

First record of the genus *Stenidius* LaFerté-Sénéctère (Coleoptera: Anthicidae) with three newly recorded species from China

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Abstract: A newly recorded genus *Stenidius* LaFerté-Sénéctère of Anthicidae and three newly recorded species, namely *S. dolosus* Kejval, *Anthelephia himalayana* (Krekich-Strassoldo) and *Sapintus anguliceps* (LaFerté-Sénéctère), are reported from China. Morphological descriptions, photographs and illustrations are given.

Key words: Anthicinae; Formicomini; Anthicini; taxonomy

蚁形甲科中国一新记录属及三新记录种记述（鞘翅目：蚁形甲科）

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摘要：记述蚁形甲科 Anthicidae 中国 1 新记录属，纤足蚁形甲属 *Stenidius* LaFerté-Sénéctère，以及中国 3 新记录种：匕斑纤足蚁形甲 *S. dolosus* Kejval, 2002、喜马齿蚁形甲 *Anthelephia himalayana* (Krekich-Strassoldo) 和角头萨蚁形甲 *Sapintus anguliceps* (LaFerté-Sénéctère)，提供了新记录属、种的形态描述和特征图。

关键词：蚁形甲亚科；齿蚁形甲族；蚁形甲族；分类

Introduction

Anthicidae are a cosmopolitan family in the superfamily Tenebrionoidea, with about 3500 species (Telnov 2010). They are often found in tropical and temperate regions (Chandler 2010). This paper reports three newly recorded species of Anthicidae from China; among them, *Stenidius* LaFerté-Sénéctère, 1847 represents a newly recorded genus in China.

Genus *Stenidius* belongs to the tribe Formicomini of Anthicidae. This genus was described based on *Anthicus vittatus* Lucas, 1843 by LaFerté-Sénéctère (1847). The latest revision of *Stenidius* was by Kejval (2002). This genus has nearly 30 known species, and new species have been published over the past 20 years (Kejval 2002–2007; Telnov 2018). This genus is mainly distributed in Central Asia but is also recorded in Eastern and Southern Europe and North Africa (Löbl & Smetana 2008). Up to now, there has been no record of this genus occurring in China.

As with other genera in Formicomini, *Stenidius* have the following characteristics (Kejval

2003, 2009, 2010): 1) Mesepimera and mesepisterna simply connected, not uplifted; 2) sternum III intercoxal process wide, with incomplete border in ventral view; 3) apical margin of male sternum VII variable. In addition, this genus has a combination of the following characteristics: 1) Distances between anterior angle of mesosternum and anterior margin of mesepisternum relatively close to each other; 2) meso- and metathoracic legs not distinctly clavate; and 3) hind tarsi slender.

Material and methods

Specimens were collected by sweep net and preserved in absolute ethanol. Male genitalia were examined after being cleared in hot 10% KOH solution. Specimens were examined with a Leica M205A stereomicroscope and measured using Leica Application Suite 4.12.0 software. Photographs of specimens were taken using a Leica DMC 4500 digital camera mounted on the stereomicroscope. Images of the same specimen at different focal planes were combined using HeliconFocus 7.0.2 and edited with Adobe Photoshop CS6 software. Illustrations were made using CorelDRAW X8 and SAI 1.0 software. Information of species distribution refer to Kapur (1954), Telnov (2003), Löbl and Smetana (2008). Measurement methods and terminology follow Werner and Chandler (1995) and Chandler (2010).

Taxonomy

Subfamily Anthicinae Latreille, 1819

Tribe Formicomini Bucciarelli, 1980

Genus *Stenidius* LaFerté-Sénéctère, new record to China

Stenidius LaFerté-Sénéctère, 1847: 371. Type species *Anthicus vittatus* Lucas, 1843.

Stenicollis Marseul, 1879: 65.

