

SHORT COMMUNICATION

A First Record of Phlebotominae from Argentinean Patagonia (Diptera: Psychodidae: Phlebotominae)

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A species of the Lutzomyia oswaldoi group is recorded from the Valcheta stream basin, Somuncura plateau, Patagonia. It represents the World southernmost record of a species of Phlebotominae, apparently supporting the hypothesis about the relictual character of several components of the Somuncura plateau biota, particularly for those species belonging to the Paranaense lineages.

Key words: *Lutzomyia* - Patagonia - Argentina

The subfamily Phlebotominae is represented in the Neotropics by the genera *Lutzomyia* França, 1924, *Brumptomyia* França & Parrot, 1921, and *Warileya* Hertig, 1948.

The genus *Lutzomyia* is presently known by approximately 400 species, among them the only proven vectors of leishmaniasis in the New World (Young & Duncan 1994). From this large number, 17 inhabit Argentina (Spinelli et al. 1999), the majority of them restricted north to 29°S, coincidentally with the southern border of leishmaniasis transmission (Salomón et al. 2001, 2002). However, *L. cortezii* (Brèthes, 1923) is known to occur also around 35°S, from 1920's captures at La Plata, Argentina (its type-locality) and Montevideo, Uruguay. Despite many efforts, up to now it has not been found again at this latitude.

During the development of a research project on the biodiversity of the aquatic entomofauna in Patagonia, headed by two of the authors (JM and GRS), a male of *Lutzomyia* sp. was collected from a Malaise trap (Young & Duncan 1994) operated between November 30 and December 2, 1999, near a spring of the Valcheta stream basin, Estancia "El Rincón" (40°59'24.1" S -66°40'35.7" W; 620 m altitude), in the Somuncura plateau. This was the unique Phlebotominae finding in this area, although spring/summer collections with the same methodology were made in

1988, 1994, 1995, 1996, and 1998. The *Lutzomyia* sp. was found in a trap that had been used periodically for five years, always in Patagonia. Thus, a contamination due to a previous use of the Malaise trap was discarded.

The specimen was slide mounted in Canada balsam (Young & Duncan 1994), and deposited in the collection of the Museo de La Plata, Argentina. It is in good shape (except for the legs, which are lost) and probably belongs to a new species of the *oswaldoi* group (Theodor, 1965), resembling *L. quechua* (Martins, Llanos & Silva, 1975). *L. quinquefer* (Dyar, 1929) is the only species of this group recorded from Argentina north to 28°S, while *L. quechua* is known to occur only in Peru.

This communication reports the southernmost record of a Phlebotominae in the World, being the previous records *Australophlebotomus brevifilis* (Tonnoir, 1935) and *A. brevifiloides* Fairchild, 1952 from mainland Victoria, Australia (Lewis & Dyce 1982). On the other hand, the northern limit of the distribution area of Phlebotominae is represented by *L. vexator* (Coquillett, 1907) from Perth, Ontario, Canada (Downes 1972) up to 44°N. It will be very interesting to compare the adaptation strategies of both species to extreme contrasted seasonality and its probable diapause mechanisms.

The presence in the patagonian Somuncura plateau of a taxon which typically inhabits tropical and subtropical environments is also interesting from a biogeographical viewpoint. The streams in the area are mainly fed by springs (some with thermal traits), and among them, the Valcheta basin is distinctive by its length and permanence (Canevari et al. 1999). The northern slope of the Somuncura plateau is considered as an ecotone between the Monte and Patagonic domains (León et al. 1998) and, its entomofauna is characterized by a conjunction of Neotropical, Andean, and Subantarctic lineages (Muzón 1997, Spinelli & Muzón 2000). The presence of *Lutzomyia* could contribute to the hypothesis about the relictual character of several components of the Somuncura plateau biota, particularly for those species belonging to Paranaense lineages (Ringuélet 1961, Menni & Gómez

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1995). Thus, sand fly focussed trapping in the area is ongoing in order to describe the new species, and to support the mentioned hypothesis.

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