One new species of the genus *Uenostrongylium* (Coleoptera: Tenebrionidae) from Guangxi, China

Tingting LIU¹, Caixia YUAN^{1, 20}, Wenqiang WANG^{1, 2}

1. College of Life Sciences, Yan'an University, Yan'an, Shaanxi 716000, China

2. Shaanxi Engineering and Technological Research Center for Conservation and Utilization of Regional Biological Resources, Yan'an, Shaanxi 716000, China

Abstract: One new species, *Uenostrongylium merkli* sp. nov. (China, Guangxi), is described. Habitus, illustrations and a list of all *Uenostrongylium* species are provided.

Key words: darkling beetles; Stenochiini; taxonomy

广西优树甲属一新种记述 (鞘翅目: 拟步甲科)

刘婷婷¹, 苑彩霞^{1,20}, 王文强^{1,2} 1. 延安大学生命科学学院,陕西 延安 716000;2. 陕西省区域生物资源保育与利用工程技术研究中心, 陕西 延安 716000 **摘要:** 记述采自中国广西的优树甲属1新种:默氏优树甲 Uenostrongylium merkli sp. nov.。提供了整体 图、特征图和优树甲属所有种的名录。 关键词: 拟步甲;树甲族;分类

Introduction

Uenostrongylium Masumoto, 1999 is a small genus of the tribe Stenochiini, with six species distributed in China (Guizhou, Hunan, Zhejiang, Guangdong), Laos and Annam (Masumoto 1999, 2006; Yuan *et al.* 2018; Masumoto & Akita 2019; Lin *et al.* 2021). Recently, in the course of our studies on specimens collected from Dayaoshan Mt., Guangxi, China, one new species in the genus *Uenostrongylium* was discovered, *Uenostrongylium merkli* **sp. nov.** Consequently, there are five species of this genus in China after our description below. A list of all *Uenostrongylium* species is also provided.

Material and methods

Specimens were examined under a Nikon (SMZ 1270) dissecting microscope. Measurements and photographs were taken using a Leica (M205 A) dissecting microscope. The male genitalia was dissected and cleared in warm 10% NaOH solution. After examination, it was transferred to a microvial with fresh glycerine and placed below the pinned specimen.

Accepted 15 December 2022. Published online 2 March 2023. Published 25 March 2023.

① Corresponding author, E-mail: treebeetle@163.com

The following measurements are used in the text: body length: length of the body from the anterior edge of the clypeus to elytral apex under its natural position; pronotal length: length of the pronotum along the midline; pronotal width: maximum width of the pronotum; elytral width: length of the maximal elytral width; elytral length: length of the elytra from the base of the scutellum to the elytral apex along the suture. All measurements are given in millimeters. Terminology used in this study follows Masumoto (1999).

The type specimens are deposited in the Hebei University Museum, Baoding, Hebei (HBUM) and the Yan'an University Insect Collection, Yan'an, China (YUC).

Taxonomy

1. Uenostrongylium merkli sp. nov. (Figs 1-10)

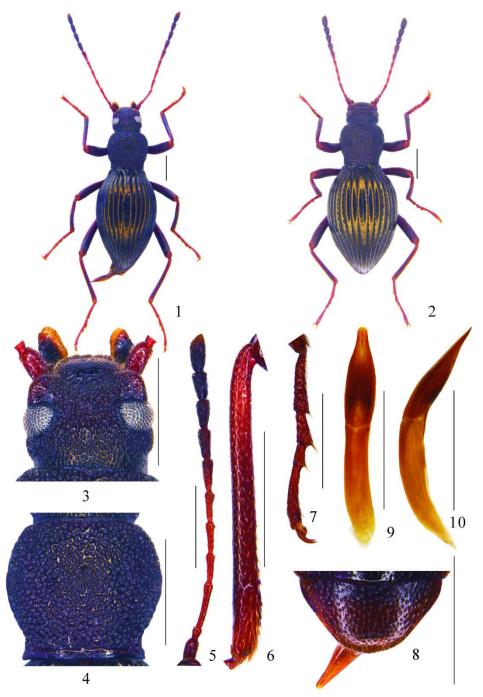
Description. Male. Body length 6.63–7.30 mm. Oblong-oval, strongly convex, obviously constricted at pronotal and elytral bases, without hind wings; head, pronotum and elytra black, exterior margins of genae and legs brown, femora and tibiae darker in color, antennomeres I–VI and base of antennomere VII yellowish brown, apex of antennomere VII and apical four segments dark brown; head and pronotum very weakly shining, elytra with strongly brassy shine; body with microscopic and adpressed hairs.

