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The Lonchaeidae of Fiji (Diptera: Schizophora)

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Abstract

The status of the family Lonchaeidae on the islands of the Fiji group is reviewed. Data are provided from trapping undertaken as part of the NSF-Fiji Terrestrial Arthropod Survey and from Fijian Lonchaeidae in the collections of the Bishop Museum, Hawaii and the Natural History Museum, London. Five new species, *Lonchaea fiji* sp. nov., *Lonchaea melanesia* sp. nov., *Lonchaea vanua* sp. nov., *Silba kadavu* sp. nov. and *Silba setiphallus* sp. nov. are described. Two species new to Fiji, *Dasiops ruidifrons* McAlpine, 1964 and *Lamprolonchaea lustrata* McAlpine, 1964, are recorded. Five species previously recorded, *Lamprolonchaea brouniana* (Bezzi, 1919), *Lamprolonchaea smaragdi* (Walker, 1849), *Lonchaea cyaneoneitens* Kertész, 1901, *Silba calva* (Bezzi, 1913) and *Silba setifera* (de Meijere, 1910) are re-evaluated and are removed from the checklist. The fauna is now considered to comprise of 11 species in 4 genera. A key is provided to the Lonchaeidae present on the islands.

Key words: Diptera, Lonchaeidae, Fiji, checklist, new species

Introduction

The Lonchaeidae of Fiji were relatively poorly known. Evenhuis (2007) recorded 7 species in 3 genera based on previously published literature. The most comprehensive review was included within *Diptera Brachycera and Athericera of the Fiji Islands* (Bezzi, 1928). Here four species of Lonchaeidae were recorded in three genera, *Lamprolonchaea smaragdi* (Walker, 1849), *Lonchaea cyaneoneitens* Kertész, 1901, *Silba calva* (Bezzi, 1913) and *Silba perplexa* (Walker, 1862). The status of these species is discussed later in this paper. Further records were published by McAlpine (1964) who described two new species, *Lamprolonchaea gilvipata* McAlpine, 1964 and *Lonchaea linefacies* McAlpine, 1964, from Fiji. Unfortunately this paper did not include any illustrations of the male genitalia although three of the *Lamprolonchaea* species listed in this paper as occurring on Fiji are partially illustrated in McAlpine (1962). In this paper McAlpine only identified the specimens by code letters LPJ = *L. gilvipata*, LPM = *L. lustrata* McAlpine, 1964 and LPB = *L. metatarsata* (Kertész, 1901).

This study is based on material collected in Malaise traps as part of the Terrestrial Arthropod Survey of Fiji (TASF) project founded by the US National Science Foundation and the Schlinger Foundation and on specimens in the collections of the Bishop Museum, Hawaii and the Natural History Museum, London (BMNH). Based on this material five new species of Lonchaeidae are described and illustrations of the male genitalia of all *Lamprolonchaea*, *Lonchaea* and *Silba* species identified from Fiji are provided. Two species new to Fiji, *Dasiops ruidifrons* McAlpine, 1964 and *Lamprolonchaea lustrata* are recorded. An updated key, based mainly on male characters, and annotated checklist is provided. Notes are provided on previously described species and species which have previously been recorded but are not now included on the checklist due to errors in identification or uncertainty about taxonomic status. The revised checklist now lists 11 species in 4 genera, one species of *Dasiops*, three *Lamprolonchaea*, four *Lonchaea* and three in the genus *Silba*.

All holotypes of the new species described here are deposited in the in Bishop Museum, Hawaii.

	<i>Lonchaea vanua</i>
9.	Phallus long, thin and curving with a characteristic angled tip (Fig 28).....	<i>Silba perplexa</i>
-	Phallus stouter with a basal process (Figs. 26 & 31)	10
10.	Phallus largely covered in small setulae, basal process simple (Figs. 31 & 32), calypteres greyish with dark fringe	<i>Silba setiphallus</i>
-	Phallus with only a few setulae, basal process bifurcate at apex (Figs. 26 & 27), calypteres and fringe white	<i>Silba kadavu</i>

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