



New cocalodine jumping spiders from Papua New Guinea (Araneae: Salticidae: Cocalodinae)

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Abstract

Six new species and three new genera of cocalodine jumping spiders are described. Restricted to New Guinea and nearby areas, the Cocalodinae are basal salticids, outside the major salticid clade Salticoida. The new genera are *Yamangalea* (type species *Y. frewana*, new species), *Tabuina* (type species *T. varirata*, new species) and *Cucudeta* (type species *C. zabkai*, new species). In addition to these type species, described are the new species *Tabuina rufa*, *Tabuina baiteta*, *Cucudeta uzet*, *Cucudeta gahavisuka*, and *Allococalodes madidus*. The first description of females of the genus *Allococalodes* is provided. Natural history observations and photographs of living specimens are provided for all five genera of cocalodines.

Key words: Araneae, Salticidae, Cocalodinae, jumping spider

Introduction

Among the salticid spiders endemic to New Guinea and nearby islands are the unusual genera *Cocalodes* Pocock and *Allococalodes* Wanless, notable for having a median apophysis on the male palp, widespread in spiders (Coddington 1990) but rare in salticids. Having a median apophysis indicates these genera are outside both of the two major clades of salticids, the Salticoida (Maddison & Hedin 2003) and the Spartaeinae (Wanless 1984). This puts these two genera among the sparse basal lineages of the family, and raises the possibility that they are an isolated, relictual group with only two body forms (*Cocalodes*, an elongate foliage dweller, and *Allococalodes*, more robust but with only two specimens previously described). However, in a recent expedition to Papua New Guinea, several new lineages of apparently-related salticids were found, revealing that *Cocalodes* and *Allococalodes* are part of a radiation of basal salticids in Australasia much more diverse than previously recognized. Described here are three new genera, *Yamangalea* (one species), *Tabuina* (three species), and *Cucudeta* (three species). In addition, a new species of *Allococalodes* is described, including the first known females of the genus.

Material and methods

Figure 1 shows the localities at which the specimens here described were sampled. All specimens except those of *Tabuina baiteta* are deposited in the Spencer Entomological Museum of the University of British Columbia (UBC-SEM). *Tabuina baiteta* is deposited in the Royal Belgian Institute of Natural Sciences (RBINS).

Photographs of living specimens were taken with a Pentax Optio 33WR digital camera with a small lens glued to it for macro capability. Preserved specimens were examined under both dissecting microscopes and a compound microscope with reflected light. Drawings were made with a drawing tube on a Nikon ME600L compound microscope.