

Managing insect collections. Micropezidae (Diptera: Nerioida) of the Entomological Museum UNAB

Gestión en las colecciones de insectos. Micropezidae (Diptera: Nerioida) del Museo Entomológico UNAB

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ABSTRACT

UNAB consists of several collections that seek to represent the insects of agricultural and forestry significance from the various regions of Colombia, especially the mountainous zone. In order to contribute to knowledge on the Diptera diversity of Colombia found in agricultural ecosystems, the present study looked at the Micropezidae contained in this museum, along with the represented taxa, as well as its current curatorial status and geographic distribution in the country. Currently, the Taxonomic Central Collection houses 107 specimens from the Micropezidae family, which belong to the genera *Cardiacephala*, *Grallipeza*, *Grallomyia*, *Mesoconius*, *Micropeza*, *Plocoscelus*, *Paragrallomyia*, *Poecilotylus*, *Ptilosphen*, *Scipopus*, and *Taeniaiptera*, representing distribution in 57 municipalities and 12 departments (provinces) of the Colombian Andean region.

Key words: Andean region, Colombia, taxonomy, geographical distribution, agroecosystems, Insecta.

RESUMEN

UNAB se compone de varias Colecciones que buscan representar la entomofauna de importancia agrícola y silvícola de varias regiones de Colombia, especialmente de su zona montañosa. Como aporte al conocimiento de la diversidad de Dípteros de Colombia que viven en agroecosistemas, en el presente estudio se estudian los Micropezidae de este Museo, y se registran los taxones representados, así como el estado de su curaduría y su distribución geográfica en el país. En la actualidad, la Colección Taxonómica Central cuenta con 107 especímenes de la familia Micropezidae, que corresponden a los géneros *Cardiacephala*, *Grallipeza*, *Grallomyia*, *Mesoconius*, *Micropeza*, *Paragrallomyia*, *Plocoscelus*, *Poecilotylus*, *Ptilosphen*, *Scipopus* y *Taeniaiptera*, con registros para 57 municipios de 12 departamentos, principalmente de la Región andina de Colombia.

Palabras clave: región andina, Colombia, taxonomía, distribución geográfica, agroecosistemas, Insecta.

Introduction

The UNAB entomological museum currently contains several voucher collections of arthropods that are important to agriculture and forestry, coming from different regions of Colombia, especially the central area. It contains about 100,000 specimens from 20 orders and 160 families of Hexapoda and other Arthropoda. Among those specimens, there is an important representation of the Micropezidae family (Diptera: Nerioida), leading to a preliminary understanding of the distribution of this family in Colombia.

Micropezidae is recognized by the following combination of characteres (Fig. 1): stilt-legged flies; wings with veins R_{4+5} and M converging toward the apex of the wing; absent ocellar setae and oral vibrissae; most neotropical species have a vertical row of setae, in a fan shape, in the posterior margin of the katepisternum; females with a seventh

syntergosternite (fused 7 tergite and sternite), forming a rigid oviscape; male Micropezinae and Eurybatinae have a surstylus; and males of most species have a prominent bifurcated process in sternite 5 (Marshall, 2010).

They are flies with cosmopolitan distribution, with a great diversity of species in tropical regions (Steyskal 1966, 1987; Ferro and Carvalho, 2014). Within the family, about 700 species of 60 genera are grouped into five subfamilies, including Calycopteryginae, Calobatinae, Eurybatinae, Micropezinae and Taeniaipterinae (Marshall, 2010, 2012; Steyskal, 1987). Eurybatinae, Micropezinae and Taeniaipterinae are found in the Neotropics (Marshall, 2010, 2012, Ferro and Carvalho, 2014).

Studies of the Micropezidae family are few in Colombia. The latest and most extensive contribution came from Steyskal (1966), who recorded 11 genera and 40 species in this country.

Received for publication: 10 August, 2015. Accepted for publication: 17 November, 2015.

Doi: 10.15446/agron.colomb.v33n3.52432

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Micropezidae exhibits a complex variety of feeding habits (Marshall, 2010, 2012). However, most species feed on decaying organic matter and some *Mimegraffa* species (Taeniapterinae) apparently affect healthy roots (Marshall 2010, 2012). Micropezidae flies are not considered of agricultural importance. While most species are associated with native forests, some are commonly found in highly disturbed habitats and are frequently collected in agroecosystems (Harterreiten-Souza *et al.*, 2014). Based on this collecting practice, a significant representation of Micropezidae is housed in the UNAB Museum, a consideration that motivated us to produce the present contribution to knowledge of their distribution in Colombia.

Materials and methods

All specimens are individually point-mounted with a data-collecting label, placed into Ward-box cells with a green label containing the taxon name and a catalogue number (Fig. 1). To build a complete database with a digital program, each identification and dataset was given a Catalogue Number [UNAB No. Catal.]. In the present paper, we only transferred the collecting data.

Morphological characteristics were studied with the aid of a NIKON SMZ660 stereomicroscope, following keys of Marshall (2010) and Ferro and Carvalho (2014). Also, for some descriptions and diagnosis, the methodologies of Merritt and James (1973), Merritt and Peterson (1976), Steyskal (1987), Marshall (2004, 2011, 2013, 2015), Harterreiten-Souza *et al.* (2014), and Jackson *et al.* (2015) were employed.

Seeking to represent the geographical distribution of genera in Colombia, we built maps for each genus by gathering the information on the labels and employing the freely available program QGIS (QGIS Development Team, 2015). The distribution based on altitude (meters above sea level) was depicted as well. Abbreviations for some data on the labels are as follows: **Fca.**, Finca (farm); **Hda.**, Hacienda, a large land for farming or ranching; **m alt.**, meters of altitude above sea level; **No. Catal.**, Catalog Number; **Vda.**, Vereda (a small group of dwellings in a rural area connected by a narrow country road or district).

