



## *Drumontiana zhilini* sp. nov., a new species from Guangxi, China (Coleoptera: Cerambycidae: Prioninae)

YING-QI WANG<sup>1,2</sup>, PING WANG<sup>1,3\*</sup>, GUANG-LIN XIE<sup>1,4\*</sup> & WEN-KAI WANG<sup>1,5</sup><sup>1</sup>Institute of Entomology, College of Agriculture, Yangtze University, Jingzhou 434025, Hubei, China<sup>2</sup>Qingdao Hotincomon Agricultural Materials Marketing Co., Ltd, Qindao 266700, Shandong, China✉ 532156191@qq.com; <https://orcid.org/0009-0005-8396-0553>✉ wangping1992@yangtzeu.edu.cn; <https://orcid.org/0000-0002-8852-601X>✉ xieguanglin@yangtzeu.edu.cn; <https://orcid.org/0000-0003-3273-8985>✉ wwkw@yangtzeu.edu.cn; <https://orcid.org/0000-0002-4482-076X>

\*Corresponding author

### Abstract

In this work, a new species of the genus *Drumontiana* Danilevsky, 2001 (Cerambycidae: Prioninae) is described and illustrated, namely *Drumontiana zhilini* sp. nov. from Huaping National Nature Reserve, Guangxi, China.

**Key words:** longhorned beetle, taxonomy, Anacolini, Nanling Mountains

### Introduction

Danilevsky (2001) established the genus *Drumontiana* (Coleoptera: Cerambycidae: Prioninae) based on a South-East Palearctic and Oriental species *Casiphia lacordairei* Semenov, 1927 from Xizang, Yunnan and North Vietnam. Komiya & Niisato (2007) revised the genus *Drumontiana*, describing four new species from China and Indochina, and transferred *Psephactus amplipennis* Gressitt, 1939 to the genus. Currently, the genus includes 8 species/subspecies, three of which are known from China (Chen *et al.* 2019; Drumont & Komiya 2020; Tavakilian & Chevillotte 2023).

The Nanling Mountain Range, located in the middle subtropical zone of China, rich in biological resources and with a warm and moist climate, is a typical natural ecosystem and one of the most biologically diverse areas in the world (Liu *et al.* 2021). Recently, during investigations of insect diversity in the Nanling Mountains, we discovered an unknown species of the genus *Drumontiana* from Huaping National Nature Reserve. In the present study, *D. zhilini* sp. nov. is described from Guangxi, China. The habitus and male terminalia of the new species and its closely related species *D. amplipennis* (Gressitt, 1939) are illustrated.

### Materials and Methods

Materials are deposited in the following institutional or private collection (referred to by abbreviations in the text):

CCCC—Collection of Chang-Chin Chen, Tianjin, China

YZU—Insect Collection, College of Agriculture, Yangtze University, Jingzhou, Hubei, China

All habitus photographs were taken with a Canon 7D Mark II digital camera equipped with a Canon EF 100mm f/2.8L IS USM and genitalia images were taken with a Leica DFC450 digital camera mounted on a Leica M205A microscope. Images of genitalia were taken by keeping them in glycerin. All images were edited using Adobe Photoshop 2020. The male terminalia is prepared by first soaking the whole beetle in boiling water for several

minutes, then opening the abdomen from the abdominal apex along the dorsopleural margin. The terminalia were then removed with fine forceps and ophthalmic scissors, and later cleared in 10% KOH at 80–100°C for several minutes.

## Taxonomy

### *Drumontiana zhilini* sp. nov.

Chinese common name: 志林肚天牛

(Figs 1, 3, 5, 7, 9, 11–18)

**Type material. HOLOTYPE: CHINA:** male: Guangxi Zhuang Autonomous Region, Guilin, Longsheng, Huaping National Nature Reserve, August 3, 2022, coll. by Zhilin Chen (YZU); paratype: 1 female, China, Guangxi, Longsheng, Huapingbaohuqu, 790 m, July 6, 2017, coll. by Y.-Q. Lu (CCCC).

**Description** (Figs 1, 3). Male: Body length 14.20 mm (measured from vertex to elytral apices), humeral width 5.10 mm.

Body mostly pale reddish brown. Head pale reddish brown, except for inner margins of mandibles which are blackish brown. Antennae dark reddish brown. Ventral surface pale reddish-brown. Body moderately clothed with fine light yellowish pubescence, which is particularly long and dense on head, pronotum, scutellum, elytra. Ventral surface sparsely covered with short pale yellowish pubescence.

