



## *Glenea changchini* sp. nov. from Yunnan of China (Coleoptera: Cerambycidae: Lamiinae: Saperdini)

MEIYING LIN<sup>1,3</sup> & WENHSIN LIN<sup>2</sup>

<sup>1</sup>Key Laboratory of Zoological Systematics and Evolution, Institute of Zoology, Chinese Academy of Sciences, 1 # Beichen West Road, Chaoyang, Beijing 100101, China

<sup>2</sup>50 # Jifeng Road, Wandan Township, Pingtung County 91345, Taiwan

<sup>3</sup>Corresponding author. E-mail: linmeiying@ioz.ac.cn

*Glenea* Newman, 1842 is one of the largest genera of Cerambycidae, containing more than 850 species (according to Mr. Tavakilian's database 'Titan 2000' and the senior author's study). Based on our work, mainly on the fauna of the oriental region, there are still many undescribed species, including some large and attractive species, such as recently published species: *G. paradiana* and *G. nigrorubicollis* (Lin et al. 2009). In this paper we describe *G. changchini* from Yunnan of China.

The holotype and one paratype are deposited in the Institute of Zoology, Chinese Academy of Sciences, Beijing, China (IZAS); one paratype is deposited in the personal collection of Mr. Changchin Chen, Tianjin, China (CCCC).

### *Glenea changchini* sp. nov.

(Figs 1–8)

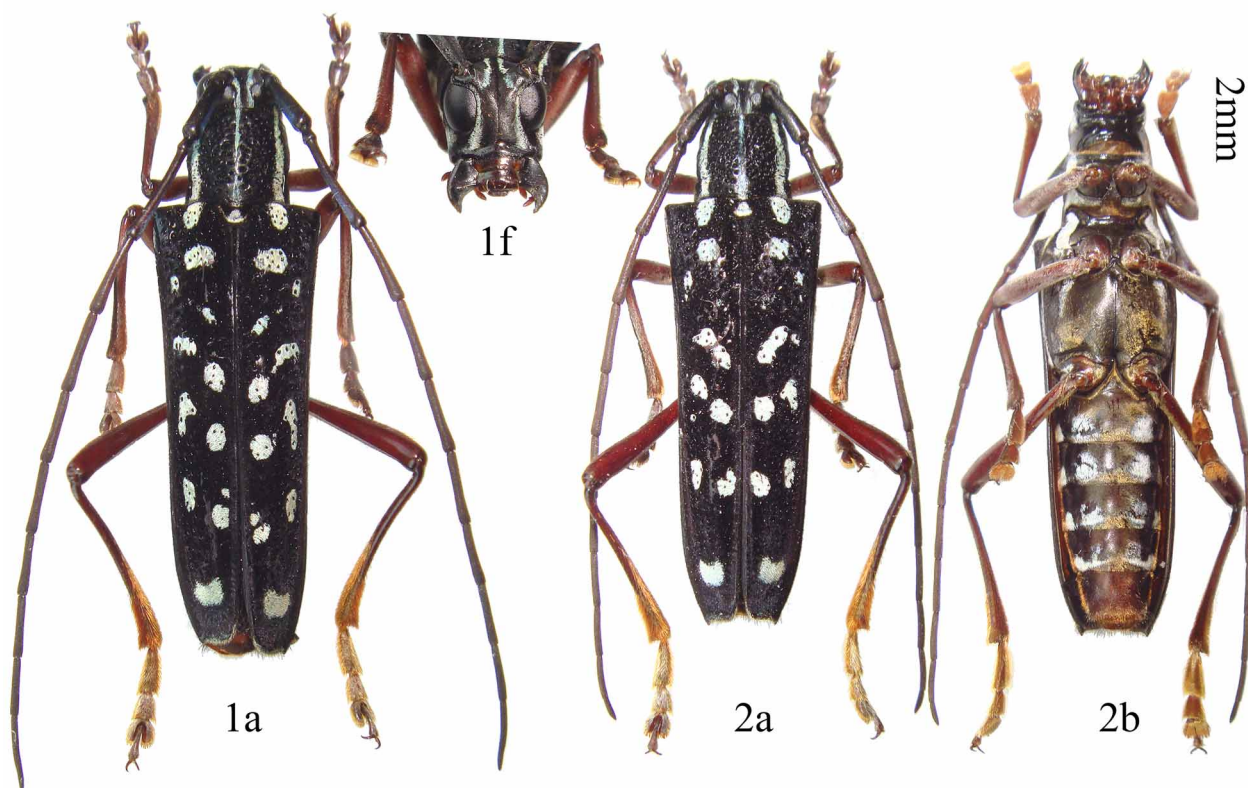
**Description** (based on three males): Male: length: 21.8–24.0 mm, humeral width: 6.2–6.7 mm. Body dark violet. Head violet-black, with two light blue pubescent stripes on occiput, which extend around superior eye lobes and antennal tubercles. Frons with inferior eye lobes surrounded with light blue pubescent stripes which cross genae and reaching clypeus; tempora covered with light blue pubescence. Antenna red brown, basal three antennomeres darker and with light blue pubescence on ventral and inner sides, others with a faint grayish pubescence. Prothorax dark violet, pronotum with three light blue pubescent stripes (one median and one on each lateral margin) and each side with a large white patch around coxa (propleura pubescent). Scutellum with white or light blue pubescence. Elytron dark violet, with 9–11 snow-white or light blue markings (named in Fig. 3); A, B at basal fourth and C at apical fourth are more stable than others in both position and shape; D and d are smaller and sometimes absent; E-e, F-f and G-g forming oblique lines and sometimes confluent; e, f and g are quite variable in shape. Ventral surface reddishviolet; with several whitish maculae: mesepisternum, mesepimeron and most of metepisternum whitish pubescent; two patches on each side of apical abdominal segments 1–4; other parts with fulvous brown pubescence. Femora reddish-brown and glossy; tibiae and tarsi reddish-brown and with hair and pubescence, especially apical part of hind tibiae and tarsi densely covered with fulvous-brown hair and pubescence.