Results

We studied 107 specimens of the Micropezidae family, so far representing 11 genera for Colombia, including *Micropeza* of Micropezinae, and *Cardiacephala*, *Grallipeza*, *Grallomyia*, *Mesoconius*, *Paragrallomyia*, *Plocoscelus*,



FIGURE 1. Upper. Habitus of *Plocoscelus* sp. (Taeniapterinae). Lower. A Cornell's type wooden drawer at the UNAB Museum, containing specimens of Micropezidae inside Ward's box-cells with a green label marked with a taxon name and a Catalog number.

Poecilotylus, *Ptilosphen*, *Scipopus*, and *Taeniaaptera* of Taeniapterinae.

Geographical distribution

Based on the information associated with the examined material, we reported the Micropezidae family in 57 municipalities in the departments of Antioquia, Bolívar, Caquetá, Cundinamarca, Huila, Meta, Nariño, Putumayo, Quindío, Risaralda, Tolima, and Valle del Cauca. The *Paragrallomyia* and *Taeniaaptera* genera accounted for the largest number of recorded locations.

The Central Taxonomic Collection (CTC) of the Entomological Museum UNAB contains specimens mostly from the central regions of the country. Because of this, most Micropezidae genera are recorded from two departments. From Antioquia, the following genera are recorded: *Mesoconius*, *Micropeza*, *Paragrallomyia*, *Poecilotylus*, *Ptilosphen*, *Scipopus*, and *Taeniaaptera*; while from Cundinamarca, the genera are: *Cardiacephala*, *Micropeza*, *Paragrallomyia*, *Plocoscelus*, *Poecilotylus*, *Ptilosphen*, and *Taeniaaptera*. Genera registered from only one department include *Scipopus* and

Mesoconius from Antioquia, *Cardiacephala* from Cundinamarca, and *Grallipeza* from Putumayo.

Distribution above sea level

Specimens were collected from 2 to 2,600 m alt., with a Median of 820 m alt. (Fig. 2). This finding showed that most records come from lowlands in Colombia. *Micropeza*, *Paragrallomyia* and *Taeniptera* showed the widest altitudinal range, from lowlands to high mountains. *Micropeza* was seen from 2 to 2,600 m alt., with a Median of 1,285 m alt and *Taeniptera* was found from 40 to 2,558 m alt., with a Median of 1,495, with these two genera commonly found in the Colombian coffee zone. On the other hand, *Paragrallomyia* is found from 7 to 2,599 m alt., with a Median of 496 m alt., which would suggest a possible concentration of species in the lowland regions of the central zone of the country.

We only recorded two specimens of *Mesoconius* at 1800 and 2,550 m alt. According to Marshall (2015), species of this genus belong to highlands, with several Andean species found from 2,500 to 3,000 m alt.

MICROPEZINAE

Micropeza Meigen, 1803

Micropeza (Micropeza) Meigen

Material examined (Fig. 3): *Micropeza (Micropeza)* sp., 1♀, COLOMBIA, Putumayo, Mocoa, Vda. Pueblo Viejo, Mocoa river shore, N 1° 11' 28.1" W 76° 38' 43.3", 700 m alt., 20-Mar-2015, W. Sierra, [UNAB No. Catal. 1535].

Micropeza (Neriocephalus) Enderlein

Material examined (Fig. 3): *Micropeza (Neriocephalus)* sp., 1♀, COLOMBIA, Antioquia, Envigado, N 6° 10' W 75° 35', 1,675 m alt., 5-May-1996, G. Parra, [UNAB No. Catal. 1519]; 1♂, Antioquia, Turbo, Uraba antioqueño, La Martina, N 8° 05' W 76° 43', 2 m alt., 2-Abr-2014, J. Díaz, [UNAB No. Catal. 1518]; 3♀♀, Antioquia, Yolombo, Vda. Sabanitas, Fca. San Bartolo-La Esperanza, N 6° 33' 13" W 75° 05' 7.1", 1,500 m alt., 5-9-Ene-2010, E. Vergara; F. Serna, [UNAB No. Catal. 1519]; 1♀, Cundinamarca, Bogota, Parque Cantarana, N 4° 29' W 74° 07', 2,600 m alt., 21-Ago-2011, L. Camacho, [UNAB No. Catal. 1518]; 1♂, Cundinamarca, Chipaque, Via Bogota-Villavicencio, N 4° 25' 18" W 73° 59' 30", 1,794 m alt., Oct-2009, D. Ramírez, [UNAB No. Catal. 1519]; 1♂, Cundinamarca, Villeta, N 5° 0' 29" W 74° 28' 23", 820 m alt., 16-May-2010, F. Padilla, [UNAB No. Catal. 1519]; 1♂, Huila, Neiva, Malecon el Mohan, N 2° 55' 37.2" W 75° 17' 40.3", 475 m alt., 19-Mar-2015, Z. Silva, [UNAB No. Catal. 1519]; 1♂, Putumayo, Villagarzon, Vda. San Fidel, Fca. La Cuca, N 0° 50' 14.9" W 76° 38' 5.9", 352 m alt., Manual, 27-Mar-2015, S. Cordoba, [UNAB No. Catal. 1519]; 1♂, Tolima, Ibague, N 4° 26' W 75° 14', 1,285 m alt., 4-Nov-2003, W. Pérez, [UNAB No. Catal. 1519].t

TAENIAPTERINAE

Cardiacephala Macquart, 1843

Material examined (Fig. 4): *Cardiacephala* sp., 1♂, COLOMBIA, Cundinamarca, Nimaima, Vda. Cañadas, N 5° 07' 35" W 74° 23' 08", 1,185 m alt., 30-Dic-2011, Y. Sánchez, [UNAB No. Catal. 1527].