Head narrower than base of pronotum, with an obvious longitudinal median sulcus; frons short, transverse, densely and coarsely rugulose-punctate; vertex slightly concave, coarsely rugulose-punctate. Eyes well developed, convex, finely faceted, with eye diameter longer than gene. Antennae distinctly shorter than body, 0.70 times as long as body; scape short, thickened apically, rugulose-punctate, with a distinct and complete ridge on lower margin of the outer side, and apex and an incomplete ridge on apical half of upper margin of the outer side; antennomeres III–IX strongly flattened, each antennomere provided with two complete distinct longitudinal ridges on dorsum; scape shorter than antennomere III, remaining antennomeres gradually decreasing in length distally, antennomere IX slightly arcuate, slightly shorter than III and slightly longer than IV.

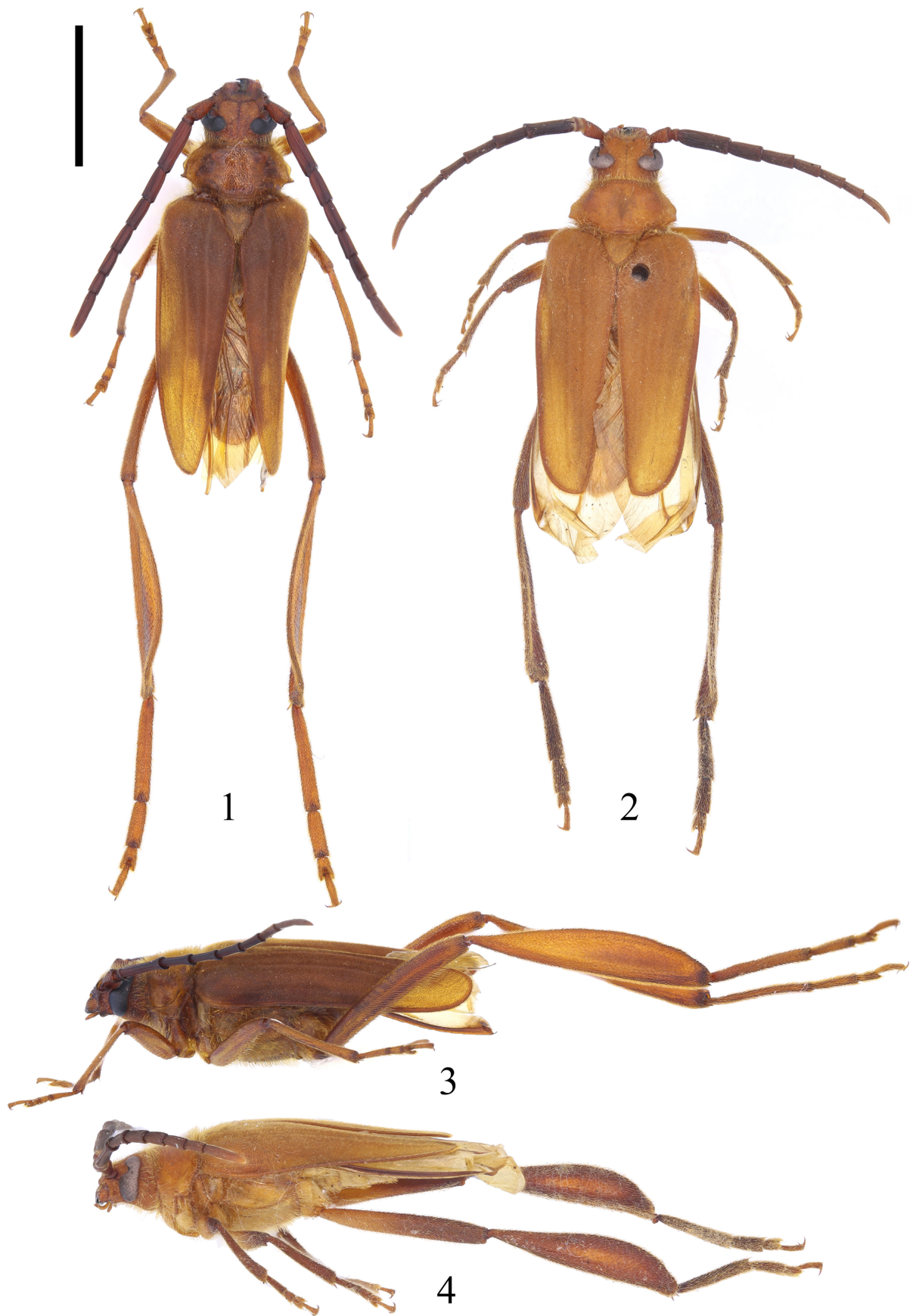
Pronotum wider than long, widest at basal 1/4, 0.67 times as wide as basal width, with apical margin slightly narrower than basal margin; each side furnished with a pronounced small tooth at basal 1/4, which is acute apically, directed laterally; apical margin straight; basal margin roundly expanded backwards; disc convex, densely and finely punctured. Scutellum triangle, with slightly rounded apex, 0.61 times as long as prothorax, with small and dense punctures.

