

BRAZILIAN APHIDOIDEA: II. ACCOUNTS OF THE LACHNINAE, CHAITOPHORINAE, GREENIDEINAE, ANOECIINAE, AND HORMAPHIDINAE¹

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ABSTRACT - Keys are provided for the identification of the tribes, genera and species of Brazilian Lachninae, Chaitophorinae, Greenideinae, Anoeciinae and Hormaphidinae. Host plant and distribution data are given for each species.

Index terms: Brazilian aphids, identification keys, host plants, check list of genera and species, distribution.

AFÍDIOS BRASILEIROS: II. SUBFAMÍLIAS LACHNINAE, CHAITOPHORINAE, GREENIDEINAE, ANOECIINAE E HORMAPHIDINAE

RESUMO - Chaves para a identificação das tribos, gêneros e espécies de afídeos das subfamílias Lachninae, Chaitophorinae, Greenideinae, Anoeciinae e Hormaphidinae, que ocorrem no Brasil, são fornecidas. Dados sobre as hospedeiras e a distribuição geográfica são também apresentados.

Termos para indexação: Aphidoidea, chaves para identificação, hospedeiros, distribuição geográfica.

INTRODUCTION

A previous paper (Costa et al. 1993) provided keys for the identification of the families and subfamilies of Aphidoidea known from Brazil and discussed the family Phylloxeridae and contained figures 1-67. Host plant and geographical distribution data were also included. In this paper the sub-families Lachninae, Chaitophorinae, Greenideinae, Anoeciinae and Hormaphidinae are discussed. The Drepanosiphinae, Aphidinae and Pemphiginae will be dealt with in future parts. The technique, data presentation and the figures mentioned in the text are to be seen in the already referred paper.

LACHNINAE

Only two of the 3 tribes of Lachninae are known from South America, and only *Tuberolachnus* of the Lachnini, which are most palaeartic. Two genera of Cinarini, *Eulachnus* and *Cinara* are represented in Brazil. The tribe Tramini recognizable by the hind tarsi being much longer than the fore- and mid-tarsi, and more than half the length of the hind tibiae, is neither known from Brazil nor any other part of the Southern Hemisphere. However as they are inconspicuous, living on the roots of plants, mostly Compositae, they may have been overlooked.

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In recent years a number of species of Lachninae have caused forestry problems in various parts of the world, including *Cinara cronartii* and *Eulachnus rileyi* on *Pinus*, *Cinara thujafilina* on *Thuja orientalis* and *C. cupressi* on *Cupressus*.

Key to Brazilian genera of Lachninae

- 1 (2) Abdomen of apterae bearing a single large dark, dorsal median tubercle (Fig. 52), which is also present in alatae although smaller and paler. First tarsal segments without dorsal hairs, about 0.33 as long as the second tarsal segment, ultimate rostral segment blunt (Fig. 47) and with 4 or more accessory hairs. Rather large aphids, body length 4.8-5.8 mm. On *Salix*. *Tuberolachnus*.
- 2 (1) Abdomen (apterae and alatae) without a dorsal median tubercle. First tarsal segments with (Fig. 51) or without dorsal (Fig. 31) hairs, 0.33-0.50 as long as the second tarsal segment, ultimate rostral segment acute (Fig. 48) or if blunt (Fig. 50) without or with only 1 or 2 accessory hairs. Body length of Brazilian species 1.7-4.2 mm. On Conifers, Pinaceae and Cupressaceae.
- 3 (4) Ultimate rostral segment blunt, about twice as long as its basal width, bearing 0-2 accessory hairs (Fig. 50). First tarsal segments elongate, bearing a pair of dorsal hairs (Fig. 51) in addition to the ventral hairs and about half as long as the second tarsal segment. Antennal segment VI bearing a large isolated accessory rhinarium. Siphunculi mere rings. Elongate aphids feeding on *Pinus* needles. *Eulachnus*.
- 4 (3) Ultimate rostral segment distinctly divided into segments 4 and 5, the 4th segment bearing 4-8 accessory hairs (Fig. 48). First tarsal segments with 1-9 (*Cinarella*, Fig. 54) or without (Fig. 31) (*Cupressobium*) dorsal hairs, 0.33-.50 as long as the second tarsal segment. Antennal segment VI without an isolated accessory rhinarium. Siphunculi placed on dark hair-bearing cones (Fig. 16). More rounded aphids feeding on the bark of various Conifers including *Pinus*. *Cinara*.

Genus *Cinara* Curtis, 1835

Only three of the 200 mostly brownish, hairy, ant attended Conifer-feeding aphids constituting the genus *Cinara* world wide are yet recorded from Brazil. About 150 of the species were described from North America and it is likely that further species will be found on introduced Coniferae. A genetic diagnosis, synonymy and details of biology, taxonomy and systematics can be found in the account of British *Cinara* given by Eastop (1972).

Key to the apterae viviparae of Brazilian species of *Cinara* Curtis

- 1 (4) Eyes stalked (Fig. 53). Many of the dorsal abdominal hairs arising from pigmented scleroites with a diameter 4 or more times that of the hair bases. Primary rhinaria with an evident chitinized rim (Fig. 55). Processus terminalis normally bearing 4 or 5 subapical setae. Third antennal segment 3.4-6.0 times as long as the longest hair borne on the segment and usually bearing a rhinarium near the apex. Hind tibiae 15-23 times long as the longest hair borne on them. Fifth antennal segment

