Ischnura foylei sp. nov. (Odonata, Coenagrionidae) from the highlands of Sumatra

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Abstract

Ischnura foylei sp. nov. is described from Indonesia, Sumatra, Jambi Province, Danau Gunung Tujuh (or Danau Sakti), a lake situated in an extinct volcanic crater, 1°41'15"S, 101°25'28"E, 1995 m a.s.l. Structurally, it is close to I. senegalensis but larger and with differently shaped cerci in males and a more trilobate posterior lobe of the prothorax; males and androchromatic females have a unique colour pattern.

Key words: damselfly, Odonata; Zygoptera, Coenagrionidae, Ischnura, Sumatra, tropical highland Odonata

Introduction

According to the most recent count by M. Shorr and D. Paulson (2015), the cosmopolitan genus Ischnura Charpentier, 1840, in its presently accepted sense, includes as many as 71 species. This genus has major centres of diversity in America, Central Asia and New Guinea (Tsuda 2000; Kalkman and Orr 2013). Only two species are known to occur in Sundaland: I. senegalensis, widespread in the Old World tropics, and I. aurora Brauer, 1865 widespread in south Asia and Oceania (Lieftinck 1954).

In 2014–2015, a large population of an undescribed species of Ischnura was discovered at a highland crater lake on Gunung Tujuh (Fig. 1) in Central Sumatra. This species is described below.

Material and methods

Specimens were photographed in nature with Nikon D4 camera and 105 mm macro lens. Morphological details were photographed using a Zeiss Stemi 2000-C microscope equipped with a Canon PowerShot A640 digital camera. Images with enhanced depth of focus were obtained from serial photos with shifted focus using the program Helicon Focus 5.3 (http://www.photo-soft.ru/heliconfocus.html).

Abbreviations: RMNH—Naturalis Biodiversity Centre, Leiden; BMNH—Natural History Museum, London; ISEA—Institute of Systematics and Ecology of Animals of Siberian Branch of Russian Academy of Sciences, Novosibirsk.

Ischnura foylei sp. nov. (Figs. 2–4, 5a–c, 6, 7a–g)

Type material. Holotype: ♂ (Fig. 4, 5a–c), Indonesia, Sumatra, Jambi Province, Danau Gunung Tujuh (Danau Sakti), 1°41'15"S, 101°25'28"E, 1995 m a.s.l., October 2014; deposited in RMNH. Paratypes: 5 ♂, 3 ♀, of which 2 androchromatic (Fig. 6) and one gynochromatic (heterochromatic) (Fig. 7 a–g), the same data, deposited in RMNH, BMNH and ISEA. The specimens were preserved in a vial of alcohol, some dried afterwards.