

**MACROMIDIA SHIEHAE SPEC. NOV.,  
A NEW DRAGONFLY FROM JIANGXI, CHINA  
(ANISOPTERA: CORDULIIDAE)**

Y.-H. JIANG<sup>1</sup>, Z.-H. LI<sup>2</sup> & W.-Y. YU<sup>2</sup>

<sup>1</sup> Yuntaixiang Culture Station, Xinqu district, Lianyungang City, Jiangsu-222064, China  
jiangyh26@yahoo.com.cn

<sup>2</sup> Nanjing Xiaozhuang College, Beiwei Road, Nanjing, Jiangsu, China

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The new sp. is described and illustrated. Holotype ♂: China, Jiangxi: Lushan Mt (Haihui), 31-V-2004; deposited in Nanjing Forestry University, Nanjing, China. It is related to *M. ellenae* Wilson and *M. hangzhouensis* Zhou & Wei, but it is differentiated from these by having the postclypeus with yellow on anterior margins, the median lobe of the prothorax with four fine, pale yellow streaks, thorax with 5 yellow stripes, and nodal index of fore- and hindwings lower than in any of the other 4 *Macromidia* spp. described from China.

INTRODUCTION

The genus *Macromidia* was erected by Martin in 1907, with *M. rapida* as the type species. To date, the genus includes thirteen species and three subspecies, which are distributed over India, Southeast Asia, the Ryukyu archipelago of Japan and China (DAVIES & TOBIN, 1985; ASAHINA, 1964, 1978; FRASER, 1936; ISHIDA et al., 1991; LIEFTINCK, 1935, 1971; WILSON, 1996; ZHOU & WEI, 1979; TSUDA, 2000). Four species, namely *M. rapida* Martin, 1907 (Hong Kong, Guangdong), *M. kelloggi* Asahina, 1978 (Fujian), *M. hangzhouensis* Zhou & Wei, 1979 (Zhejiang) and *M. ellenae* Wilson 1996 (Hong Kong) have been recorded from China. This paper describes a new species of the genus.

*MACROMIDIA SHIEHAE* SP. NOV.

Figures 1-5

**Material.** — Holotype ♂: CHINA: Jiangxi prov.: Lushan Mt (Haihui), 31-V-2004, Z.-H. Li leg., deposited in Nanjing Forestry University, Nanjing, China. — Paratype: 1 ♂, same locality and date, W.-Y. Yu leg.

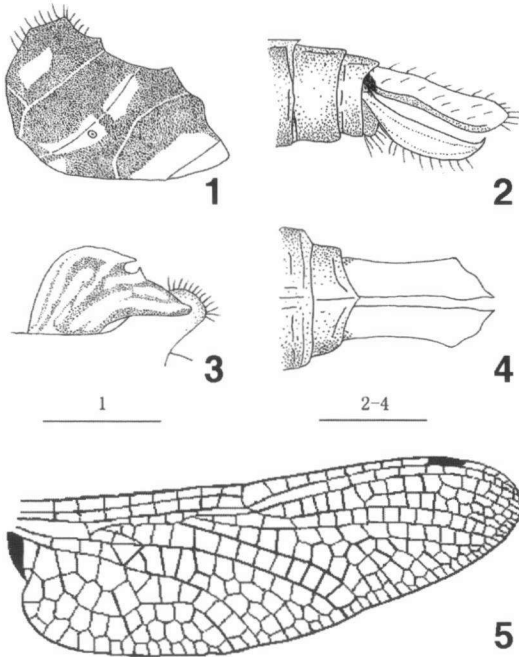
**Etymology.** — The new species is named after Mrs Shwu-Feng Shieh, wife of the Taiwanese entomologist Professor Chung-Chieh Kuan.

**MALE.** — **Head.** — Face with short black hairs. Labium: median and lateral lobes yellow, labrum black with yellow margins at middle; anteclypeus yellow, postclypeus black with yellow anterior margins, others all black, frons with two prominences. Vertex with horizontal ridge. Antennae black. Frons and vertex rough-surfaced, with green metallic reflection; occiput black with brown hairs.

**Thorax.** — **Prothorax.** — Anterior margin of anterior lobe and hind margin of posterior lobe of prothorax with yellow stripes, median lobe with four fine yellow streaks. Lateral synthorax illustrated in Figure 1, synthorax black with metallic reflection marked with five yellow stripes on each side. Dorsum covered with thick pale brown hairs; a yellow antehumeral stripe occupies half of the mesepisternum; it turns to brown at its upper end. Between the mesepimeron and metepisternum three yellow stripes are found, covering the spiracle. Metapimeron with yellow marking, metapostepimeron entirely yellow.

Legs black, ventral side of front legs trochanter and femur marked with yellow, ventrum of mesocoxa and metacoxa with yellow spots, hind legs and middle legs with a pale brown keel.

Wings hyaline, with some pale amber at base; veins black, pterostigma dark brown, 2.2 mm in length, covering two cell widths or



Figs 1-5. *Macromidia shiehae* sp. n., holotype male: (1) thorax, lateral view; — (2) caudal appendages, lateral view; — (3) secondary genitalia, lateral view; — (4) caudal appendages, dorsal view; (5) hindwing. — [Scale bars: Fig. 1 = 3 mm; — Figs 2-4 = 2 mm]

Table I  
Comparison between *Macromidia ellenae* Wilson and *M. shiehae* sp. n. males

<i>M. ellenae</i>	<i>M. shiehae</i>
Abd+app: 28-33.5 mm	Abd+app: 36 mm
Hindwing: 29-31 mm	Hindwing: 31 mm
Postclypeus black	Postclypeus black with yellow anterior margins
Superior anal appendages bright citron yellow, with base lateral; exterior face blackish brown and extreme tip black; inferior appendix brown	Superior anal appendages bright yellow, with dark brown spot on base lateral; extreme tip black with a bunch of fine hairs

more; nodal index of forewings 6:10/10:6; hindwings 8:8/7:8, anal loop seven-celled, subtriangle 1 celled, two cubital cross-veins; one row of cells in discoidal field (Fig. 5). Forewing and hindwing with 3 proximal postnodal cross-veins that do not continue into adjacent space between  $R_1$  and  $R_2$ .

**A b d o m e n.** — Black, with yellow marks. A continuous yellow streak from I to VI, segment VII with a hint of an extremely fine yellow dorsal stripe over its front half; VIII, IX and X black; segment I with fine yellow streak on both sides, marks of segment II bigger than others in side view. Auricle bright yellow with yellow marks below and on genital lobe. Tergite of abdomen 3-4 fringed with fine yellow streaks at margin. Dorsum of segment X strongly carinated. Secondary genitalia and caudal appendages illustrated in Figures 2-4. Superior anal appendages yellow, with dark brown spot on base, extreme tip black, with a bunch of black hairs, other hairs yellow. Inferior appendage black with black hairs on lower sides.

**M e a s u r e m e n t s** (in mm) — Length of abdomen (including appendages): 38, length of hindwing 31.

**FEMALE.** — Unknown.

**REMARKS.** — The new species is closely related to *M. ellenae* Wilson, 1996 and *M. hangzhouensis* Zhou & Wei, 1979, but is differentiated from both by: (1) postclypeus with yellow on anterior margins; (2) median lobe of prothorax with four fine yellow streaks; (3) thorax with five yellow stripes; (4) nodal index of fore and hindwings less lower than in the other four *Macromidia* species described from China. See also Table I.

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