



<http://dx.doi.org/10.11646/zootaxa.3926.4.3>

<http://zoobank.org/urn:lsid:zoobank.org:pub:8C078FEF-60FC-41A1-A305-E0DBA2B8DAF5>

A review of *Mimapsilopa* Cresson (Diptera: Ephydriidae) from Brazil

WAYNE N. MATHIS¹, DANIEL N. R. COSTA² & LUCIANE MARINONI²

¹Department of Entomology, NHB 169, PO Box 37012, Smithsonian Institution, Washington, D. C. 20013-7012, United States.
E-mail: mathisw@si.edu.

²Departamento de Zoologia, Universidade Federal do Paraná, Jardim das Américas, 81531-980 - Curitiba, Paraná, Brazil.
E-mail: negosekidan@ufpr.br and lmarinoni@ufpr.br

Abstract

Species of *Mimapsilopa* from Brazil are reviewed with an emphasis on the fauna from southern Brazil, where six new species were discovered and herein are diagnosed and described. To facilitate identification of species, we have included a diagnosis of the tribe Discomyzini and of *Mimapsilopa* and have also provided an annotated key to the New World genera of the tribe. We have also provided photos of representative specimens, illustrations of structures of the male terminalia and a distribution map for all included species.

Key words: Neotropical Region, shore flies, taxonomy

Introduction

The little-known shore-fly genus *Mimapsilopa* Cresson is known to occur only in the New World (Mathis and Zatwarnicki 1995), primarily in tropical zones. *Mimapsilopa* has been treated infrequently, even among shore-fly workers, and its relationship with other genera within the tribe Discomyzini remains largely unresolved (Mathis and Zatwarnicki 1998). Cresson (1941), for example, proposed *Mimapsilopa*, but five years later he (Cresson 1946) treated the included species in *Helaeomyia*, a second genus Cresson also described in the same 1941 paper but a page earlier. *Mimapsilopa* was considered a junior synonym of *Helaeomyia* (Cresson 1946, Wirth 1968) until Lizarralde de Grosso (1982) revised the species related to *Helaeomyia* and included recognition of *Mimapsilopa* as a separate genus. Lizarralde de Grosso's revision comprised six species, four being newly described. In our world catalog (Mathis and Zatwarnicki 1995), we followed Lizarralde de Grosso's precedent and recognized *Helaeomyia* and *Mimapsilopa* as separate genera. Our listing in the catalog was based on Zatwarnicki's research, especially on structures of the male terminalia that indicates the species placed in these two genera form monophyletic and separate lineages. Since publication of the world catalog, Mathis and Zatwarnicki (1998) added two species from the West Indies, resulting in a total of nine congeners in *Mimapsilopa* before this paper. The species of *Mimapsilopa* occurring in Brazil are the subject of this review, and all six of the included species are new and are described herein.

This review of *Mimapsilopa* was prompted by recent field work in southern Brazil that is part of an overall survey of the shore flies of this biologically diverse country. An objective of the field work in 2009–2010 was the shore-fly fauna from the state of Paraná and to a lesser degree from Santa Catarina and São Paulo and resulted in numerous specimens of Discomyzini, including *Mimapsilopa*. We soon discovered that *Mimapsilopa* is represented by six undescribed species from Brazil. The purpose of this paper is to describe these new species within the context of a faunistic review of *Mimapsilopa* from Brazil. All six species are described, including structures of the male terminalia, which are also illustrated.