Elytra 1.96 times as long as humeral width, obviously broader than prothorax, gradually narrowed toward apices which are rounded apically; disc densely and finely granulate, provided with two fine longitudinal ridges on each elytron.

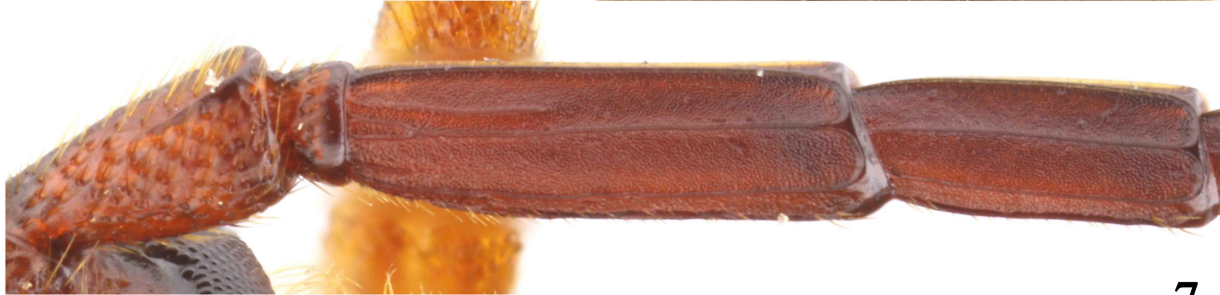
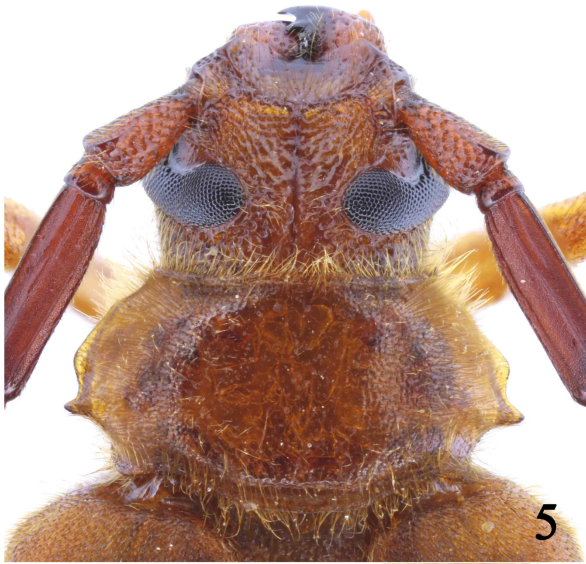
Ventral surface sparsely and finely punctured. Legs long and slender; metafemora slightly exceeding elytral apices; metatibiae greatly compressed and broadened; metatarsus 0.92 times as long as metatibia, with first metatarsomere obviously long, 1.56 times as long as following two tarsomeres combined.

**Male terminalia** (Figs 13–18). Tergite VIII semicircle, 0.84 times as long as width. Sparsely covered with long setae, spiculum gastrale shorter than ringed part of tegmen. Spiculum relictum shorter than half the length of spiculum gastrale. Tegmen rather distinctly widened in posterior third, with apical margin roundly expanded backwards; parameres about 1/4 the length of tegmen, covered with a few long setae. Median lobe moderately curved in lateral view, obviously longer than tegmen; median struts 1.26 times as long as median lobe; ventral plate tapered at apex.

