



## RESEARCH ARTICLE - WASPS

## State of Knowledge of the Social Wasps (Hymenoptera: Vespidae: Polistinae) in Colombia with a Key to Genera

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### Abstract

Colombia, located within the Tropical Andes Hotspot, is one of the most biodiverse countries, yet its social wasp diversity remains insufficiently documented. An update of the social wasps of Colombia is conducted based on information from the literature and collection examinations. A total of 275 species and 26 subspecies of Social wasps (Polistinae Lepeletier) from Colombia were recorded, with 161 species and 11 subspecies in Epiponini, 86 species and 4 subspecies in Mischocyttarini, and 28 species and 11 subspecies in Polistini. New geographical records are given, highlighting the country's unique faunal composition. The study also reports twenty-two species recorded only from Colombia and offers an identification key for the genera occurring in the country. These findings highlight the need for continued research, given the potential for undiscovered species and further research on the diversity of the Polistinae.

### Introduction

Vespidae is a large family of insects that belongs to the aculeate wasps of Hymenoptera, with a worldwide distribution and is widely represented in tropical regions (Martin, 2021). In total, nearly 5,500 species have been recorded (of which 59 are fossils) in 271 genera (Perrard et al., 2017; Carpenter & Gadallah, 2020), included in six extant subfamilies: Euparagiinae, Masarinae, and Eumeninae that cover species with solitary habits; and Stenogastrine, Polistinae, and Vespinae with social behaviors (Piekarski et al., 2018); and three fossil subfamilies, Priorvespinae, Protovespinae, and Vespatulinae (Jouault, 2023).

The eusocial behaviors of Polistinae wasps include colony formation, nest construction, and caste division (Noll et al., 2020a). The subfamily is morphologically recognized by the acute apical edge of the marginal cell of the forewing, and the absence of both a mesoscutal parategula and a dorsal carina on the posterior coxa (Sarmiento & Carpenter, 2006). It currently includes four tribes: Polistini (*Polistes* Latreille), distributed worldwide; Ropalidiini, distributed in Australia, Africa, and Asia; Epiponini (19 genera); and Mischocyttarini (*Mischocyttarus* de Saussure), occurring both in the Neotropical region and in part of the Nearctic region. With around 1000 described species, the Polistinae represents 17.3% of the family Vespidae (Martin, 2021).



Within the vast ecological and behavioral diversity of Neotropical ecosystems, social wasps stand out for their crucial role in multiple biological interactions. They are predators, contributing to the biological control of agricultural pests (Southon et al., 2019), and are recognized as efficient pollinators across a wide variety of ecosystems, thereby favoring the reproduction of wild and cultivated plants (Detoni & Prezoto, 2021). In addition, they maintain mutualistic relationships with microorganisms, which can influence their physiology, development, and defense against pathogens (Mayorga-Ch et al., 2021; Turillazzi et al., 2023). Beyond their ecological functions, social wasps are key biological models for research on the evolution of social behavior, providing insights into the transition towards advanced forms of eusociality (Wyatt et al., 2023).

Colombia and Brazil share a privileged position as two of the most biodiverse countries in the world, often referred to as megadiverse countries. In the case of Colombia, this wealth is reflected in a well-documented diversity, which includes approximately 29,500 species of plants, nearly 800 species of amphibians, 600 species of reptiles, 1,900 species of birds, 500 species of mammals, and more than 70,000 invertebrates, mainly insects (SIB, 2022). This biodiversity is closely related to its five natural regions: Amazonian, Andean, Caribbean, Orinoquía, and Pacific (González-Orozco, 2021; Hernandez et al., 1992).

To date, 215 species and 24 subspecies of social wasps have been recorded in Colombia, totaling 239 taxa, positioning the country as the third highest diversity for the neotropical region (Cubillos & Sarmiento, 1996), after Brazil with 381 species (Somavilla et al., 2021) and Peru with 241 species and subspecies (Rasmussen & Asenjo, 2009). Despite the efforts of collections, biological studies (De Souza et al., 2020; García et al., 2008; Hernández et al., 2009; Lopez et al., 2013a; Mayorga-Ch et al., 2021; Mayorga-Ch & Sarmiento, 2020; Rodríguez-Jimenez & Sarmiento, 2008) and local taxonomic inventories (Halmenschlager et al., 2019; Lopez et al., 2013b; Sarmiento, 2022; Sarmiento & Saravia, 1996), the taxonomic list of social wasps for Colombia needs an update and some regions need further surveys; this weakness generate a gap in taxonomic knowledge about Polistinae in the Neotropical region. Currently, the number of species is likely greater than before, since the group has undergone several reorganizations, ranging from synonymy of genera or species, new species described, to new phylogenetic and taxonomic proposals (Carpenter, 1999; 2004; Carpenter et al., 1996; Noll et al., 2020b; Silveira et al., 2021). The objective of this study was to review and update the list and geographical distribution of Polistinae species in Colombia, as well as to provide an identification key to the genera registered in the country.

## Materials and Methods

Using the taxonomic list of Polistinae proposed by Sarmiento (1994) and Cubillos and Sarmiento (1996) as

a starting point for data collection, the analysis included the review of books, unpublished documents (Carpenter per. comm) and scientific articles in Science Direct, Scielo, Scopus, Springer, Google Scholar and science databases available worldwide, using various search terms (Social wasp or Avispas sociales) and (Colombia or name of the department or name of the bioregion), from January 1994 to 2024. Additionally, literature relevant to the Colombian or Neotropical Social Wasps has been reviewed, including taxonomic catalogs, synopses, revisions, and notes.

