CATHAICA, **1** (1): 1–6, November 23, 2024
DOI: https://doi.org/10.5281/zenodo.14196707
ISSN 2755-9653 (Print) | ISSN 2755-9661 (Online)

A remarkable new species of *Aegistohadra* Wu, 2004 from Guizhou, southwest China (Gastropoda: Stylommatophora: Camaenidae)

Zhe-Yu Chen[1,2]

[1]*Parasitology and Vectors Lab, Department of Veterinary Biosciences, Faculty of Science, The University of Melbourne, Parkville VIC 3010, Australia.*
[2]*Department of Life Sciences, Natural History Museum, London SW7 5BD, UK.*
https://orcid.org/0000-0002-4150-8906

Abstract: *Aegistohadra jiangrixini* Z.-Y. Chen, **sp. nov.** is described and illustrated from Maolan National Nature Reserve, Guizhou Province, China. The new species can be distinguished from other members of the genus by its smaller size, depressed conical shell, and the pattern of bands. This new species represents the first report of *Aegistohadra* Wu, 2004 in Guizhou Province.

Key words. New species, morphology, taxonomy, land snail, new provincial record

Introduction

Aegistohadra Wu, 2004 is a small genus of Camaenidae Pilsbry, 1895 with 12 known species from Southwest China, North Vietnam and Laos (Wu, 2004, 2023; Jirapatrasilp *et al.*, 2022; Lee, 2022). *Aegistohadra* Wu, 2004, was originally established as a monotypic genus based on the type species *Aegistohadra delavayana* (Heude, 1885) with its anatomical features (Wu, 2004). However, only recently has the high shell variability of *Aegistohadra* been revealed through anatomical and molecular phylogenetic studies, leading to the reassignment of some species, previously classified under *Amphidromus* Albers, 1850 and *Camaena* Albers, 1850, into this genus (Jirapatrasilp *et al.*, 2022; Wu, 2023). The shell general shape of *Aegistohadra* species ranges from elongate conical to heliciform. In this paper, I describe a new species of *Aegistohadra* from Guizhou Province, China.

Materials and methods

Images of living animal and shell habitus were taken using a Canon® 5D Mark IV digital camera with Canon® EF 100mm f/2.8L IS USM macro lens. Images of the microstructures were taken using a Canon® 5D Mark IV digital camera with a Canon® MP-E 65 mm f/2.8 1–5X macro lens. A Godox® MF12 flash was used as the light source. Zerene Stacker® (version 1.04) was used for image stacking. All images were modified and assembled into plates using Adobe Photoshop® 2021. Whorls were counted as described by Kerney and Cameron (1979). Specimens are deposited in the Mollusks collection of Museum of Hebei University (HBUMM, Baoding, China) and Mianyang Normal University (MYNU, Mianyang, China).

Contact information: chenzheyu1998@163.com
http://zoobank.org/urn:lsid:zoobank.org:pub:D379F5BC-621F-46CD-89F5-1D46AD4AD5FF

Systematics

Family **Camaenidae** Pilsbry, 1895

Genus ***Aegistohadra*** Wu, 2004

Aegistohadra Wu, 2004: 112.

Aegistohadra – Jirapatrasilp *et al.*, 2022: 264; Wu, 2023: 60.

Type species. *Nanina delavayana* Heude, 1885, by original designation.

Aegistohadra jiangrixini Z.-Y. Chen, sp. nov.

姜氏脐厚螺

(Figure 1, 2, 3B)

Type materials. *Holotype.* HBUMM (shell), Shishang Forest Scenic spot [石上森林], Maolan National Nature Reserve [茂兰国家级自然保护区], Libo County [荔波县], Qiannan Buyi and Miao Autonomous Prefecture [黔南布依族苗族自治州], Guizhou Province, China. 2024.X.15, leg. Ri-Xin Jiang. *Paratypes.* HBUMM (3 shells), MYNU (2 shells), Botanical Garden, Shishang Forest Scenic spot [石上森林], Maolan National Nature Reserve [茂兰国家级自然保护区], Libo County [荔波县], Qiannan Buyi and Miao Autonomous Prefecture [黔南布依族苗族自治州], Guizhou Province, China. 2019.VI.16. 780m. leg. Lu Qiu.

Etymology. This species is named after entomologist Ri-Xin Jiang, the collector of the holotype.

