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(Diptera: Pyrgotidae) from Colombian Andes**

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& Emilio Arévalo Peñaranda**



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Foto de la portada: *Idiopyrgota setiventris* (foto Pedro Alexander Rodriguez C.).

**First record of the monotypic genus *Idiopyrgota* Aczél  
(Diptera: Pyrgotidae) from Colombian Andes**

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& Emilio Arévalo Peñaranda<sup>2</sup>

**RESUMEN**

Se registra por primera vez a *Idiopyrgota setiventris* Aczél (Diptera: Pyrgotidae) en la cordillera oriental de los Andes Colombianos, los caracteres morfológicos diagnósticos de esta especie son fotografiados y las distribuciones de las especies de Pyrgotidae presentes en este país Sur Americano son presentadas.

Palabras clave: Tephritoidea, Pyrgotini, Región Neotropical, endoparásito

**ABSTRACT**

*Idiopyrgota setiventris* Aczél (Diptera: Pyrgotidae) is reported for the first time in the eastern cordillera of the Colombian Andes, morphological diagnostic characters of this species are photographed and the distribution of the Pyrgotidae species present in this South American country are presented.

Key words: Tephritoidea, Pyrgotini, Neotropical region, endoparasite

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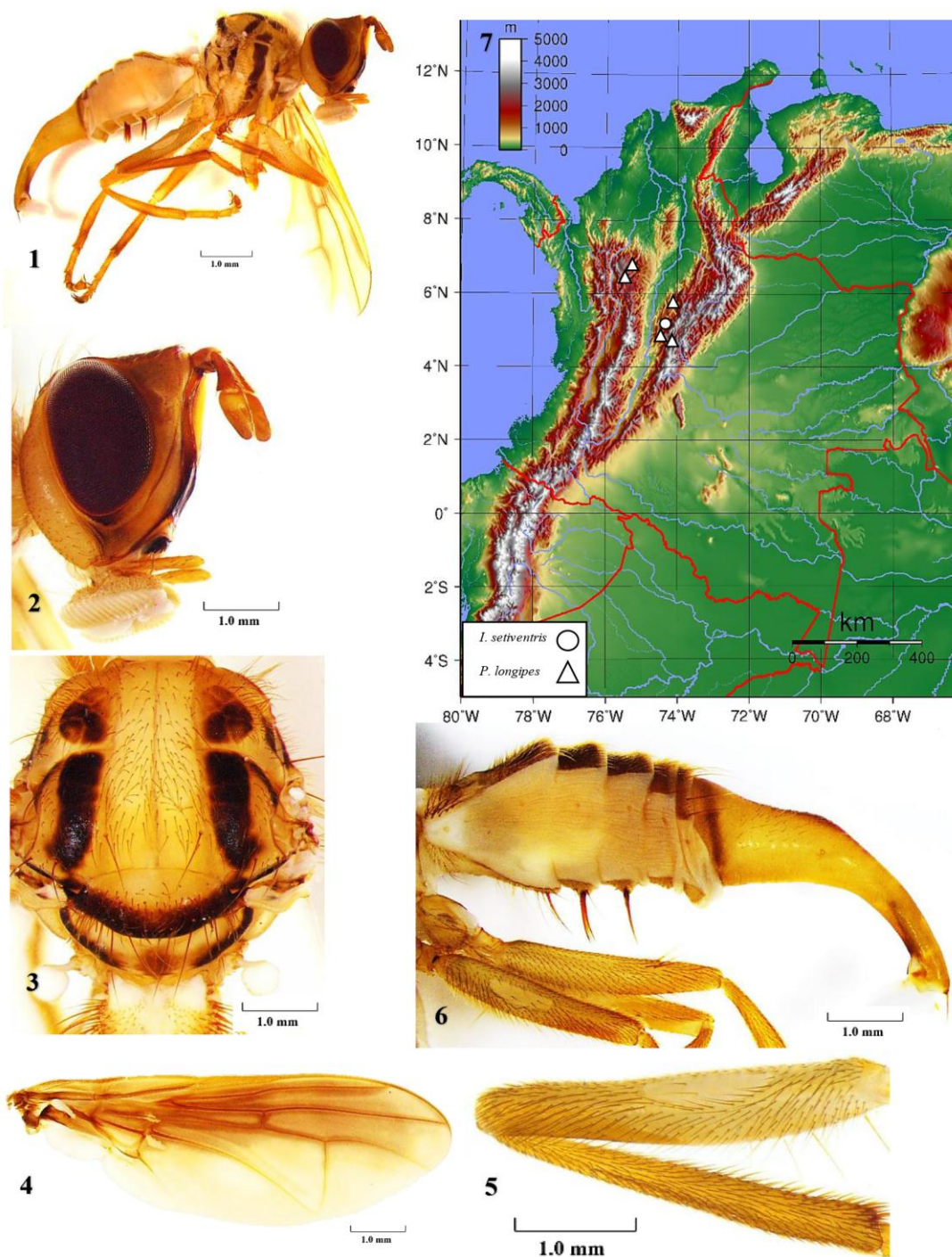
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Pyrgotidae is a small family of robust tephritoid flies, well represented in all biogeographic regions mainly in the tropics with 365 species (Korneyev, 2006). The Neotropical fauna includes 59 valid species in 13 genera (Mello & Lamas, 2016). Little information is available on the biology or natural history of pyrgotids, although it is well known that immatures develop as endoparasites in the abdomen of adult scarabaeid beetles (Coleoptera: Scarabaeidae); Pyrgotid flies are uncommon in collections because of the nocturnal or crepuscular synchronized habits with their hosts (Steyskal, 1987, Korneyev, 2006, Hernandez-Ortiz, 2010).