**Female** (Figs 11–12). Body length 27.83 mm (measured from vertex to elytral apices), humeral width 8.70 mm. Body black reddish brown. Abdominal ventrites black reddish brown, obviously darker in apical half of each abdominal ventrite. Legs blackish reddish brown, except for tarsi light reddish brown. Left antenna missing antennomeres VI–XI; right antenna missing antennomere V–XI; scape obviously shorter than antennomere III, slightly longer than IV. Pronotum wider than long, each side furnished with a pronounced large tooth at basal 1/4, which is obtuse apically, obviously directed backward. Elytra 2.32 times as long as humeral width, obviously broader than prothorax, widest around middle; lateral margins gently widened from humeri to middle, then arcuately



FIGURES 1–4. Habitus of *Drumontiana* spp. 1, 3. *D. zhilini* sp. nov. holotype, male. 2, 4. *D. amplipennis* (Gressitt, 1939), male. 1, 2. Dorsal view. 3, 4. Lateral view. Scale bar: 5 mm.

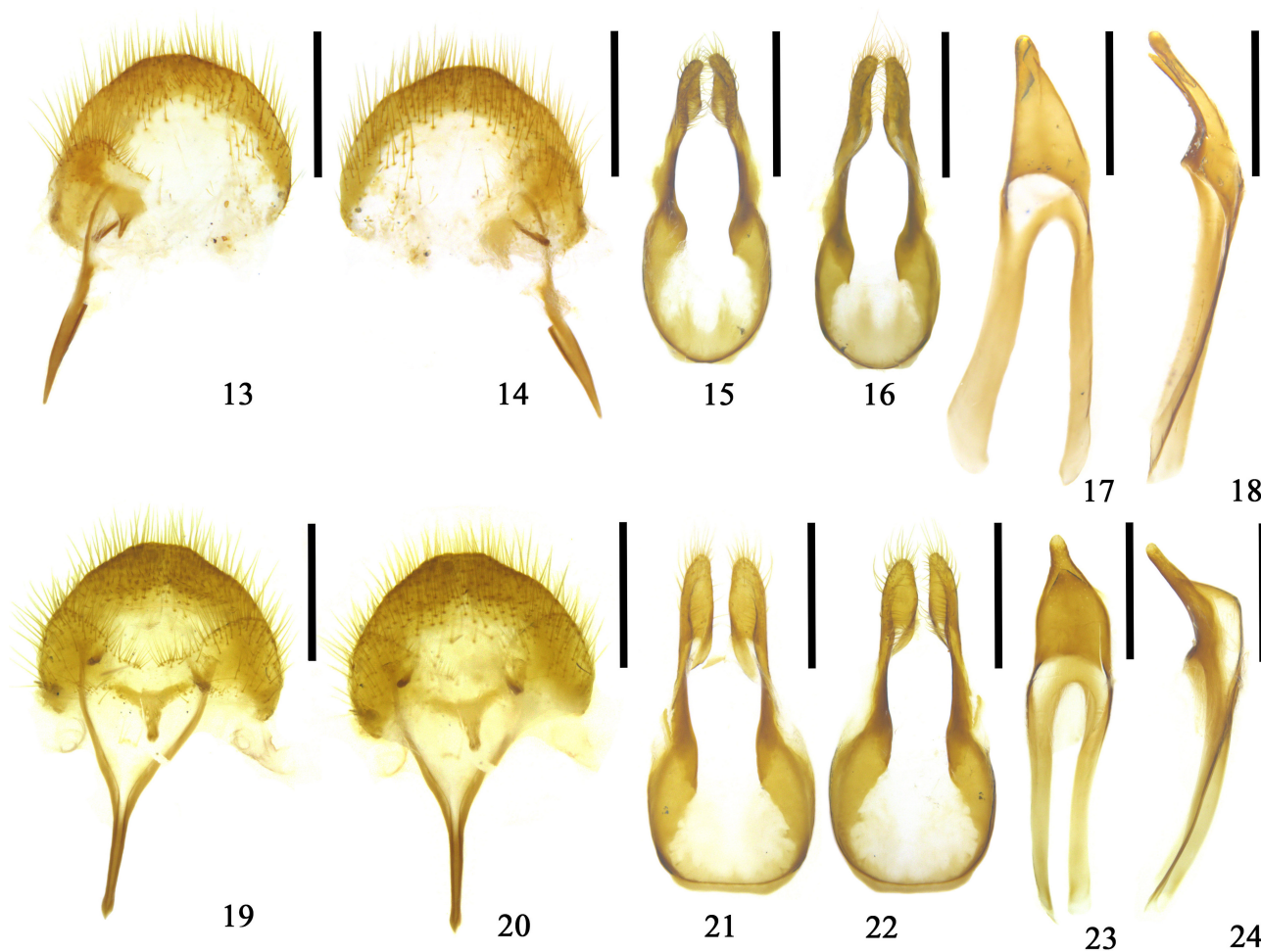


**FIGURES 5–10.** Head and pronotum, antenna and metafemora of *Drumontiana* spp. **5–6.** Head and pronotum. **7–8.** Antennomeres I–IV. **9–10.** Metafemora. **5, 7, 9.** *D. zhilini* sp. nov. holotype, male. **6, 8, 10.** *D. amplipennis* (Gressitt, 1939), male. **5–8.** Dorsal view. **9, 10.** Lateral view.



**FIGURES 11–12.** Habitus of *Drumontiana zhilini* **sp. nov.** paratype, female. **11.** Dorsal view.**12.** Ventral view. Scale bar: 5 mm (Photographs courtesy of Wen-Xuan Bi).

convergent to rounded apices; disc densely and finely granulate. Ventral surface sparsely and finely punctured. Abdominal ventrites with distinctly punctures, first abdominal ventrite longest, apex of terminal sternite nearly straight. Legs long and slender; metafemora almost reaching the posterior margin of abdominal segment IV; metatarsus 0.74 times as long as metatibia, with first metatarsomere obviously long, 1.37 times as long as following two tarsomeres combined.



**FIGURES 13–24.** Genitalia of *Drumontiana* spp. 13–14, 19–20. Tergite VIII. 15–16, 21–22. Tegmen. 17–18, 23–24. Median lobe. 13–18. *D. zhilini* sp. nov. holotype, male. 19–24. *D. amplipennis* (Gressitt, 1939), male. 13, 15, 17, 19, 21, 23. Ventral view. 14, 16, 20, 22. Dorsal view. 18, 24. Lateral view. Scale: 0.5 mm.

**Remarks.