Review of Campsicnemus (Diptera: Dolichopodidae) of the Marquesas, French Polynesia, with description of four new species groups

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Abstract

The Marquesan species of Campsicnemus are reviewed and four new species groups: the gladiator group (Marquesan gladiator flies), the aa group (Marquesan vowel flies), the englundi group (Marquesan silly-walk flies), and the hihiroa group (Marquesan eyelash flies) are defined. Twelve new species are described and illustrated: Campsicnemus gladiator Evenhuis, n. sp. (gladiator group); C. aa Evenhuis, n. sp., C. ee Evenhuis, n. sp., C. ii Evenhuis, n. sp., C. oo Evenhuis, n. sp., C. uu Evenhuis, n. sp. (all in the aa group); C. englundi Evenhuis, n. sp.; C. cheesmanae Evenhuis, n. sp., C. plautus Evenhuis, n. sp.; (all in the englundi group); C. dytei Evenhuis, n. sp., C. hihiroa Evenhuis, n. sp., C. taratara Evenhuis, n. sp. (all in the hihiroa group). A key to all known French Polynesian species groups of Campsicnemus and to species within each species group in the Marquesas are given.

Key words: Marquesas, French Polynesia, Campsicnemus, species groups, keys, water-skaters, taxonomy

Introduction

Campsicnemus Haliday is a widespread genus throughout the Northern Hemisphere but with an extremely high diversity of endemic species in the Hawaiian Islands and French Polynesia [see Evenhuis (2008) for more detailed background information]. Studies on Marquesan (See Fig. 1 for location of the French Polynesian Marquesan islands in the Pacific Ocean) Campsicnemus are few. Parent (1934) was the first to describe a water-skating Campsicnemus (C. scurra) from the Marquesas based on a specimen collected by Evelyn Cheesman on the St. George Expedition. More than sixty-five years later, Evenhuis (2000) described two additional new species of water-skaters (C. limnobates and C. uncleremus) from other islands in the Marquesas based on material collected on surveys conducted from 1999–2001 by Bishop Museum and the Smithsonian Institution. These two species (and C. scurra plus a new species described here) have been found to belong to a monophyletic species group only known from the Marquesas (this group is defined here as the gladiator group). Recently, Evenhuis (2008) described 10 new species from the Society Islands that belong to two species groups endemic to those islands (the lobatus group [5 species] and the zigzag group [5 species]), bringing the total of French Polynesian Campsicnemus known at that time to 13. Further material from the Marquesas collected during these various surveys have been examined and have been found to fall into four additional new species groups, based primarily on characters of the male legs.

The four species groups from the Marquesas (aa, gladiator, englundi, and hihiroa) are here keyed along with the two species groups from the Societies (lobatus and zigzag) to assist in their identification. Twelve new species discovered during this study are described and illustrated. In addition, keys to species in each species group are given. With the 12 new species described here, the French Polynesian Campsicnemus fauna now totals 25 species.

Specimens of Campsicnemus from throughout the Pacific are currently being studied as part of a larger