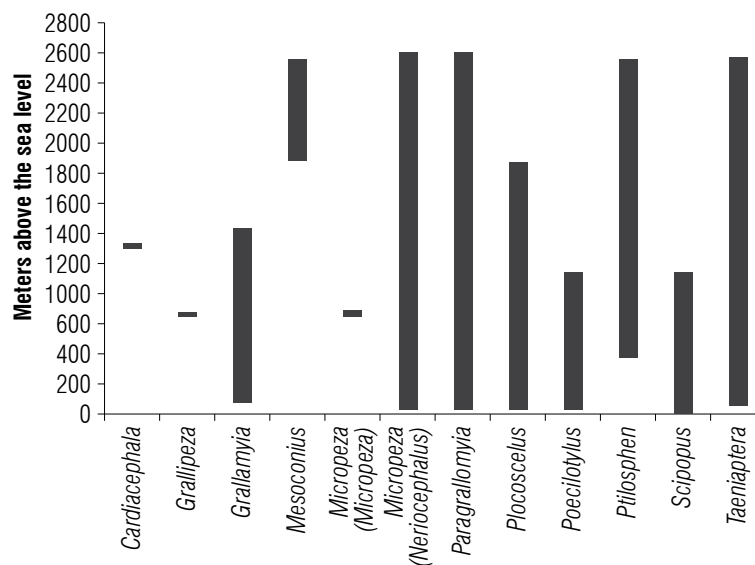


FIGURE 2. Altitudinal distribution of Micropezidae genera in Colombia, according to the data found in the specimens housed at the UNAB Museum.

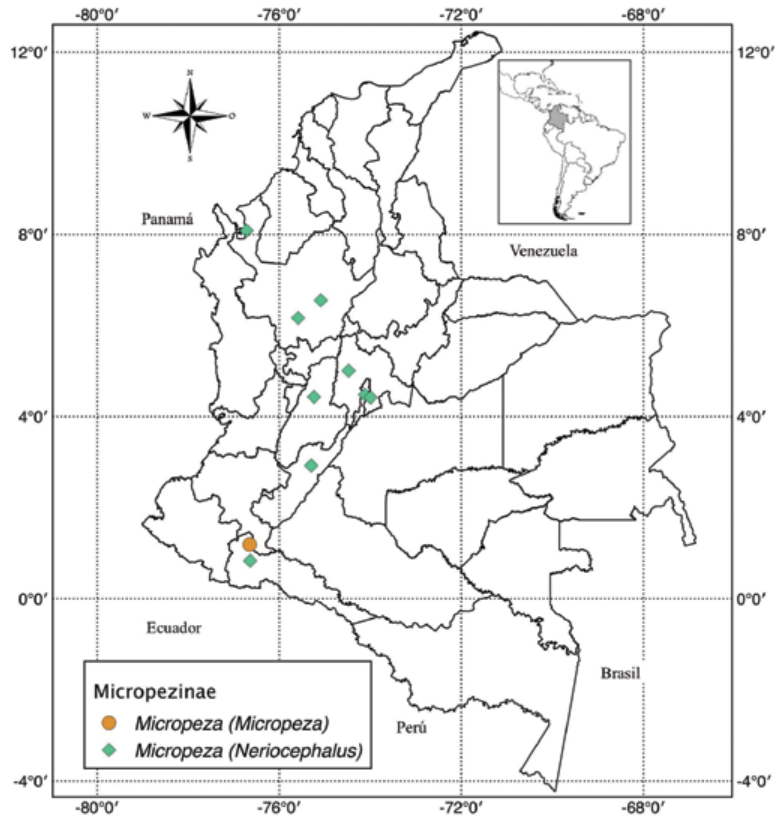


FIGURE 3. Collection sites for *Micropeza (Micropeza)* and *Micropeza (Neriocephalus)* in Colombia.

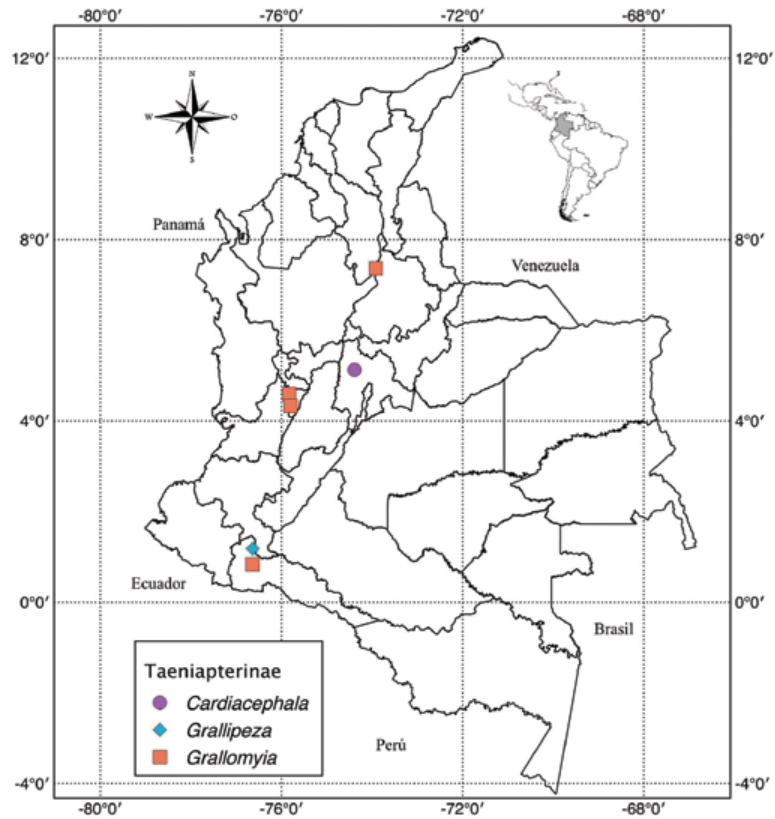


FIGURE 4. Collection sites for *Cardicephala*, *Grallipeza* and *Grallomyia* in Colombia.

Grallipeza Rondani, 1850

Material examined (Fig. 4): *Grallipeza* sp., 1♀, **COLOMBIA, Putumayo**, Mocoa, Vda. Pueblo Viejo, Fca. Villa Loca, N 1° 11' W 76° 38', 700 m alt., 5-Mar-2015, M. Mendoza, [UNAB No. Catal. 1539].

