

## Article



## Taxonomic purgatory: Sorting out the wasp genus *Myzinum* Latreille in North America (Hymenoptera, Tiphiidae, Myzininae)

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## **Abstract**

The ten North American species of the tiphiid genus *Myzinum* Latreille are reviewed, redescribed and a key to species provided. The new species *cocoritensis* is described from southern Arizona, USA and northern Sonora, Mexico. Three genera described by Argaman 1994 (*Tokoparta*, *Fikoplesa* and *Ekepirka*) are synonymized under *Myzinum* Latreille. *Myzinum spilonotum* (Cameron 1908) is newly synonymized under *maculatum* (Fabricius 1793), *Myzinum beryli* (Brimley 1927) under *obscurum* (Fabricius 1805), and the two subspecies of *Myzinum beryli*, *parksi* Krombein 1938 and *patei* Krombein 1938, are synonymized under *carolinianum* (Panzer 1806). *Myzinum fulviceps* (Cameron 1900) is removed from synonymy under *quinquecinctus* (Fabricius 1775) and is treated as a valid species.

**Key words**: *Myzinum*, Tiphiidae, synonymy, new species

## Introduction

Members of the tiphiid genus *Myzinum* Latreille are large, brightly colored and frequently collected wasps. There are currently 63 species, 10 occur in North America. Unfortunately, despite their visibility the genus has what might optimistically be called a confused taxonomic history. Various forms of the generic name have been used since it was described, including Myzinum, Myzine and Myzina. The bulk of the older literature, including most recently Krombein (1937, 1938, 1942), used the generic name Myzine. Pate (1935) reexamined the works of Latreille (1803, 1805) and determined that Myzinum was the correct spelling of the genus. The confusion arose because Latreille used the shortened version of the name, Myzine, later in the original paper and in subsequent papers. The oldest species and designated genotype, maculatum (Fabricius), was originally described in the genus *Tiphia*. In addition, early authors assumed that the Old World genera Meria and Mesa were congeneric with Myzinum creating numerous homonymies. Further confusion was caused by the unavailability of types. None of the previous workers, including Krombein, examined the oldest types, relying instead on published descriptions. The only revisionary work was by Krombein (1938, 1942) for the North American and Caribbean species. He was the first author to describe the male genitalia, but his identifications, keys and species characterizations relied heavily on color and punctuation, particularly in females. He did not observe any of the leg modifications diagnostic for males of dubiosum, maculatum and obscurum, which are described below. Finally not to be outdone by the confusion caused by earlier workers, Argaman (1994) divided Myzinum into six genera, each of which was based on species level characteristics and only included the type species. None of these genera hold up to close scrutiny.

To add to these taxonomic woes the genus suffers from the same problem found in the wingless tiphiid subfamilies (Thynninae and Brachycistidinae) and in the Mutillidae—association of the sexes. There are few if any diagnostic features shared between conspecific males and females in *Myzinum*. Nearly all of the taxonomic work prior to this study emphasized females, and the oldest types are all female. Unfortunately,