Head slightly narrower than prothorax. Eyes medially emarginate, inferior eyelobes two times as high as genae below. Antennae relative slender, longer than body (9<sup>th</sup> antennomere reaching elytral apex); antennomere ratio: male: 25:5:40:30:27:27:23:23:22:30. Last antennomere (Fig. 4) subdivided at apical third. Prothorax densely punctured, slightly narrower from base to apex. Elytron densely and coarsely punctured, gradually narrower apically, with 2 lateral carinae, neither from base nor reaching apex; apex transversely truncated, rounded at inner angle and with a very minute and scarcely perceptible tooth at outer angle. Legs slender, middle tibiae hardly grooved, hind femur reaching fourth abdominal segment, first hind tarsal segment subequal to following two segments combined. Tarsal claws simple.

Male genitalia (Figs 5–7): Tegmen length about 3.4 mm; lateral lobes stout, each about 0.7 mm long and 0.3 mm wide, with a curved ridge at base; apex with fine setae shorter than half of lateral lobes; basal piece well-developed and not bifurcated; median lobe plus median struts slightly curved (Fig. 5b), obviously longer than tegmen (22:17); median struts more than half of whole median lobe in length; dorsal plate shorter than ventral plate; apex of ventral plate (Fig. 6) rounded; median foramen elongated, pointed at apex (angle about 30 degree); internal sac more than twice as long as

median lobe plus median struts, with four pieces of basal armature (located at middle of median struts), two bands of supporting armature (very weak), and three rods of endophallus, rods subequal, each about 3.8 mm, longer than tegmen. Tergite VIII (Figs 8a, 8c) much broader than long, apex truncated to slightly emarginated, with moderate long setae at sides, setae in the middle shorter and sparser. Sternite IX subequal to ringed part of tegmen in length.

Female unknown.



**FIGURES 1–2.** *Glenea changchini* sp. nov. habitus. 1. holotype, male, from Yunnan; 2. paratype, male, from Yunnan. a. dorsal view, b. ventral view, 1f. frontal view of head. Scale 2 mm.

