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Nannophlebia leoboppi sp. nov., a new dragonfly species from New Guinea (Odonata: Anisoptera: Libellulidae)

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Abstract

Nannophlebia leoboppi sp. nov. is described and figured based on a male specimen collected in the Star Mountains of Central New Guinea. This relatively large representative of its genus is compared with its probable nearest relative, *N. antiacantha* Lieftinck, 1963, which is also partially figured. The new species brings the total number of *Nannophlebia* species to 25.

Key words: Odonata, Anisoptera, Libellulidae, *Nannophlebia*, *leoboppi*, *antiacantha*, new species, New Guinea

Introduction

The genus *Nannophlebia* Selys, 1878, presently includes 24 species ranging throughout northern and eastern Australia, mainland New Guinea, Misool, New Britain, New Ireland, Japan, and the Moluccas. The four Australian species may be identified using Theischinger and Hawking (2006) and keys to 19 of the 20 species from New Guinea and the Moluccas are provided in Michalski (2012). The species exhibit high levels of local endemism within the geographic range of the genus, none for example being shared between New Guinea and Australia (see Kalkman and Orr, 2012) or New Guinea and the Moluccas (Michalski, 2012). All are small, dainty, yellow- or pale-green-marked libellulids inhabiting running water. The abdomen is thin and always held in a strong, characteristic downwards arch, particularly evident in perching males. It is likely that several new species remain undiscovered, especially in the New Guinea highlands, as evidenced by the recent discovery of the highly unusual *Nannophlebia kalkmani* Theischinger & Richards, 2011, from the Muller Range of Papua New Guinea (Theischinger and Richards 2011).

In July of 2006, VJK collected a small series of a distinct new species, most closely allied to *N. antiacantha* Lieftinck, 1963, from a shaded stream near the village of Borme in the Star Mountains of Papua Province, Indonesia. Included in the material was a freshly emerged adult male, together with its exuvia. This species is described here as *Nannophlebia leoboppi* sp. nov. and compared with *N. antiacantha*, another relatively large species known from several widely spaced localities in the central mountain area of New Guinea including the Star Mountains (Lieftinck 1963). The holotype of *N. leoboppi* is deposited in the Naturalis Biodiversity Center (RMNH), Leiden, The Netherlands.

Nannophlebia leoboppi sp. nov.

(Figs 1, 2, 3, 5)

Material examined. Holotype ♂, Indonesia, Papua Province, Star Mountains, Borme (Borme: 4°23.77'S, 140°26.020'E). Shaded streams a few km from village. 1000–1100m asl. 27.vii.2006, Leg. V.J. Kalkman. Exuvia = NG 107; DNA sample RMNH.INS.500534.