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Revision of the Neotropical subfamily Eurychoromyiinae (Diptera: Lauxaniidae)

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Table of contents

Abstract	3
Introduction	3
Materials and methods	5
Eurychoromyiinae Hendel	6
Key to the genera and species of Eurychoromyiinae	8
<i>Choryeuromyia</i> , gen. nov.	9
<i>Eurychoromyia</i> Hendel	11
<i>Euryhendelimyia</i> , gen. nov.	14
<i>Eurystratiomyia</i> , gen. nov.	16
<i>Physegeniopsis</i> , gen. nov.	22
<i>Roryeuchomyia</i> , gen. nov.	31
<i>Tauridion</i> Papp & Silva	34
Acknowledgements	37
References	37

Abstract

The status of the enigmatic family Eurychoromyiidae is revised to a subfamily of Lauxaniidae, and the entire subfamily is revised with a key to genera and species, and maps for all species. Previously monotypic with only the species *Eurychoromyia mallea* Hendel, one closely related genus, *Tauridion* Papp & Silva, is moved into this subfamily, and five new genera are described: *Choryeuromyia*, *Euryhendelimyia*, *Eurystratiomyia*, *Physegeniopsis*, and *Roryeuchomyia*. Besides the type species for *Eurychoromyia* and *Tauridion*, all species herein are new, including *Choryeuromyia xenisma* (type species of genus), *Euryhendelimyia schlingeri* (type species of genus), *Eurystratiomyia epacrovitta*, *Eurystratiomyia erwini* (type species of genus), *Physegeniopsis albeto*, *Physegeniopsis ankhoidea* (type species of genus), *Physegeniopsis hadrocarra*, and *Roryeuchomyia tigrina* (type species of genus). Eggs are described for *Tauridion shewelli* and *Physegeniopsis albeto*.

Key words: Diptera, Lauxaniidae, Eurychoromyiidae, *Choryeuromyia*, *Eurychoromyia*, *Euryhendelimyia*, *Eurystratiomyia*, *Physegeniopsis*, *Roryeuchomyia*, *Tauridion*, Neotropical

Introduction

The Neotropical genus *Eurychoromyia* Hendel was described for the single species *E. mallea* Hendel, based on four specimens collected at the turn of the 20th century by Carl Schnuse (for an account of his travels, see Papavero (1973)) in Sarampiuni, Bolivia (near Mapiro) in the foothills of the Central Andes north of La Paz. Stating that this species represents “ein isolierter Gruppentypus acalyptrater Musciden”—an isolated group of acalyptrate Muscidae—Hendel (1910) classified it in its own family-group (as Eurychoromyiinae, the spelling of which was corrected to Eurychoromyiinae by Brues & Melander (1932)) coordinate in rank with his subfamilies Lauxaniinae (=Lauxaniidae) and Sciomyzinae (=Sciomyzidae). To reach this conclusion, he went by process of elimination. First, he suggested that by first impressions, it should belong to the Ortalidinae (=Uliidiidae), but because it lacked the sclerotized ovipositor found in that group and the related tephritines (=Tephritidae) and lonchaeines (=Lonchaeidae), it could not be considered part of that group, and that the ovipositing apparatus is more suggestive of the sciomyzines and tetanocerines (=Sciomyzidae). However, with the lack of certain setae, and other peculiarities not found in these groups, *Eurychoromyia* could not be forced into any known group. He astutely observed that were he to assign it in an unnatural manner to an existing group, its recognition by subsequent dipterists would be endangered.

Hendel apparently later ascribed the genus to the Sepsidae, since Malloch (1925), disagreed with Hendel’s “parenthetically” referring *Eurychoromyia* to the Sepsidae “in one of his papers.” However, Brues &