**Diagnosis.** Though the external appearance is similar to *G. diana*, *G. paradiana* and *G. subsimilis*, this species differs not only by the pubescent markings, but also in the following characters: elytral apex rounded at the inner angle (usually bidentate in *Glenea*), claws simple, and basal armature located at middle of median struts (usually located out of median lobe in other *Glenea* spp.).

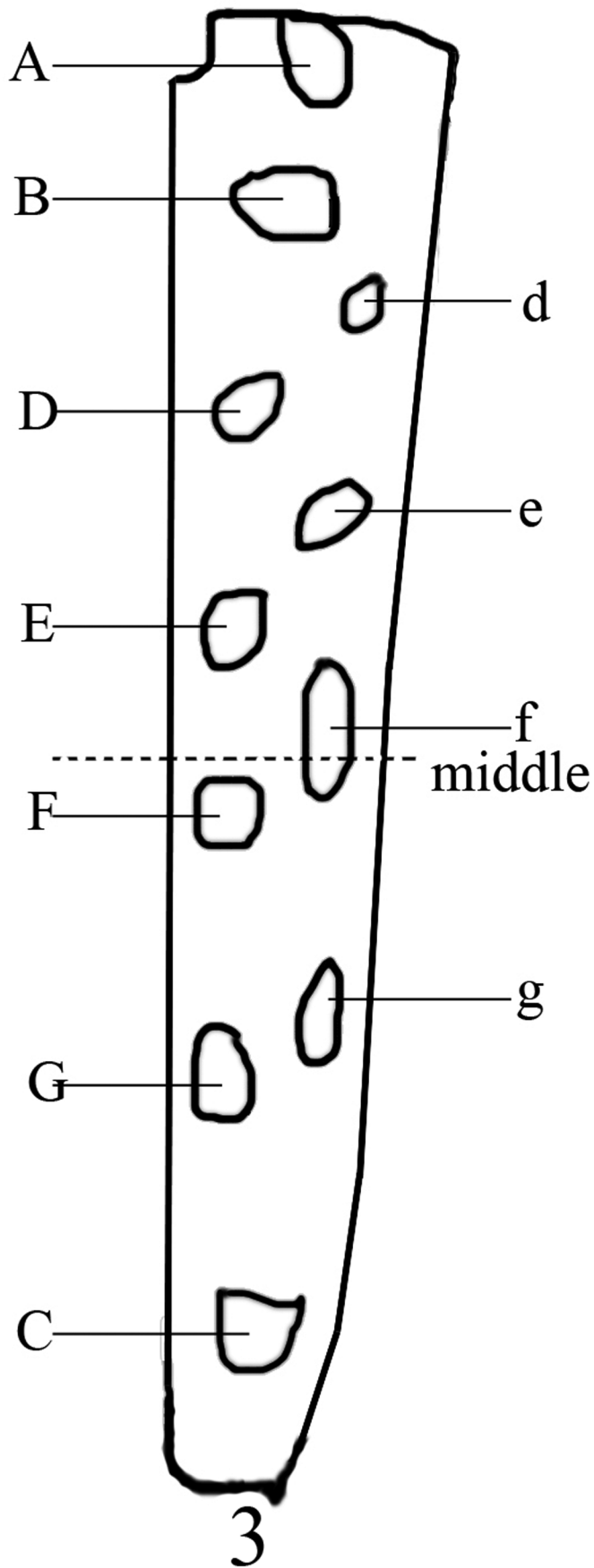
**Etymology.** The species is named after Mr. Changchin Chen (Tianjin, China), who offered the authors lots of material, support and kind help in various ways.

**Remarks.** The species is similar to subgenera *Rubroglenea* (pronotal puncturation and elytral apex different) and *Macroglenea* (male claw, genitalia and elytral apex different). The genus *Glenea*, as considered here, includes a diverse, and probably multi-generic assemblage of species. For example, some *Heteroglenea* species were previously placed in *Glenea* (Lin *et. al.*, 2009). To clarify the subgeneric and generic relationships, a world-wide study of *Glenea* is required.