The following entomological collections in Colombia were visited. All specimens deposited to date (2024) were examined:

**ICN-ENT:** Colección Nacional de Insectos, Instituto de Ciencias Naturales – Universidad Nacional de Colombia, Bogotá;

**MEFLG:** Museo Entomológico Francisco Luís Gallego - Universidad Nacional de Colombia, Medellín;

In addition, we revised other material from Colombia, from the following collections:

**AMNH:** American Museum of Natural History, New York, USA;

**MZUSP:** Museu de Zoologia da Universidade de São Paulo, São Paulo, Brazil;

**NHM:** Natural History Museum, London, UK.

The taxonomic list includes: (1) species and subspecies, (2) the Colombian bioregion where they are present. For this classification, we followed the detailed study by Hernandez et al. (1992) (3) political department where they have been documented, and (4) endemic status. We consider a species endemic when there are no records from other countries in the literature or collections.

The key to genera is adapted from the proposals of Carpenter (2004); Sarmiento and Carpenter (2006) and Somavilla and Carpenter (2021). The images were taken with the Leica M205C stereomicroscope and edited with the LASX program. Based on label data, maps of occurrence were produced using the software QGIS 3.40 ®.

## Results

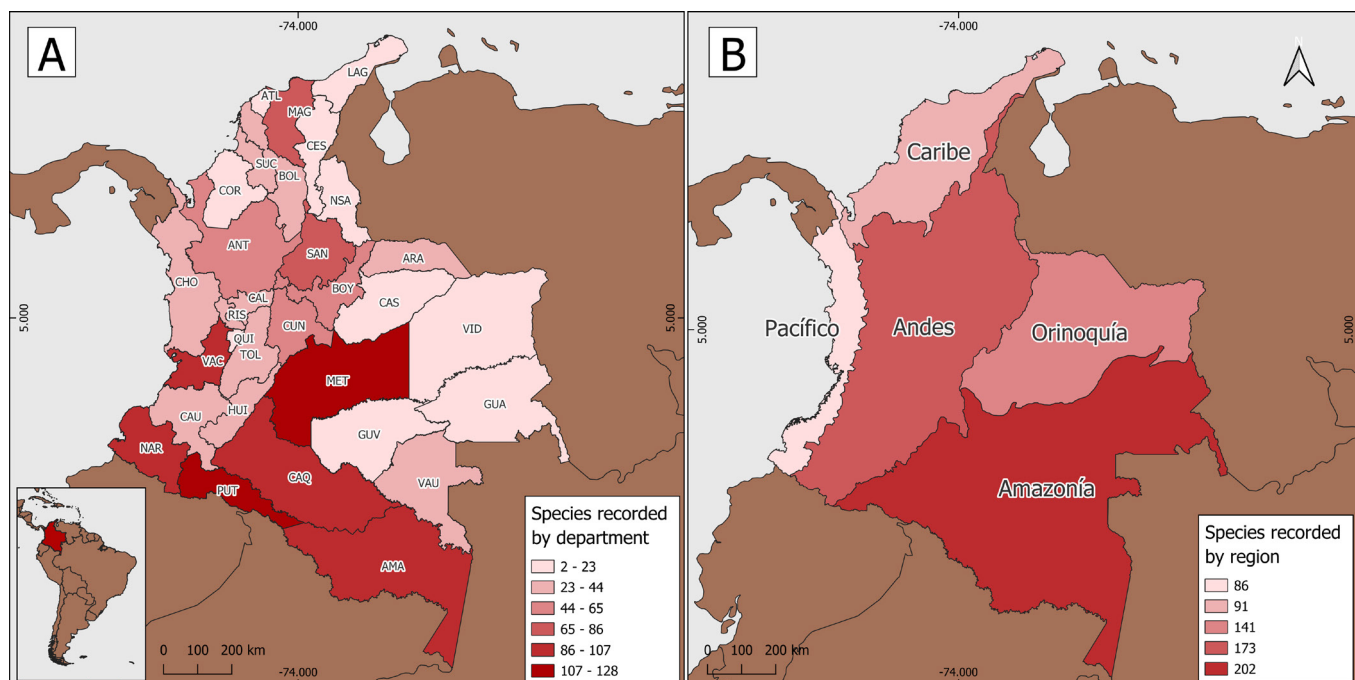
A total of 275 species and 26 subspecies for a general list of 301 taxa are recorded in the present taxonomic list of the Polistinae subfamily in Colombia. This survey adds 68 species and two subspecies to previous lists (Cubillos & Sarmiento, 1996; Sarmiento, 1994), and includes three cases of name updates (Table 1). The total number of species and the additions (separated by “/”) by genus are indicated as follows: Epiponini 161/32 total species/additions and 11/1 subspecies; *Agelaia* (species 23/7, subspecies 1/1), *Angiopolybia* (3/0), *Apoica* (9/2), *Asteloeca* (1/1), *Brachygastra* (12/2), *Chartergellus* (4/0), *Charterginus* (4/1), *Chartergus* (3/0), *Clypearia* (3/1), *Epipona* (5/2), *Leipomeles* (2/1), *Metapolybia* (13/5), *Nectarinella* (1/0), *Parachartergus* (10/1), *Polybia* (42/2 species and 10/0 subspecies), *Protopolybia* (20/7), *Pseudopolybia* (2/0), *Synoeca* (4/0); Mischocyttarini (*Mischocyttarus*) (86/32 species and 4/0 subspecies); and Polistini (*Polistes*) (28/6 species and

11/1 subspecies). Of these, 22 species, four of Epiponini and 18 of Mischocyttarini, are reported with an exclusive presence in Colombia. The only Neotropical genus of Epiponini not recorded from Colombia is *Protonectarina*, known from southern Brazil, north-eastern Argentina, and eastern Paraguay (Da Silva et al., 2018). In three cases, we have new names for previous records: *Polybia plebeja* de Saussure is a senior synonym of *Polybia diguetana* du Buysson, according to Carpenter (2011). The species was recorded as *P. diguetana* for the Choco and Eastern cordillera regions in Cubillos and Sarmiento (1996). The distribution is expanded here to several other regions. *Polybia depressa* (Ducke) was recorded as *Synoecoides depressus* by Cubillos and Sarmiento (1996); later, Carpenter et al. (2000) reduced *Synoecoides* to a subgenus of *Polybia*. *Chartergus artifex* (Christ) was reported as *C. chartarius* by Cubillos and Sarmiento (1996); later, Carpenter (1999) indicated that this is a junior synonym of the former.