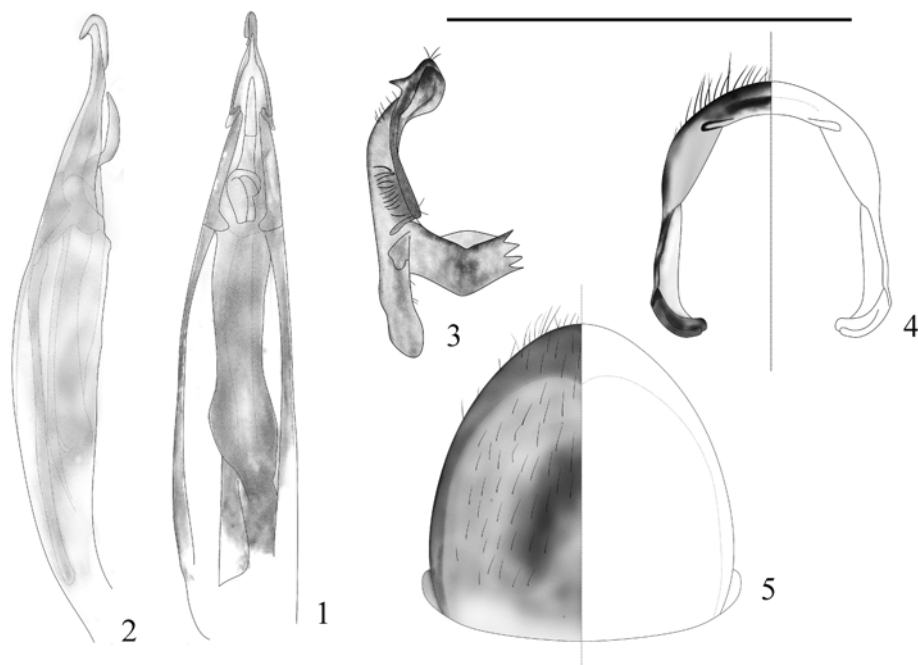
1. *Stenidius dolosus* Kejval (Figs. 1–5, 16), new record to China

Stenidius dolosus Kejval, 2002: 193.

Redescription. Body ant-shaped, length 2.5 mm; head, antennae, pronotum and legs brown; elytra brownish-black, shiny, without metallic reflections, with narrow brown dagger-shaped macula; head basally rounded, temple angle distinct; eyes somewhat convex; antennae long, can reach humerus of elytra; antennomere II orange color, shorter than III, antennomere XI longest, oval, 1.45 times longer than antennomeres I; head with sparsely distributed decumbent yellowish-brown setae and uneven-sized punctures except midline; pronotum shiny, anterior rounded, slowly contracted laterally, depressions near the base, few setae and punctures occur on pronotal median longitudinal area; collar of pronotum thin; scutellum subtriangular; elytra black, with narrow brown dagger-shaped macula near 1/2 of elytra. Humeral angles indistinct; subdecumbent brown setae; femora of front leg clavate. Tarsomere I of front leg obviously wider than others; penultimate tarsomere narrow.

Specimen examined. 1♂, **China**, Xizang, Rikaze, Jilong County, Jibu Canyon, 28.3799°N, 85.3261°E, alt. 2810 m, 02-VIII-2018, Run ZHOU.

Distribution. China (Xizang); India; Nepal.



Figures 1–5. *Stenidius dolosus* Kejval. 1, 2. Male aedeagus, ventral and lateral views; 3. Male abdominal segment VIII, ventral view; 4. Male tergite VIII, dorsal view; 5. Male tergite VII, dorsal view. Scale bar = 0.5 mm.

Genus *Anthelephila* Hope, 1833

Anthelephila Hope, 1833: 63. Type species *Anthicus cyaneus* Hope, 1833.

Formicoma Motschulsky, 1845a: 83 type species *Anthicus pedestris* Fabricius (= *Carabus pedestris* Rossi, 1790).

Formicomus LaFerté-Sénéctère, 1849a: 1.

Formicosoma Motschulsky, 1845b.

Myrmecosoma Mannerheim, 1846: 227.