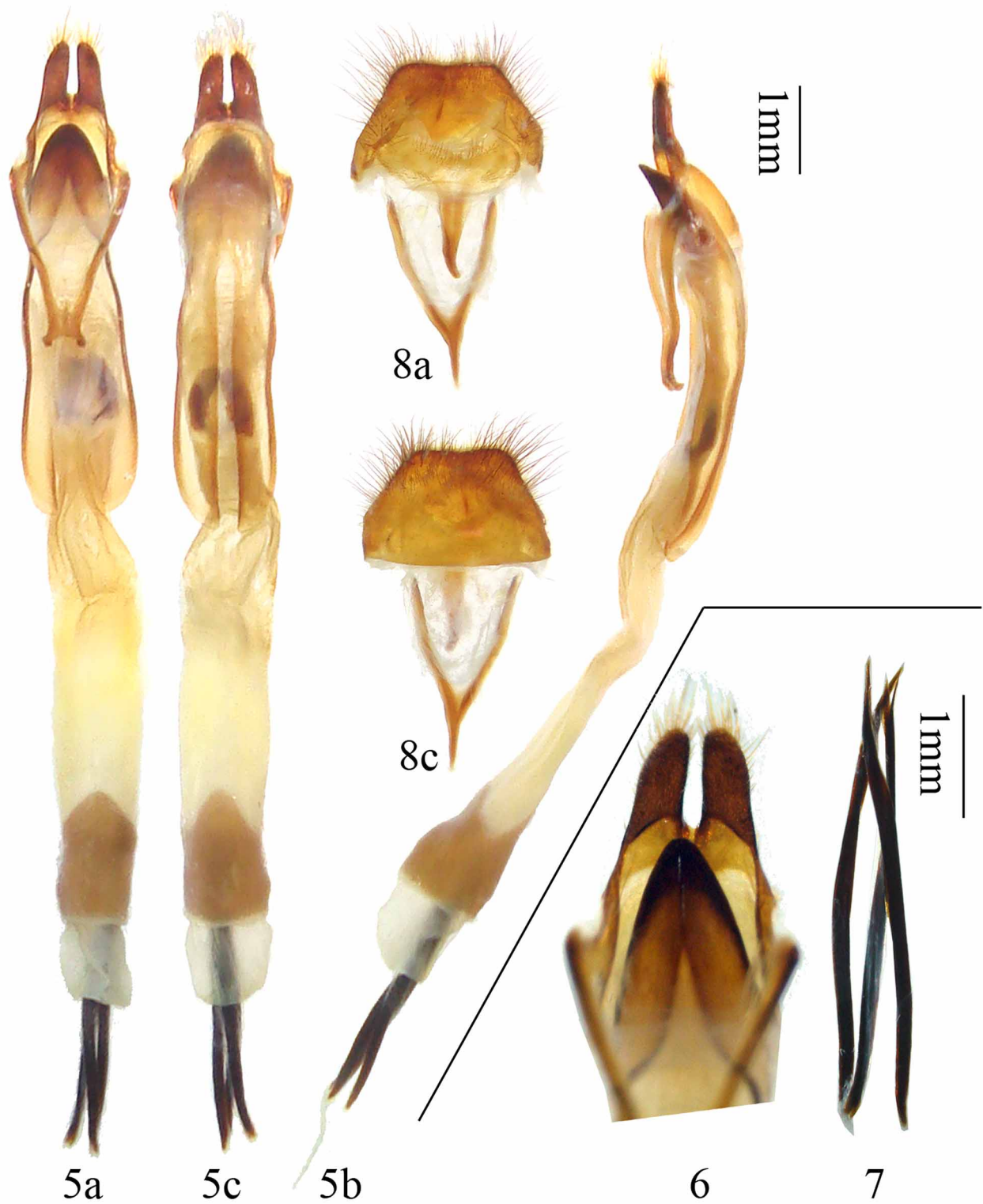
**Distribution.** China: Yunnan.