A total of 249 new distribution records for the natural regions of Colombia are incorporated (Fig 1a,b). The following species: *Agelaia lobipleura* (Richards), *Agelaia panamaensis* (Cameron), *Apoica gelida* van der Vecht, *Apoica pallida* (Olivier), *Brachygastra smithii* (de Saussure), *Polybia juruana* R. von Ihering, *Polybia singularis* Ducke, *Protopolybia panamensis* (Zavattari), *Mischocyttarus drewseni* de Saussure, *Mischocyttarus tomentosus* Zikán, *Mischocyttarus collarellus* Richards, *Polistes lanio* (Fabricius), *Polistes lanio weberi* Bequaert, were reported in the checklist by Cubillos and Sarmiento (1996) without a specific locality. However, Richards (1978) and Sarmiento (1994) had already indicated localities for some of them. Therefore, this checklist updates this information and incorporates the geographic reports provided by both authors for these species.

In contrast, we require further investigation to clarify the localities of the following species as those provided by

Richards, (1978) for Colombia are not precise: He reported *Mischocyttarus lindigi* Richards and *Mischocyttarus oreophilus* Zikán from Bogotá, however, there are no known records of Polistinae from this city; *Mischocyttarus metathoracicus* (de Saussure) is reported from Valle del Cauca, but the author expressed doubts about the identity of the specimen; for *Mischocyttarus phthisicus* (Fabricius), Richards (1978) labeled this species with a question mark in Colombia, indicating uncertainty about its presence. Similarly, Richards (1978) reported a specimen of *Polistes satan* Bequaert from Cundinamarca, although he strongly doubted the identification and suggested it might belong to *Polistes melanotus* Richards. Cubillos and Sarmiento (1996) erroneously reported *Mischocyttarus atramentarius* from Colombia; however, this species is junior synonymous with *Mischocyttarus socialis* (de Saussure), and its known distribution is restricted to north-eastern Argentina, south-eastern Brazil, and Paraguay (Silveira, 2006). In contrast, there are species whose broad continental distributions indicate a high likelihood of their presence in Colombia; these are: *Agelaia yepocapa* (Richards) reported from Guatemala and Ecuador, *Protopolybia bella* (von Ihering) recorded from Panama, Suriname, Brazil, Peru, and Bolivia (Richards, 1978), and *Metapolybia servilis* Cooper is reported from Costa Rica, Panama, and Paraguay, although the distribution of the latter may require further study as the record from Paraguay is based on a single male (Cooper, 1999). An interesting record reported here that requires further analysis is about *Polistes cinerascens* Zikán in the department of Cundinamarca Colombia as this species has been previously reported from central and southern Brazil (Rio Grande Do Sul, Matto Grosso, Minas Gerais, São Paulo, Rio de Janeiro), eastern Paraguay, and north-eastern Argentina (Richards, 1978); Current GBIF databases (Brito et al., 2024) listed *P. cinerascens* along the east coast of



**Fig 1.** Record density map of Polistinae in Colombia by department (a) and regions (b).

Brazil almost continuously from Rio grande do Norte to Rio Grande do Sul, eastern Paraguay and north-eastern Argentina. A single isolated record from the western Amazonas state of Brazil is the closest to Colombia.

According to the five major natural regions, the Amazon region has the highest diversity: 202 species, representing 73,5%, followed by the Andean region (173 species, 62,9%) and Orinoco (141 species, 51,3%), the Caribe region (93 species, 33,8%) and the Pacific (86 species, 31,3%) (Fig 1b). This study significantly increases the records by region as follows: Caribe (46 species, 50,5%), Andes (88 species, 49,1%), Amazonas (61 species, 30,2%), Orinoquia (41 species, 29,1%), and Pacific (15 species, 17,6%) (Fig 2). Considering the political division in the country in departments we found that Meta, Valle del Cauca and the southern departments provided the highest records (Fig 1a). As it has reported previously (Cubillos & Sarmiento, 1996), *Polybia ignobilis* (Haliday), *Polistes versicolor* (Olivier), *Agelaia areata* (Say), *Polybia occidentalis* (Olivier), and *Synoeca septentrionalis* Richards are the most widely distributed species in Colombia, recorded for 24, 23, 21, and 20 departments, respectively.