** This new species superficially resembles *Drumontiana amplipennis* (Gressitt, 1939) (type locality: China, Zhejiang, Tianmu Mountain) on account of the similar integral color. However, it can be readily distinguished from the latter by the combination of the following characteristics: head and scape with dense, coarse, rugulose-punctures (Figs 1, 5); male scape with a distinct ridge on apical half of upper margin of the outer side; male lateral pronotal tooth at basal 1/4 small, acute apically, not directed backwards (Fig. 5); ring part of tegmen rounded on apical margin (Figs 15–16). While in *D. amplipennis* (Gressitt, 1939), head and antennal scape with sparsely, finely rugulose-puncture (Figs 2, 6); male scape without ridges on upper margin of the outer side; male pronotum with an obtuse tooth at basal 3/10 on each side, sometimes large and sharp, which is obviously directed backwards (Fig. 6); ring part of tegmen nearly straight on apical margin (Figs 21–23).

At first glance, the new species is also similar to *D. costata* Komiya & Niisato, 2007 (type locality: Phu Pan, NE. Laos). The new species antennae 0.70 times as long as body; male pronotum with a pronounced small lateral tooth at basal 1/4 of each side (Fig. 5), female pronotum with broader lateral edges; elytra 1.96 times as long as humeral width; ring part of tegmen rounded on apical margin (Figs 15–16). While in *D. costata* Komiya & Niisato, 2007, male antennae 0.80 times as long as body; male pronotum with two teeth on each side; male scutellum more broadly rounded; elytra 2.2–2.3 times as long as humeral width; ring part of tegmen nearly straight on apical margin (Komiya & Niisato, 2007; Drumont *et al.*, 2018).

**Distribution.** China (Guangxi).

**Etymology.** The species is named after Mr. Zhilin Chen (Guangxi Normal University, Guangxi, China) in appreciation of his generosity in offering the specimen of this new species to be described.

## *Drumontiana amplipennis* (Gressitt, 1939)

Chinese common name: 天目肚天牛

(Figs 2, 4, 6, 8, 10, 17–22)

*Psephactus amplipennis* Gressitt, 1939: 82, pl. I, fig. 1. Type locality: Tianmu Mountain, Zhejiang, China.

*Drumontiana amplipennis* Komiya & Niisato, 2007: 571, fig. 30.

**Material examined.** 2 ♂♂, China: Zhejiang, Xitianmu Mountain, Sanliting, August 25, 1998, coll. by Hong Wu (YZU); 4 ♂♂, China: Zhejiang, Xitianmu Mountain, Sanliting, Xianrending, August 2, 1998, coll. by Mingshui Zhao (YZU).

