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Checklist and comments on the jumping plant-lice (Hemiptera: Psylloidea) from Brazil

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Abstract

The published records of jumping plant-lice from Brazil comprise 70 named species but four are erroneous or doubtful. For one species a variety has been described with uncertain status. Seven named species records are added here based on recent collections bringing the number of valid species to 73. Four new combinations are proposed: *Colophorina favis* (Brown & Hodkinson) (from *Euphalerus*), *Euryconus fossiconis* (Brown & Hodkinson) (from *Euphalerus*), *Leuronota solani* (Rübsaamen) (from *Bactericera*) and *Macrocorsa beeryi* (Caldwell) (from *Psyllia*). Additional unidentified species are recorded from the genera *Auchmeriniella*, *Calophya*, *Ciriacremum*, *Euryconus*, *Isogonoceraia*, *Leuronota*, *Mastigimas*, *Pseudophacopteron* and *Livia*, the last being considered a misidentification. Another 23 records concern psyllid galls which could not be attributed to any genus. The collection of psyllid galls from Brazil described by E. H. Rübsaamen was revised. The checklist provides for each species the general and Brazilian distributions as well as the host plants. Biogeographical and host plant patterns are briefly discussed. Half of the native psyllid genera are endemic to the Neotropic Region and slightly less than a third are restricted to the New World. Ten species are introduced from Australia (4), Europe (2), Asia (1) and other parts of South America (3). Fabaceae are host plants of a majority of members of the Psyllidae, whereas many Triozidae are associated with Myrtaceae.

Key words: Neotropical, psyllids, host plants, distribution, galls, taxonomy, systematics

Introduction

Jumping plant-lice or psyllids, a group of sternorrhynchous Hemiptera, are small phloem feeding insects. Adults are always winged and resemble small cicadas ranging from 1–10 mm in body length. Larvae differ morphologically considerably from adults in their strongly, dorso-ventrally flattened body. Psyllids are generally highly host specific in particular during their larval development. For this reason psyllids are potentially an interesting group for studies on the coevolution or cospeciation of plants and herbivores (Burckhardt & Basset 2000, Percy 2011). The intimate relationship of psyllids with plants is also reflected in a wide range of psyllid galls (Hodkinson 1984, Burckhardt 2005).

At present almost 4000 psyllid species have been described (Li 2011) from all biogeographic regions of the world. They are most species rich in the tropics and South temperate regions. While the Holarctic fauna is comparatively well known the other ones are not. In particular there are big gaps of knowledge on the Afrotopical and Neotropical faunas. Recently the psyllids of the People's Republic of China were revised comprising about 1000 species (Li 2011). In comparison, from Brazil, with a surface just slightly smaller than that of China, only 70 named species have been recorded so far. Considering that Brazil lies to a large extent in the tropics and displays a big diversity of habitats more than 1000 psyllid species can be expected in this country. Recent collections mostly in Southern Brazil support this estimate (Burckhardt & Queiroz, pers. obs.).

The oldest reference of a Brazilian psyllid is by Burmeister (1835) who mentioned material in the ZMHU which he referred to *Livia* sp. The next records date from the late 19th and early 20th centuries and concern mostly galls (Ihering 1885, 1897, Rübsaamen 1899, 1905, 1907, 1908, Tavares 1917a, 1917b, 1918, 1920, 1921, 1922). New species from Brazil, based on one or only a few specimens were described by Rübsaamen (1908), Enderlein

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