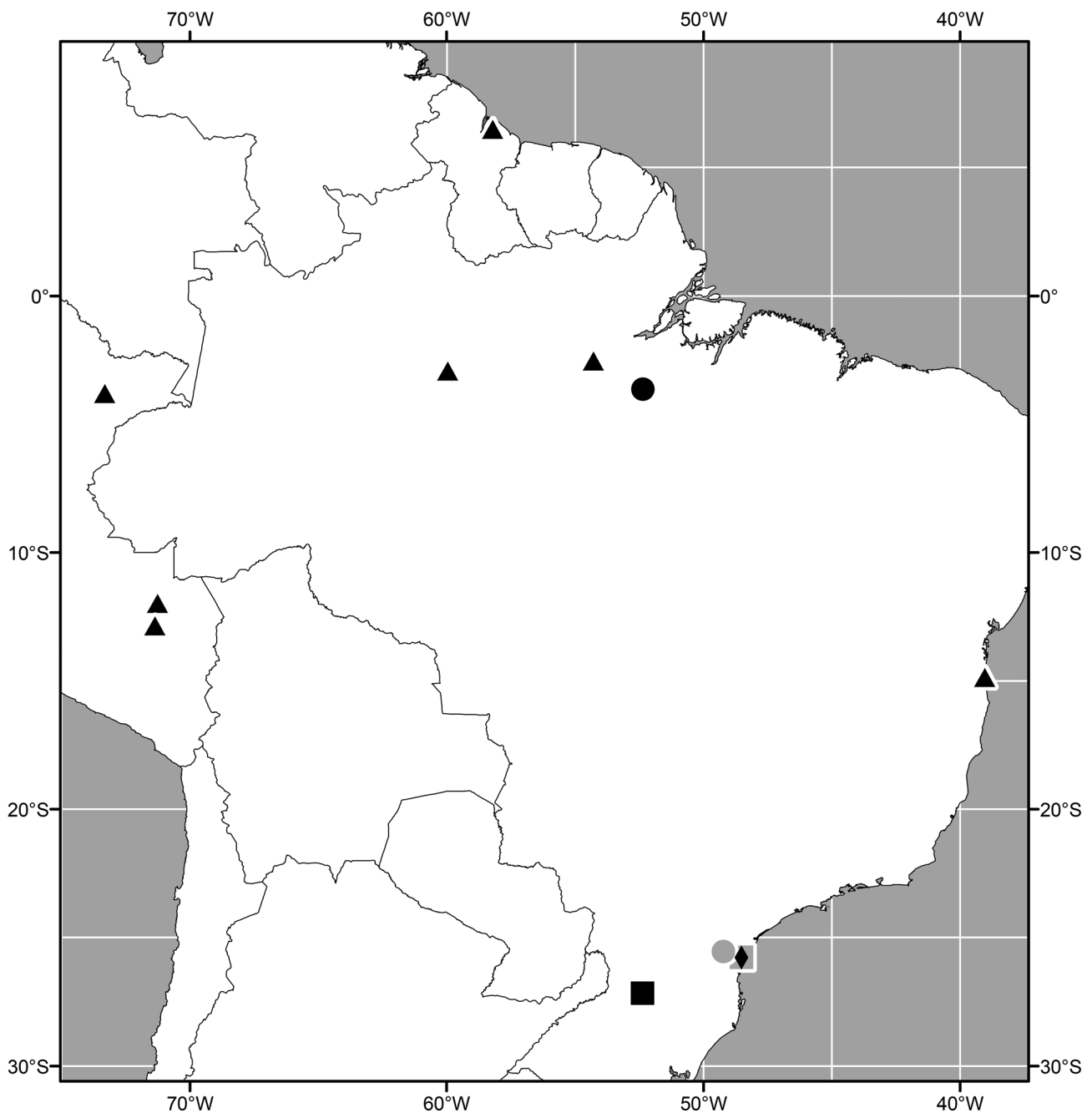


FIGURE 52. Distribution map of *Mimapsilopa*. *Mimapsilopa acta* n.sp. (■); *M. iguassu* n.sp. (●); *M. onssa* n.sp. (◆); *M. plaumanni* n.sp. (■); *M. rugosa* n.sp. (▲); *M. xingu* n.sp. (●).

References

- Acloque, A. (1897) *Faune de France*. 516 pp. Baillièere et Fils, Paris.
- Clausen, P.J. & Cook, E.F. (1971) A revision of the Nearctic species of the tribe Parydrini (Diptera: Ephydriidae). *Memoirs of the American Entomological Society*, 27, 1–150.
- Cresson, E.T. Jr. (1941) New genera and species of North American Ephydriidae (Diptera). *Entomological News*, 52 (2), 35–38.
- Cresson, E.T. Jr. (1946) A systematic annotated arrangement of the genera and species of the Neotropical Ephydriidae (Diptera) I. The subfamily Psilopinae. *Transactions of the American Entomological Society*, 71, 129–163.
- Grimaldi, D.A. (1987) Phylogenetics and taxonomy of *Zygothrica*. *Bulletin of the American Museum of Natural History*, 186, 103–268.
- Lizarralde de Grosso, M.S. (1982) Redescricion del género *Helaeomyia* Cresson y reivindicacion de *Mimapsilopa* Cresson

- (Diptera, Ephydriidae). *Physis (Buenos Aires)*, 40 (99), 121–128.
- Lizarralde de Grosso, M.S., Gramajo, M.C. & Corisi, C. (2011) Catálogo de Ephydriidae de la República Argentina. *Miscelánea*, 127, 3–28. Fundación Miguel Lillo, Tucumán, Argentina.
- Mathis, W.N. (1986) Studies of Psilopinae (Diptera: Ephydriidae), I: A revision of the shore fly genus *Placopsidella* Kertész. *Smithsonian Contributions to Zoology*, 430, 30+iv pp.
- Mathis, W.N. & Zatwarnicki, T. (1990a) A revision of the Western Palearctic species of *Athyroglossa* (Diptera: Ephydriidae). *Transactions of the American Entomological Society*, 116 (1), 103–133.
- Mathis, W.N. & Zatwarnicki, T. (1990b) Taxonomic notes on Ephydriidae (Diptera). *Proceedings of the Biological Society of Washington*, 103 (4), 891–906.
- Mathis, W.N. & Zatwarnicki, T. (1995) *A world catalog of the shore flies (Diptera: Ephydriidae)*. *Memoirs on Entomology, International* 4, vi+423 pp.
- Mathis, W.N. & Zatwarnicki, T. (1998). A review of the West Indian species of *Mimapsilopa* Cresson (Diptera: Ephydriidae). *Proceedings of the Entomological Society of Washington*, 100, 7–24.
- McAlpine, J.F. (1981) Morphology and terminology-adults. In: McAlpine J.F. et al. (Eds.), *Manual of Nearctic Diptera*. Vol. 1: 9–63, Research Branch Agriculture Canada, Monograph no. 27, vi+674 pp.
- Meigen, J. W. (1830) *Systematische Beschreibung der bekannten europäischen zweiflügeligen Insekten*. 6. Schulz-Wundermann, Hamm. 401+xi pp.
- Wirth, W.W. (1968) 77. Family Ephydriidae. In: Papavero, N. (Ed.), *A Catalogue of the Diptera of the Americas South of the United States*. Departamento de Zoologia, Secretaria da Agricultura. São Paulo, pp. 1–43.
- Zatwarnicki, T. (1992) A new classification of Ephydriidae based on phylogenetic reconstruction (Diptera: Cyclorrhapha). *Genus* 3 (2), 65–119.
- Zatwarnicki, T. (1996) A new reconstruction of the origin of eremoneuran hypopygium and its implications for classification (Insecta: Diptera). *Genus*, 7 (1), 103–175.