**Distribution.** China: Zhejiang.

## Acknowledgement

We are deeply grateful to Zhi-Lin Chen (Guangxi Normal University, Guangxi, China) for generously presenting the holotype of the new species, and to Chang-Chin Chen (Tianjin, China), Wen-Xuan Bi (Shanghai, China) and Mei-Ying Lin (Mianyang Normal University, Mianyang, China) for offering the photographs and information of paratype. We wish to express our sincere thanks to Wen-Xuan Bi (Shanghai, China), Tatsuya Niisato (Tokyo, Japan) and Alain Drumont (Royal Belgian Institute of Natural Sciences, Brussels, Belgium) for providing helpful comments and improving the English narrative. This work is supported by the National Natural Science Foundation of China (No. 31672327).

## References


- Chen, L., Liu, Z.-P. & Li, Z. (2019) Subfamily Prioninae Latreille, 1802. In: Lin, M.Y. & Yang, X.K. (Eds.), *Catalogue of Chinese Coleoptera. Vol. 9. Chrysomeloidea. Vesperidae, Disteniidae, Cerambycidae*. Science Press, Beijing, pp. 10–25.
- Danilevsky, M. (2001) New Prioninae. Genus *Drumontiana* from SE Asia (Coleoptera, Cerambycidae). *Lambillionea*, 101 (2), 228–232.
- Drumont, A., Gouverneur, X., Tavakilian, G. & Collard, S. (2018) Contribution à l'étude de la faune des Prioninae du Laos (Coleoptera, Cerambycidae). *Les Cahiers Magellanes*, 29, 40–63.
- Drumont, A. & Komiya, Z. (2020) Subfamily Prioninae Latreille, 1802. In: Danilevsky, M. (Ed.), *Catalogue of Palaearctic Coleoptera, volume 6(1). Chrysomeloidea I (Vesperidae, Disteniidae, Cerambycidae). Updated and Revised Second Edition*. Brill, Leiden and Boston, pp. 105–118.
- Gressitt, J.L. (1939) A collection of longicorn beetles from T'ien-mushan, East China (Coleoptera: Cerambycidae). *Notes D'Entomologie Chinoise*, 6 (4), 81–127.
- Komiya, Z. & Niisato, T. (2007) A revision of the genus *Drumontiana* Danilevsky (Coleoptera, Cerambycidae, Prioninae). *Elytra*, 35 (2), 559–575.
- Liu, W.-B., Yao, Y., Yan, C.-C., Wang, X.-H. & Lin, X.-L. (2021) A new species of *Polypedilum* (*Cerobregma*) (Diptera, Chironomidae) from Oriental China. *ZooKeys*, 1011, 139–148.  
<https://doi.org/10.3897/zookeys.1011.59554>
- Tavakilian, G.J. & Chevillotte, H. (2023) Titan: base de données internationales sur les Cerambycidae ou Longicornes. Available from: <http://titan.gbif.fr/index.html> (accessed 1 March 2024)

# 志林肚天牛*Drumontiana zhilini*——中国广西天牛科一新种（鞘翅目：天牛科：锯天牛亚科）

王英奇<sup>1,2</sup>, 王平<sup>1,3\*</sup>, 谢广林<sup>1,4\*</sup>, 王文凯<sup>1,5</sup>

<sup>1</sup>长江大学昆虫研究所, 长江大学农学院, 荆州434025, 湖北, 中国

<sup>2</sup>青岛厚天农资营销有限公司, 青岛266700, 山东, 中国

✉ 532156191@qq.com;  <https://orcid.org/0009-0005-8396-0553>

<sup>3</sup>  wangping1992@yangtzeu.edu.cn;  <https://orcid.org/0000-0002-8852-601X>

<sup>4</sup>  xieguanglin@yangtzeu.edu.cn;  <https://orcid.org/0000-0003-3273-8985>

<sup>5</sup>  wwkw@yangtzeu.edu.cn;  <https://orcid.org/0000-0002-4482-076X>

\*通讯作者

**摘要：** 描述中国广西花坪国家级保护区肚天牛属*Drumontiana*一新种，即志林肚天牛*Drumontiana zhilini* sp. nov., 并提供了新种的特征图片。

**关键词：** 天牛；分类；扁角天牛族；南岭山脉