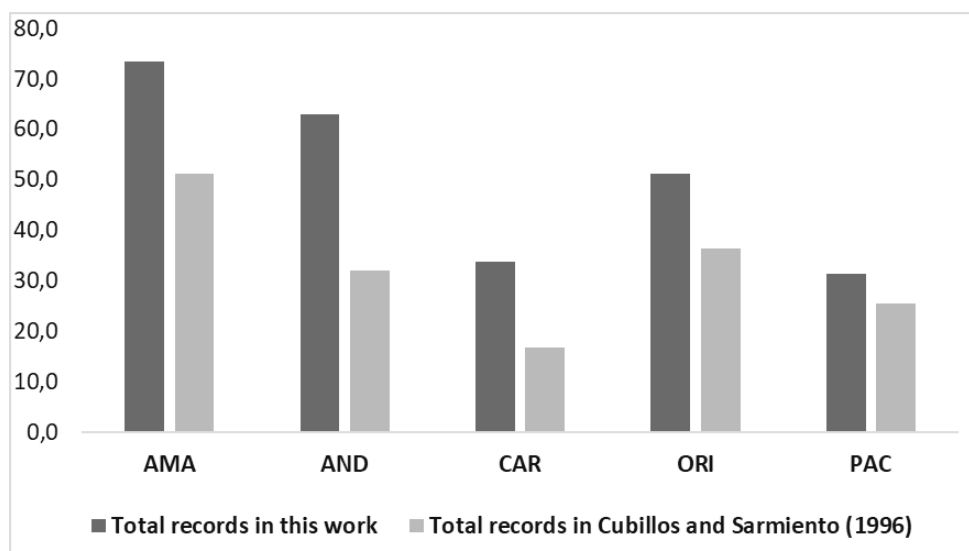
## Discussion

After 29 years of the previous list of social wasps of Colombia (Cubillos & Sarmiento, 1996), here, we record 296 species and subspecies, an increase of 19.2%. Interestingly, of the 72 new records (24.3% increase), 41 (57%) are the result of species described after 1996, and 31 are geographic extensions. However, where are we in terms of knowledge of Colombian social wasp fauna? This is an important question to ask to understand biodiversity patterns and to promote their conservation. We can tackle this problem in different ways: 1. Following the history of taxonomic reports in the area, 2. Comparing species numbers with related countries, 3. Studying the patterns followed by other well studied groups

in other countries, and 4. Considering the biogeographical trends of the group.

From Richards' (1978) pioneering work, recording 159 species and subspecies, to the current study that reports 296 taxa, an increase of 46% in the number of species and subspecies is made. As explained before, many new records are due to the description of new species after the significant impulse given by different research teams on the taxonomy of the group (Andena et al., 2024; Andena & Carpenter, 2012; Barroso et al., 2024; Silveira, 2008; 2013; Somavilla et al., 2023). This trend points out to the importance of revisionary studies that analyze variation along the continental distribution (Dayrat, 2005; Favret, 2024; Schlick-Steiner et al., 2010). With a leading role in protecting biodiversity, Colombia developed several laws to regulate access to biodiversity and even research. Unfortunately, for many years, an undesirable side effect of these laws was to severely limit the development of collaborative efforts in an efficient way (Bajak, 2018; Ramirez, 2018). Gladly, there have been relatively recent improvements to solve this issue, and the number of new records for the country, with a sound basis on the species status, is willing to change.

As it is clear from the current list, the largest contributions to new records are related to the availability of revisions and taxonomic studies, such as those for *Mischocyttarus* (Silveira, 2008; 2013), *Agelaia* (Andena et al., 2024; Cooper, 2000b; 2001; Silveira & Carpenter, 1995), and *Protopolybia* (Santos et al., 2015; 2020). Genera such as *Polistes*, *Mischocyttarus*, and *Polybia* might provide more novelties in the future once their taxonomy is comprehensively revised. Compared to the strong entomological history, strengthened through collections, research groups, and specialized taxonomists (Andena et al., 2021). Colombia has a meaningful history of research on this group but lacks the depth and reach of Brazil in terms of sampling coverage and collection development, which may obscure its actual species richness.



**Fig 2.** Comparison of the total number of records of social wasp species in Colombia by biogeographic region (AMA: Amazon, AND: Andes, CAR: Caribbean, ORI: Orinoquia, PAC: Pacific), between the present study and the work of Cubillos & Sarmiento (1996).

The exceptional position of Colombia in social wasp species richness makes the country a critical region for studies of this group. Considering the availability of lists of species of social wasps by country, Colombia stands second after Brazil, which records 381 taxa (Somavilla et al., 2021). Peru is now third, with 241 species and subspecies (Rasmussen & Asenjo, 2009), Costa Rica is fourth with 106 species (Valverde et al., 2019), Paraguay fifth with 68 (Garcete-Barrett et al., 2015), Argentina sixth with 50 species (Garcete-Barrett et al., 2023), and Guatemala seventh with 45 species (Carpenter et al., 2012). Using the total number of species recorded from Brazil as a reference, Colombia shares 77.7% of the Brazilian Polistinae fauna. Perú 63%, Costa Rica 28%, Paraguay 17.8%, Argentina 13%, and Guatemala 12%.

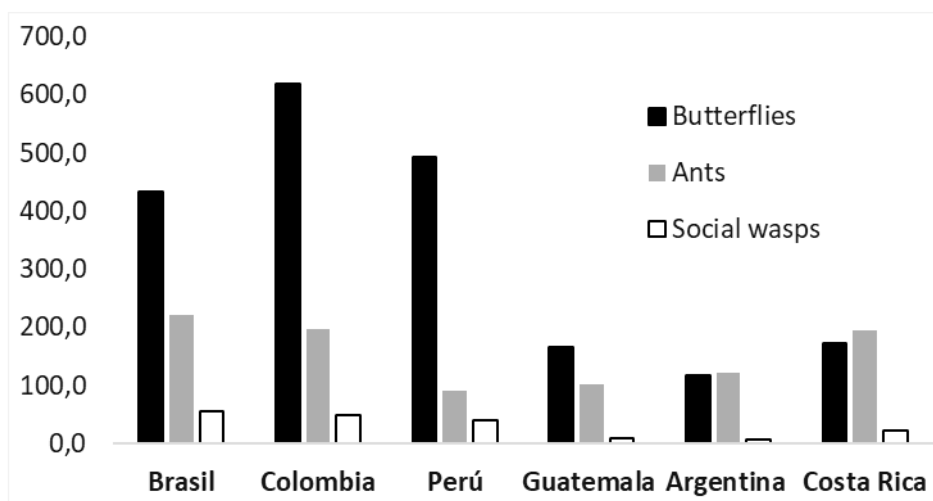
The percentage of Polistinae taxa that Colombia holds in comparison to Brazil is the fourth highest (77.7%) after well studied groups such as butterflies that record 124.7% (3755 species), ants 78% (1200), and birds with 102.8% (1864). Interestingly, mammals and ants report lower values with 67.7% and 59.5%, respectively (Butler, 2023; Pinkert et al., 2022). A similar pattern is observed when comparing Perú with Brazil. We also compared the diversity of the countries by dividing their richness in butterflies, ants, and social wasps by the area of each country. This approach reveals exceptional cases such as butterflies, where Colombia stands first, while for ants and social wasps, it places second (Fig 3).

