Catalogue of Pyrgotidae (Diptera: Tephritoidea) from Chile

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Abstract. A catalogue of the Pyrgotidae (Diptera) from Chile is provided. All valid names are presented, comprising three species in two genera for the country. All references known to us from the taxonomic and biological literature, to the included names, are provided, including information about name, author, year of publication, page number, type species, type locality, distribution, and references.

Keywords. Distribution; Neotropical Region; Teretrurinae.

INTRODUCTION

Pyrgotidae is a small family of Tephritoidea (Diptera) with worldwide distribution (Kim & Han, 2009). The family is composed by ca. 365 species in about 55 genera (Korneyev, 2006). According to Mello & Lamas (2016), the Neotropical fauna of Pyrgotidae is represented by 59 species in 13 genera. Among the Neotropical genera, Leptopyrgota Hendel is the most diverse with 33 species (Steyskal, 1967; Bernardi, 1991).

The family is divided into the subfamilies Pyrgotinae and Teretrurinae (McAlpine, 1990). Pyrgotinae, the most specious subfamily, has a worldwide distribution and is composed by the tribes Prodalmanniini, Pyrgotini, Toxopyrgotini, and Toxurini (Korneyev, 2016). Teretrurinae, composed by 11 species in five genera, has a distribution restricted to South America and Oceania. The South American fauna of Teretrurinae is composed by the genera Pyrgotosoma Malloch and Teretrura Bigot.

South American Teretrurinae are restricted to Argentina and Chile (Steyskal, 1967), and the Chilean Pyrgotidae fauna is represented exclusively by the Teretrurinae. These flies can be easily recognized from other Pyrgotinae by the following combination of characters: ocelli present (absent in most Pyrgotinae); postpedicel rounded at apex; Sc reaching C at acute angle; R₄₊₅ bare dorsally; sternite 1 well developed, sclerotized and separated from sternite 2; and epandrium setulose (Aczél, 1956a, b; McAlpine, 1973, 1990; Korneyev, 2004).

The immature stages of Pyrgotinae are internal abdominal parasites of adult Scarabaeidae (Coleoptera), and the adults are nocturnal (Mello, 2017). The only known biological record for a South American pyrgotid was presented by Mello et al. (2010) for the species Carreapyrgota bernardii Mello, Lamas & Rafael, 2010 flying in association with the scarab beetle Pelidnota sordida (Germar, 1824). The South American Teretrurinae are also likely to be nocturnal, given their often being collected in light traps as indicated on their specimens labels.

The Neotropical fauna of Pyrgotidae was catalogued by Stuardo (1946, as Otitidae), and Steyskal (1967), including the Chilean species. Studies of the species from southern South America are scarce (Malloch, 1933). The aim of this paper is to provide an updated catalogue of species of Chile with details of the taxonomic records.

MATERIAL AND METHODS

Distributions are cited for each species based on published records and new records of specimens in the collection of Museo Nacional de Historia Natural de Chile and from the database of specimens in the Canadian National Collection. Chilean distribution is presented by region (from north to south), province (from north to south)
and locality (arranged alphabetically). Since there are important vegetation and orographic differences in each province of the country, details of each collection record are provided. This catalogue follows the generic classification of Aczél (1956a, b).

Acronyms used (following Evenhuis, 2020): CNC: Canadian National Collection, Ottawa, Canada; NHMUK: The Natural History Museum, London, United Kingdom; MNNC: Museo Nacional de Historia Natural de Chile, Santiago, Chile; OUMNH: Oxford University Museum of Natural History, Oxford, United Kingdom; USNM: National Museum of Natural History, Smithsonian Institution, Washington, D.C., USA.

RESULTS

Family Pyrgotidae Schiner

Pyrgotinae Schiner, 1868: 229. Type genus: Pyrgota Wiedemann, 1830: 580.

Subfamily Teretrurinae Malloch

Teretrurini Malloch, 1933: 248. Type genus: Teretrura Bigot, 1885: clxv.

Genus Pyrgotosoma Malloch

Pyrgotosoma Malloch, 1933: 252.

Type species: Pyrgotosoma flavidum Malloch, 1933: 253 (monotypy).