Grallomyia Rondani, 1850

Material examined (Fig. 4): *Grallomyiasp.*, 1♀, **COLOMBIA, Bolivar**, Cantagallo, Vda. La Feria, N 7° 22' W 73° 55', 60 m alt., 25-Jul-2011, J. Santa, [UNAB No. Catal. 1525]; 1♂, **Putumayo**, Villagarzon, Vda. San Fidel, Fca. La Cuca, N 0° 50' 14.9" W 76° 38' 5.9", 352 m alt., 27-Mar-2015, C. Triviño, [UNAB No. Catal. 1525]; 1♂, **Quindio**, Quimbaya, Fca. Ramada, N 4° 35' 37.7" W 75° 49' 60.6", 1,322 m alt., 16-Jun-2006, C. Delgado, [UNAB No. Catal. 1525]; 1♀, **Valle del Cauca**, Caicedonia, Club de Caza y Pesca, N 4° 20' 0" W 75° 48' 0", 1,320 m alt., 22-Jul-2011, D. Rendon, [UNAB No. Catal. 1525].

Mesoconius Enderlein, 1922

Material examined (Fig. 5): *Mesoconius* sp., 1♀, **COLOMBIA, Antioquia**, Santa Barbara, Cgto. Versalles, Fca. Los Naranjos, N 5° 55' 60" W 75° 34' 00", 1,800 m alt., 15-Abr-2012, O. Ortiz, [UNAB No. Catal. 1540]; 1♂, **Antioquia**, Santa Rosa de Osos, N 6° 38' W 75° 27', 2,550 m alt., Dic-1989, F. Serna, [UNAB No. Catal. 1528].

Plocoscelus Enderlein, 1922

Material examined (Fig. 5): *Plocoscelus* sp., 4♀♀, **COLOMBIA, Caqueta**, Florencia, Vda. La Viciosa, Centro de Investigaciones Amazonicas Macagual, N 1° 29' 59" W 75° 39' 47", 257 m alt., 25-Oct-2014, M. Bermúdez, [UNAB No. Catal. 1523]; 2♀♀, **Cundinamarca**, Pacho, Vda. La Cabrera, N 5° 07' W 74° 09', 1,800 m alt., 22-Mar-2003, M. Murcia; C. Cortés, [UNAB No. Catal. 1523]; 1♀, **Cundinamarca**, Sasaima, Vda. Santa Ines, N 4° 54' 46" W 74° 25' 09", 1,740 m alt., 10-Abr-2011, I. Gomez, [UNAB No. Catal. 1523]; 1♀, **Nariño**, La Florida, Vda. Picacho, Fca. San Antonio, N 1° 20' W 77° 26', 1,646 m alt., 11-Jul-2013, L. Guerrero, [UNAB No. Catal. 1523]; 1♀, **Putumayo**, Orito, Vda. El Yarumo, Fca. El Limonar, N 0° 39' 26.7" W 76° 47' 24", 325 m alt., 26-Mar-2015, W. Sierra, [UNAB No. Catal. 1523]; 1♀, **Valle del Cauca**, Buenaventura, N 3° 53' 47" W 77° 04' 40", 7 m alt., 26-Sep-1999, S. Restrepo, [UNAB No. Catal. 1537].

Poecilotylus Hennig, 1934

Material examined (Fig. 5): *Poecilotylus* sp., 1♂, **COLOMBIA, Antioquia**, Carepa, Tulenapa, N 7° 46' W 76° 40', 25 m alt., 1-Abr-2014, M. Sierra, [UNAB No. Catal. 1522]; 1♂, **Antioquia**, Carepa, Fca. Tulenapa, N 7° 46' W 76° 40',

51 m alt., 31-Mar-2014, L. Hernández, [UNAB No. Catal. 1522]; 1♀, **Antioquia**, Santa Fe de Antioquia, Hda. Cotove, UNAL, N 6° 31' W 75° 49', 504 m alt., 6-Oct-2000, A. Botero; A. Gutiérrez; L. Arias; J. Guevara, [UNAB No. Catal. 1522]; 1, **Antioquia**, Santafe de Antioquia, Finca Cotove, Universidad Nacional de Colombia, N 6° 33' 31' W 75° 49' 32", 600 m alt., 6-Oct-2000, L. Arias, [UNAB No. Catal. 2286]; 1♀, **Cundinamarca**, Anapoima, N 4° 32' W 74° 32', 710 m alt., 21-Abr-2012, M. Ramírez, [UNAB No. Catal. 1522]; 1♂, **Cundinamarca**, Guaduas, Sector San Jose, N 5° 4' W 74° 36', 992 m alt., 28-Mar-2014, L. Daza, [UNAB No. Catal. 1522]; 1♀, **Cundinamarca**, Guaduas, N 5° 04' W 74° 36', 1,016 m alt., 28-Mar-2014, J. Rojas, [UNAB No. Catal. 1522]; 1♂, **Cundinamarca**, Guaduas, Regional 50, N 5° 04' W 74° 35', 983 m alt., 28-Mar-2014, J. Velásquez, [UNAB No. Catal. 1522]; 1♂, **Huila**, Neiva, Malecon el Mohan, N 2° 55' W 75° 17', 475 m alt., 19-Mar-2015, P. Villamarin, [UNAB No. Catal. 1522]; 1♀, **Meta**, Vista Hermosa, N 3° 08' W 74° 45', 460 m alt., Mar-1997, V. Sánchez, [UNAB No. Catal. 1522]; 1♂, **Putumayo**, Puerto Asis, Vda. Nariño Nariño, Fca. Agua Negra, N 0° 29' W 76° 24', 273 m alt., 25-Mar-2015, P. Villamarin, [UNAB No. Catal. 1536]; 1♂, **Putumayo**, Puerto Asis, Vda. Nariño Nariño, Fca. Agua Negra, N 0° 29' 10.9" W 76° 24' 23.6", 273 m alt., 25-Mar-2015, S. Rodríguez, [UNAB No. Catal. 1536]; 1♀, **Putumayo**, Villagarzon, Vda. San Fidel, Fca. La Cuca, N 0° 50' 14.9" W 76° 38' 5.9", 352 m alt., 27-Mar-2015, J. García, [UNAB No. Catal. 1536].

