



A new Mexican *Mesene* (Lepidoptera, Riodinidae)

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Abstract

A new species of Riodinidae, *Mesene jimena* **sp. nov.**, is described from the Pacific slope in southern Mexico, including notes on its habits, habitat and distribution. A comparison is made with its close relative, *Mesene margaretta* (A. White, 1843), found in southeastern Mexico (Atlantic slope) and Chiapas State. In addition to morphology, other criteria are discussed including behavior and related structures, spatial and temporal factors, comparison of distribution with areas of endemism and ecology. These factors were examined for the new taxon and found to confirm its status.

Key words: Papilionoidea, taxonomy, Colombia, Venezuela, Central America, systematics, biogeography

Resumen

Se describe una especie nueva de Riodinidae, *Mesene jimena* **sp. nov.**, del sur de México, se incluyen notas sobre sus hábitos, hábitat y distribución. Se efectuó una comparación con su especie más cercana, *Mesene margaretta* (A. White, 1843), que se encuentra en el sureste de México y Chiapas. Adicionalmente a la morfología, se discuten otros criterios que incluyen comportamiento y estructuras relacionadas, factores espaciales y temporales, comparación de distribución en relación con áreas de endemismo y ecología. Estos factores se examinaron para la nueva especie y permitieron confirmar su status.

Palabras clave: Papilionoidea, taxonomía, Colombia, Venezuela, América Central, sistemática, biogeografía

Introduction

The purpose of this paper is to describe a new riodinid species, *Mesene jimena* **sp. nov.**, from southern Mexico. The habits, habitat, distribution, as well as morphology suggest that the population concerned represents a species distinct from *Mesene margaretta* (A. White, 1843), with which it shares a number of characters, hence its misidentification in the past (Hall and Harvey, 2002b, Hall and Lamas, 2007). The status of *Mesene jimena* **sp. nov.** in relation to *M. margaretta* opens up the question of the classification of closely differentiated allopatric populations. This subject has been treated in practice by classifying dubious cases as “subspecies” until they are found to be sympatric (Mayr, 1963; Mayr and Ashlock, 1991, Hall and Lamas, 2007). In the Neotropics, where long series of material from numerous localities are often lacking, the unique application of the biological and polytypic species concept generates problems in recognizing allopatric species with precision, especially in México (Navarro & Peterson, 2004), as well as confusing patterns of endemic and regional biodiversity (Peterson & Navarro, 2009). In butterflies, molecular techniques that facilitate the recognition of species are not yet widely used, as they have been in birds. (Rojas *et al.*, 2009). Also, the application of alternative species concepts like phylogenetic or evolutionary species which distinguish subgroupings of biologic species more readily on the basis of morphology, behavior and geography, and not only potential interbreeding are not frequently used for butterflies. These criteria permit a more precise recognition of species which is more useful in conservation and geographic differentiation (Peterson &