

First record of *Leucospis signifera* Bouček, 1974 (Insecta: Hymenoptera: Leucospidae) in the São Paulo State, Brazil

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ABSTRACT: The present note extends the geographic range of *Leucospis signifera* Bouček, 1974 farther to the Northeast, reaching the State of São Paulo, based on the examination of four females collected at Jataí Ecological Station, municipality of Luiz Antônio, São Paulo State, Brazil. The present finding indicates that *L. signifera* is associated with dry ecosystems, at least in part of its geographic distribution.

Erected in 1775 by Fabricius, *Leucospis* (Hymenoptera, Leucospidae) is a widespread genus with about 120 species, of which 45 are known to occur in the Neotropics, and 18 of those in Brazil (Noyes 2011).

Leucospis signifera (Figure 1) was described by Bouček (1974) based on four females from Brazil (Type locality: Nova Teutônia, Santa Catarina State) and Argentina (Rosario district, Province of Santa Fé), and three males from Argentina (Rosario district, Province of Santa Fé) and Paraguay (Villarica). It is included in the *egaia*-group of species proposed by Bouček (1974), and so far nothing is known about its biology. The specimens examined in the present note match the description of *L. signifera*, which is easily recognized by the pale scutellum with a clear median black line anteriorly (Figure 2), “very characteristic for the species” as Bouček (1974) wrote.

The sampling occurred between January 2007 and December 2009 at Jataí Ecological Station (JES) (Figure 3), which has 9,074 ha and is located in the municipality of Luiz Antônio, São Paulo State, Brazil, between parallels 21°30' S and 21°40' S, and 47°40' W and 47°50' W (Pires *et al.* 2000). Habitats of the JES include dry mesophytic semideciduous forest and the Brazilian savannah (Kronka *et al.* 2005); remnants of *Eucalyptus* sp. and *Pinus* sp.

cultivars; and aquatic habitats located near Mogi-Guaçu River. The climate is Köpen AW type (tropical with wet summers and dry winters) and the total annual rainfall of 1,433 mm is concentrated between November and April. The mean annual temperature is 21.7°C (Cavalheiro *et al.* 1990).



FIGURE 2. *Leucospis signifera*, female, scutellum dorsally.



FIGURE 1. *Leucospis signifera*, female, habitus.



FIGURE 3. Map of Brazil showing State of São Paulo and, in detail, aerial photography of the Jataí Ecological Station (JES). White line outlines the JES; white spot indicates the collection location of *Leucospis signifera*.

Six Townes' style Malaise traps (Townes 1972) were set at JES to collect continuously: two in Brazilian savannah, two in savannah woodland vegetation, and two in riparian vegetation. The insects were removed every two weeks. Four females of *L. signifera* (two in October 2008 and one in November of 2008, and one in September of 2009) were collected in the traps located in the Brazilian savannah, the driest of all studied environments. The sampling effort amounted to 2,190 trap-days and 547.5 trap-days/exemplar.

This note extends the distribution range of *L. signifera* about 800 km to the northeast from the previous records.

The examined specimens have been deposited in the collection of the Museu de Zoologia da Universidade de São Paulo (MZSP) (São Paulo, SP, Brazil). C.R.F. Brandão, curator.

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LITERATURE CITED

- Bouček, Z. 1974. A revision of the Leucospidae (Hymenoptera: Chalcidoidea) of the world. *Bulletin of the British Museum (Natural History) Entomology* 23(supp.): 1-241.
- Cavalheiro, F., M.V. Ballester, A.V. Krushe, S.A. Melo, J.L. Waechter, C.J. da Silva, M.C. D'Arienzo, M.S. Suzuki, R.L. Bozelli, T.P. Jesus and J.E. Santos. 1990. Propostas preliminares referentes ao plano de zoneamento e manejo da Estação Ecológica do Jataí. *Acta Limnológica Brasiliensia* 3: 951-968.
- Kronka, F.J.N., M.A. Nalon and C.K. Matsukuma. 2005. *Inventário florestal da vegetação natural do Estado de São Paulo*. São Paulo: Secretaria do Meio Ambiente/Instituto Florestal, Imprensa Oficial. 200 p.
- Noyes, J.S. 2011. *Universal Chalcidoidea Database. World Wide Web electronic publication*. Electronic Database accessible at <http://www.nhm.ac.uk/chalcidoids>. Captured on 23 April 2012.
- Pires, A.M.Z.C.R., J.E. Santos and J.S.R. Pires. 2000. Caracterização ambiental de uma Unidade de Conservação. Estação Ecológica de Jataí, Luiz Antônio, SP; p. 59-72 In J.E. Santos and J.S.R. Pires (org.). *Estudos Integrados em Ecossistemas: Estação Ecológica de Jataí*. São Carlos: Rima Editora.
- Townes, H.A. 1972. A light-weight Malaise trap. *Entomological News* 83: 239-247.

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