Antocha crane flies from Taiwan (Diptera: Limoniidae: Limoniinae)

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Abstract

Taiwanese species of the crane fly subgenus Antocha (Antocha) Osten Sacken, 1860, are reviewed. Antocha (Antocha) taiwanensis, new species, is described and figured. Previously known species, Antocha (A.) bifida Alexander, 1924a and Antocha (A.) styx Alexander, 1930 are redescribed and illustrated. Antocha (A.) javanensis Alexander, 1915 is removed from the list of Taiwanese crane flies. Antocha (A.) gracillima Alexander, 1924b and species close to Antocha (A.) streptocera Alexander, 1949 are listed for the first time in Taiwan. Identification key for all Taiwanese Antocha species is given.

Key words: Antocha, Diptera, Limoniidae, Limoniinae, new species, Taiwan

Introduction

The genus Antocha Osten Sacken, 1860, is a group of small to medium-sized crane flies within the subfamily Limoniinae (Diptera: Limoniidae), which is represented in all continents except South America and Antarctica (Oosterbroek, 2015). The genus is characterized by a prominent anal angle on the wings. A total of 155 species belonging to three subgenera are recognized as currently classified (Oosterbroek, 2015): Antocha Osten Sacken, 1860; Orimargula Mik, 1883; and Proantocha Alexander, 1919. A detailed morphological study and distribution pattern of this genus have been presented recently by Podenas & Byun (2013). The nominotypical subgenus Antocha can be separated morphologically from subgenus Orimargula by the wing venation that possesses a discal cell (Mik, 1883), and from the subgenus Proantocha by the legs that lack long erect setae and tiny black spines (Alexander, 1919). The subgenus Antocha (Antocha) is the most abundant subgenus with 111 recognized taxa distributed mainly in the Palaearctic and the Oriental regions. In Taiwan, three species of this subgenus have been recorded: Antocha (A.) bifida Alexander, 1924a; A. (A.) javanensis Alexander, 1915; and A. (A.) styx Alexander, 1930.

A conclusion in this review is that A. (A.) javanensis is removed from the Taiwan fauna; instead, A. (A.) gracillima Alexander, 1924b, previously known from Japan and Korea, and a species close to A. (A.) streptocera Alexander, 1949, previously known from China, are now recorded for the first time in Taiwan. And a new species A. (A.) taiwanensis is described below along with redescriptions and figures of the existing species because the original descriptions were overly simplified and imprecise.

Material and methods

This study is based on field collected specimens. Specimens were collected and dry-mounted following Byers (1961: 677–678). Genitalia preparations were made by soaking the three posterior abdominal segments in cold 10% KOH overnight. They were rinsed with acetic acid and water after removal from KOH, and then stored in glycerin-filled microvials pinned below the corresponding specimens.