



The Ichneumonidae (Hymenoptera: Ichneumonoidea) of Ría Lagartos Biosphere Reserve, Yucatán, Mexico

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Abstract

A total of 148 species and 69 genera are first records of Ichneumonidae from Ría Lagartos Biosphere Reserve (Yucatán, Mexico), raising the total number of known species and genera of the Reserve to 216 and 99 respectively. Material was collected over a 14 months period by Malaise traps in three habitats; dry forest, savannah and coastal dune scrubland. A total of 4,215 individuals of Ichneumonidae are included in this paper. Of the species reported from Ría Lagartos, 89 species (49%) have a Neotropical distribution; six (3%) have been reported previously only from the Nearctic; 44 (24%) have both Nearctic and Neotropical distributions and 42 (24%) have been reported only from Mexico. The recorded hosts belong to 19 families of Lepidoptera, three Coleoptera, four Hymenoptera and one Neuroptera. Most species have a higher abundance in the rainy season, and the dry forest habitat provided more species than the other habitats.

Key words: Neotropical, Nearctic, distribution, Yucatán, Ría Lagartos Biosphere Reserve

Introduction

Biodiversity has been considered one of the main objects of study of the scientific community, but despite being widely studied, there is often a lack of scientific data and information about many insect groups, although they represent 2/3 of living animals. This is especially the case for Protected Natural Areas in Mexico, which base their management mainly on plants and vertebrates. Among the parasitoid insects, the Ichneumonidae is a very important group since they are one of the most diverse families on the planet, being conspicuous in all terrestrial biomes and anthropogenic environments (Gauld 1991). However, they are not usually represented in the conservation plans of these protected areas (Hochberg 2000; Dolphin & Quicke 2001). The Mexican ichneumonid fauna includes approx. 1,115 species (Yu *et al.* 2005 and further works, e.g. Ruíz-Cancino *et al.* 2002, 2010; Kasparyan & Ruíz-Cancino 2004, 2005, 2008; Khalaim & Hernández 2008; Khalaim & Ruíz-Cancino 2009; Bordera *et al.* 2010; González-Moreno *et al.* 2010a; González-Moreno & Bordera, 2011). Nonetheless, knowledge of Mexican ichneumonids is relatively scarce, reflecting the taxonomic complexity of this group and the lack of regional studies. In an effort to further understand the richness and distribution of the ichneumonids from Mexico, and to contribute to the knowledge of the biodiversity of a Protected Natural Area, a large number of ichneumonid species were collected in Ría Lagartos Biosphere Reserve (RLBR), located in the dry tropics of Southeastern Mexico. This is an area of great importance in conservation terms, as the Northern Yucatán is a biogeographic area containing a large number of endemic species of plants and animals (Espadas-Manrique *et al.* 2003), and although, biogeographically it belongs to the Neotropical region, it comprises both Nearctic and Neotropical faunal and botanical elements.

The aim of this paper is to answer, at least in part, the question: What are we protecting in Ría Lagartos Biosphere Reserve? To assist in this, we here provide a comprehensive and updated list of species found in the reserve, providing data on their distribution, hosts and phenology.