Ptilosphen Enderlein, 1922

Material examined (Fig. 6): *Ptilosphen* sp., 1♀, **COLOMBIA, Antioquia**, Amaga, N 6° 1' 44.2842" W 75° 41' 38.6592", 1,570 m alt., 23-Nov-2012, J.M. Perilla, [UNAB No. Catal. 1524]; 1♀, **Cundinamarca**, Cachipay, Barrio El Progreso, N 4° 43' 52.15" W 74° 26' 12.22", 1,600 m alt., 20-May-2010, G. Poveda, [UNAB No. Catal. 1524]; 1♀, **Cundinamarca**, La Vega, Cgto. El Vino, N 4° 54' W 74° 18', 2,541 m alt., 30-Sep-2011, J. Cante, [UNAB No. Catal. 1524]; 1♀, **Cundinamarca**, San Antonio del Tequendama, Vda. Quebrada Grande, N 4° 37' W 74° 21', 1,540 m alt., 13-May-2012, A. Mayorga, [UNAB No. Catal. 1524]; 1♀, **Cundinamarca**, San Francisco, Vda. San Miguel, N 4° 59' W 74° 16', 1,673 m alt., 8-Abr-2004, S. Flórez, [UNAB No. Catal. 1524]; 1♂, **Cundinamarca**, Sasaima, N 4° 57' W 74° 26', 1,186 m alt., 22-Abr-2000, I. Gamboa, [UNAB No. Catal. 1538]; 1♂, **Huila**, San Agustín, Alrededores Parque Arqueologico San Agustin, N 1° 52' W 76° 16', 1,725 m alt., 24-Sep-2014, S. Rodríguez, [UNAB No. Catal. 1538]; 1♀, **Meta**, Cumaral, N 4° 16' W 73° 28', 565 m alt., 25-Sep-2004, G. Tinoco, [UNAB No. Catal. 1524]; 1♀, **Meta**, San Martin, La Pascualera, N 3° 46' W 73° 39', 379 m alt., 7-Abr-2004, F.

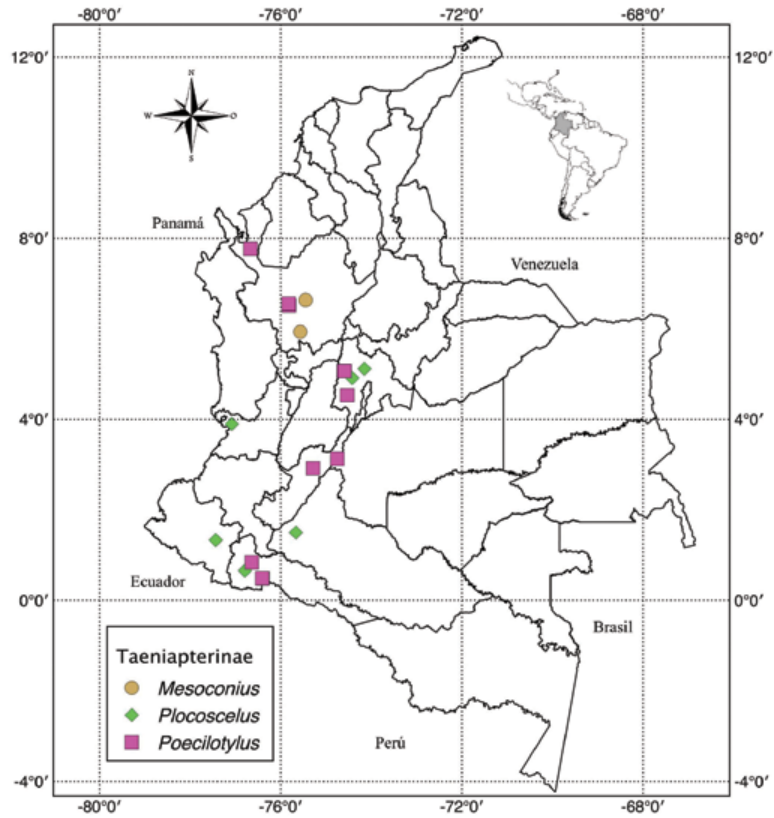


FIGURE 5. Collection sites for *Mesoconius*, *Plocoscelus* and *Poecilotylus* in Colombia.

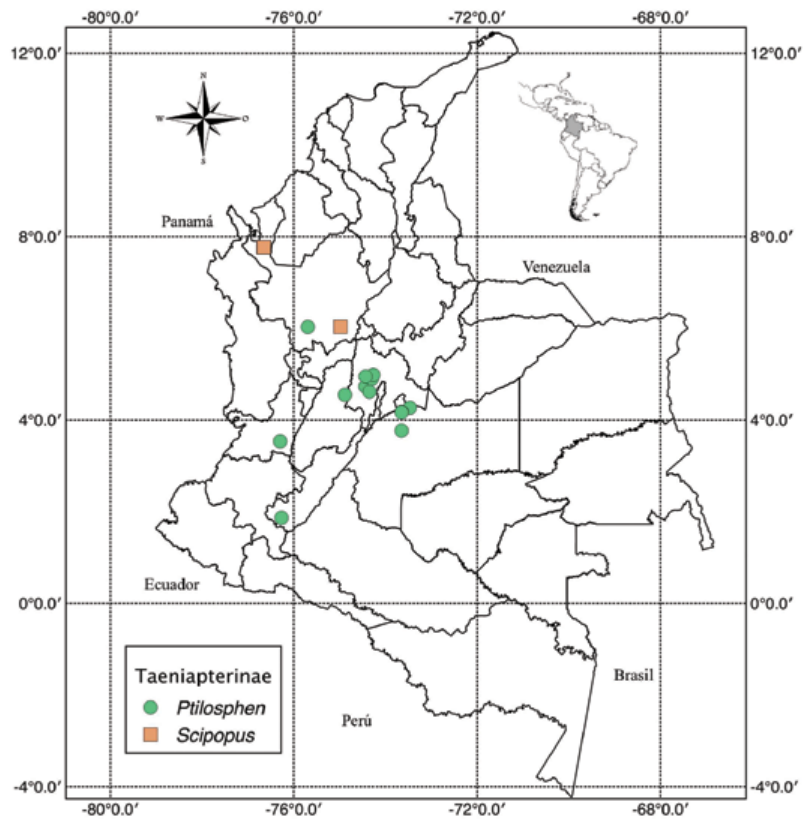


FIGURE 6. Collection sites for *Ptilosphen* and *Scipopus* in Colombia.