The Neotropical monotypic genus *Idiopyrgota* was erected by Aczél (1956) to place a single species, *I. setiventris* recently revised by Mello & Lamas (2008) which has been recorded for Argentina (Jujuy) and Brazil (Mato Grosso do Sul). In this paper the presence of *I. setiventris* is confirmed for the first time in the eastern cordillera of the Colombian Andes; also, morphological diagnostic characters of this species are photographed and the distribution of the Pyrgotidae species in Colombia are presented.

Colombia is one of the megadiverse countries in the Neotropics, and includes six major natural regions: Amazonas, Andina, Caribe, Insular, Orinoquia and Pacifica; and three cordilleras: eastern, central and western each with a great variety of flora. Despite its diversity the knowledge of the pyrgotids in Colombia is poor perhaps because of their low economic importance and the limited probability of collecting them. Only a single publication reports the presence of this family in Colombia (Mello & Lamas 2016) they reported the occurrence of *Pyrgota longipes* Hendel.

A single female specimen of *I. setiventris* was collected on a Jackson trap number 55 Cundinamarca, Tena, predio Marinilla 4,6606N -74,4157W, 1324 m. 11 Oct 2016; Jackson traps are used by personnel of the Instituto Colombiano Agropecuario, for detection of the Mediterranean fruit fly males *Ceratitidis capitata* (Wiedemann). The specimen was alive on arrival at the fruit flies laboratory and deposited in the Colección Nacional Moscas de la Fruta, Instituto Colombiano Agropecuario (ICAMF), Mosquera, Tibaitatá. Most digital images were taken using a Nikon DS-Fi2 camera attached to a Nikon SMZ-1000 stereomicroscope and enhanced with Adobe PhotoShop CS3. Diagnostic morphological terminology follows that used by Mello & Lamas (2008) for better and updated recognition of this taxon.



**Figure 1-7.** 1-6, *I. setiventris* ♀ (ICAMF00000324) 1. Habitus lateral. 2. Head lateral. 3. Thorax dorsal. 4. Wing. 5. Midfemur. 6. Abdomen lateral view. 7. Distribution map of Pyrgotidae in Colombia.



*I. setiventris* (Figs.1-6) can be distinguished from other Neotropical Pyrgotini by the following combination of morphological features: antennal groove separated by median dark brown carina (Fig. 2); scutum yellowish with distinct patterns of brown spots (Fig.3); scutellum yellow with apical margin brown (Fig.3); acrostichal seta absent; vein R<sub>4+5</sub> bare (Fig. 4); midfemur (Fig. 5) with femoral organ whitish yellow and 0.3 times as long as midfemur; abdomen (Fig. 6) yellowish, sternite 2 with 2-3 setulae on apical margin; sternites 3 and 4 with 6 stronger setae on apical margin, and ov scape apex with 6 setulae grouped on base.

**Table 1.** Pyrgotidae species recorded from Colombia

Tribe	Genus	Species	Author	References
Pyrgotini	<i>Idiopyrgota</i>	<i>setiventris</i>	Aczél, 1956	This paper
	<i>Pyrgota</i>	<i>longipes</i>	Hendel, 1908	Mello & Lamas 2016

Pyrgotids are represented in Colombia by two species (Table 1), both recorded at middle elevations of the central and eastern cordilleras; the distribution of *P. longipes* includes the Magdalena River valley in the departments of Antioquia (eastern side of central cordillera, Santo Domingo and San Roque municipios) and department of Cundinamarca (western side of eastern cordillera, Fusagasugá, La Palma and Tibacuy municipios); *I. setiventris* is only known from the western side of the eastern cordillera in the Tena municipio of Cundinamarca department (Fig. 7).

Increasing collection efforts is the best way to improve the knowledge and conservation of uncommon families of insects. We thank the Cundinamarca personnel of the Instituto Colombiano Agropecuario, Plan Nacional Moscas de la Fruta (ICA-PNMF) who collected the specimen of this study, and we also thank Dr. Gary J. Steck who kindly reviewed the manuscript.

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