A NEW SPECIES OF EOSTROBILOPS PILSBRY, 1927 FROM CHINA (GASTROPODA: PULMONATA: STROBILOPSIDAE)

ZHE-YU CHEN

College of Food Science and Engineering, Wuhan Polytechnic University, No. 68 XueFu South Road, Dongxihu District, 430023 Wuhan, P. R. China (e-mail: chenzheyu1998@163.com);
https://orcid.org/0000-0002-4150-8906

ABSTRACT: Eostrobilops zijinshanicus sp. nov. [紫金山始球果螺] is described and illustrated from Jiangsu (China), based on shell characters. The new species has strongly ribbed dorsal surface, parietal lamella extending deep into the shell, interparietal lamella nearly touching callus, infraparietal lamella present internally, and three basal folds. A key to extant Eostrobilops of mainland China is provided.

KEY WORDS: taxonomy, systematics, new species, Jiangsu

INTRODUCTION

Eostrobilops was originally established by PILSBRY (1927), as a section of Strobilops Pilsbry, 1893 with the following diagnosis “The shell is convexly conic, finely striate, with a rather small umbilicus. The parietal and infraparietal lamellae emerge, and deep within their edges have prickly or rugose knots or nodes (and in recent species flare outward); there is no interparietal lamella. Internal barrier consisting of a low columellar and two to four basal folds, sometimes also a palatal fold”. A total of 13 extant Eostrobilops species are distributed in southeast Russia, the Korean Peninsula, Japan, China, Vietnam, and Borneo Island (PÁLL-GERGELY et al. 2015).

Here I describe a new Eostrobilops from Jiangsu, China. The record of the new species represents an important addition to the distribution of the genus in mainland China (for the earlier distribution map see PÁLL-GERGELY et al. 2015), and fills the gap in the potential distribution range of Eostrobilops in East China.

MATERIAL AND METHODS

Photographs of the shell were taken using a Nikon D810 camera with Tamron Macro lens and modified in Adobe Photosop CC 2018. The shells were measured with a digital vernier calliper to the nearest 0.1 mm. Whorls were counted as described by KERNEY & CAMERON (1979). The nomenclature for the internal structure follows PILSBRY (1927). The comparisons of Eostrobilops zijinshanicus sp. nov. with other species were mainly based on the original descriptions.

Photographs of a syntype of Eostrobilops diodontinus (Heude, 1885) (MCZ 167133, China, Tchen-k’eou, leg. Farges, excoll. Musée Heude, 03.01.1946) were obtained from Barna Páll-Gergely.

Abbreviations: HBUMM – Mollusc collection of the Museum of Hebei University (Baoding, China), IZCAS – Institute of Zoology, Chinese Academy of Sciences (Beijing, China), MCZ – Museum of Comparative Zoology (Massachusetts, USA).
SYSTEMATICS

Family Strobilopsidae Wenz, 1915

Genus Eostrobilops Pilsbry, 1927

Type species. Strobilops hirasei Pilsbry, 1908, by original designation.

Eostrobilops zijinshanicus sp. nov.

Figs 1–4

Type material. China, Jiangsu (江苏), Nanjing City (南京市), Mount Zijinshan (紫金山), 32°04'29"N, 118°51'32"E, alt. 135 m, leg. DE-YAO ZHOU, 10-Mar-2019. HBUMM 10010 (Holotype), HBUMM 10011-10013 (5 paratypes, after measurements one shell was broken to expose the internal structure). The type specimens now in HBUMM will be transferred to IZCAS in the future.

Measurements (in mm). Shell width – 2.0–2.4, shell height – 1.5–1.8 (n = 6).

Diagnosis. A small Eostrobilops with a strongly ribbed dorsal surface, parietal lamella extending deep into the shell, interparietal lamella nearly touching callus, infraparietal lamella present internally, and three basal folds.