López, [UNAB No. Catal. 1524]; 1♀, **Meta**, Villavicencio, Bosque de Bavaria, N 04° 10' 37.49" W 73° 38' 56.59", 467 m alt., 14-Abr-2012, J. Combita, [UNAB No. Catal. 1524]; 1♀, **Meta**, Villavicencio, Bosque de Bavaria, Antigua, N 04° 10' W 73° 39', 594 m alt., 14-Abr-2012, R. Delvalle, [UNAB No. Catal. 1524]; 1♀, **Tolima**, Piedras, Hda. El Chaco, N 4° 33' W 74° 53', 426 m alt., 30-Sep-2011, D. Páez, [UNAB No. Catal. 1524]; 1♂, **Valle del Cauca**, Palmira, N 3° 32' 5" W 76° 17' 44", 1001 m alt., 30-May-2012, A. Arévalo, [UNAB No. Catal. 1524].

Scipopus Enderlein, 1922

Material examined (Fig. 6): *Scipopus* sp., 1♂, **COLOMBIA**, **Antioquia**, Carepa, Fca. Tulenapa, N 7° 46' W 76° 39', 2 m alt., 31-Mar-2014, P. Bermeo, [UNAB No. Catal. 1520]; 1♀, **Antioquia**, Carepa, Fca. Tulenapa, N 7° 46' W 76° 40', 51 m alt., 31-Mar-2014, L. Hernández, [UNAB No. Catal. 1520]; 1♂, **Antioquia**, Carepa, Hda. Tulenapa, N 7° 46' W 76° 39', 27 m alt., 31-Mar-2014, S. Quevedo, [UNAB No. Catal. 1520]; 1♂, **Antioquia**, Carepa, Hda. Tulenapa, N 7° 46' W 76° 39', 27 m alt., 31-Mar-2014, S. Vergara, [UNAB No. Catal. 1520]; 1♂, **Antioquia**, San Luis, N 6° 02' W 74° 59', 1050 m alt., Ene-1986, F. Serna, [UNAB No. Catal. 1520].

Paragrallomyia Hendel, 1933

Material examined (Fig. 7): *Paragrallomyia* sp., 1♂, **COLOMBIA**, **Antioquia**, Yolombó, Vda. Sabanitas, Fca. San Bartolo-La Esperanza, N 6° 33' 13" W 75° 05' 7.1", 1,500 m alt., 5-9-Ene-2010, E. Vergara, F. Serna, [UNAB No. Catal. 1521]; 2♂♂, **Caqueta**, Florencia, Vda. La Viciosa, Centro de Investigaciones Amazonicas Macagual, N 1° 29' 59" W 75° 39' 47", 257 m alt., 25-Oct-2014, M. Bermúdez, [UNAB No. Catal. 1521]; 2♀♀, **Caqueta**, San Vicente del Caguan, Vda. Palestro, Fca. El Limonar, N 2° 7' 11.90" W 74° 45' 0.82", 270 m alt., 9-Sep-2014, J. Martínez, [UNAB No. Catal. 1521]; 1♂, **Cundinamarca**, Bogota, Universidad Nacional de Colombia, N 4° 36' 56" W 74° 04' 51", 2,599 m alt., 24-Nov-2003, A. Molano, [UNAB No. Catal. 1521]; 1♂, **Cundinamarca**, Caparrapi, Huerta casera zona rural, N 5° 21' W 74° 30', 1,250 m alt., 29-Ene-2011, L. Rojas, [UNAB No. Catal. 1521]; 1♀, **Cundinamarca**, San Francisco de Sales, N 4° 52' W 74° 32', 152 m alt., 13-May-2011, L. Gomez, [UNAB No. Catal. 1521]; 1♀, **Cundinamarca**, Tibacuy, N 4° 20' W 74° 27', 1,633 m alt., 17-May-1997, Y. Reyes, [UNAB No. Catal. 1521]; 1♀, **Cundinamarca**, Villeta, N 5° 0' 29" W 74° 28' 23", 820 m alt., 16-May-2010, F. Padilla, [UNAB No. Catal. 1521]; 1♀, **Cundinamarca**, Villeta, N 5° 00' 29" W 74° 28' 23", 820 m alt., 16-May-2010, P. Pereira, [UNAB No. Catal. 1521]; 1♂, **Cundinamarca**, Villeta, N 5° 01' 09" W 74° 28' 03", 850 m alt., 16-May-2010, L. Lozano, [UNAB No. Catal.

