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Redescription and phylogenetic placement of the Hispaniolan spider genus *Lomaita* Bryant, 1948 (Araneae, Linyphiidae)

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Abstract

The monotypic linyphiid genus *Lomaita* Bryant 1948 is redescribed. We present an updated description of the male of *L. darlingtoni*, the first description of the female and data on its natural history and distribution in the Dominican Republic. We provide a hypothesis on the phylogenetic placement of *Lomaita* based on cladistic analyses of morphological characters.

Key words: systematics, Linyphiinae, Neotropical fauna, taxonomy

Introduction

The monotypic spider genus *Lomaita* was erected in 1948 by Elizabeth Bryant to include *Lomaita darlingtoni,* a linyphiid species represented by a single male specimen from the Dominican Republic, placed by the author within Erigoninae. The specimen had been collected by Harvard coleopterist Philip J. Darlington in 1938, who had studied the fauna of the eastern part of the island for around three months, collecting in "a region of remote peaks, each seemingly with a fauna peculiar to itself" (Bryant, 1948).

The linyphiid fauna of Central America and the Caribbean remains very poorly studied, and only known from scattered faunistic works. The most comprehensive study on central American spiders is probably the 19th century monograph of Pickard-Cambridge, *Biologia Centrali-Americana* (Cambridge O.P., 1889–1904), where he described a great deal of Central-American and Mexican spider fauna. Although many of those taxonomic descriptions are quite outdated, this monumental work remains the only source of information for many species.

In this work we re-describe *Lomaita*, including the first description of the female of *L. darlingtoni*, and provide a phylogenetic placement of the genus based on a cladistic analysis of a morphological character matrix.

Material and methods

Specimens were examined and illustrated using a Leica DMRM compound microscope, and a Leica M 205A dissecting microscope, all fitted with camera lucida. Male palps and epigyna were examined using methyl salicylate as a temporary clearing agent (Holm 1979), then positioned for illustration on a temporary slide using the method described in Grandjean (1949) and Coddington (1983). Illustrations depict the left palp unless otherwise indicated.

Digital images were produced with a Leica DFC 425 camera mounted on a Leica M 205A dissecting microscope. Images were acquired using Leica Application Suite (LAS v3.7) that produces stacks of different depths (35 to 60 images per stack). The multifocus stacks were assembled into a single image using Helicon Focus (version 5.3).

All measurements are in millimeters. The scale bars on the drawings were taken using a stage micrometer in the dissecting microscope, while the bars in the digital photos were acquired by the LAS software. In most cases,

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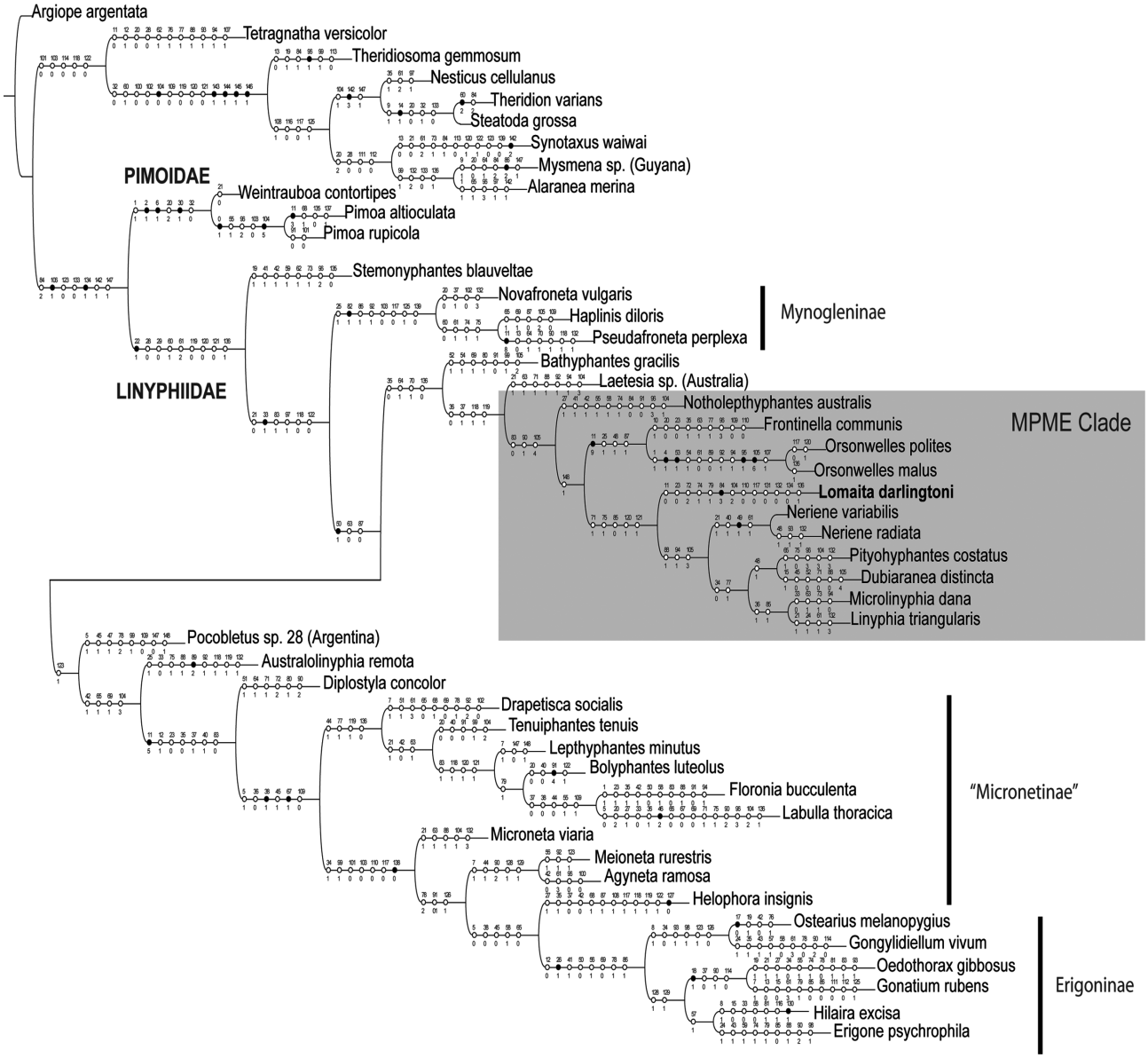

FIGURE 10. Implied weights tree (k = 21; fit = 18.24193) with the morphological characters and state changes mapped. Closed circles indicate synapomorphies, open circles show homoplastic changes.

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