Diagnosis. A small *Aegistohadra* with a depressed sinistral shell and rounded periphery, a broad band along the periphery, a dark and narrow band on each side of the peripheral band, and an uppermost band attached to the suture.

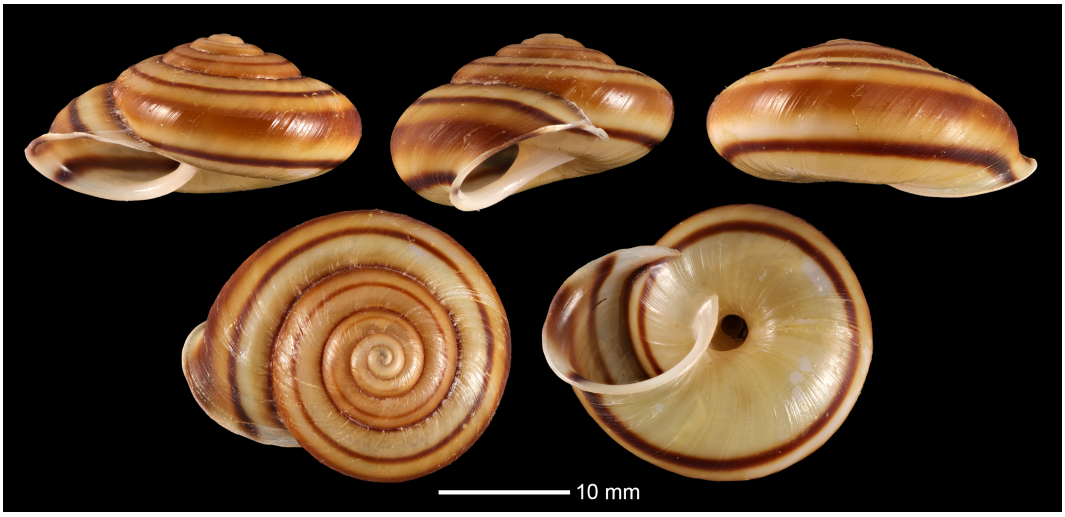

Figure 1. Shell of *Aegistohadra jiangrixini* **sp. nov.**, holotype.

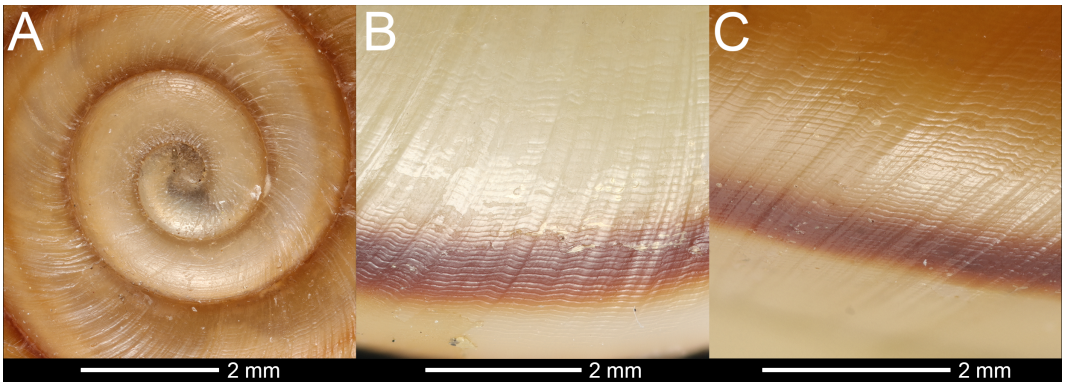

Figure 2. *Aegistohadra jiangrixini* **sp. nov.**, holotype. **A.** Protoconch. **B.** microstructures on the ventral side of body whorl. **C.** microstructures on the periphery of body whorl.

Description. Shell (Fig. 1) medium, small size for the genus, sinistral, thin but solid, depressed conical, with 4.75 slightly convex whorls separated by impressed suture. Protoconch (Fig. 2A) sconsisting of 1.5 whorls, very fine radial structure present near the suture. Shell surface with thin spiral furrows starting from protoconch (16–20 per 1 mm on body whorl) and irregular prominent growth lines (Fig. 2B–C). Body whorl peripherally rounded. Shell pale yellow with chestnut bands appearing and deepening about one whorl after the protoconch: one broad band on the periphery, partially covered by lower whorls on upper whorls; one darker, narrower band on each side of the periphery band, with the lower band fully covered by lower whorls, visible only at the body whorl; the most upper one much narrower and attached suture. Aperture oblique, ovate, suddenly descending in front, angulo-palatal margin of the aperture reaches to the lower band. Peristome slightly expanded and reflexed. Columella oblique. Umbilicus open, small, approximately ⅛ of shell major diameter, slightly covered by reflexed columella.