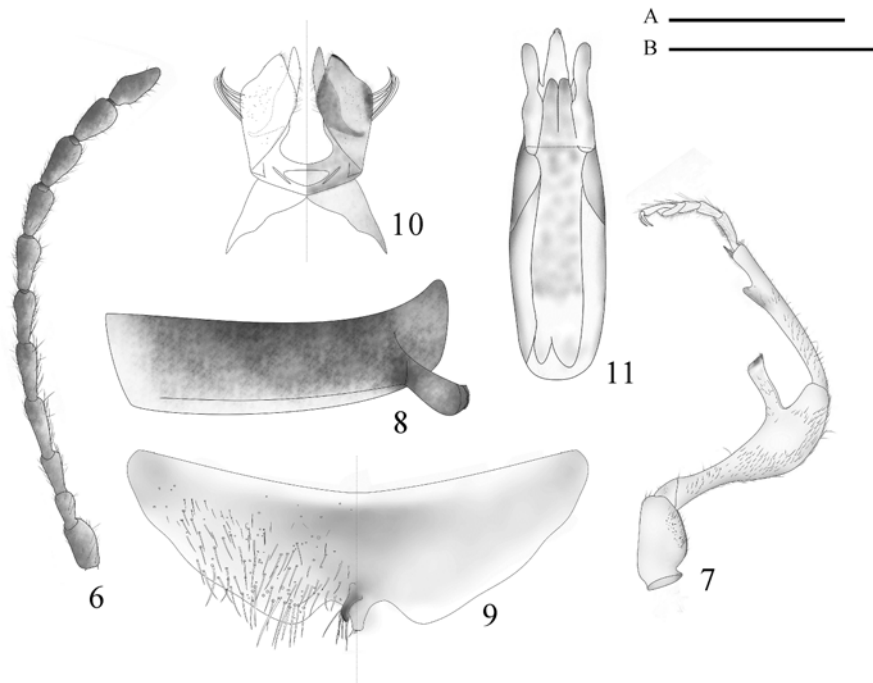
Orthauchen Krekich-Strassoldo, 1925: 516, type species *Formicomus aestimabilis* Krekich-Strassoldo, 1925.

2. *Anthelephila himalayana* (Krekich-Strassoldo) (Figs. 6–11, 17), new record to China

Formicomus himalayanus Krekich-Strassoldo, 1914: 109, by Kejval, 2003: 381.

Redescription. Slender-bodied, body length 4.3–5.2 mm ($n = 20$); elytra longer than the sum length of head and pronotum; head, antennae, pronotum and legs orange color; apex of antennae and legs apical part brownish-black; pronotum, base of antennae and legs basal part orange-brown; elytra black, metallic blue-green reflections, with narrow orange at base; head length longer than wide; head constricting slowly after eyes, tempora strongly narrowing posteriad, forming a long neck with transverse wrinkles; eyes medium-sized, rather convex, with obvious transverse wrinkles from base of eyes to vertex; antennae long, reaching humerus of elytra; antennomere II shorter than III, antennomere XI longest, 1.25 times greater than

antennomere I (Fig. 6); head with sparsely distributed suberect setae; pronotum oblong, 1.6 times as long as wide, narrower than head including eyes, anterior rounded, slowly contracting laterally, impressed (constricted) about 1/4 near the base in dorsal view; pronotal punctures evenly spaced, sparse laterally and small basally; elytra black, with metallic reflections, with narrow orange color at base; base of elytra wider than collar (apical flange of pronotum); scutellum subtriangular, postscutellar impression absent. Humeri distinct; elytra with punctures evenly distributed, with subdecumbent to suberect setae; the setae on basal 1/3 of elytra and the apical 1/3 of elytra light brown, dark brown on the middle; the margin of setae color distinct, margin nearly perpendicular to the suture; there are also long yellow erect setae sparsely distributed on elytra, slightly dense on apex; femora distinctly clavate, basal part especially slender, obviously bending inward; front femora of male modified, with longer subtruncate process, bearing fringe of stiff setae subapically, the setae easily falling off; process length about 1/3 protibial length (Fig. 7); male sternum IV with process on the center of apical margin (Fig. 8), sternum VII with similar projection, the projection of sternum VII bearing fringe of stiff setae (Fig. 9).



Figures 6–11. *Anthelephila himalayana* (Krekich-Strassoldo). 6. Male antennae; 7. Male front leg; 8. Male sternum IV, lateral (about 45°) view; 9. Male sternum VII, ventral view; 10. Male sternum VIII, ventral view; 11. Male aedeagus, ventral view. Scale bars: A = 1 mm (Figs. 6, 7); B = 0.5 mm (Figs. 8–11).

Sexual dimorphism. Last three antennomeres of male slightly expanding internally; front femora of male with stick-like process; sternum IV and VII with process on the center of apical margin. Females have no such characteristics.

