



Catalog of the Acari types deposited in the American Museum of Natural History, New York (Arthropoda: Arachnida)

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Abstract

A catalog of the type specimens of Acari representing 45 families, 153 genera and 377 species deposited at the American Museum of Natural History is presented. Additional material from the original type series deposited in other institutions is also noted. Where possible, the host is indicated.

Introduction

The American Museum of Natural History, in New York, U.S.A., is the world's largest natural history museum. It is composed of 23 interconnected buildings and spans four city blocks. It contains the largest collections of dinosaur bones, fossil mammals, birds, wasps, and plant bugs. Among arachnids (Arachnida), it also has the largest collection of spiders (ca. 1.2 million) and one of the largest scorpion collections (ca. 40,000). However, despite holding such large collections, a list of types at the museum has never been published for any of the arachnid orders.

According to the recommendation 72F, article 72 of the International Code of Zoological Nomenclature, some obligations are attributed to the institution in which type specimens are deposited: "... (1) ensure that all (type specimens) are clearly marked so that they will be unmistakably recognized as name-bearing types; (2) take all necessary steps for their safe preservation; (3) make them accessible for study; (4) publish lists of name-bearing types in its possession or custody and; (5) so far as possible, communicate information concerning name-bearing types when requested."

Mites (Arachnida: Acari) constitute the most numerous organisms among the arachnids, with approximately 55,000 species described (Krantz & Walter 2009), but estimates of the actual number of extant species vary from 500,000 to 1,000,000 (Krantz & Walter 2009; Walter & Proctor 1999).

While most of this huge variety of undescribed fauna is yet to be collected from the field, certainly many taxonomic and revisionary studies could be conducted using specimens that are already housed in museums and institutional collections. The purpose of this paper is to present a catalog of the mite type specimens (Arachnida: Acari) deposited in the collections of the American Museum of Natural History.

Material and methods

The present list includes mite types preserved on microscope slides deposited in the collection of the AMNH. The list is organized following the classification presented by Krantz and Walter (2009): the superorder Parasitiformes, represented by the orders Ixodida and Mesostigmata, and the superorder Acariformes, which in the collections of AMNH are represented by the order Oribatida – including the cohort Astigmatina, and the order Trombidiformes.

Each entry lists the current name of the mite species, followed by the authority, date and page of original publication. Additional information includes the host for symbionts, with taxonomic data, locality and date of collection, category of the type specimen and accession number. Nomenclature of bird hosts follows Dickinson (2003)