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Four new species of *Moneuptychia* (Lepidoptera: Satyrinae: Euptychiina) from Brazil

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Abstract

This paper describes four new species of *Moneuptychia* as follows: *M. montana* Freitas, *M. vitellina* Freitas & Barbosa, *M. pervagata* Freitas, Siewert & Mielke and *M. wahlbergi* Freitas, Barbosa, Siewert & Mielke from south and southeastern Brazil. Details are presented on the morphology of adults of all species, and immature stages for two species, and we discuss the taxonomy and identification of the genus *Moneuptychia*. The mitochondrial *CoxI* “barcode” region was used for exploring the utility of this DNA marker to identify these species, giving strong support for all new species.

Key words: Atlantic Forest, *Euptychoides castrensis*, New Species, *Pharneuptychia*

Introduction

The subtribe Euptychiina, a group with over 400 described species, is one of the most diverse groups of Satyrinae (Lepidoptera: Nymphalidae) (Lamas 2004; Peña *et al.* 2010). Euptychiina are more speciose in lowland and premontane habitats, a pattern contrasting with the subtribe Pronophilina, another highly diverse satyrine clade whose diversity peaks in montane habitats (Adams 1986; Pycrz 2009). However, in contrasting to the above generalities, the euptychiine genus *Moneuptychia* Forster, 1964, is apparently more diverse in montane habitats (although not as rich as many Andean pronophilines), with few species reaching the lowlands.

The genus *Moneuptychia* was erected by Forster (1964) to include the single species *Euptychia soter* Butler, 1877, based on the absence of the gnathos (as subunci) in the male genitalia (Forster 1964: 92). Lamas (2004) listed five species in *Moneuptychia*, including three species previously assigned to the genus *Carminda* Ebert & Dias, 1998. Subsequently, Freitas (2007) and Freitas *et al.* (2010) showed that *Moneuptychia* presents at least one conspicuous synapomorphy: the well-developed appendices angulares that project posteriorly in the male genitalia, a character absent in the species of *Carminda*. Accordingly, excluding the species now placed in the genus *Carminda* Ebert & Dias 1998 (Ebert & Dias 1998; Dias 2011; Freitas 2007), the genus *Moneuptychia* was represented by only two species in the checklist of Lamas (2004): *Moneuptychia soter* (Butler, 1877) and *Moneuptychia melchiades* (Butler, 1877). Since then, two new species have been described (Freitas 2007; Freitas *et al.* 2010), and another six additional undescribed species at least have been identified as belonging to this genus.

The present paper describes four new species of *Moneuptychia* from southern Brazil, doubling the number of species in the genus from four to eight species.