

## NOTE

First Record of the California Pine Needle Aphid, *Essigella* (*Essigella*) *californica* (Essig) (Homoptera: Aphididae: Lachninae), in Southern Brazil

The genus *Essigella* del Guercio 1909 is the only native Nearctic representative of the subtribe Eulachnina (Sorensen. 1994. The Pan-Pacific Entomologist 70: 1–102). The genus has recently been revised and includes three subgenera, 13 species, and two subspecies, all of which are linear-bodied and feed on needles of Pinaceae, mainly *Pinus*, but also *Pseudotsuga* and *Picea* (Sorensen 1994; Remaudière and Remaudière. 1997. Catalogue of the World's Aphididae. Institut National de la Recherche Agronomique, Paris, 473 pp.). *Essigella* is close to the native Palearctic *Eulachnus* del Guercio, 1909, and to *Pseudessigella* Hille Ris Lambers, 1966 (Sorensen. 1990. Annals of the Entomological Society of America 83: 394–408). The genus has bifid tarsal claws; a sclerotized dorsum; head and pronotum fused; meso- and metanotum fused dorsally; abdominal tergite I usually free from the metanotum; and abdominal tergites II–VII fused (Sorensen 1994).

*Essigella* (*Essigella*) *californica* (Essig 1909) is a lime green, small-sized (1.5–2.0 mm) aphid found in western North America from southern British Columbia and Alberta to southern Mexico (Sorensen 1994; Blackman and Eastop. 1994. Aphids on the World's Trees—An Identification and Information Guide. CAB International and The Natural History Museum, London, 987 pp. + 16 pls.). One confirmed record from Miami, Florida, suggests that it may occur in the Caribbean and have a pan-Mexican distribution (Sorensen 1994). This species has been recently introduced into Europe. In France, it has been found causing damage on several *Pinus* species (Turpeau and Remaudière 1990, as cited by Sorensen 1994).

In Spain, it has been captured by suction pan traps (Seco Fernandez and Mier Duarte. 1992. Boletín de la Asociación Española de Entomología 16: 255–256).

In Brazil, *E. californica* was first collected by early June 1999 on slash pine *Pinus elliotti* Engelm. in Rolândia, Paraná State (23°19'S, 51°22'W, altitude about 540 m a.s.l.) and on Mexican weeping pine *Pinus patula* Schiede & Deppe, in the Agronomy Campus of the Universidade Federal do Paraná, Curitiba, Paraná (25°25'S, 49°14'W, altitude 945 m a.s.l.) (R. C. Z. Carvalho, collector). Both localities represent urban areas where the plants are used for landscaping. In October 1999, *E. californica* was collected at a farm in Corbélia, Paraná (24°45'S, 53°20'W, altitude 750 m a.s.l.), on *P. elliotti* (S. M. N. Lazzari, collector).

Alate and apterous viviparae and nymphs were found on the branch tips of isolated plants, feeding on the base of the pine needles, and moving quite rapidly when disturbed. Colonies of *E. californica* on *P. patula* from Curitiba were small and associated with *Cinara pinivora* (Wilson 1919) (Lachninae: Cinarini), while the populations from Rolândia and Corbélia were more numerous, only on a few trees, and were not associated with other aphid species.

According to J. Sorensen (in litt.), *E. californica* is quite variable geographically, occurs on various hosts, and might be a complex. The one collected from Brazil is in the same phenon as those which have been taken from Spain, France, Australia, and New Zealand. It seems to be the same that occurs in Mendocino County, along the northern coast



of California, principally on *Pinus attenuata* Lemmon and *Pinus muricata* D. Don. These pines are in the subsection Oocarpae as is the Mexican weeping pine, which is closely related to and hybridizes well with slash pine in the Australis subsection. In Europe and Australia, *E. californica* occurs on *Pinus radiata* D. Don, another Oocarpae pine. In California, this aphid can be found on *P. radiata*, but they are less robust and much less common than other *Essigella* species. Sorensen also mentions that *E. californica* doesn't do much damage, if any, on pines in New Zealand.

Another Eulachnina that has been recorded from Brazil feeding on *Pinus*, *Eulachnus rileyi* (Williams 1911) (Eastop, Costa, and Blackman. 1993. *Pesquisa Agropecuária Brasileira* 28: 269–280) may be confused with *E. californica*, but they can be distinguished by the following characters: *E. rileyi* has 6-segmented antennae, claws without bifid tips, color in life varying from dark olive green to gray, with a dusting of bluish-gray wax; *E. californica* has 5-segmented antennae, tarsal claws incised with double tips, and lime green color in life.

Slide-mounted specimens of *E. californica* are deposited in the Pe. Jesus S. Moure

Entomological Collection, Departamento de Zoologia, Universidade Federal do Paraná (DZUP). One sample of *P. elliotti* from Rolândia is deposited under the number 8599 and one of *P. patula* under the number 8598 in the Herbarium of the Forestry Department (EFC) of the Universidade Federal do Paraná, Brazil.

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