

***Macromia hamata* sp. nov. from Guizhou, China (Odonata: Corduliidae)**

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Abstract

The new species (holotype ♂: 01 August 2001, Fanjingshan, Guizhou, China) is described and illustrated from a single male, deposited at the Zhejiang Museum of Natural History.

Introduction

The genus *Macromia* was represented in China by 15 species so far (Zhou et al. 1994; Wilson 1998; Wilson & Reels 2001). A new Chinese species, *M. hamata* sp. nov., has recently been discovered. In the present paper it is described, figured and compared with similar *Macromia* species from China.

***Macromia hamata* sp. nov.**

(Figs 1-4)

Specimen studied

Holotype ♂ — Fanjingshan national nature reserve, Guizhou, China (27°54'N, 108°36'E), 01 August 2001, deposited at the Zhejiang Museum of Natural History in Hangzhou, China. Female unknown.

Etymology

M. hamata possesses a hammer-shaped posterior hamulus. This is why the adjectival name *hamata* has been selected.

Description

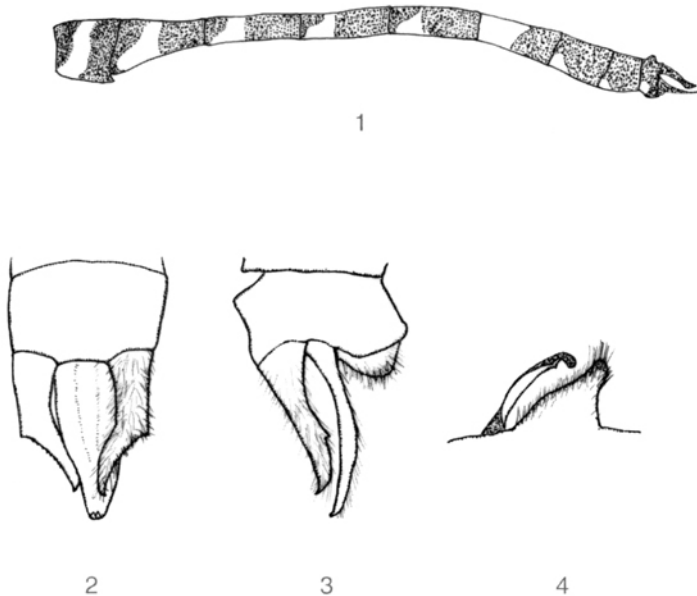
Head: Labium dark yellowish brown; labrum reddish brown, marked with two narrow bright yellow basal spots; anteclypeus dark reddish brown; postclypeus bright yellow; frons and vesicle dark metallic blue, the former with a rounded spot on each side in front

and a pair of small triangular yellow spots in the middle of the sulcus above; occiput black; eyes bluish green during life.

Thorax: Prothorax black. Pterothorax black with bluish green metallic reflex and marked with citron yellow as follows: the antealar sinus; broad antehumeral stripes slightly tapering above but not reaching the alar sinus; an oblique broader stripe on each side at the level of the spiracle, the two stripes meeting over the dorsum between the wings; a narrow stripe on the posterior border of the metepimeron.

Legs black. Wings hyaline, with yellow rates at base; Pt short and narrow, dark blackish brown, covering two cells; nodal index 8-16:17-11/9-10: 10-9; anal loop with nine cells; anal triangle 2-celled; hypertrigones traversed four times in the Fw, two times in the Hw; five cubital nervures in Fw; two in the Hw; discoidal cells traversed once in Fw.

Abdomen: Black, marked with yellow (Fig. 1) as follows: S2 with a complete subbasal annule extending obliquely to the base laterally; S3-6 with the annules between transverse carina and base of segment to form broad L-shaped markings when viewed from the side; S7 with a basal annule occupying the basal half of the segment; S8-10 each with a small baso-lateral transverse spot. S10 blackish brown, strongly keeled above, the keel prolonged into a prominent spine near the basal border of the segment.



Figures 1-4. Morphological details of *Macromia hamata* sp. nov., holotype ♂ — (1) abdomen, lateral view; (2) anal appendages, dorsal view; (3) anal appendages, lateral view; (4) genitalia, lateral view.

Anal appendages blackish brown (Figs 2, 3). Superior appendages slightly longer than S10 with inner border concave and outer border possessing a prominent lateral spine, located slightly distal of centre. Inferior appendage longer than the superior appendages, narrowly triangular, with the apex strongly curled upwards.

Posterior hamulus black, long and slender, a little tumid at base, the apex curved round regularly like a button hook when viewed laterally (Fig. 4).

Measurements (mm): abdomen length (including appendages) 51, Hw length 41.

Differential diagnosis

M. hamata can be separated from all other Chinese macromias on the basis of its uniquely shaped posterior hamulus. Although *hamata* has a hammer-shaped posterior hamulus (Fig. 4) it is triangular-shaped and not elongated at the tip. *M. malleifera* Lieftinck, *M. clio* Ris, *M. macula* Zhou, Wang, Shuai & Liu from China, and *M. amphigena* Selys from East Asia, all possess a hammer-shaped posterior hamulus but with elongated, clubbed tips.

The posterior hamulus of *hamata* is slightly hooked at the tip. Amongst the Chinese macromias, which possess an abdominal segment 10 with a pyramidal process not developed into a long spine, there are two species possessing a hooked posterior hamulus. These comprise the similarly sized *M. kiautai* Zhou, Wang, Shuai & Liu, which has a triangular-shaped but very slightly hooked hamulus and *M. manchurica* Asahina, which has also has a stout hamulus but with a more developed hook, lacking the triangular-shaped hammer.

M. fulgidifrons Wilson also recorded from southern China, like *hamata* has an abdominal segment 10 with a pyramidal process not developed into a long spine, but has a uniformly curved posterior hamulus, lacking a hooked, triangular-shaped or clubbed tip.

Biological notes

The species was discovered at forest streams elevated 400-900 m a.s.l.

Acknowledgements

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