Specimens examined. 407 ex., **China**, Yunnan Province, Dali, Jizu Mountain, alt. 2291 m, 27-VII-2014, coll. Zhangxun WANG & Yongqian ZHANG; 180 ex., Yunnan Province, Dali, Xincheng District, 25.5938°N, 100.2583°E, alt. 2004 m, 15-VI-2017, coll. Yuchen ZHAO; 5

ex., Yunnan Province, Dali, Jizu Mountain, 25.9607°N, 100.3903°E, alt. 2276 m, 21-VI-2017, coll. Yuchen ZHAO; 3 ex., Yunnan Province, Dehong, Yingjiang County, Xima Town, Yingpanpo, alt. 1684 m, 27-VII-2019, coll. Quanyu JI.

Distribution. China (Yunnan); Bengal; Bhutan; India; Myanmar; Nepal; Thailand.

Habitat and Bionomics. It often appears on grasslands and shrubs above altitude of 1200 m.

Tribe Anthicini Latreille, 1819

Genus *Sapintus* Casey, 1895

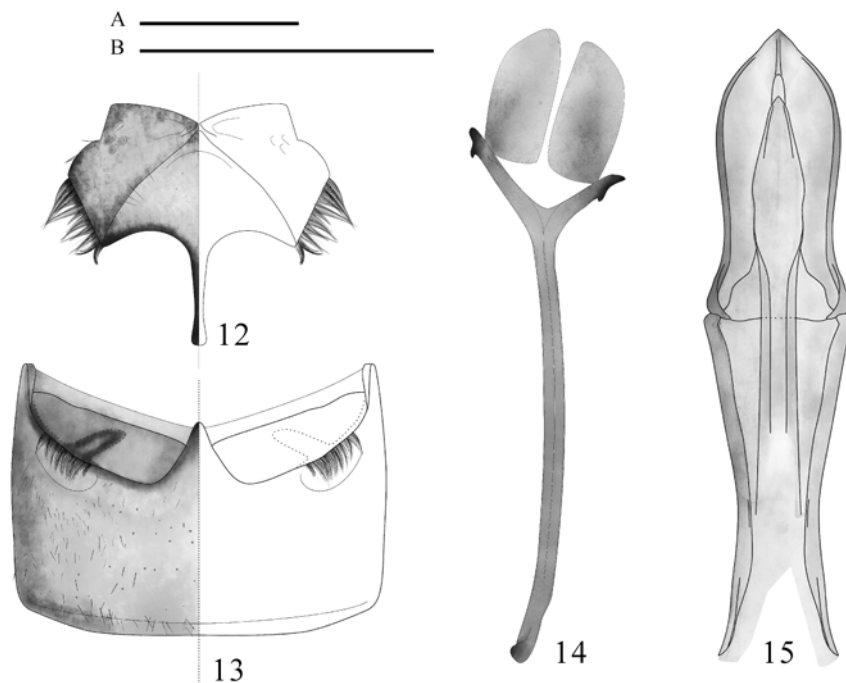
Sapintus Casey, 1895: 732. Type species: *Anthicus pubescens* LaFerté-Sénéctère, 1849b.

3. *Sapintus anguliceps* (LaFerté-Sénéctère) (Figs. 12–15, 18), new record to China

Anthicus anguliceps LaFerté-Sénéctère, 1849b: 134, by Telnov, 2014: 263.

Anthicus apicatus Fairmaire, 1896: 48, by Telnov, 2014: 263.

Anthicus apicatus birmanicus Pic, 1907, by Telnov, 2014: 263.



Figures 12–15. *Sapintus anguliceps* (LaFerté-Sénéctère). 12. Mesothorax, ventral view; 13. Sternum III, ventral view; 14. Male segment IX; 15. Male aedeagus, ventral view. Scale bars: A = 0.1 mm (Figs. 14, 15); B = 0.5 mm (Figs. 12, 13).

