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 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.
Macromia hamata sp. nov.

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.

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