1521]; 1♂, **Huila**, Neiva, Vda. Bajo Bejucal, N 2° 59' 55" W 75° 18' 16", 440 m alt., 18-23-Jul-2011, S. Castro, [UNAB No. Catal. 1521]; 1♀, **Meta**, Acacias, Vda. Santa Rosa, Hda. Mejorana, N 3° 59' W 73° 45', 498 m alt., 22-24-Sep-2000, UNAB, [UNAB No. Catal. 1521]; 1♂, **Meta**, Cubarral, Km. 8 via Cubarral-Villavicencio, N 3° 47' W 73° 46', 495 m alt., 16-Abr-2014, M. Sierra, [UNAB No. Catal. 1521]; 1♂, **Meta**, Villavicencio, Vda. La Llanerita, Fca. Villa Franca de Oria, N 4° 05' 38.01" W 73° 11' 22.09", 306 m alt., 9-Oct-2011, L. Ojeda, [UNAB No. Catal. 1521]; 2♀♀, **Meta**, Villavicencio, Vda. Buenos Aires, Fca. La Esmeralda, N 4° 7' 56.85" W 73° 39', 561 m alt., 17-Ago-2014, S. Rodríguez, [UNAB No. Catal. 1521]; 1♀, **Putumayo**, Orito, Vda. El Yarumo, km 35 via Fca. El Limonar, N 0° 39' 26.7" W 76° 47' 24.1", 325 m alt., 26-Mar-2015, J. García, [UNAB No. Catal. 1521]; 1♂, **Putumayo**, Puerto Asís, Vda. Brisas de Hong Kong, Fca. La Y, N 0° 28' 55.6" W 76° 30' 17.7", 270 m alt., 25-Mar-2015, B. Blanco, [UNAB No. Catal. 1521]; 1♀, **Tolima**, Ibaguá, La Esperanza, N 4° 26' W 75° 18', 1,000 m alt., 18-Nov-2003, O. Guataquira, [UNAB No. Catal. 1521]; 1♀, **Tolima**, Mariquita, N 5° 11' W 74° 53', 495 m alt., 16-Sep-1976, N. Montoya, [UNAB No. Catal. 1521]; 1♀, **Tolima**, Melgar, N 4° 12' W 74° 39', 323 m alt., 16-May-2012, A. Ariza, [UNAB No. Catal. 1521]; 1♀, **Valle del Cauca**, Buenaventura, N 3° 53' 47" W 77° 04' 40", 7 m alt., 26-Sep-1999, S. Restrepo, [UNAB No. Catal. 1521].

Taeniaptera Macquart, 1835

Material examined (Fig. 7): *Taeniaptera* sp., 1♂, **COLOMBIA**, **Antioquia**, Carepa, Fca. Tulenapa, N 7° 46' W 76° 39', 40 m alt., 30-Mar-2014, J. Velásquez, [UNAB No. Catal. 1521]; 1♂, **Antioquia**, Medellín, Pueblito Paisa, N 6° 14' W 75° 34', 1552 m alt., Jul-2011, A. Prieto; C. Prieto, [UNAB No. Catal. 1526]; 2♂♂, **Caqueta**, Florencia, Vda. La Viciosa, Centro de Investigaciones Amazonicas Macagual, N 1° 29' 59" W 75° 39' 47", 257 m alt., 25-Oct-2014, M. Bermúdez, [UNAB No. Catal. 1521]; 1♀, **Cundinamarca**, Bogota, Universidad Nacional, Facultad de Biología, N 4° 38' 25" W 74° 4' 24", 2,558 m alt., 21-May-2010, O. García, [UNAB No. Catal. 1526]; 1♂, **Cundinamarca**, Choachi, N 4° 31' W 73° 55', 1,923 m alt., 18-May-1996, G. Ascencio; C. Álvarez, [UNAB No. Catal. 1526]; 1♂, **Cundinamarca**, Fusagasuga, N 4° 20' W 74° 21', 1,728 m alt., 8-May-2010, J. Díaz, [UNAB No. Catal. 1521]; 1♂, **Cundinamarca**, Guayabal de Siquima, Casco urbano, N 4° 52' 57.88" W 74° 28' 0.85", 1,624 m alt., 5-Mar-2011, D. López, [UNAB No. Catal. 1526]; 1♀, **Cundinamarca**, San Francisco de Sales, N 4° 58' W 74° 17', 1,520 m alt., 2-Jun-1997, X. Medina, [UNAB No. Catal. 1526]; 1♀, **Cundinamarca**, Sasaima, Vda. Santa Ana, N 4° 57' 59" W 76° 26' 15", 1,221 m alt., 31-Ene-1998, V. Bernal; K Turriago, [UNAB No. Catal. 2292]; 1♀, **Cundinamarca**,

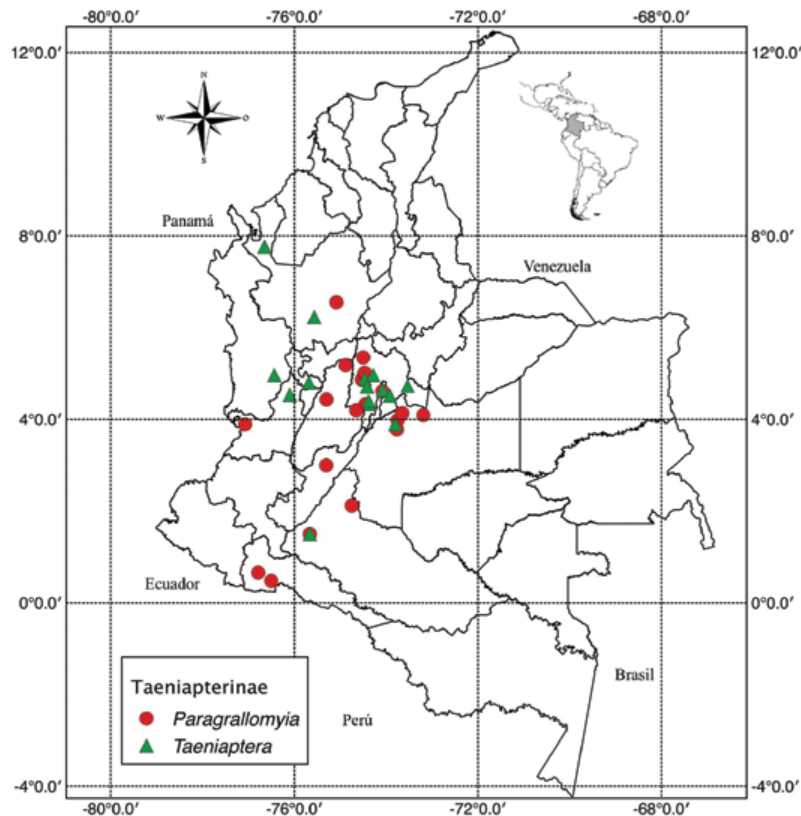


FIGURE 7. Collection sites for *Paragrallomyia* and *Taeniaiptera* in Colombia.

