



A review of the *Philaethria dido* species complex (Lepidoptera: Nymphalidae: Heliconiinae) and description of three new sibling species from Colombia and Venezuela

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Abstract

Three new species and seven new subspecies of *Philaethria* from Colombia, Venezuela, and Panama are described as follows: *P. browni* **sp. nov.**, *P. romeroi* **sp. nov.**, *P. neildi neildi* **sp. nov.**, *P. neildi winhardi* **spp. nov.**, *P. neildi tachiraensis* **spp. nov.**, *P. dido panamensis* **ssp. nov.**, *P. andrei orinocensis* **ssp. nov.**, *P. ostara araguensis* **ssp. nov.**, *P. ostara meridensis* **ssp. nov.**, and *P. pygmalion metaensis* **ssp. nov.** The three new sibling species are diagnosed using characters of maculation on the ventral surface of the wing, male genitalia, and chromosome numbers. New records of *P. andrei* from Venezuela and *P. dido* from Panama are reported. The adults (both dorsal and ventral surface) are illustrated for all the species and subspecies and information about habitats and behavior for each species is provided with a key to identify the species known in the Neotropical Region.

Key words: Lepidoptera, *Philaethria*, new species, systematics, neotropics

Introduction

This is the first revision of the genus *Philaethria* (Billberg, 1820) resolving taxonomic problems with similar related sibling species occurring sympatrically with *P. dido* (Linnaeus) in the Neotropical region. The genus *Philaethria* contains seven recognized species (Lamas 2004) but in this revision 3 new species from Venezuela and Colombia are described, raising the total to ten known species: *P. dido* (Linnaeus, 1763) is the most widespread species, found throughout the west Andean region from Colombia to western Ecuador, east of the Andes from Venezuela to Bolivia, northern Paraguay and Argentina, Brazil, the amazon basin and Trinidad. In this article we report *P. dido* for the first time in Central America co-occurring sympatrically with *P. diatonica* in Panama and Costa Rica. *P. wernickei* (Rober, 1906) occurs along the eastern coast of Brazil from Rio Grande do Norte south into Uruguay and Northern Argentina. *P. pygmalion* (Fruhstorfer, 1912) is restricted to the Amazon basin of Colombia to central Brazil down the Amazon river. *P. diatonica* (Fruhstorfer, 1912) occurs in Central America from Mexico to Panama. *P. ostara* (Rober, 1906) is a medium altitude Andean species occurring from the eastern Andes of Venezuela to Bolivia from 500 to 1600 m in association with premontane and montane forest habitats. *P. constantinoi* Salazar, 1999 is an endemic and rare species from the Chocó region in the western slopes of the Cordillera Occidental in Colombia to northwestern Ecuador in association with rain forest habitats and *P. andrei* Brevignon, 2002, a recently described species, is found in French Guiana and Venezuela.

All the species in the genus *Philaethria* are recognized by the intense green-yellow pattern coloration on the upper-side of the wings resembling the nymphalid *Siproeta stelenes*, a very common species of forest habitats throughout the Neotropical region. In *Philaethria* the forewings are elongated and the hind wings have the typical heliconiine shape. All the species of *Philaethria* are sympatric with *P. dido* throughout its range in lowland rain forests.

Suomalainen & Brown (1984) studied chromosome number variation within the *Philaethria dido* species complex in 27 localities in South America and found that the haploid chromosome number varies from 12 to 88.