

Description of *Sphecosoma pattiannae*, new species, with comments on its novel male androconia (Lepidoptera: Arctiidae: Arctiinae: Euchromiini)

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Abstract

A new species of the mimetic tiger moth genus *Sphecosoma*, *S. pattiannae* Simmons **sp. nov.**, is described and illustrated. The presumed sister species, *S. tarsalis* (Walker), is redescribed with illustrations of the male and female genitalia. These two species bear a novel androconial structure, which is a dorsal pouch at the base of the genitalia; this structure is described and illustrated. Phylogenetic placement of *S. tarsalis* and *S. pattiannae* within *Sphecosoma* Butler is discussed, with male and female genital comparisons to *S. cognatum* (Walker).

Key words: Lepidoptera, Arctiidae, Euchromiini, *Sphecosoma*, new species, androconia, mimicry

Introduction

Tiger moths in Euchromiini are striking mimics of Hymenoptera, including polybiine wasps (Figs. 1, 2). They also possess a wide array of male androconia (Weller et al. 2000), including coremata, single-pocket subabdominal pouches, and double-pocket subabdominal pouches. This paper describes a new euchromiine species, *Sphecosoma pattiannae* Simmons, and illustrates a previously undescribed male scent structure: a dorsal, intersegmental pocket at the base of the genital capsule that contains deciduous scales. This structure is described in the species descriptions.

Hampson (1898) established *Pompilopsis* as a monotypic genus, with the type species *Glaucopis tarsalis* Walker (1854). Simmons and Weller (2004) relegated *Pompilopsis* to a junior subjective synonym of the neotropical genus *Sphecosoma* based on six synapomorphies; as a result 42 species currently are placed in *Sphecosoma*. During that study, it was discovered that the name *S. tarsalis* has been applied to two species, one of which is unde-