Silvania, Km 47 vía Bogota Fusagasuga, N 4° 24' W 74° 23', 1,470 m alt., 6-May-2010, E. Avellaneda, [UNAB No. Catal. 1526]; 1♂, **Cundinamarca**, Ubala, Vda. Betania, N 4° 44' W 73° 32', 1,900 m alt., 12-Oct-2003, O. Guataquira, [UNAB No. Catal. 1526]; 1♂, **Cundinamarca**, Zipacon, Vda. Laguna Verde, N 4° 43' W 74° 25', 1,600 m alt., 21-Feb-1998, V. Bernal; K. Turriago, [UNAB No. Catal. 1526]; 1♀, **Meta**, Guamal, Vda. Orotoy, via Guamal carretera antigua, N 3° 54' W 73° 48', 610 m alt., 16-May-2010, L. Boyaca, [UNAB No. Catal. 1526]; 1♂, **Risaralda**, Pereira, Fca. Calamar, N 4° 48' W 75° 41', 1,411 m alt., 28-May-1999, C. Forero, [UNAB No. Catal. 1526]; 1♂, **Valle del Cauca**, La Union, N 4° 32' W 76° 06', 975 m alt., 18-Nov-1999, S. Restrepo, [UNAB No. Catal. 1526]; 1♂, **Valle del Cauca**, La Unión, Grajales, N 4° 32' W 76° 06', 975 m alt., 16-Oct-2003, P. Rodriguez, [UNAB No. Catal. 1526].

Taeniaiptera and *Paragrallomyia*

Taeniaiptera sensu Steyskal (1966) used to be considered the largest and, taxonomically, one of the most complex genus in the Taeniaipterinae subfamily. At the UNAB Museum, *Taeniaiptera* sensu Steyskal (1966) was represented by 39 specimens from 30 municipalities and nine departments.

However, very recently, Jackson *et al.* (2105) proposed a reclassification of the Taeniaipterinae subfamily, raising *Paragrallomyia* to the genus level and including within it many species that were previously considered as part of *Taeniaiptera* sensu lato. Therefore, *Taeniaiptera* is currently represented in UNAB by 16 specimens from the following departments: Antioquia, Caqueta, Cundinamarca, Meta, Risaralda, and Valle del Cauca, whereas *Paragrallomyia* is now the best represented genus at this Museum, containing 23 specimens from 18 municipalities from the departments of Antioquia, Caquetá, Cundinamarca, Huila, Meta, Putumayo, Tolima, and Valle del Cauca.

To identify the *Paragrallomyia* genus, Jackson *et al.* (2105) considered the following combination of morphological characteristics: maxillar palp securiform, R4+5 cell open at the margin of the wing, and having at least one dorso-central seta (Fig. 8).

Our results represent an approach to the geographical distribution of Micropezidae in Colombia and will aid studies involving taxonomy, biodiversity, ecology and conservation in Colombia and the Neotropics.

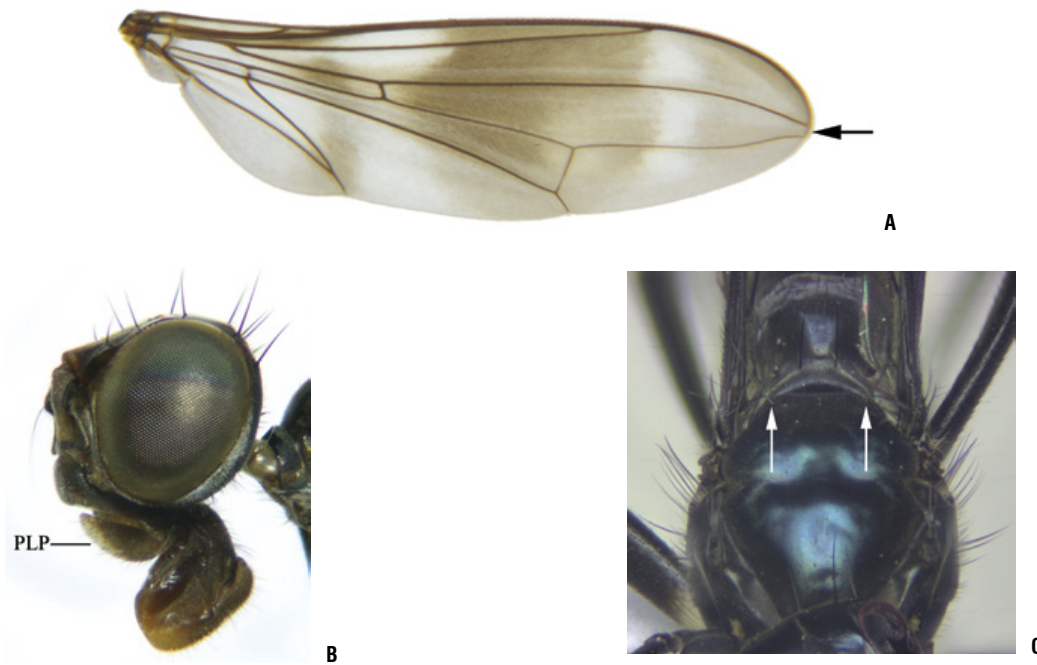


FIGURE 8. Morphological characteristics used to recognize *Paragrallomyia* sensu Jackson *et al.* (2105). A. wing, the arrow indicates a R_{4+5} cell open at the wing margin. B. Lateral Head view, showing a securiform palp (PLP). C. Mesonotum dorsal view, arrows pointing out two dorsocentral setae.

Acknowledgements

The authors thank the Entomological Museum UNAB (Universidad Nacional de Colombia, Bogota) for providing the necessary tools for the identification of specimens and for the curatorial process. Colciencias and Universidad Nacional sponsored the first author for his doctorate under the Doctoral Training Program in Colombia.

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