

## Competing Taxonomies: Reexamination of the female-based genera of Brachycistidinae (Hymenoptera: Tiphidae)

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### Abstract

Analysis of the female-based genera of the tiphid wasp subfamily Brachycistidinae revealed the need to remove *Astigmometopa* Mickel & Krombein from synonymy with *Brachycistis* and synonymize it under *Glyptacros* Mickel & Krombein, synonymize the genus *Quemaya* Pate under *Stilbopogon* Mickel & Krombein, synonymize *Bruesiella* Mann and *Aulacros* Mickel & Krombein under *Brachycistis* Fox, and synonymize *Xeroglypta* Mickel & Krombein under *Glyptacros*. In addition, shared characteristics found only in *Aglyptacros* Mickel & Krombein and *Colocistis* Krombein demonstrate the need to and synonymize *Aglyptacros* under *Colocistis*. Females This is the first time that females have been identified for two genera, *Colocistis* and *Stilbopogon*. Previously, females were only known for *Brachycistis*. [neither of the previous two sentences make sense in light of the rest of the ms – the first suggests either that you are describing two female-based genera and the second that there has, until now, only been one—please clarify this], Phylogenetic analysis of the generic groupings based upon 21 binary morphological characters resulted in two moderately supported clades, *Aglyptacros Colocistis*+ *Brachycistis*, *Glyptacros*, and *Stilbopogon* + Genus A (an unnamed, phylogenetically discrete group of females). New generic combinations involve moving all of the species of *Quemaya* into *Stilbopogon*; the placement of *Bruesiella formicaria* Mann, *Glyptometopa americana* Ashmead, *Eurycros furtivus* Mickel & Krombein and *Aulacros latior* Mickel & Krombein in *Brachycistis*; the assignment of *Glyptometopa eureka* Banks to *Colocistis* and *Xeroglypta egregia* Mickel & Krombein and *Astigmometopa emarginata* Mickel & Krombein to *Glyptacros*.

**Key words:** Tiphidae, Brachycistidinae, sex associations, synonymy

### Introduction

The greatest taxonomic difficulty with strongly sexually dimorphic wasp groups, as in the Mutillidae and many members of the Tiphidae, is associating the sexes. In both of these families the taxonomy based on males often differs substantially from the taxonomy based