



<http://dx.doi.org/10.11646/zootaxa.3873.5.8>

<http://zoobank.org/urn:lsid:zoobank.org:pub:4C4BA5C8-DC4E-4787-B47F-3D0A1580B8A1>

New additions to the Honduran fauna of spider wasps (Hymenoptera: Pompilidae) with the description of two species

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Abstract

Two new species of pepsine spider wasps, *Calopompilus setaerotundus* Waichert & Pitts, **sp. nov.** and *Priocnemis (Umbripennis) wasbaueri* Waichert & Pitts, **sp. nov.**, are described and illustrated. *Calopompilus* Ashmead, *Priocnemis* Schiødte and sixteen additional species are newly reported from Honduras. A new combination is proposed for *Ageniella fragilis* (Fox), **comb. nov.**, which is transferred from *Agenia* Schiødte.

Key words: Central America, Neotropical, new records, new species, *Calopompilus*, *Priocnemis*

Introduction

Spider wasps (Hymenoptera: Pompilidae) are cosmopolitan, solitary aculeate wasps. The family contains approximately 4,855 described species placed into ~125 genera (Aguiar *et al.* 2013) and four subfamilies (Pitts *et al.* 2006). The Central American fauna of Pompilidae has been explored only for the subfamily Pompilinae (Bradley 1944, Evans 1966) and a few other genera from other subfamilies (*e.g.* Dreisbach 1960, 1961). Although few endemic spider wasp species are recognized from Central America, this area is of biogeographical relevance as a dispersal route between North and South America, and into the Caribbean (Evans 1966, Rodriguez *et al.* in litt., Waichert *et al.* in litt.).

Here, we describe two species of Neotropical-Central American spider wasps, one belonging to *Calopompilus* Ashmead, 1900 and one to *Priocnemis* Schiødte, 1837. Both species belong to the second most diverse pompilid subfamily, Pepsinae, which is cosmopolitan and comprises 57 Neotropical genera (Fernández 2006). *Calopompilus* Ashmead is known as a Nearctic genus, although some species are found in Mexico (Townes 1957) and Guatemala (Roig-Alsina 1989). We provide the first record of this genus from Honduras; the new species reported here is the first species of *Calopompilus* to be apparently endemic to Central America. *Priocnemis* is a large cosmopolitan genus with several subgenera that is more diverse in the Holarctic region (Townes 1957). Prior to this study, only *P. (Priocnemis) cornica* (Say) had been reported from Central America (Wasbauer 1995), although this genus has several undescribed species from South America. The species described here belongs to the subgenus *Umbripennis* Junco y Reyes, 1947 (*Priocnemissus* Haupt *sensu* Townes). Additionally, the ranges of 16 species from other genera are extended to include Honduras.

Material and methods

Abbreviations used in the descriptions are defined as follows: FD, the facial distance; LA3, the length of third antennal segment; MID, the middle interocular distance; OOL, the ocellular length; POL, the postocellar length;

We extended the geographic range and species diversity of *Calopompilus*. The genus is now recognized as having an exclusively Neotropical species and a range extension from Canada (Townes 1957) to Honduras. Nine species are now recognized in *Calopompilus*. The taxonomic history of *Calopompilus* is complex. Roig-Alsina (1989) revised *Chirodamus* Haliday and split it into six genera: *Aimatocare* Roig-Alsina, *Anacyphonyx* Banks, *Calopompilus*, *Chirodamus*, *Plagicurgus* Roig-Alsina, and *Pompilocalus* Roig-Alsina. *Calopompilus* was defined as the Nearctic species of *Chirodamus* (as defined by Townes 1957). The phylogenetic position of these genera within the family has also been controversial. Pitts *et al.* (2006) erroneously classified *Chirodamus* in the subfamily Pompilinae based on morphological phylogenetic analyses, whereas Waichert *et al.* (unpublished data) placed *Chirodamus*, and its morphologically related genera into Pepsinae based on molecular data.

The new species of *Priocnemis* (*Umbripennis*) extends the range of the subgenus for the New World to Central America and increases the number of New World species to four. There are likely other undescribed species in Central America, as well as untold numbers of undescribed species in other subgenera or related genera.

Both species newly described here are similar in body and antennal color pattern. *Calopompilus setaerotundus* and *Priocnemis wasbaueri* have black body with infusate wings, the males are setose, and the females have yellow antennae. The fact that they are sympatric and belong to different genera might indicate some level of mimicry, although this needs to be further investigated. Added to this complex is *Priocnessus neotropicalis* (Cameron), which follows the same body, antenna and wing coloration. The newly described species of *Calopompilus* is distinguished from other Pepsinae including *P. wasbaueri*, however, by having the second intercubital vein straight; the legs and antenna are short and stout; the clypeus is wide and short; and the males are setose. *Priocnemis wasbaueri* is distinguished by the second intercubital vein drastically curved, the hind outer angle of the third submarginal cell acute, and the distinct well-developed chevron teeth on the hind tibia (weaker in the male). Sexes were matched based on similar morphology, wing venation, and same collecting date and locality.

Acknowledgements

We are thankful to the MZLU and CMNH collections for loaning the material used in this study and the holotype of *Ageniella fragilis*, respectively. This work was supported by the National Science Foundation award DEB-0743763 to JPP and CVDvD; and by the Utah Agricultural Experiment Station, Utah State UAES #8728; CW is supported by the Conselho Nacional de Desenvolvimento Científico e Tecnológico—CNPq/ Science without Borders. We also thank two anonymous reviewers for the useful suggestions.

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