



The phylogeny of *Opoptera* butterflies, and an assessment of the systematic position of *O. staudingeri* (Lepidoptera, Nymphalidae)

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Abstract

This study provides a species-level phylogeny for the Neotropical brassoline genus *Opoptera* Aurivillius based on 37 morphological characters. A revised generic definition is given, and two species groups are supported. The *syme*-group includes three species from the Brazilian Atlantic forest. The *aorsa*-group includes *O. staudingeri* (Godman & Salvin) from Central America, three species from western and northern South America, and one species from the Atlantic forest. Two subspecies are elevated to species status: *O. hilaris* Stichel, **NEW STATUS** and *O. bracteolata* Stichel, **NEW STATUS**. Two new combinations are proposed: *O. hilaris fuscata* Stichel, **NEW COMBINATION** and *O. hilaris colombiana* Rothschild, **NEW COMBINATION**. Diagnoses and illustrations of habitus and genitalia are provided for the eight recognized *Opoptera* species. Wing color, male scent organs, and male and female genitalic morphology are described and discussed.

Key words: *bracteolata*, *hilaris*, new status, new combination, Brassolini

Introduction

The genus *Opoptera* Aurivillius is a small group of brassoline butterflies that ranges from Mexico to southern South America. As a group, it includes eight species (this study, Fig. 1–2) plus a species from Peru that awaits formal description (Casagrande 2004). In the introduction to the genus *Opsiphanes* Doubleday, Godman & Salvin (1879) noted that this genus was “divisible into several groups, and it is very probable that at some future time it will be found advisable to split up the genus into several minor ones” (p 125). Indeed, *Opoptera* was described initially as a subgenus of *Opsiphanes* by Aurivillius (1882), and later Stichel (1902) separated *Opsiphanes sensu lato* into four genera; i.e., *Opoptera*, *Catoblepia* Stichel, *Selenophanes* Staudinger and *Opsiphanes sensu strictu*. Although Stichel (1902) did not follow the exact sections proposed by Godman & Salvin (1879), he nonetheless considered these four genera as closely related, a view that was shared with other workers of the time. For example, Fruhstorfer (1912) kept these taxa subordinate to *Opsiphanes* to emphasize their relatedness, but noted that *Opoptera* was “nearly entitled to generic rank” (p 291). A recent cladistic analysis suggested that *Opoptera* may actually be more closely related to *Dasyophthalma* Westwood than to any of the aforementioned genera (Penz 2007). Phylogenetic relationships aside, Stichel’s choice to separate *Opoptera* from *Opsiphanes* was appropriate and has been broadly adopted (e.g., Casagrande 1982, 1995, Ackery 1988).

Stichel’s (1902) first classification of *Opoptera* included three species groups: the *aorsa*-, *syme*- and *staudingeri*-groups. In his subsequent works, these were further arranged into the sections Desmidocosmeti, which contained the groups Aorsiformes and Symiformes, and Peragnosti, including only *O. staudingeri* (Stichel 1904, 1909, 1925, 1932). Table 1 lists Stichel’s defining characters for his sections and groups, and