Many studies have revealed the prominent place of Colombia in biodiversity and the role of the Andes as a provider of many opportunities for speciation (Arbeláez-Cortés, 2013; Pinkert et al., 2022; Vallejos-Garrido et al., 2023). However, this is not a universal trend but rather a phenomenon observed in specific groups, as others have highlighted the contribution of the warm lowlands of the Amazonian region instead. In social wasps, several lines of evidence point to the Amazon as a major contributor to their diversity and the primary host of that diversity. The variety of phytophysionomies distributed across extensive lowland areas with warm climates appeared to provide ideal habitats for social wasps (Santos et al., 2009).

More recently, Menezes et al. (2020) found that social wasps in the Amazon follow a slow, progressive process of speciation. Carvalho et al. (2015) also point to a major route of diversification for social wasps associated with the Amazonian region. Further studies on the genetic structuring of wasp populations may uncover patterns of diversification that we have not observed at the species level.

The Amazon region consistently shows the highest number of social wasp records in Colombia, a pattern previously observed by Sarmiento (1999). These numbers not only reflect the vast biodiversity of the Amazon but are also influenced by its floristic richness and by a greater sampling effort than in other areas of the country. Beyond its current richness, the Amazon region is a key region in the evolutionary history of social wasps, as major cladogenetic events occurred there, with a dominant ancestral distribution of some groups during diversification (Menezes et al., 2020). Nonetheless, it is worth noting that although the Andean region hosts fewer species than the Amazon, it plays an important role in shaping population structure. Its complex topography, with multiple mountain ranges and valleys, fosters ecological niches that promote local diversification (Sarmiento, 1999). For example, García et al. (2008) found that this geographic complexity significantly influences morphological differentiation in social wasps. Their study revealed that species with limited dispersal capacity, such as swarm-founding types, exhibit greater morphometric differentiation than independently founding types. Moreover, altitude modulates these patterns: high-altitude species exhibit less population differentiation than their lowland counterparts, even when sharing the same reproductive strategy. These findings reinforce the importance of the Andes as both a biodiversity hotspot and a dynamic center of evolutionary processes. Further research with more data and tools will test these findings.

Other areas of Colombia, such as parts of the Caribbean region, include Tropical Dry Forest (TDF), a vegetation type characterized by xerophytic flora and low-altitude forest formations (0-1000 m; Pizano et al., 2015). Unfortunately,



**Fig 3.** Comparison of the number of species of butterflies, ants and social wasps by country. The richness of each group was divided by the log10 of the country area.

TDF has been severely reduced, now covering only 1.5% of its original extent due to deforestation and intensive land use (Armenteras et al., 2011). This habitat loss restricts nesting and foraging resources for social wasps (Zanette et al., 2005). Compounding this issue is the lack of local inventories, which hampers a clear understanding of Polistinae richness and the processes affecting their populations. In regions such as the Pacific and Caribbean, differences in recorded richness likely reflect sampling bias rather than true species absence (Fernández, 1995). High endemism and tropical forest coverage in the Pacific, and arid flatlands in the Caribbean, suggest diverse but under-recorded faunas, as Sarmiento (1999) noted, estimating species presence is possible, but their exact distribution remains largely unknown due to insufficient data.

The success of the *Mischocyttarus* in presenting a high richness of species exclusive to Colombia can be attributed, in part, to both its taxonomic complexity, since many of the records are derived from the taxonomic resolution of species complexes and to its preference for humid areas (Sarmiento, 1999; Silveira, 2008; 2013; Silveira et al., 2015). Furthermore, high diversity is expected as the genus is the largest among social vespids, with more than 250 species classified in eleven subgenera, being essentially a Neotropical taxon with a few species occurring north of Mexico (Silveira, 2008).

Within the Epiponini, *Polybia* stands out for its high species count in Colombia, a predictable outcome given its widespread presence from U.S.A to Argentina. Many of its 59 species form large colonies and are commonly encountered across the Neotropics (Carpenter et al., 2000; Jeanne, 1991). Colony populations are usually large, comprising hundreds to thousands of individuals (Richards, 1978). Some Epiponini species in Colombia are known only from their original descriptions, such as *Charterginus zavattarii* Richards (Richards, 1978), *Metapolybia encantata* Cooper (Cooper, 1999), *Metapolybia sulamerica* Carpenter (Cortes et al., 2024), and *Parachartergus pacificus* Cooper (Cooper, 2000a). These were largely collected in the early to mid-20th century, from areas that have since experienced extensive environmental change. For instance, *Metapolybia sulamerica* was collected by Bequaert in 1936 in Muzo, Boyacá, a region now deeply transformed by mining activity. This raises concerns about discrepancies between past and current wasp assemblages and emphasizes the need to reassess the distribution and conservation status of species from disturbed habitats.

Despite notable progress, research on Polistinae in Colombia still faces significant challenges. First, much of the existing work has focused on their biological aspects, sometimes overshadowing efforts to document local biodiversity. Furthermore, while researchers and institutions contribute significantly to the study of this group, the number of specialists remains limited compared with the fauna's taxonomic and ecological complexity. This situation affects key activities such as specimen identification, collection conservation, and comprehensive regional studies. The detrimental effect of research regulations also delayed many research efforts that

require international collaboration. Finally, limited and irregular funding continues to hinder the development of long-term biodiversity studies.

