New species and records of black flies (Diptera: Simuliidae) from Vinh Phuc Province, Vietnam

HIROYUKI TAKAOKA1,3, MOHD SOFIAN-AZIRUN1, ZUBAIDAH YA’COB1, CHEE DHANG CHEN3, KOOK WENG LAU1 & HONG THAI PHAM2

1 Institute of Biological Sciences, Faculty of Science, University of Malaya, Kuala Lumpur 50603, Malaysia
2 Insect Systematics Department, Institute of Ecology and Biological Resources, Vietnam Academy of Science and Technology, Hanoi, Vietnam
3 Corresponding author email: takaoka@oita-u.ac.jp

Abstract

Four new species of black flies are described, and three others are reported as newly recorded, based on adults reared from pupae, pupae and larvae collected in and near Tam Dao National Park, Vinh Phuc Province, Vietnam. New species include Simulium (Gomphostilbia) hongthaii sp. nov., S. (G.) tamdaoense sp. nov. (both species placed in the asakoae species-group), S. (Simulium) taythienense sp. nov. and S. (S.) xuandai sp. nov. (the two latter species placed in the striatum species-group). Newly recorded species are S. (G.) brinchangense Takaoka, Sofian-Azirun & Hashim, S. (Nevermannia) aureohirtum Brunetti and S. (S.) brevipar Takaoka & Davies. These discoveries increase the number of species of black flies known in Vietnam from 21 to 28.

Key words: Simulium, black fly, Vietnam, new species

Introduction

The fauna of black flies in Vietnam has been scarcely studied. Until recently, it was represented by 16 species of two subgenera, Gomphostilbia and Simulium, of the genus Simulium (Adler & Crosskey 2014), of which seven were reported by Crosskey & Howard (1997) and nine were recorded by Pham (1998, 1999). Recently, we carried out surveys of black flies in and near Tam Dao National Park, Vinh Phuc Province and collected 15 species consisting of three known species (Simulium (Gomphostilbia) asakoae Takaoka & Davies, Simulium (Simulium) nodosum Puri and Simulium (Simulium) tani Takaoka & Davies), five new species and seven newly recorded species, of which one new species was described as Simulium (Simulium) vietnamense Takaoka, Sofian-Azirun & Chen and four (Simulium (Simulium) chung Takaoka & Huang, Simulium (Simulium) grossifilum Takaoka & Davies, Simulium (Simulium) maenoi Takaoka & Choochote and Simulium (Simulium) rugibasis Brunetti) were reported as new records for Vietnam, based on female black flies captured on humans (Takaoka et al. 2014b). In this paper, four new species are described and three newly recorded species are noted, based on adults reared from pupae, pupal exuviae and larvae.

The methods of collection, description and illustration, as well as terms for morphological features used here, follow those of Takaoka (2003).

The holotypes and paratypes of the new species are deposited in the Institute of Biological Sciences, Faculty of Science, University of Malaya, Kuala Lumpur, Malaysia.
References


http://dx.doi.org/10.1139/z92-145


http://dx.doi.org/10.3897/zokeys.118.1552

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http://dx.doi.org/10.11646/zootaxa.3765.1.3
