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

SIGITAS PODENAS¹ & CHEN W. YOUNG²

¹Department of Zoology of Vilnius University, Ciurlionio str. 21/27 and Nature Research Centre, Akademijos str. 2, LT-08412 Vilnius, Lithuania. E-mail: sigitas.podenas@ekoi.lt

²Section of Invertebrate Zoology, Carnegie Museum of Natural History, 4400 Forbes Avenue, Pittsburgh, Pennsylvania 15213-4080, USA. E-mail: youngc@carnegiemnh.org

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 Palearctic 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 redescription 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.