### Key to the Genera of Social Wasps present in Colombia

The first key to identifying genera in Colombia was proposed by Cubillos and Sarmiento (1996). However, it became outdated due to the reclassification of *Synoecoides* as a subgenus of *Polybia*, the synonymy of *Occipitalia* with *Clypearia* (Carpenter et al., 1996), and the subsequent registration of *Asteloeca* as a valid genus (Carpenter et al., 2004). The illustrated key presented in this work includes all known genera, even *Protonectarina*, a genus that does not occur in Colombia and is restricted to Brazil, Argentina, and Paraguay (Da Silva et al., 2018). Most of the keys to species and their descriptions can be consulted in Richards (1978) and the latest taxonomy revisions.

1. Propodeum with orifice dorsally acute (Fig 4a); metasomal segment I evenly conical in dorsal view (Fig 5a); pronotum with a carina posterior to the lateral fovea (Fig 5d), .....Tribe Polistini: ***Polistes***

1' Propodeum with orifice broadly rounded dorsally (Fig 4b); metasomal segment I differently shaped, in dorsal view basally petiolate to long petiolate or sessile, characteristically wider than long (Fig 5b,c); pronotum with a carina, if present, anterior to the lateral fovea (Fig 5e,f).....2

2(1). Mid and hind tarsi with third and fourth segments asymmetrical, inner lobe longer than outer lobe (Fig 6a); metasomal segment I petiolate, in dorsal view with width half or less than that of II, and at least twice as long as wide; forecoxa not dorsolaterally produced.....Tribe Mischocyttarini: ***Mischocyttarus***

2' Mid and hind tarsi with third and fourth segments symmetrical (Fig 6b); metasomal segment I variously shaped; forecoxa usually dorsolaterally produce.....Tribe Epiponini: 3

3(2). Ocelli enlarged, separated from eyes by less than an ocellar diameter (Fig 7a) (Nocturnal species) ..... ***Apoica***

3' Ocelli not enlarged, separated from eyes by more than an ocellar diameter (Fig 7b) (Diurnal species).....4

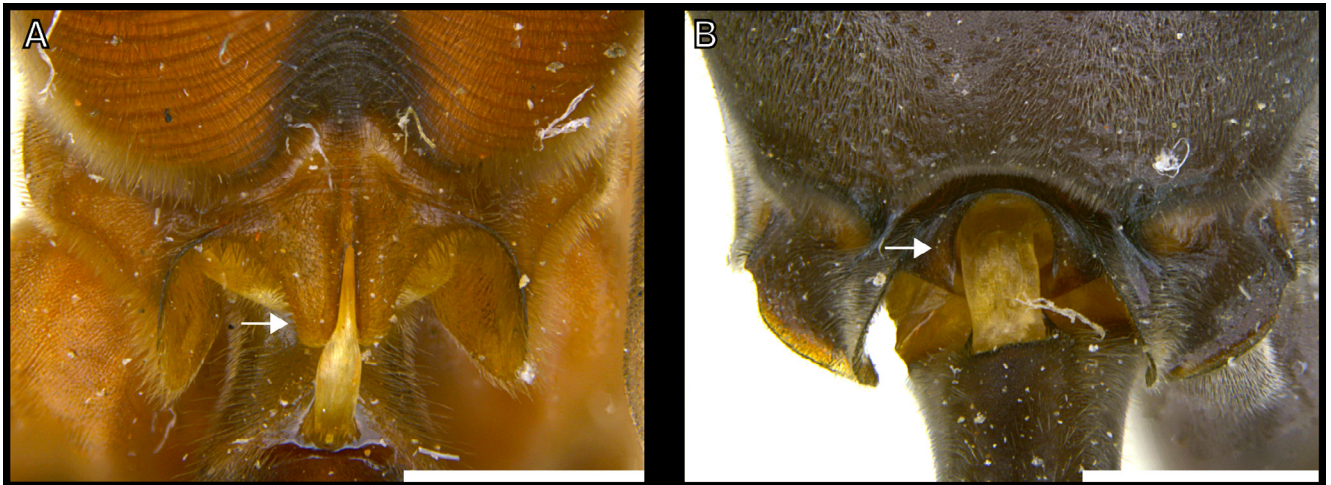
4(3). Metanotum produced posteromedially into an elongate lobe overlapping the propodeum (Fig 8a)..... ***Protopolybia***