Description. Shell small; dark brown to purple; conical, somewhat flattened ventrally. Suture shallow. Whorls 5 3/8 (n = 3), slowly expanding. Dorsal ribs high and strong. Umbilicus narrow and deep, approximately 1/6 of shell width. Ventral surface with densely rib-like striation which becomes stronger near umbilicus. Aperture crescent-shaped. Peristome thickened and reflexed. Parietal callus weak; parietal lamellae strong, extending along ca. 7/8 whorl, but weaker in the innermost 1/3 whorl; infraparietal lamellae extending for nearly 2/3 whorl, but weaker towards the aperture; a short interparietal lamella deeply situated at ca. 1/3 whorl from the aperture; one short columellar lamella present; three basal folds visible through fresh translucent shell.

Differential diagnosis. Eostrobilops hirasei (Pilsbry, 1908), E. nipponicus (Pilsbry, 1927) and E. taiwanicus (Minato et Tada, 1992) differ from E. zijinshanicus sp. nov. in their larger shells. E. diodontinus (Heude, 1915) differs from E. zijinshanicus sp. nov. by its larger size and different ribbing pattern.
A new species of *Eostrobilops* from China

1885) has shorter and less deeply situated folds than the new species. The new species has a more elevated spire than *E. humicolus* Páll-Gergely et Hunyadi, 2015, a distinctly longer parietal lamella, and stronger ribs on the dorsal side.

**Etymology.** The species name *zijinshanicus* is derived from the type locality, Mount Zijinshan.

**Type locality.** China, Jiangsu (江苏), Nanjing City (南京市), Mount Zijinshan (紫金山), 32°04′29″N, 118°51′32″E, alt. 135 m a.s.l.

**Distribution.** *E. zijinshanicus* sp. nov. is known from the type locality only (Fig. 2).

**Ecology.** The species was found in decaying wood where also termites were observed.

**Remarks.** With the increasing number of species described, the original diagnosis of *Eostrobilops* became somewhat imprecise. For example, the presence of interparietal lamella and the absence of serrated nodes on the lamellae in *E. zijinshanicus* sp. nov. are shared by the species described in recent decades (Vermeulen 1992, Páll-Gergely et al. 2015).

**Nomenclature.** The gender of the generic name *Eostrobilops* was not indicated in the original publication; the species names in this genus are masculine as well as feminine. According to Article 30.1.4.3. of ICZN (1999), a compound genus-group name ending in -*ops* is to be treated as masculine. This means that the gender of some species names in *Eostrobilops* has to be changed, i.e. *E. coreanus* (Pilsbry, 1927), *E. diodontinus* (Heude, 1885), *E. nipponicus* (Pilsbry, 1927) and *E. taiwanicus* (Minato et Tada, 1992) should be used instead of their feminine-gender counterparts. The nomenclature of species within *Strobilops* and related genera requires a revision.

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Fig. 4. Distribution of *Eostrobilops* species: 1, 2 – *Eostrobilops coreana* (Pilsbry, 1927); 3 – *E. coreana echo* (Kuroda et Miyanaga, 1939) and *E. kongoensis* (Kuroda et Miyanaga, 1939); 4, 5 – *Eostrobilops nipponica* (Pilsbry, 1927); 6 – *E. nipponica reikoei* Matsumura et Minato, 1980; 7 – *E. hirasei* (Pilsbry, 1908); 8 – *Eostrobilops zijinshanicus* sp. nov. 9 – *E. diodontina* (Heude, 1885); 10 – *E. humicolus* Páll-Gergely et Hunyadi, 2015; 11 – *E. kanjiokuboi* (Minato et Tada, 1992) and *E. taiwanica* (Minato et Tada, 1992); 12 – *E. yaeyamensis* (Habe et Chinen, 1974); 13 – *E. infrequens* Maassen, 2006; 14 – *E. triptychus* Vermeulen, 1992. Map: BARNA PÁLL-GERGELY
Key to the extant species of Eostrobilops in mainland China

1. Umbilicus large. Basal folds extending for 1/4 body whorl: Eostrobilops diodontinus (Heude, 1885).

2. Spire low, shell height ca. 1.45–1.5 mm. Dorsal ribs fine: Eostrobilops humicolus.
   2a. Spire high, shell height ca. 1.5–1.8 mm. Dorsal ribs strong and coarse: Eostrobilops zijinshanicus sp. nov.

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