



<http://dx.doi.org/10.11646/zootaxa.3915.3.4>

<http://zoobank.org/urn:lsid:zoobank.org:pub:B06C27E3-A16A-4B88-A9B3-4819E98A5AE4>

New species and new records of the predaceous midge genus *Parabezzia* Malloch (Diptera: Ceratopogonidae) from Brazil

MARIA LUIZA FELIPPE-BAUER¹ & GUSTAVO R. SPINELLI²

¹Laboratório de Díptera, Instituto Oswaldo Cruz-Fiocruz, Av. Brasil 4365, 21040-900 Rio de Janeiro, RJ.

E-mail: mlfbauer@ioc.fiocruz.br

²División Entomología, Museo de La Plata, CCT CONICET- La Plata, Paseo del Bosque s/n, 1900 La Plata, Argentina.

E-mail: spinelli@fcnym.unlp.edu.ar

Abstract

Four new species of predaceous midges of the genus *Parabezzia* Malloch are described and illustrated based on female specimens from southeastern Brazil. Two species are recorded for the first time from Brazil, *Parabezzia costalis* Wirth from Rio de Janeiro State and *P. balseiroi* Spinelli & Grogan from Rio Grande do Sul State.

Key words: predaceous midges, Neotropical Region, Rio de Janeiro, Rio Grande do Sul, new species, new records

Resumo

Quatro novas espécies de ceratopogonídeos predadores do gênero *Parabezzia* Malloch são descritas e ilustradas baseadas em espécimes fêmeas provenientes da região sudeste do Brasil. Duas espécies são reportadas pela primeira vez para o Brasil, *Parabezzia costalis* Wirth para o estado do Rio de Janeiro e *P. balseiroi* Spinelli & Grogan para o estado do Rio Grande do Sul.

Palavras-chave: ceratopogonídeos predadores, região neotropical, Rio de Janeiro, Rio Grande do Sul, espécies novas, novos registros

Introduction

The predaceous genus *Parabezzia* Malloch includes 40 species distributed worldwide (Borkent, 2014). Of these, Borkent & Spinelli (2007) mentioned 24 species that inhabit the Neotropical region, and subsequently Grogan et al. (2013) described *P. florentinae* from the island of Guadeloupe. In their revision of the neotropical species of *Parabezzia*, Spinelli & Grogan (1987) recognized four species groups, the *alexanderi* group, the *brunnea* group, the *uncinata* group and the *unguis* group, earlier proposed by Grogan & Wirth (1977) for the Nearctic region. From Brazil, only *P. brasiliensis* Spinelli & Grogan and *P. inaequalis* Spinelli & Grogan are known from the States of Mato Grosso and Amazonas, respectively.

The study of female specimens from the Atlantic forests of southeastern Brazil and additional material from Rio Grande do Sul, revealed the presence of four undescribed and two previously known species. In this paper, we describe and illustrate the new species, comparing them with related species of *Parabezzia*, which now includes 44 species, 29 of them inhabiting the Neotropical region. The first records of *P. costalis* Wirth and *P. balseiroi* Spinelli & Grogan from Brazil are also provided.

***Parabezzia costalis* Wirth**

Parabezzia costalis Wirth, 1965: 221 (female, male; Panama; figs.); Wirth, 1974: 42 (in catalog south of USA); Spinelli & Grogan, 1987:17 (redescrip., distrib.; figs.); Wirth & Grogan, 1988: 74 (in list of World species of *Parabezzia*); Borkent & Wirth, 1997:104 (in World catalog); Borkent & Spinelli, 2007: 84 (in Neotropical catalog; distrib.); Borkent, 2014: 129 (in catalog).

Distribution: Panama, Brazil (Rio de Janeiro)

New record: BRAZIL, Rio de Janeiro, Casimiro de Abreu, Union Biological Reserve (22° 25' 35" S, 42° 2' 4" W), 28.XII.2012–31.I.2013, “Biota Diptera Fluminense” team col., 9 ♀, Malaise trap (CCER).

Acknowledgments

We are grateful to Daiane Carrasco Chaves for sending us material of *P. balseiroi* Spinelli & Grogan for study. To Tiago do Nascimento da Silva for the edition and confections of figures and plates. To *Fundação de Amparo à Pesquisa do Estado do Rio de Janeiro* (Faperj) for the financial support on the study of the Diptera fauna from Rio de Janeiro (“Apoio ao Estudo da Biodiversidade do estado do Rio de Janeiro”- 2012 Biota-RJ).

References

- Borkent, A. (2014) World Species of Biting Midges (Diptera: Ceratopogonidae). Available from: <http://www.inhs.illinois.edu/research/FLYTREE/CeratopogonidaeCatalog.pdf> (accessed 31 October 2014)
- Borkent, A. & Spinelli, G.R. (2007) Neotropical Ceratopogonidae (Diptera: Insecta). In: Adis, J., Arias, J.R. Rueda-Delgado, G. & Wnatzon, K.M. (Eds.), *Aquatic Biodiversity in Latin America (ABLA)*, vol. 4, Pensoft, Sofia-Moscow, 198 pp.
- Borkent, A. & Wirth, W.W. (1997) World Species of Biting Midges (Diptera: Ceratopogonidae). *Bulletin of the American Museum of Natural History*, 233, 1–257.
- Clastrier, J. & Raccurt, C. (1979) Quatre nouveaux *Parabezzia* de la République d’Haiti (Diptera: Ceratopogonidae). *Nouvelle Revue d’Entomologie*, 9, 165–175.
- Grogan, W.L. Jr. & Wirth, W.W. (1977) A revision of the Nearctic species of *Parabezzia* Malloch (Diptera: Ceratopogonidae). *Journal of the Kansas Entomological Society*, 50, 49–83.
- Grogan, W.L. Jr., Spinelli, G.R., Ronderos, M.M. & Cazorla, C.G. (2013) The biting and predaceous midges of Guadeloupe (Diptera: Ceratopogonidae). I. Species of the subfamily Ceratopogoninae. *Insecta Mundi*, 324, 1–21.
- Spinelli, G.R. (2000) New records of biting midges from southern South America (Diptera: Ceratopogonidae). *Neotrópica*, 46, 69–70.
- Spinelli, G.R. & Grogan, W.L. Jr. (1987) A revision of the Neotropical species of *Parabezzia* (Diptera: Ceratopogonidae). *Biota Acuatica*, 11, 1–45.
- Spinelli, G.R., Ronderos, M.M. & Marino, P.I. (2012) Redescription of the pupa of *Parabezzia balseiroi* (Diptera: Ceratopogonidae). *Revista de la Sociedad Entomológica Argentina*, 71, 163–168.
- Wirth, W.W. (1965) A revision of the genus *Parabezzia* Malloch. *Proceedings of the Entomological Society of Washington*, 67, 215–230.
- Wirth, W.W. (1974) *14 Family Ceratopogonidae. A catalogue of the diptera of the Americas South of the United States*. Museu de Zoologia, Universidade de São Paulo, São Paulo, 89 pp.
- Wirth, W.W. & Grogan, W.L. Jr. (1988) The predaceous midges of the World (Diptera: Ceratopogonidae, Tribe Ceratopogonini). *Flora and Fauna Handbook, N° 4*. E.J. Brill, New York, N.Y., xv + 160 pp.
- Wirth, W.W. & Marston, N. (1968) A method for mounting small insects on microscope slides in Canada balsam. *Annals of the Entomological Society of America*, 61, 783–784.
<http://dx.doi.org/10.1093/aesa/61.3.783>