**Material examined.** Holotype (23.0 mm long), male, China, Yunnan prov., Jinping county, Ma'andi, Biaoshuiyan (22°44'N 103°29'E), alt. 1350 m, 2010.V.13, leg. Xiaodong Yang (IZAS, IOZ(E) 1859451). Paratypes: 1 male, Yunnan prov., Jinping county, Ma'andi, Biaoshuiyan (22°44'N 103°29'E), alt. 1350 m, 2010.V.15, leg. Wenhsin Lin (CCCC); 1 male (21.8 mm long), same data (IZAS, IOZ(E) 1859452).

**Correction.** In the paper “Eight species of the genus *Glenea* Newman, 1842 from the Oriental Region, with description of three new species (Coleoptera: Cerambycidae: Lamiinae: Saperdini). *Zootaxa*, 2155: 1–22”, there is an error which needs correction. In Figures 25–26 on page 12, ‘*subrubricollis*’ in 25L and 26L should read ‘*nigrorubricollis*’. We thank Dr. Carolus Holzschuh (Villach, Austria) for bringing this to our attention.



**FIGURES 3–4.** Right elytron and last antennomere of *Glenea changchini* sp. nov. 3. elytral markings of right elytron, spots named for description; 4. last antennomere, showing the subdivided point at apical third.



**FIGURES 5–8.** Terminalia of *Glenea changchini* **sp. nov.** 5–7. male genitalia. 6. showing apex of ventral plate and lateral lobes of tegmen; 7. rods of endophallus; 8. tergite VIII and sternites VIII & IX. a. ventral view, b. lateral view, c. dorsal view. Scale 1 mm.

## Acknowledgements

The junior author, Mr. Wenhsin Lin (33), was killed in a tragic accident on 8 June 2011 when he was collecting cerambycid beetles in Hainan Province, China. Wenhsin will be sadly missed by entomologists who know him.

We wish to express our thanks to Changchin Chen (Tianjin, China) for offering us lots of saperdine material. We thank Carolus Holzschuh (Villach, Austria), Laurence Livermore (The Natural History Museum, London, UK), Qiao Wang (Massey University, New Zealand) and Yulong Lin (Taiwan) for improving this manuscript. This research was supported by a grant (No. O529YX5105) from the Key Laboratory of the Zoological Systematics and Evolution of the Chinese Academy of Sciences, and by NSFC program J0930004 and 31000967.

## Literature cited

- Breuning, S. (1956) Revision der Gattung *Glenea* Newman. *Entomologischen Arbeiten aus dem Museum G. Frey*, 7 (1), 1–199.
- Breuning, S. (1958) Revision der Gattung *Glenea* Newm. (Col. Ceramb.) (3. Fortsetzung und Schluß). *Entomologischen Arbeiten aus dem Museum G. Frey*, 9 (3), 804–907.
- Breuning, S. (1966) Catalogue des Lamiaires du Monde (Col. Céramb.). *Verlag des Museums G. Frey*, (9), 659–765.
- Gahan, C.J. (1889) Descriptions of new or little-known species of *Glenea* in the collection of the British Museum. *The Transactions of the Entomological Society of London*, 1889 (2), 213–225.
- Gahan, C.J. (1897) Notes on the longicorn genus *Glenea*, Newm., with descriptions of new species. *The Annals and Magazine of Natural History*, (6) 19, 473–493.
- Lin, M.Y., Tavakilian, G., Montreuil, O. & Yang, X.K. (2009) Eight species of the genus *Glenea* Newman, 1842 from the Oriental Region, with description of three new species (Coleoptera: Cerambycidae: Lamiinae: Saperdini). *Zootaxa*, 2155, 1–22.
- Lin, M.Y., Montreuil, O., Tavakilian, G. & Yang, X.K. 2009. Reinstatement of the genus *Heteroglenea* Gahan, with four new combinations, four new synonyms and three new species (Coleoptera: Cerambycidae: Lamiinae: Saperdini). *Zootaxa*, 2137: 1-22.