Measurements. Shell height: 13.0 mm, shell width: 25.5 mm (holotype).

Differential diagnosis. The conchological traits of the new species align with the revised diagnosis of *Aegistohadra* proposed by Jirapatrasilp *et al.* (2022). While *Aegistohadra* exhibits significant variability in shell morphology, there is a general trend among known species where the shell shape transitions from depressed to conical and elongate-conical as shell size decreases. *Aegistohadra jiangrixini* **sp. nov.**, however, represents a smaller member of the genus with a distinctly depressed shell. This unique morphology sets it apart from other depressed species by size and from conical species of comparable size by shape. The banding pattern of *Aegistohadra jiangrixini* **sp. nov.** somewhat resembles that of *Aegistohadra jiahei* (Yang *et al.*, 2012), *Aegistohadra mirifica* (Bavay & Dautzenberg, 1909) and *Aegistohadra baii* Wu, 2023. It features a relatively broad peripheral band that is partially obscured by the suture but becomes visible near the aperture due to its descending aperture.

Remarks. The new species was found in crevices of tree trunks and bark. A photograph of a living juvenile individual shows pigmentation in the head region, but no prominent head wart has developed, which may be associated with the individual not yet reaching sexual maturity.

Distribution. Southwest China: Guizhou. This species is known from the type locality only. This is the first record of *Aegistohadra* found in Guizhou Province.

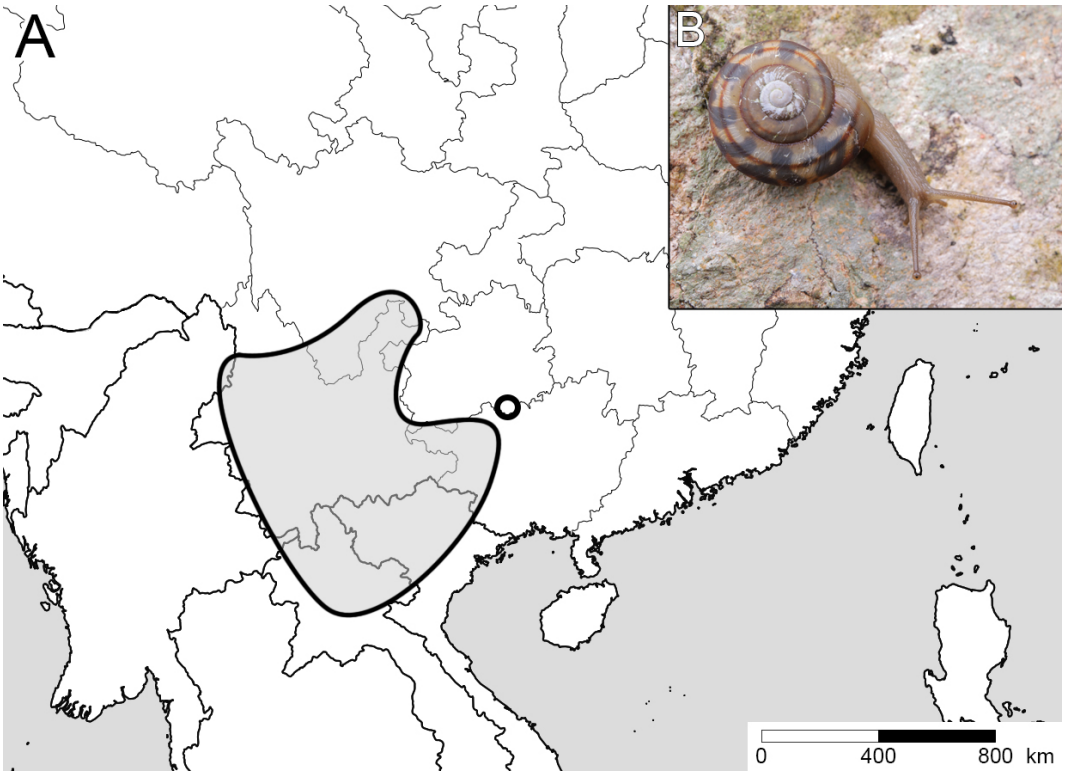

Figure 3. A. Distribution of *Aegistohadra*. Grey region: all previously known *Aegistohadra*; circle: *Aegistohadra jiangrixini* **sp. nov. B.** Living juvenile individual of *Aegistohadra jiangrixini* **sp. nov.** from the type locality.

