HNHM 104870), 1 ex. (coll. HA), 1 ex. (VNMN_IZ 000.000.178), 17 exx. (LZ–HUE 5601), all same data as holotype, coll. T.C. Bui, N.T.N. Dang and N.T. Duong, 01 October 2017 and 10 June 2018; 2 exx. (ZRC.MOL.16453), same data as holotype, coll. T.C. Bui, 10 June 2018; 7 exx. (LZ–HUE 5602), Vietnam, Thua Thien-Hue Province, Nam Dong District, limestone mountain (16°08′16″N, 107°36′51″E, 270 m), coll. T.C. Bui and H.C. Nguyen, 07 July 2018.

Diagnosis. A middle-sized *Coptocheilus* species with a brownish purple shell colour, rather glossy, almost smooth shell surface, and a "double suture".

Description. Shell high conical, widest around base, brownish purple (dead collected shells lighter); protoconch 2.75 whorls, smooth, glossy, orange to purple; teleoconch glossy, nearly smooth, with very fine growth lines; suture "double" (a "pseudosuture" visible as slight groove just below the suture), with a conspicuous pale subsutural band; outer lip slightly opisthocline; peristome continuous, expanded, very slightly reflected, especially at basal part; peristome slender, sharp in lateral view, boundary between inner and outer peristomes hardly visible; umbilicus open, slit-like, without periumbilical keel. Operculum unknown.

Measurements (mm). H: 19.2–23.3, W: 8.5–9.2, AH: 6.6–7.3, AW: 6.4–7.1 (n = 25).

Differential diagnosis. *Coptocheilus maunautim*, new species, differs from all congeners by its "double suture" (see comparison with *C. messageri*, Fig. 1B, D), except for *Coptocheilus maydelineae* (Páll-Gergely, P.K. Nguyen & Y. Chen, 2019), which clearly differs by having a strongly ribbed shell. *Coptocheilus sectilabris* (A. Gould, 1844), which was also reported from Vietnam (Thach, 2016), is larger, with a more corpulent shell and wider body whorl.

Etymology. The specific epithet 'maunautim' (to be used as a noun in apposition) derives from "màu nâu tím", meaning "a mixture of brown and purple" in Vietnamese, referring to the colour of the shell.

Distribution. This new species is only known from the type locality so far (Fig. 2).

Checklist of *Coptocheilus* species

The most recent review by Páll-Gergely et al. (2019) erroneously used the generic name *Schistoloma* (grammatical gender: neutral). Here we provide an updated checklist of the species, now included in *Coptocheilus* (grammatical gender: masculine), to reflect changes in parentheses around authors' names in changed combinations and agreement in gender of species names.

Coptocheilus altus (Sowerby I, 1842)
Coptocheilus anostomus (Benson, 1852)
Coptocheilus cochinchinensis (Rochebrune, 1882)
Coptocheilus doriae (Issel, 1874)
Coptocheilus funiculalus (Benson, 1838)

Fig. 2. Distribution of *Coptocheilus* species in Vietnam. 1, *C. messageri* (Bavay & Dautzenberg, 1909); 2, *C. inermis* (Bavay & Dautzenberg, 1909) (type locality of *Pinteria croesus* Varga, 1972); 3, *C. maunautim*, new species; 4, *C. sectilabrum* (A. Gould, 1844); 5, *C. maydelineae* (Páll-Gergely, P.K. Nguyen & Y. Chen, 2019); 6, *C. cochinchinense* (Rochebrune, 1882) (based on Thach, 2016 and Páll-Gergely et al., 2019).

Coptocheilus inermis Bavay & Dautzenberg, 1909
Coptocheilus leferi (Morelet, 1861)
Coptocheilus longyanensis (Zhou, Zhang & Chen, 2009)
Coptocheilus maydelineae (Páll-Gergely, P.K. Nguyen & Y. Chen, 2019)
Coptocheilus mcgregori (Bartsch, 1916)
Coptocheilus messageri Bavay & Dautzenberg, 1909
Coptocheilus pauperculus (Sowerby I, 1850)
Coptocheilus quadrasi (Hidalgo, 1889)
Coptocheilus sectilabris (A. Gould, 1844)
Coptocheilus sumatranus Dohrn, 1881
Coptocheilus tanychilus (Godwin-Austen, 1876)

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