Head densely punctate; clypeus with moderately large punctations which are occasionally fused with each other, frontoclypeal suture arcuate, finely grooved, both sides extending outer margins, weakly impressed in median before suture; genae coarsely punctate, exterior margins obtusely rounded; frons very wide, moderately steeply inclined anteriad, densely scattered with very coarse and fused punctations, distance between eyes 2.07 times as wide as transverse diameter of an eye in dorsal view, posterior part of vertex sparsely and finely punctate, posterior parts with weakly oblique impressions; eyes small, nearly heart-shaped in lateral view, weakly convex laterad; antennae subfiliform, reaching basal 1/3 of elytra, length ratios of 2nd to 11th antennomeres as: 0.16, 0.57, 0.35, 0.40, 0.39, 0.40, 0.39, 0.37, 0.36, 0.48.

Pronotum 1.10 times as wide as long, widest at apical 2/5, gradually narrowing anteriad and posteriad, strongly constricted near posterior angles; dorsum very convex; anterior margin nearly straight, finely bordered; posterior margin with moderately bold border; lateral margins with border at apical 1/2; front angles rounded, hind angles obtuse; disc with very dense, coarse and irregular punctations, weakly and shallowly impressed on apical 1/2 on each side, weakly depressed in apical 1/4 along midline. Scutellum small, equilateral triangle, weakly convex at medio-basal part, with very sparse punctations.

Elytra suboval, 1.68 times as long as wide, 3.07 times as long and 1.66 times as wide as pronotum, widest at basal 2/5; dorsum strongly convex, highest at basal half; disc with 9 striae, scutellar strioles very short, with one punctation, close to apex of scutellum, strial punctations partially fused with each other and forming a long line, punctations small and shallow in interior part, becoming larger and deeper laterad, oval and concave in intervals, gradually smaller and forming grooves apicad; intervals wide, moderately convex, sparsely and minutely punctate; apices roundly produced posteriad.

Ventral surface sparsely and densely punctate, prosternum densely and coarsely punctate, longitudinally impressed between procoxae, prosternal process rounded; mesosternum coarsely punctate, V-shaped and convex between mesocoxae; metasternum sparsely punctate.



Abdominal surface with moderately sparse and regular punctations, ventrite V simple, apical margin rounded, depressed in middle and near apex.

Figures 1–10. *Uenostrongylium merkli* **sp. nov.** 1. Habitus, male; 2. Habitus, female; 3. Head; 4. Pronotum; 5. Antennae; 6. Metatibia; 7. Metatarsus; 8. Ventrite V; 9. Male genitalia, dorsal view; 10. Male genitalia, lateral view. Scale bars = 1.0 mm.

Legs elongate, densely punctate, tibiae almost straight, metatarsomeres I–IV length ratio as: 0.68, 0.34, 0.24, 0.69. Male genitalia 1.83 mm long, 0.27 mm wide, obviously arcuate in lateral view, basale constricted at basal 2/5, apicale 0.94 mm long, gradually narrowed apicad, constricted in apical 1/5, apex flattened, weakly dehiscent.

Female. Body more stout, length 5.85-6.70 mm; antennae shorter and stouter.

