



Hurleyella, a new genus of Nearctic Dolichopodidae (Diptera)

JUSTIN B. RUNYON^{1,2} & HAROLD ROBINSON³

¹Rocky Mountain Research Station, USDA Forest Service, 1648 S. 7th Avenue, Bozeman, Montana 59717, USA

²Montana Entomology Collection, Montana State University, Room 50 Marsh Laboratory, Bozeman, Montana 59717, USA.

E-mail: jrunyon@montana.edu

³Department of Botany, National Museum of Natural History, Smithsonian Institution, MRC 166, Washington, DC 20013-7012, USA

Abstract

The new micro-dolichopodid genus *Hurleyella* and two new species, *H. cumberlandensis* and *H. brooksi* are described from the Nearctic. *Hurleyella* resembles the subfamily Medeterinae in having the legs bare of major setae, a depressed posterior mesonotum, and concave dorsal postcranium, but the complex male genitalia is unlike the relatively simple structure of traditional Medeterinae (e.g., *Medetera*, *Thrypyicus*, *Corindia*, etc.). Until the relationship of *Hurleyella* to other genera can be determined, and the limits of dolichopodid subfamilies refined, it should be considered as *incertae sedis*.

Key words: long-legged flies, Medeterinae, micro-dolichopodid, *Enlinia*, *Harmstonia*, *Microcyrtura*, *Microchrysotus*, *Micromedetera*

Introduction

In June of 2008, the senior author (JBR) collected a new genus of minute Dolichopodidae in the Appalachian Mountains of southwest Virginia. This fly belongs to the group informally referred to as ‘micro-dolichopodids’, an interesting and notable element of the dolichopodid fauna of the Nearctic and especially the Neotropics (Robinson 1969; Yang *et al.* 2007; Bickel 2009). These species are about 1 mm long, or less, and belong to several relatively unrelated genera. Most speciose of the micro-dolichopodid genera are the seemingly related *Enlinia* Aldrich (79 described spp.) and *Harmstonia* Robinson (18 described spp.) (Yang *et al.* 2007), both of which are represented in the Nearctic, but have radiated extensively in the Neotropics (see Robinson 1969). Only a small fraction of the total *Enlinia* and *Harmstonia* species have been described and *Enlinia* may well prove to have more species than any other dolichopodid genus in tropical America. The remaining American micro-dolichopodid genera are known only from the Neotropics: *Microcyrtura* Robinson (4 spp.) and *Microchrysotus* Robinson (2 spp.) (Robinson 1964b), and *Micromedetera* Robinson (3 spp.) (Robinson 1975). Because of their small size and elusive habits (e.g., *Enlinia* hover very closely to the substrata), micro-dolichopodids are difficult to collect and have been largely overlooked. For example, *Micromedetera* (3 spp.) is known from both sexes and three countries (Dominica, Jamaica, and Panama), but from a total of only four specimens (Robinson 1975). Undoubtedly, more species of *Micromedetera* await discovery, something that is true for the micro-Dolichopodidae in general.

This paper describes *Hurleyella cumberlandensis*, the new genus and species of micro-Dolichopodidae collected in Virginia. Specimens of a second species of *Hurleyella* from Texas were provided to us by the dipterist Scott Brooks (CNC) after he reviewed an earlier version of this paper. ESEM images of the genus are provided, as are illustrations of the male genitalia. In some aspects, *Hurleyella* fits in the subfamily Medeterinae, but its minute size, pollinose face, distinctly haired eyes and complex genitalia are not congruent with the traditional concept of that subfamily. The systematic position of *Hurleyella* and its potential relationship to other micro-dolichopodid genera are discussed.