



Morphological variability in *Polygenis (Polygenis) platensis* (Jordan & Rothschild) (Siphonaptera: Rhopalopsyllidae: Rhopalopsyllinae) and taxonomic consequences

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Abstract

There are two subspecies of the flea *Polygenis (Polygenis) platensis* (Jordan & Rothschild). We analyzed characters which are considered diagnostic of males and females of these subspecies, including length of the setae of the hind tibia and hind tarsal segments, the number of setae on the basal abdominal sternum, and the number of setae on the outer surface of the hind femur. In females, the shape of the ventral margin of the bulga of the spermatheca and in males, the number of convolutions of the coil of aedeagal tubus inferior were also examined. There was great variation in every characteristic observed, independent of locality of collection and host taxonomic group. However, a combination of the different states of the characters, as presented in the original descriptions of the subspecies and in keys in the literature, was not observed. Therefore, we state that there is no evidence for the maintenance of these two taxa as separate subspecies, and *Polygenis platensis cisandinus* is considered a synonym of *P. (P.) platensis platensis* **syn.n.**

Key words: fleas, Siphonaptera, *Polygenis platensis cisandinus*, *Polygenis platensis platensis*

Introduction

About 50 species and subspecies have been described in the genus *Polygenis* Jordan (Siphonaptera, Rhopalopsyllidae, Rhopalopsyllinae) (Linardi & Guimarães 2000). Most of them are South American in distribution, but a few occur in Central America and two are known from the Nearctic Region (Lewis 1998). *Polygenis (Polygenis) platensis* (Jordan & Rothschild) has been reported from Bolivia, Chile, Uruguay, Brazil and Argentina, but most of the records are from the latter country. The species was originally described as *Rhopalopsyllus platensis* from a female specimen collected on *Ctenomys* sp. from La Plata, Argentina. Later, the male was described from a long series collected on different hosts, mainly *Ctenomys talarum* Thomas from several localities in northeastern Buenos Aires Province, as well as from Montevideo, Uruguay (Jordan & Rothschild 1923). Based on samples of a small number of specimens collected from localities in Buenos Aires Province and from Mendoza and La Pampa Provinces, Jordan (1939) divided the species into two subspecies, *platensis* and *cisandinus*, to include representatives from eastern and western localities of Argentina, respectively. *Polygenis platensis cisandinus* (Jordan) was described from male specimens collected on *Microcavia australis* (I. Geoffroy Saint-Hilaire & d'Orbigny) and *Graomys griseoflavus* (Waterhouse) from Mendoza Province (Jordan 1939), and it was distinguished from *Polygenis platensis platensis* (Jordan & Rothschild) by the reduced number of setae on the thorax, abdomen and legs. Johnson (1957) assigned *Polygenis versutus* Guimarães, to subspecies status, *Polygenis platensis versutus*, but later it was recognized as a valid species (Machado-Allison 1962; Del Ponte 1963). Subsequently two subgenera