Holotype. \mathcal{J} , **China**, Guangxi, Laibin City, Jinxiu County, Dayaoshan Mt., ca. 650 m; 30-IV-2022, Chunfu FENG leg. (HBUM); **Paratypes.** $12\mathcal{J}14\mathcal{Q}$, same data as the holotype; $1\mathcal{J}$, same locality and collector as the holotype, 19-20-VI-2022, (YUC).

Etymology. This new species is named in honour of Dr. Ottó Merkl.

Diagnosis. This new species is similar to *U. hunanense* Masumoto 2006 from Hunan, but can be distinguished from the latter by the head and pronotum without microscopic brush-like setae, pronotum weakly and shallowly impressed at apical 1/2 on each side, strongly constricted near posterior angles, antennomere III 1.63 times as long as antennomere IV, scutellar strioles very short, with one punctation.

2. Uenostrongylium becvari Masumoto, 2006

Uenostrongylium becvari Masumoto, 2006: 70. Type locality: China, Guizhou. Distribution. China (Guizhou).

3. Uenostrongylium gaoi Lin & Yuan, 2021

Uenostrongylium gaoi Lin & Yuan, 2021: 139. Type locality: China, Guangdong. Distribution. China (Guangdong).

4. Uenostrongylium hunanense Masumoto, 2006

Uenostrongylium hunanense Masumoto, 2006: 72. Type locality: China, Hunan. Distribution. China (Hunan).

5. Uenostrongylium laosense (Pic, 1928)

Cryptobates? laosensis Pic, 1928: 26. Type locality: Laos. Crossoscelis laosensis: Gebien, 1944: 887. Uenostrongylium laoense: Masumoto, 1999:123. Distribution. Laos; Vietnam (Annam).

6. Uenostrongylium maoi Masumoto & Akita, 2019

Uenostrongylium maoi Masumoto & Akita, 2019: 203. Type locality: Laos, Xieng Khouang. Distribution. Laos.

7. Uenostrongylium scaber Yuan & Ren, 2018

Uenostrongylium scaber Yuan & Ren, 2018: 24. Type locality: China, Zhejiang. Distribution. China (Zhejiang).

Acknowledgements

We would like to dedicate this short paper to the memory of Dr. Ottó MERKL, the extraordinary coleopterist of the Hungarian Natural History Museum, Budapest, for his excellent work on Tenebrionoidea and for his kind help. We are also grateful to Prof.

Guodong REN (College of Life Sciences, Hebei University, Baoding) for his constant guidance on the second author's taxonomic studies and providing the specimens of the tribe Stenochiini. This study is supported by the National Natural Science Foundation of China (31960113).

References

- Gebien H. 1944. Katalog der Tenebrioniden, Teil III (in part). *Mitteilungen der Münchener Entomologischen Gesellschaft*, 34: 859–899.
- Lin W, Xu MF & Yuan CX. 2021. A new species of the genus *Uenostrongylium* Masumoto (Coleoptera: Tenebrionidae) from Guangdong, China. *Entomotaxonomia*, 43(2): 138–141.
- Masumoto K. 1999. Study of Asian Strongyliini (Coleoptera, Tenebrionidae) VII. Brachypterous strongyliines. *Elytra*, 27(1): 113–125.
- Masumoto K. 2006. Two new apterous stenochiines species from China (Coleoptera: Tenebrioninae: Stenochiini). *Entomological Review of Japan*, 61(1): 69–74.
- Masumoto K & Akita K. 2019. Description of a new species from Laos belonging to Uenostrongylium Masumoto, and proposal of a new replacement name of a Strongylium Kirby from Tonkin (Coleoptera: Tenebrionidae: Stenochiinae: Stenochiini). Japanese Journal of Systematic Entomology, 25(2): 203–205.

Pic M. 1928. Notes et descriptions. Mélanges Exotico-Entomologiques, 51: 1-36.

Yuan CX, Li P & Ren GD. 2018. One new species of the genus *Uenostrongylium* (Coleoptera: Tenebrionidae) from China. *Entomotaxonomia*, 40(1): 23–26.