New species of black flies (Diptera: Simuliidae) from Nepal

HIROYUKI TAKAOKA1,2 & SUCHITRA SHRESTHA3

1Institute of Biological Sciences, Faculty of Science, University of Malaya, Kuala Lumpur, 50603 Malaysia
2Department of Infectious Disease Control, Faculty of Medicine, Oita University, Yufu City, Oita, 879-5593 Japan.
E-mail: takaoka@med.oita-u.ac.jp
3P.O. Box 6304, Kathmandu, Nepal. E-mail: suchitras2003@gmail.com
Abstract

Ten new species of black flies are described based on larval, pupal and reared adult specimens collected at various localities in Nepal. All new species are assigned to the genus Simulium Latreille and further classified into five subgenera: one (S. suchitrae sp. nov.) in Asiosimulium Takaoka & Choochote, one (S. jomsomense sp. nov.) in Eusimulium Roubaud, three (S. baglungense sp. nov., S. butwalense sp. nov., S. nuwakotense sp. nov.) in Gomphostilbia Enderlein, two (S. lekhanisen Takaoka & Shrestha sp. nov., S. letense sp. nov.) in Nevermannia Enderlein, and three (S. titarense sp. nov., S. tamorense sp. nov., S. tulshii sp. nov.) in Simulium Latreille s. str. Among these, the first two new species also represent new records from Nepal of two subgenera, Asiosimulium and Eusimulium, respectively, both of which occur very rarely in the Oriental Region. The previous record from Nepal of S. (G.) gombakense Takaoka & Davies is corrected to that of S. (G.) sachini Takaoka & Henry, recently described from India. The male and mature larva of S. (G.) sachini are also described for the first time. The taxonomic affinities with related known species, if any, are noted for each new species. The keys to all 32 Nepalese species of black flies are provided.

Key words: Simulium, new species, description

Introduction

The fauna of black flies (Diptera: Simuliidae) in Nepal has been relatively poorly studied. So far recorded from Nepal are 22 named and 3 unnamed species, all of which are assigned to the genus Simulium Latreille, and further classified into four subgenera: Eusimulium Roubaud, two (S. jomsomense sp. nov., S. tamorense sp. nov.) in Asiosimulium Takaoka & Choochote, one (S. lekhanisen Takaoka & Shrestha sp. nov.) in Eusimulium Roubaud, three (S. baglungense sp. nov., S. butwalense sp. nov., S. nuwakotense sp. nov.) in Gomphostilbia Enderlein, and three (S. titarense sp. nov., S. sachini sp. nov., S. nuwakotense sp. nov.) in Nevermannia Enderlein, respectively, both of which occur very rarely in the Oriental Region. The previous record from Nepal of S. (G.) gombakense Takaoka & Davies is corrected to that of S. (G.) sachini Takaoka & Henry, recently described from India. The male and mature larva of S. (G.) sachini are also described for the first time. The taxonomic affinities with related known species, if any, are noted for each new species. The keys to all 32 Nepalese species of black flies are provided.