



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