4' Metanotum without posterior lobe (Fig 8b) .....5

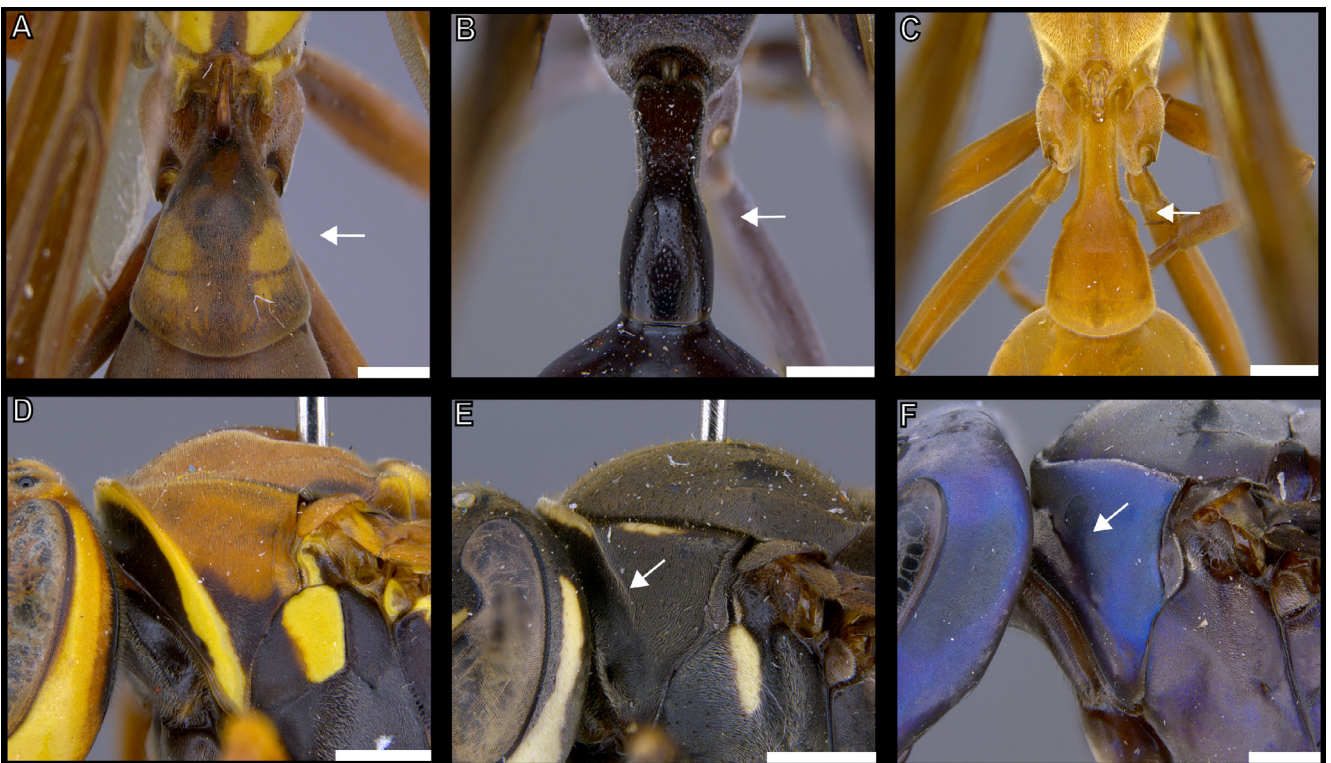
5(4). Pronotum with anteromedial fovea (Fig 9a); metasomal segment I in dorsal view with short petiole, apically abruptly broadened, wider than half the width of segment II (Fig 9b)..... ***Charterginus***

5' Pronotum without anteromedial fovea; metasomal segment I in dorsal view with a different shape.....6

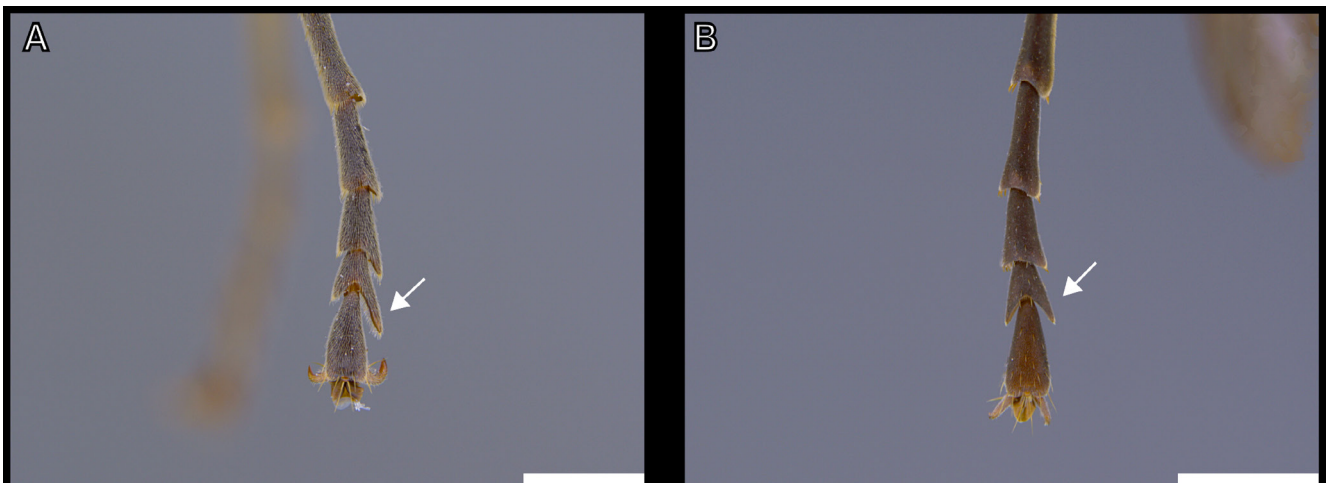
6(5). Metanotum vertical; scutellum in lateral view projected on the metanotum forming two surfaces (Figs 10a,b), sometimes with a carina that separates the two sides (Fig 10a).....7



**Fig 4.** Propodeum orifice in dorsal view acute in *Polistes* sp. (a) and rounded in *Epipona niger* (b). Scale bar, 1 mm.



**Fig 5.** Metasomal segment I in dorsal view of *Polistes versicolor* (a) *Epipona niger* (b) *Polybia striata* (c); and pronotum in dorsal view of the *Polistes versicolor* (d), *Pseudopolybia compressa* (e) and *Synoeca surinama* (f), arrow indicates pronotal carina. Scale bar, 1 mm.



**Fig 6.** Tarsal segments of *Mischocyttarus rotundicollis* (a) and *Polybia occidentalis* (b); arrow indicates symmetry. Scale bar, 1 mm.

