



First records of *Leptoglossus occidentalis* Heidemann, 1910 (Hemiptera: Heteroptera: Coreidae) in Brazil and South Africa

Primeros registros de *Leptoglossus occidentalis* Heidemann, 1910 (Hemiptera: Heteroptera: Coreidae) en Brasil y Sudáfrica

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Abstract.– The first reports of *Leptoglossus occidentalis* in Brazil and South Africa are presented. The significance of these new records is discussed.

Key words: *Invasive, Western Conifer Seed Bug, faunistics, new records, citizen science.*

Resumen.– Se presentan los primeros reportes de *Leptoglossus occidentalis* en Brasil y Sudáfrica. Se discute la significancia de estos nuevos hallazgos.

Palabras clave: *Invasiva, Chinche de las Coníferas Occidental, faunística, nuevos registros, ciencia ciudadana.*

The Western Conifer Seed Bug *Leptoglossus occidentalis* Heidemann, 1910 is a North American species of Coreidae widely distributed in Canada, the United States of America and Mexico, and one of the few that have become invasive invading great parts of Europe and Asia (Brailovsky, 2014; van der Heyden, 2019a, 2020; van der Heyden & Zettel, 2019). This species feeds on conifers where it causes some economic damage. Furthermore, it is considered a nuisance for its aggregations in homes, even damaging materials and biting people (Faúndez *et al.*, 2020).

Recently, *L. occidentalis* was reported from Chile where it rapidly spreads (Faúndez *et al.*, 2017; Faúndez & Rocca, 2017; Faúndez *et al.*, 2019); then it was detected in Argentina (Carpintero *et al.*, 2019; Kun & Masciocchi, 2019) and Uruguay (Faúndez & Silvera, 2019). Thus, the presence of the species in Brazil has been expected.

Through citizen science records on the platform iNaturalist plus records the authors were requested to identify, we found the first records of this species in Brazil and South Africa, which are detailed below.

Brazilian records

On 18.iv.2020, an adult specimen of *L. occidentalis* was photographed by Wellington Souza (Souza, 2020) in Candiota, located in the state of Rio Grande do Sul in the southernmost part of Brazil, near the boundary with Uruguay. On 25.iv.2020 and on 29.v.2020, adult specimens of *L. occidentalis* were found by Edson Gasperin (Gasperin, 2020) in Esmeralda, located in Rio Grande do Sul as well. Furthermore, on 26.iv.2020 a dead and apparently damaged specimen of *L. occidentalis* was photographed by Ricardo Ribeiro Cruz (Ribeiro Cruz, 2020) in Eldorado do Sul, located in Rio Grande do Sul, too. In addition, the second author of this note received a request to identify an adult female which resulted to be *L. occidentalis* from Mogi das Cruzes, São Paulo (south of Brazil) on 07.vi.2017 (Fig. 1a).

South African records

On, 26.iv.2020, an adult specimen of *L. occidentalis* was found in Silverglade, Cape Town, South Africa. A photograph of the specimen was published in the online database iNaturalist by a





Figure 1. Two of the specimens of *L. occidentalis* recorded in this paper. **a)** Specimen from Mogi das Cruzes, Brazil (photo Vera Lucia de Oliveira). **b)** Specimen from Somerset West, South Africa (photo Carol Mackay).

user with the pseudonym gabsdogmaster (Gabsdogmaster, 2020). The photograph is somewhat blurred, but the specimen is undoubtedly identifiable. One day later, on 27.iv.2020, another adult specimen of *L. occidentalis* was photographed by Carol Mackay (Mackay, 2020; Fig. 1b) in Somerset West, located in the City of Cape Town Metropolitan Municipality. Mackay (pers. com.)

indicated that the specimen appeared inside her home, and that there are a few pine trees around. Near the house there is a golf course where there are pine trees, too.

Remarks

As *L. occidentalis* has neither been reported for Brazil nor for South Africa in scientific publications yet, the records reported in this note are the first ones for both countries.

In Brazil, the record from 2017 may have been related to the first populations arriving in the country. Almost on the same date the species was seen in Uruguay for the first time. Now, as the sightings are increasing, it may be possible that the species is establishing itself in the country. It is worth to mention that in Brazil *L. occidentalis* may result a threat to the native *Araucaria angustifolia* (Bertol.) Kuntze (Araucariaceae).

On the other hand, the records from South Africa are the first ones from the sub-Saharan part of the continent. Previously, *L. occidentalis* was only reported from the northernmost part of Africa, specifically from locations in the Mediterranean Region (van der Heyden, 2019b). As one of the specimens was found inside a home, in an area with several pine trees, it is possible that a population has been established nearby and specimens are looking for places for overwintering in homes, as it is a common habit of *L. occidentalis* worldwide (Faúndez *et al.*, 2020).

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