Acknowledgements

Thanks go to Ri-Xin Jiang [姜日新] (Guizhou University) and Lu Qiu [邱鹭] (Mianyang Normal University) for sharing the specimens of this species, to Zhong-Guang Chen [陈重光] (Nanchang University) and an anonymous reviewer for their helpful comments on the manuscript. This study was funded by research grants from the Malacological Society of London and the Melbourne Research Scholarship.

References

Albers, J. C. (1850) *Die Heliceen nach natürlicher Verwandtschaft systematisch geordnet*. Enslin, Berlin, 262 pp.

Heude, P.-M. (1882–1890) Notes sur les mollusques terrestres de la vallée du Fleuve Bleu. *Mémoires concernant l'histoire naturelle de l'Empire chinois*, 1882: 1–84; 1885: 89–132; 1890: 125–188.

Jirapatrasilp, P., Huang, C.-W., Hwang, C.-C., Sutcharit, C. & Lee, C.-T. (2022) Convergent evolution of *Amphidromus*-like colorful arboreal snails and phylogenetic relationship of East Asian camaenids, with description of a new *Aegistohadra* species (Helicoidei: Camaenidae: Bradybaeninae). *Invertebrate Systematics*, 36(3): 244–290.

Kerney, M. P. & Cameron, R. A. D. (1979) *A field guide to the land snails of Britain and north-west Europe*. Collins, London, 288 pp.

Lee, H. G. (2022) An account of a pretty astounding clade of sinistral and enantiomorphic land snail taxa. *Shell-O-Gram*, 63(4): 3–10.

Pilsbry, H. A. (1893–1895) *Manual of conchology, structural and systematic, with illustrations of the species. Ser. 2, Pulmonata. Vol. 9: Helicidae, Vol. 7, Guide to the study of Helices*. pp i–xlviii, 1–366, pls 1–71. Philadelphia, published by the Conchological Section, Academy of Natural Sciences. [pp. 1–48, pls 1–14, 16 Nov 1893; pp. 49–112, pls 15–28, 19 Mar 1894; pp. 113–160, pls 29–40, 27 Jul 1894; pp. 161–366, pls 41–71, i–xlviii, 2 Feb 1895; index 1–126, April 1895].

Wu, M. (2004) Preliminary phylogenetic study of Bradybaenidae (Gastropoda: Stylommatophora: Helicoidea). *Malacologia*, 46(1): 79–125.

Wu, M. (2023) A new *Aegistohadra* (Gastropoda: Camaenidae) from southwest China. *Ruthenica*, 33(2): 59–71.

Yang, H.-F., Fan, Z.-Y., Qiao, D.-D. & He, J. (2012) Description of four landsnails from China. *Shell Discoveries*, 1(1): 32–33. [Yang, H.-F., Fan, Z.-Y., Qiao, D.-D. & He, J. (2012) 四种中国陆贝的描述. 贝壳与贝壳学, 1(1): 32–33.]

贵州省脐厚螺属一新种（腹足纲：柄眼目：坚螺科）

陈哲宇 [1,2]

[1] 墨尔本大学理学院兽医科学系寄生虫及媒介实验室 帕克维尔 VIC 3010 澳大利亚
[2] 伦敦自然历史博物馆自然科学部 伦敦 SW7 5BD 英国

摘　要

本文报道了产自贵州茂兰国家级自然保护区的脐厚螺属 *Aegistohadra* Wu, 2004 一新种：姜氏脐厚螺 *Aegistohadra jiangrixini* Z.-Y. Chen, **sp. nov.**。该新种系脐厚螺属在贵州的首次报道。与同属其他物种相比，姜氏脐厚螺具有较小的壳体、扁锥形的贝壳及其特有的色带形态等显著的区分特征。

关键词：新种，形态学，分类学，陆生贝类，省级新纪录