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Revision and phylogenetic analysis of the spider genus *Philisca* Simon (Araneae: Anyphaenidae, Amaurobioidinae)

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Abstract

We review the spider genus *Philisca* Simon, an endemic of the southern forests in Chile and Argentina, and present a phylogenetic analysis including 15 species, of which five are newly described (*P. atrata*, *P. robinson*, *P. viernes*, *P. pizarroi* and *P. robusta*), together with other 98 representatives of the family Anyphaenidae. Four species names are considered nomina dubia (*Clubiona gayi* Nicolet, *Drassus mirandus* Nicolet, *Clubiona altiformis* Nicolet, *P. obscura* Simon). *Cluilium chilensis* Mello-Leitão is newly synonymized with *P. accentifera* Simon. The phylogenetic analysis resulted in *P. puconensis* Ramírez branching off basally in the genus, because of its numerous leg spines and unmodified male chelicerae, all plesiomorphic for the group; the remaining species form two clear groups. The first one, formed by *P. hahni* Simon, *P. tripunctata* (Nicolet), *P. amoena* (Simon), *P. hyadesi* (Simon) and *P. doilu* (Ramírez), are grouped by the loss of spines on legs I and II. The second, formed by *P. huapi* Ramírez, *P. ingens* Berland, *P. ornata* Berland, *P. accentifera* Simon, *P. atrata* and four new species endemic to the Robinson Crusoe Island in the Juan Fernández Archipelago, have the male chelicerae, and in most cases also the endites, modified. In total, six species of *Philisca* are endemic to Juan Fernández, but our dataset is not conclusive for the distinction of alternative colonization scenarios. We analyze the evolution of leg macrosetae, and show two independent instances of reduction of spination, one on the continent and another on the Juan Fernández islands.

Key words: South America, Robinson Crusoe, Juan Fernández, island biogeography, systematics, cladistics.

Introduction

The genus *Philisca* was erected by Simon (1884) for *Philisca hahni* Simon, from Tierra del Fuego. Ramírez (2003) redescribed the genus and disentangled the nomenclatural nightmare involving the names *Philisca*, *Cluilium* Simon, and *Amaurobioides* O.P.-Cambridge. To date *Philisca* contains thirteen known species, including several species formerly grouped under *Liparotoma* Simon, which was recently reviewed and later synonymized with *Philisca* (Ramírez 1993, 2003). Two of the species, *P. doilu* (Ramírez) and *P. ingens* Berland, are known only from females, and one, *P. puconensis* Ramírez, was included in the genus with hesitation, suggesting that the species might be related to *Tomopisthes* Simon instead (Ramírez 2003).