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Neotropical Fanniidae (Insecta, Diptera): new species of *Fannia* from Colombia

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Abstract

Fannia Robineau-Desvoidy is distributed in all biogeographic regions and has about 300 species. Only seven species of *Fannia* are recorded from Colombia. A total of 13 new species are herein described: *F. chibcha* sp. nov. (Cundinamarca, Mosquera), *F. chingaza* sp. nov. (Cundinamarca, Parque Nacional Natural- P.N.N. Chingaza), *F. dorsomaculata* sp. nov. (Antioquia, Amalfi), *F. embera* sp. nov. (Chocó, Jobí), *F. iguaque* sp. nov. (Cundinamarca, P.N.N. Chingaza), *F. katio* sp. nov. (Chocó, P.N.N. Los Katíos), *F. lamosca* sp. nov. (Antioquia, San Vicente), *F. magdalena* sp. nov. (Antioquia, Puerto Berrio), *F. pijao* sp. nov. (Caldas, Manizales), *F. porce* sp. nov. (Antioquia, Amalfi), *F. quimbaya* sp. nov. (Risaralda, Santuario de Flora y Fauna—S.F.F. Otún-Quimbaya), *F. sumapaz* sp. nov. (Cundinamarca, P.N.N. Sumapaz) and *F. sutagao* sp. nov. (Meta, P.N.N. Sumapaz). The majority of these species are from preserved ecosystems: forests and high mountains. The new species possibly belong to species groups of *Fannia* new for Colombia such as *hirticeps*, *benjamini*, *grandis* and *anthracina*. Three new records of species for Colombia, *F. grandis* Malloch, *F. pusio* (Wiedemann) and *F. trimaculata* (Stein), are given. An identification key to males and diagnoses and descriptions of the genus *Fannia* and of the species are also provided. In the addendum, photographs and illustrations of the male and female terminalia are presented.

Key words: biodiversity, Colombian highlands, taxonomy

Resumen

Fannia Robineau-Desvoidy se encuentra en todas las regiones biogeográficas y tiene aproximadamente 300 especies descritas. Para Colombia son conocidas únicamente siete especies de *Fannia*. Se describieron en total 13 especies nuevas: *F. chibcha* sp. nov. (Cundinamarca, Mosquera), *F. chingaza* sp. nov. (Cundinamarca, Parque Nacional Natural- P.N.N. Chingaza), *F. dorsomaculata* sp. nov. (Antioquia, Amalfi), *F. embera* sp. nov. (Chocó, Jobí), *F. iguaque* sp. nov. (Cundinamarca, P.N.N. Chingaza), *F. katio* sp. nov. (Chocó, P.N.N. Los Katíos), *F. lamosca* sp. nov. (Antioquia, San Vicente), *F. magdalena* sp. nov. (Antioquia, Puerto Berrio), *F. pijao* sp. nov. (Caldas, Manizales), *F. porce* sp. nov. (Antioquia, Amalfi), *F. quimbaya* sp. nov. (Risaralda, Santuario de Flora y Fauna – S.F.F. Otún-Quimbaya), *F. sumapaz* sp. nov. (Cundinamarca, P.N.N. Sumapaz) and *F. sutagao* sp. nov. (Meta, P.N.N. Sumapaz). La mayoría de estas especies se encuentran en ecosistemas boscosos conservados y de alta montaña. Posiblemente estas especies pertenecen a nuevos grupos de especies de *Fannia* para Colombia como *hirticeps*, *benjamini*, *grandis* y *anthracina*. Se registran por primera vez para Colombia *F. grandis* Malloch, *F. pusio* (Wiedemann) y *F. trimaculata* (Stein). Se presentan claves de identificación para género y para machos, así como diagnosis y descripciones. En adendo se presentan fotografías e ilustraciones de la terminalia de machos y hembras.

Palabras clave: biodiversidad, Andes colombianos, taxonomía

Introduction

The Fanniidae currently include four genera, *Fannia* Robineau-Desvoidy, *Piezura* Rondani, *Euryomma* Stein and *Australofannia* Pont. The last is monotypic and endemic to Australia. In the Neotropical Region, *Euryomma* and *Fannia* occur, with 17 and 76 species, respectively (Albuquerque *et al.* 1981; de Carvalho *et al.* 2003; Couri 2004, 2005; Couri & Winagraski 2005; Domínguez 2007; Domínguez & Aballay 2008; Grisales *et al.* 2012; Wendt & de Carvalho 2009; Wendt 2010; Quiroga & Domínguez 2010).

Species of *Fannia* are found in diverse habitats. The larvae are trimorphic and saprophagous, being found on fungi, manure, decomposing organic matter, and bee nests (Chillcott 1961; Malloch 1934; Holloway 1985), nests of birds and mammals, and in association with bat guano in caves (Rozkošný *et al.* 1997). On those substrates they feed on microorganisms, hyphae, fungi spores, and pollen (Holloway 1985; Rozkošný *et al.* 1997). Adults can be found below the branches of trees, and rarely in open areas. Males form small swarms and females remain in the low vegetation (Chillcott 1961).

Many species have synanthropic habits and have an economic impact, or are relevant to forensics and the public health. Some species, such as *F. flavicincta* (Stein) and *F. heydenii* (Wiedemann) are mechanical vectors of larvae of *Dermatobia hominis* (Linnaeus) (Gomes *et al.* 2002; Espindola & Couri 2004); others are important to forensics in the Neotropical region, for instance *F. femoralis* (Stein), *F. flavicincta*, *F. obscurinervis* (Stein), *F. pusio* (Wiedemann), *F. trimaculata* (Stein), *F. sanihue* Domínguez & Aballay and *F. yunguensis* Quiroga & Domínguez