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A review of Chilean chiggers (Acari: Trombiculidae), with the description of a new genus and ten new species

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Abstract

A new genus and species of chigger mites, *Diaguitacarus choapensis* **gen. et sp. nov.**, is described from four lizard species of the genus *Liolaemus* in Choapa Province of Chile. Eight new chigger species are described from lizards of the genera *Liolaemus*, *Phymaturus* (Squamata: Liolaemidae), and *Microlophus* (Squamata: Tropicuridae), in Arica and Parinacota, Atacama, Coquimbo, Valparaíso, and Biobío Regions: *Eutrombicula nerudai* **sp. nov.**, *Eutrombicula mistrali* **sp. nov.**, *Eutrombicula picunche* **sp. nov.**, *Microtrombicula mapuche* **sp. nov.**, *Parasecia molini* **sp. nov.**, *Paratrombicula philippii* **sp. nov.**, *Morelacarus jorgei* **sp. nov.**, and *Morelacarus camanchaca* **sp. nov.** A new species *Proschoengastia antarctica* **sp. nov.**, which is described from American mink *Neovison vison* on Navarino Island (Region of Magallanes and Antártica Chilena), is the most southerly chigger species, found at the distance of about 1000 km from the continent of Antarctica. *Whartonacarus chaetosus* (Brennan and Jones, 1961) **comb. nov.**, which was described from Peru, is for the first time recorded in Chile (Atacama Region) and on *Microlophus atacamensis*. A new combination *Proschoengastia macrochaeta* (Brennan and Jones, 1961) **comb. nov.** is established. The genus *Morelacarus* Vercammen-Grandjean, 1973 previously known from Mexico and southwestern USA is for the first time recorded in Chile. A review of all previously described Chilean chiggers and a key to *Eutrombicula* species from Chile are provided. In all, 22 species from 13 genera were recorded in Chile, of which only one species (*Whartonacarus chaetosus*) is known outside the country.

Key words: chigger mites, larvae, fauna, systematics, Chile, South America

Introduction

Main works on the chigger fauna of South America were published from 1961 to 1995. The most thoroughly studied are Venezuela, where 136 species from 38 genera were recorded up to 1975 (Brennan & Reed 1975), Peru with 37 species mentioned in the earliest work (Brennan & Jones 1961), and Surinam with 26 species (Brennan & Lukoschus 1971). Works covering Brazilian chigger fauna are numerous (e.g. Brennan 1969, 1971; Goff & Gettinger 1989, 1991), but have never been summarized. Some data were also obtained on chiggers of Colombia (Brennan 1968; Goff & Brennan 1978), Ecuador (Goff & Timm 1985), Bolivia (Brennan 1970), French Guiana (Brennan & Bronswijk 1975), Paraguay (Goff & Whitaker 1984a, 1984b), and Argentina (Brennan & Jones 1964; Goff & Gettinger 1995). Data on Chilean chiggers obtained in that period include only four species (Brennan & Goff 1978; Webb *et al.* 1986; Goff & Webb 1989a, 1989b). One more inappropriately described species may be added from an old work of Sambon (1928). The record of *Eutrombicula alfreddugesi* (Oudemans, 1910) in Chile (Rubio & Simonetti 2009) is not reliable, as we noted previously (Stekolnikov & González-Acuña 2010): obviously, this human-infesting species is absent in the Chilean territory.

In addition to these four species, we have described four species of *Eutrombicula* Ewing, 1938 and two species of *Paratrombicula* Goff and Whitaker, 1984 from Chilean lizards of the genus *Liolaemus* Wiegmann (Stekolnikov & González-Acuña 2010, 2012). Examination of more materials from the country, collected from lizards and one mammal species in the territories from Arica and Parinacota Region in the north to the Region of Magallanes and