References: Malloch, 1933: 253 (description, fig. 52: head, lateral view), 254 (fig. 53: female sternite 6); Stuardo, 1946: 131 (catalogue, as Otitidae and Pyrgotosoma – sic!); Aczél, 1956a: 181 (list); Aczél, 1956b: 12 (list); Steyskal, 1967: 5 (catalogue); Mello, 2014: 501 (list, key), 503 (list).

Pyrgotosoma flavidum. Genus misspelling. Reference Stuardo, 1946: 131 (cat.).

Pyrgotosoma flavida. Corrected spelling. Reference Steyskal, 1967: 5 (cat.); Mello, 2014: 501 (list, key), 503 (list).

Genus Teretrura Bigot

Teretrura Bigot, 1885: clxv.

Type species: Teretrura flaveola Bigot, 1885: clxv (monotypy).

References: Hendel, 1913: 78 (key), 79-81 (redescription); Hendel, 1914: 170 (list); Bezzi, 1929: 2 (list); Hendel, 1934: 142 (key); Malloch, 1933: 248 (redescription), 249 (key); Curran, 1934: 270 (key); Enderlein, 1942: 101 (key); Stuardo, 1946: 131 (catalogue); Aczél, 1956a: 168-169 (comments), 171 (comments), 173 (comments), 181 (list); Aczél, 1956b: 8 (comments), 9 (comments, key), 12 (list); Hennig, 1958: 580 (comments); Steyskal, 1967: 5 (catalogue); McAlpine, 1990: 367 (morphology); Sabrosky, 1999: 28 (list), 302 (catalogue); Evenhuis & Pont, 2004: 57 (list); Korneyev, 2004: 22 (comments); Hernández-Ortiz, 2010: 957 (classification); Mello et al., 2010: 45 (comments); Mello & Lamas, 2014: 1 (comments); Mello, 2014: 500 (comments).

flaveola Bigot

Teretrura flaveola Bigot, 1885: clxv.

Holotype: female, Chile (without locality) (OUMNH).

Distribution: Chile. Región de La Araucanía: Cautín Province (Los Paraguas, E Volcan Llaima). Argentina.

References: Hendel, 1913: 81 (comments); Bezzi, 1929: 2 (list); Malloch, 1933: 249 (key, redescription), 250 (fig. 51: head, lateral view); Stuardo, 1946: 131 (catalogue); Aczél, 1956a: 167-168 (comments), 170-173 (comments), 181 (list); Aczél, 1956b: 7 (fig. A: wing), 9 (key), 10 (redescription); Steyskal, 1967: 5 (catalogue); Sabrosky, 1999: 302 (catalogue); Evenhuis & Pont, 2004: 57 (list); Mello, 2014: 501 (list, key), 502 (key), 503 (list).

tinctipennis Malloch

Teretrura tinctipennis Malloch, 1933: 251.

Holotype: male, Chile: Casa Pangue (USNM).

Distribution: Chile. Región del Maule: Curicó Province (El Coigo) (CNC); Región de La Araucanía: Arauco Province.
(Pichinahue) (CNC), Malloco Province (Malalcahuelo) (CNC); Región de Los Lagos: Llanquihue Province (Casa Pangué at PN Vicente Pérez Rosales); Región de Magallanes: Última Esperanza Province (Lago Lazo at PN Torres del Paine) (MNCC), Magallanes Province (Río Cameron)(CNC). Argentina: Río Negro Province (Bariloche).

References: Stuardo, 1946: 131 (catalogue); Aczél, 1956a: 181 (list); Aczél, 1956b: 9 (key), 12 (list); Steyskal, 1967: 5 (catalogue); Mello, 2014: 501 (list), 502 (key), 503 (list).

DISCUSSION

The diversity of Pyrgotidae in Chile is low compared with other countries of South America (Steuskal, 1967; Mello, 2014). Finally, in this catalogue we recognize three species of Pyrgotidae in two genera and one subfamily for Chile. The genus *Tereptrura* Bigot is the most species-richest with two species.

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AUTHORS’ CONTRIBUTION

All the authors contributed with results collections, writing, supervision, editing and revision of the manuscript.

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