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Description of the last stadium larva and female of *Microgomphus thailandica* Asahina, 1981 (Odonata: Gomphidae)

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Abstract

The last stadium larva of *Microgomphus thailandica* is described, illustrated and compared with the larvae of congeneric species based on reared specimens collected from the Phachi headwater stream, Ratchaburi province, Thailand. The female adult of this species is described for the first time from a reared specimen from the same locality.

Key words: description, *Microgomphus*, Gomphidae, Odonata, Thailand, larva, adult

Introduction

The genus *Microgomphus* Selys, 1858 (Gomphidae) is currently composed of 15 species (Schorr *et al.* 2013). Of these, only the larvae of *M. chelifera* Selys, 1858, *M. torquatus* (Selys, 1854) and *M. wijaya* Lieftinck, 1940, have been described (Fraser 1919, Ngiam 2010, Ngiam *et al.* 2011). Species of *Microgomphus* are variously distributed within limited areas in India, Sri Lanka, Myanmar, Malaysia, Singapore, Indonesia, Thailand, Philippines and China (Hämäläinen & Pinratana 1999, de Fonseca 2000, Emiliyamma *et al.* 2012).

In Thailand, two species of *Microgomphus* have been recorded: *M. thailandica* Asahina, 1981, and *M. chelifera* Selys, 1858 (Asahina 1981); only the larva of *M. chelifera* has been described to date. *M. thailandica* was originally described by Asahina (1981) based on adult male specimens collected from Khao Yai, Nakon Ratchasima province. The male caudal appendage, pterothoracic pattern, accessory genitalia and wing venation were illustrated.

To date, the female of this species has not been described. Here, we present a detailed description of *M. thailandica* exuviae and female from individuals collected from western Thailand.

Material and methods

Last-instar larvae (Fig. 1) were collected at a first-order stream of the Phachi River, Ratchaburi province, western Thailand (13°28.6'N, 99°14.5'E; altitude 230 m) on 30 March 2013. Gomphid larvae were collected using a D-frame net among leaf litter in a pool. The larvae were then taken back to the laboratory for rearing. Larvae were reared in an earthenware pot (rearing device for single larva with netted cover). Each rearing chamber was connected to an air supply by aquarium tubing. Chironomid larvae were offered as prey, which the odonate larvae fed on readily. The full-grown larvae were reared in the laboratory until the emergence of adults. The exuviae were preserved in 80% ethanol and adults were pinned and dried. The identification was determined based on adult characters presented by Asahina (1986). All drawings were made with the aid of a camera lucida attached to a stereoscopic microscope. Measurements (mm) and photographs were taken under an NIKON SMZ800 stereoscopic microscope. The specimens are deposited in the Aquatic Insects Collection (AIC) of the Zoological Museum, Kasetsart University (ZMKU), Bangkok, Thailand. Larval mandibular formula follows Watson (1956). Abbreviations used: arc = arcus; Fw = forewing(s); Hw = hindwing(s); S1-S10 = abdominal segments 1–10.

References

- Asahina, S. (1986) A list of the Odonata recorded from Thailand, Part XIV. Gomphidae 2. *Tombo*, 29 (1–2), 7–53.
- Boonsoong, B. & Chainthong, D. (2014) Description of the final-instar larva of *Heliogomphus selysi* Fraser (Odonata: Gomphidae). *Zootaxa*, 3764 (4), 482–488.
<http://dx.doi.org/10.11646/zootaxa.3764.4.8>
- Emiliyamma, K.G., Palot, M.J. & Radhakrishnan, C. (2012) *Microgomphus souteri* Fraser, a new addition to the Odonata (Insecta) fauna of Kerala, southern India. *Journal of Threatened Taxa*, 4 (6), 2667–2669.
<http://dx.doi.org/10.11609/jott.o2885.2667-9>
- de Fonseka, T. (2000) *The Dragonflies of Sri Lanka*. Wildlife Heritage Trust, Colombo, 319 pp.
- Hämäläinen, M. & Pinratana, A. (1999) *Atlas of the dragonflies of Thailand: Distribution maps by provinces*. Brothers of Saint Gabriel in Thailand, Bangkok, 176 pp.
- Lieftinck, M.A. (1940) On some Odonata collected in Ceylon, with descriptions of new species and larvae. *Ceylon Journal of Science (Biological Sciences)*, 22, 79–117.
- Ngiam, R.W.J. (2011) *Heliogomphus cf. retroflexus* Ris, 1912, (Odonata: Anisoptera: Gomphidae), a possible new record for Singapore. *Nature in Singapore*, 3, 221–225.
- Ngiam, R.W.J., Sun, S.W. & Sek, J.Y. (2011) An update on *Heliogomphus cf. retroflexus* Ris, 1912, with notes on *Microgomphus chelifera* Selys, 1858 in Singapore (Odonata: Anisoptera: Gomphidae). *Nature in Singapore*, 4, 95–99.
- Schorr, M., Lindeboom, M. & Paulson, D. (2013) World Odonata List. Available from: <http://www.pugetsound.edu/academics/academic-resources/slater-museum/biodiversity-resources/dragonflies/world-odonata-list/> (accessed 22 May 2013)
- Watson, M.C. (1956) The utilization of mandibular armature in taxonomic studies of anisopterous nymphs. *Transactions of the American Entomological Society*, 81, 155–202.