



A taxonomic review of the trapdoor spider genus *Promyrmekiaphila* Schenkel (Araneae, Mygalomorphae, Cyrtaucheniidae, Euctenizinae)

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Abstract

The mygalomorph spider genus *Promyrmekiaphila* comprises two species known from northern and central California. The type species, *P. clathrata* (Simon), is considered a senior synonym of *P. gertschi* Schenkel and *P. zebra* (Chamberlin & Ivie); male and female exemplar specimens are described. A new species, *Promyrmekiaphila winnemem*, from Shasta and Tehama Counties in northern California, is described.

Key words: California Araneae, spider taxonomy, Mygalomorphae, *Promyrmekiaphila*, Euctenizinae

Introduction

Promyrmekiaphila is one of nine genera that compose the cyrtaucheniid subfamily Euctenizinae (Bond & Hedin 2006). Members of the genus are easily distinguished from all other euctenizines on the basis of a unique abdominal coloration pattern, comprising a set of dusky chevrons (Fig. 1). Originally described as monotypic by Schenkel (1950) the genus has expanded slowly to accommodate taxa originally placed in other euctenizine genera (*sc.*, *Actinoxia* Simon 1891 and *Aptostichus* Simon 1891); otherwise, the genus has remained in relative obscurity and has never been formally revised despite its prevalence throughout Central and Northern California (Figs 4–6). The exact phylogenetic position and familial level placement of *Promyrmekiaphila* remains somewhat problematic. Originally placed in the family Ctenizidae, the genus was transferred to Cyrtaucheniidae, along with a number of other genera, by Raven (1985). Subsequent evaluations of mygalomorph phylogeny, while supporting the monophyly of North American euctenizines, call into question the validity of Cyrtaucheniidae (Goloboff 1993, Bond & Opell 2002, Bond & Hedin 2006, Hedin & Bond 2006). Phylogenetic placement within euctenizines, likewise, has been difficult to resolve. Bond & Opell (2002) considered *Promyrmekiaphila* species to be sister to the remaining California euctenizines, composing the “California Clade”. Alternatively, it appears that *Promyrmekiaphila* is the likely sister group to the Euctenizoids (*Eucteniza* Ausserer 1875, *Entychides* Simon 1888, and *Neoapachella* Bond & Opell 2002; see Bond & Hedin 2006), a clade comprising genera distributed east of California (Arizona, New Mexico, and Texas). At the onset of this revision the genus comprised three nominal species: *P. clathrata* (Simon 1891), *P. gertschi* Schenkel 1950, and *P. zebra* (Chamberlin & Ivie 1935). Bond and Opell (2002) suggested that the two most recently described species were likely synonyms of *P. clathrata*. Herein we formally recognize *P. clathrata* as the senior synonym of both *P. zebra* and *P. gertschi* and describe one new species, *P. winnemem*, corresponding to a morphologically distinct species from further north.

Phylogeography

As part of a previous study of this genus, we extensively collected *Promyrmekiaphila* throughout its