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Descriptions of the final stadium larva and female adult of *Coeliccia mingxiensis* Xu (Odonata: Zygoptera: Platycnemididae)

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Abstract

The final stadium larva of *Coeliccia mingxiensis* Xu is described and illustrated. The female adult is also described for the first time. The larva can be easily separated from all known *Coeliccia* larvae by the following distinct morphological characters: (1) prementum longest in all known *Coeliccia* larvae; median lobe with 4 pairs of premental setae and palpal lobe with 6 palpal setae; (2) caudal gills shortest of all known *Coeliccia* larvae when compared with body length; median gill rounded at apex and lateral gill with a small median projection at apex. The female is similar to the male in many respects, differing chiefly in several respects as follows: the transverse yellow band on vertex of head broader and straighter than in male; antehumeral stripe on mesepisternum somewhat incurved basally, not forming a strong hook, which is present in male; distal abdomen with obviously different colour pattern; anal appendages brownish-black, shorter than S10; vulvar scales robust, brownish-yellow, projecting well beyond end of abdomen.

Key words: Odonata, Platycnemididae, *Coeliccia mingxiensis*, larva, female adult

Introduction

Coeliccia mingxiensis Xu is a platycnemidid damselfly originally described from a single male in northern Fujian, China (Xu 2006). During field work in Huaan County, southern Fujian this year, three final stadium larvae of the species were collected and then carried back to the laboratory, measured, photographed and reared to emergence. Their identification was confirmed by the adults that emerged. The larval cast skins were kept, providing the basis for the description of the morphological characters of the larvae. Both two male and one female adults that emerged from the larvae were photographed and then saved as specimens. In this paper, the final stadium larva of this species is described and illustrated, and it is diagnosed from all known *Coeliccia* larvae; description of the female adult is also provided for the first time.

Abbreviations: S1–10, abdominal segments 1–10.

Description of the larva of *Coeliccia mingxiensis* Xu, 2006

(Figs. 1–8)

Specimens studied. 3 final stadium larvae and their exuviae, 04.V.2013, Huaan County (24°49'N, 117°45'E), Fujian Province, China, Qi-han Xu leg., 1 ♂ emerged 15.V.2013, 1 ♂ emerged 16.V. 2013, 1 ♀ emerged 18.V.2013. Exuviae are deposited in Department of Garden and Horticulture, Zhangzhou City University.

Description of final stadium larvae. General appearance and color pattern as shown in Fig. 1.

Head: Large and pentagonal in shape, predominantly brown dorsally. Compound eyes large, protruding laterally. Postocular lobe rounded, furnished with numerous bristles. Antenna (Fig. 2) 7-segmented, filiform, around 2.3 mm in length. Prementum (Fig. 3) large, longer than wide, in a ratio of 1.5:1, extending posteriorly to the level of mesocoxae. Median lobe very prominent, arched strongly forward; premental setae 4/4, the innermost shortest, about 1/4 or 1/3 length of the others. Palpal lobe armed with 6 palpal setae, apical portion (Fig. 4) divided