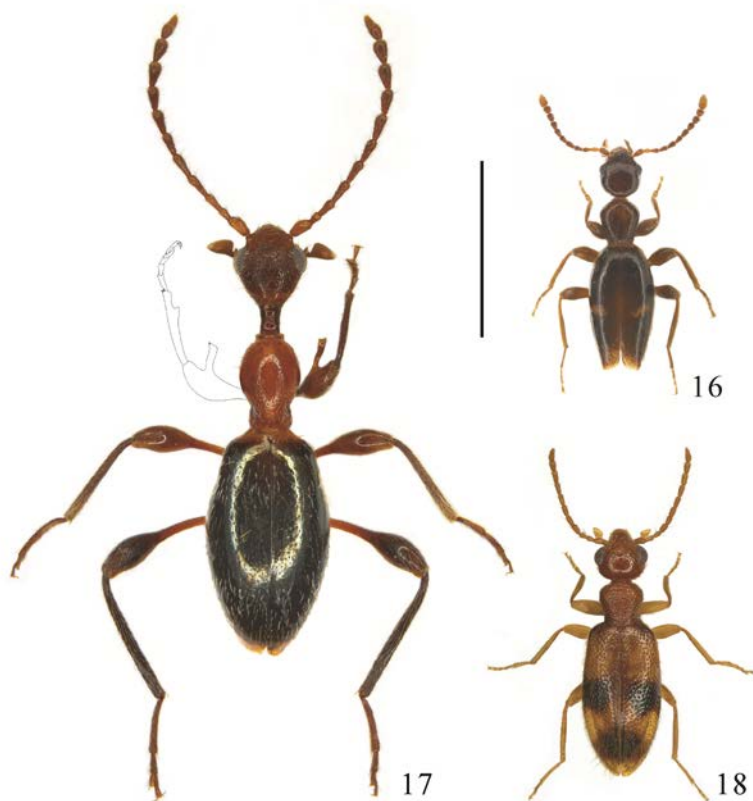
Redescription. Small, body length 2.5–2.9 mm ($n = 20$), head reddish-brown, apex subtriangular, rather shiny, temple angle rounded; antennae yellowish-brown, with short yellowish-brown subdecumbent setae and long erect setae; pronotum reddish-brown, length slightly longer than width, anterior expanded, 1/3 of apical pronotum widest; pronotum with obvious large puncture, distance between adjacent punctures about 0.7–1 times their diameters; with collar, but narrow; pronotum with slightly long brown setae, subdecumbent, pointing

towards to center of pronotal base; scutellum peltate; elytra orange-yellow to orange-red, shiny; punctures of elytra even and sparse; elytra with undersetae, the undersetae short, decumbent, setae slightly long, suberect to erect; black macular near the middle of elytra, sometimes interrupted by suture; suture of elytra black or blackish-brown; basal half of elytra orange, while humeri black; apex of elytra black, not interrupted by suture; mesepisternal lateral margins with a fringe of setae covering mesepimera (Fig. 12); sternite III with transverse cavities behind each metacoxa, hatch of cavity covered by fringe of dense whitish setae (Fig. 13); leg brown-yellow, tarsomere I of posterior leg equal in length to sum of tarsomeres II–IV.

Specimens examined. 218 ex., **China**, Guangxi Province, Wuzhou City, Changzhou District, 23.4896°N, 111.2391°E, alt. 18 m, 02-VIII-2018, coll. Yuchen ZHAO & Bing YANG, attracted by cantharidin.

Distribution. China (Guangxi); Cambodia; India; Kalimantan Island (Sabah); Nepal; Thailand; Vietnam.

Habitat and Bionomics. These anthicids are found in lakeside grasses, walking on the ground and grass, and are attracted to cantharidin.



Figures 16–18. Habitus of newly recorded species from China. 16. *Stenidius dolosus* Kejval, from Xizang; 17. *Anthelephila himalayanas* (Krekich-Strassoldo), from Yunnan; 18. *Sapintus anguliceps* (LaFerté-Sénéctère), from Guangxi. Scale bar = 2 mm. (Note: left and right legs of *Anthelephila himalayana* are mirror symmetry.)

Acknowledgements

We express our thanks to the Institute of Zoology, Chinese Academy of Sciences, for providing us with specimens of anthicids. For the specimens of *Stenidius dolosus*, the first author is highly indebted to his dear friend M.S. Run ZHOU (Institute of Zoology, Chinese Academy of Sciences). We are much obliged to Dr. Zbyněk KEJVAL (Muzeum Chodska, Prague, Czech Republic) for providing us with literature and helping in identification. We thank Mr. Quanyu JI for loan of specimens. This work is financially supported by the National Natural Science Foundation of China (31660630, 31961143002) and the First-class Disciplines of Prataculture Science from Ningxia University (NXYLXK2017A01).

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