



Description of the final stadium larvae of *Polycanthagyna ornithocephala* (McLachlan, 1896) from Taiwan, with a key to the known larvae of the genus (Odonata: Anisoptera: Aeshnidae)

KWOK-CHING WONG^{1,4}, WEN-CHI YEH² & TSUNG-WEI CHAN³

¹Department of Natural Resources and Environmental Studies, National Dong Hwa University, No. 1, Sec. 2, Da Hsueh Rd., Shoufeng, Hualien 97401, Taiwan

²Division of Forest Protection, Taiwan Forestry Research Institute, 53 Nan-hai Road 10016 Taipei, Taiwan.

E-mail: wcyeh@tfri.gov.tw

³Ruiting Elementary school of New Taipei City, No.23, Sijiaotingpu Rd., Ruifang Dist., New Taipei City 224, Taiwan.

E-mail:s88b1001@gmail.com

⁴Corresponding author. E-mail: kcwong@mail.ndhu.edu.tw

Abstract

The final stadium larvae of *Polycanthagyna ornithocephala* is described and compared to those of its congeners occurring in Taiwan. A key is provided to identify the known larvae of three *Polycanthagyna* species. General habitus of adult and larva are also discussed.

Key words: *Polycanthagyna ornithocephala*, description, larvae, Anisoptera, Taiwan

Introduction

The genus *Polycanthagyna* was erected by Fraser (1933), with *P. erythromelas* (McLachlan) as type species. The genus presently comprises 4 species (Schorr and Paulson 2011), *i.e.* *P. chaoi* Yang & Li, *P. erythromelas*, *P. melanictera* (Selys) and *P. ornithocephala* (McLachlan). Species of *Polycanthagyna* are variously distributed within a limited area ranging from northeastern India, throughout Bangladesh, Nepal, Thailand and Vietnam, eastward to mainland China, Korea and Japan, and including the adjacent continental islands, *i.e.* Hainan, Hong Kong, Taiwan and the Ryukyu (Sugimura *et al.* 2001; Tsuda 2000; Wilson & Reels 2001).

In addition to *P. chaoi*, found only in Sichuan, China (Yang & Li 1994), species of *Polycanthagyna* widely overlap each other in their distribution and can all be found in Taiwan (Matsuki & Lien 1985). In this island two or three of them frequently coexist in the same site and even the same microhabitat (personal observation).

Although the adults of *Polycanthagyna* have all been well studied (Asahina 1978 & 1986; Fraser 1936; Sugimura *et al.* 2001), their larvae have been illustrated only for *P. erythromelas* (Matsuki & Lien 1985) and *P. melanictera* (Ishida 1996; Matsuki & Kuwahara 1989). So far, the larvae of *P. chaoi* and *P. ornithocephala* remained unknown. In this study, we provide the first description of *P. ornithocephala* larvae and a key to the known larvae of *Polycanthagyna*, based on materials collected in Taiwan.

Material and methods

The final stadium larvae studied were collected during 2007-2008, using an aquatic net with 1 mm mesh grid size. The larvae were then taken back to the laboratory for rearing. After emergences of some final stadium larvae, the teneral adults were checked to confirm their identities, and the exuviae were kept for further inspection. The remaining final stadium larvae were preserved in 80% ethanol for further studies. A Leica S8 APO stereoscope was