



Article

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The genus *Bradysia* Winnertz (Diptera, Sciaridae) in New Caledonia, with the description of thirteen new species

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Abstract

The following species of the genus *Bradysia* Winnertz, 1867 are recognized from New Caledonia, all newly described: *Bradysia aequispina* sp. n., *B. centidens* sp. n., *B. clavistylis* sp. n., *B. filigera* sp. n., *B. gemellata* sp. n., *B. gibbosa* sp. n., *B. melina* sp. n., *B. nudilobata* sp. n., *B. paucidens* sp. n., *B. planistylata* sp. n., *B. seticornis* sp. n., *B. spissa* sp. n. and *B. stricta* sp. n. A key to the species is given.

Key words: Diptera, Sciaridae, *Bradysia*, key, new species, Australasian region, New Caledonia

Introduction

The Diptera of New Caledonia have been studied mainly since the late 1980's, and the results have been presented mainly in the seven volumes of *Zoologia Neocaledonica* (Tillier 1988, Chazeau & Tillier 1991, Matile *et al.* 1993, Najt & Matile 1997, Najt & Grandcolas 2002, Grandcolas 2008, 2009). Of the Bibionomorpha, the known New Caledonian fauna includes Bibionidae (Fitzgerald 2004) and some groups of Sciaroidea: Lygistorrhinidae (Matile 1986), Keroplatidae (Matile 1988a), Ditomyiidae (Matile 1988b), Mycetophilidae Mycomyinae, Sciophilinae et Gnoristinae (Matile 1991) and Mycetophilidae Leiinae et Manotinae (Matile 1993). These studies show a high degree of endemism of the New Caledonian dipteran fauna, at least at the species level. However, the level of endemism in New Caledonia is known to vary among insect groups (Chazeau 1993, Cranston 2010). Current knowledge of the insect fauna, especially Diptera, its affinities, possible origin and diversity was recently summarized by Couri *et al.* (2010). This is the fourth part of an ongoing study by the present authors of the thus far unknown sciarid fauna of New Caledonia, the genus *Keilbachia* Mohrig (Vilkamaa *et al.* 2011), *Pseudolykoriella* Menzel & Mohrig (Vilkamaa *et al.* 2012a) and *Ctenosciara* Tuomikoski (Vilkamaa *et al.* 2012b) having been treated earlier.

The genus *Bradysia* Winnertz (type-species *Bradysia angustipennis* Winnertz, 1867) is widely distributed, the most species-rich genus of the Sciaridae, with more than 400 described species (Menzel & Mohrig 2000), most of which from the Palearctic region. From the Australasian/Oceanian region, however, only 12 species are currently known (Steffan 1989), including species from Micronesia (Steffan 1969), Hawaii (Grimshaw, 1901, Hardy 1956, 1960, Shaw 1952, Steffan 1973), Fiji and Samoa (Edwards 1928, Evenhuis *et al.* 2007), and the Subantarctic islands (Colless 1962, Steffan 1964) but what interesting, none from New Zealand (Mohrig & Jaschhof 1999). The Australian sciarid fauna has not been revised, but the present authors have seen *Bradysia* in various samples from the Australian continent and Tasmania as well as from Papua-New Guinea.

Material and methods

The material originates from samples collected by various French scientists in the late 1980's and early 1990's, preserved in ethanol and obtained from the Muséum National d'Histoire Naturelle (MNHN), Paris, France. We