



Species of the genus *Rhipidia* Meigen from Taiwan (Diptera, Limoniidae)

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Abstract

An overview is presented for the species of the genus *Rhipidia* Meigen, 1818 from Taiwan. *Rhipidia* (*Rhipidia*) *chenwenyoungi* sp. nov. is described as new to science. *R. (R.) servilis* (Alexander, 1932) is recorded from Taiwan for the first time. *Rhipidia* (*Eurhipidia*) *formosana formosana* Alexander, 1923 is redescribed. A key to the species of the genus *Rhipidia* from Taiwan is presented for the first time.

Key words: Diptera, Limoniidae, *Rhipidia*, new species, Taiwan

Introduction

Rhipidia Meigen is a large genus in the family Limoniidae. It is characterized by the following features: size small or medium (3–9 mm), rarely large; flagellum with 12 segments or less; flagellomeres of male somewhat produced, bipectinate, unipectinate, or subpectinate; flagellomeres of female less developed, appearing serrated to nearly simple; rostrum shorter than remainder of head; R_{1+2} present; R_2 commonly present; R_4 and R_5 fused to margin; only two branches of Rs present as longitudinal elements (R_3 and R_{4+5}); two branches of M reaching wing margin; clasper of gonostylus often with two or more rostral spines (Brunetti 1911; Alexander 1914). The genus is divided into two subgenera: *Eurhipidia* Alexander, 1965 and *Rhipidia* s. str.. The former differs from the latter in the following features: Sc_1 long, cell dm open by atrophy of m-m, in cases with basal section of M_3 likewise lacking; clasper of gonostylus with two slender rostral spines arising from a common enlarged basal tubercle of rostral prolongation (Alexander 1965). In the subgenus *Rhipidia*, the cell dm is closed, and the clasper of gonostylus commonly has more than two rostral spines directly arising from the rostral prolongation.

The genus *Rhipidia* with 223 known species is widely distributed, of which 17 species are from the Palearctic Region, 8 species are from the Nearctic Region, 138 species are from the Neotropical Region, 25 species are from the Afrotropical Region, 35 species are from the Oriental Region, and 8 species are from the Australasian/Oceanian Region (Oosterbroek 2011). Two species were known from Taiwan: *R. (E.) formosana formosana* Alexander, 1923 and *R. (R.) triarmata* (Alexander, 1930).

Taiwan is located in the western Pacific Ocean. As one of the largest islands in Asia, it has a subtropical to tropical monsoon climate. In the present paper, three species including one new species and one new record species from Taiwan are described. A key to the species of the genus *Rhipidia* from Taiwan is presented. As there is no material of *R. (R.) triarmata* examined in our research, no description is given here. However, on the basis of its original descriptions (Alexander 1930) and other available information, it is included in the presented key to all species of the genus *Rhipidia* known from Taiwan.

Material and methods

The specimens were studied and illustrated with ZEISS Stemi 2000-c. Genitalic preparations were made by macerating the apical portion of the abdomen in cold 10% NaOH for 12–15 h. After examination it was transferred to