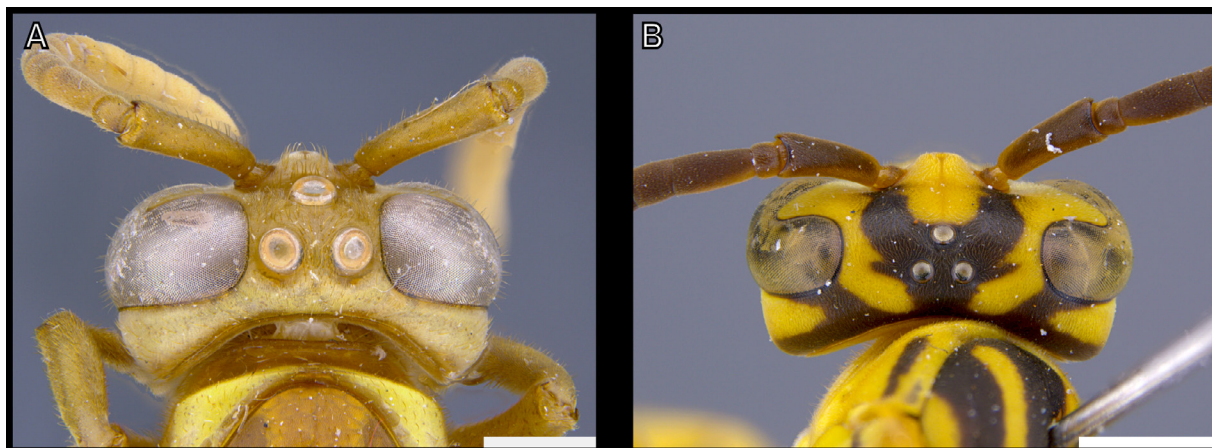


Fig 7. Ocelli of *Apoica pallens* (a) and *Agelaiia centralis* (b). Scale bar, 1 mm.



Fig 8. Metanotum of *Protopolybia emortualis* (a) and *Charterginus fulvus* (b), arrow indicates posteromedial lobe. Scale bar, 1 mm.



Fig 9. Anteromedial fovea in pronotum (a) and metasomal segment I in dorsal view (b) of *Charterginus fulvus*. Scale bar, 1 mm.

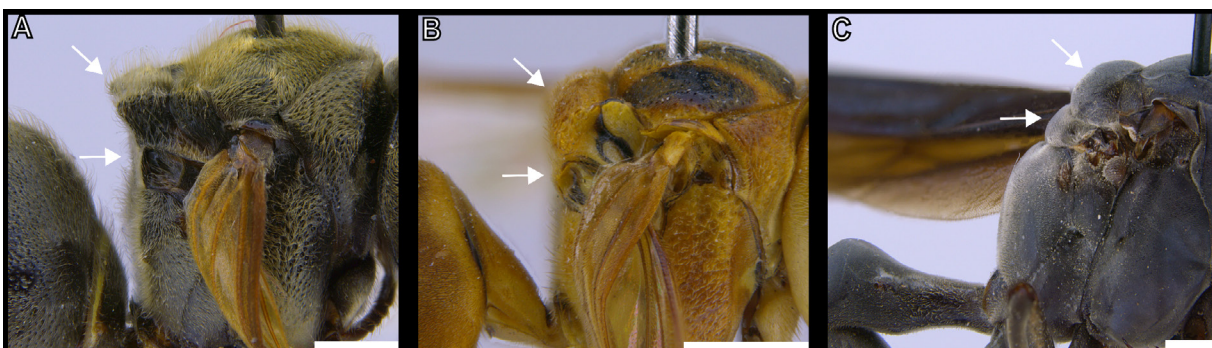


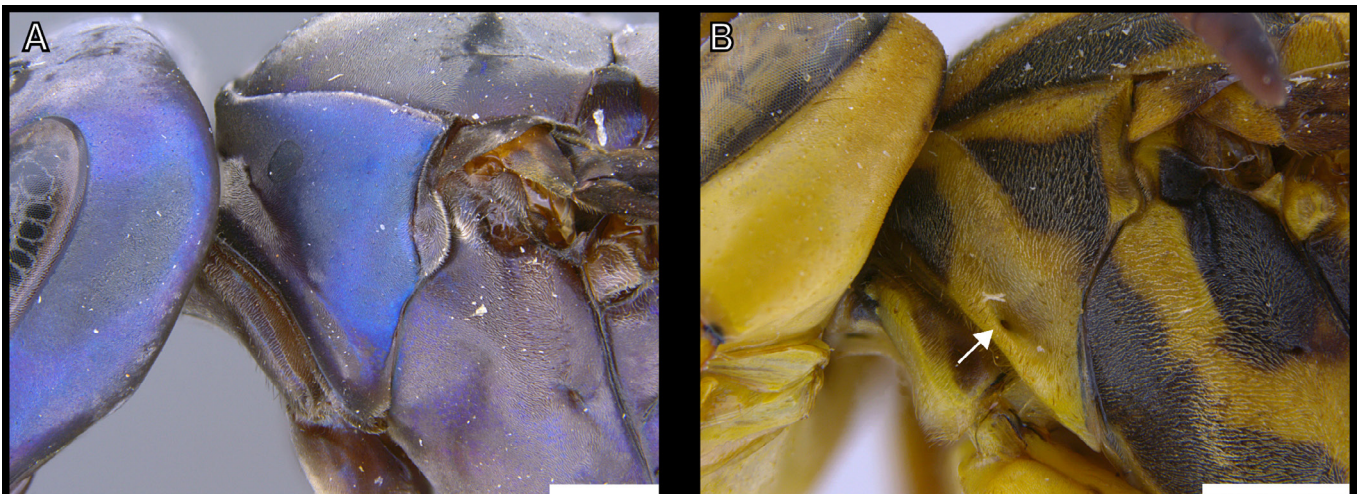
Fig 10. Mesosoma in dorsal view of *Brachygastra lecheguana* (a) *Nectarinella xavantinensis* (b) and *Synoeca surinama* (c); arrow indicates scutellum and metanotum. Scale bar, 1 mm.

6' Metanotum not vertical, scutellum in lateral view evenly rounded, never projected over the metanotum, not divided into two sections (Fig 10c) .....8  
 7(6). Head with occipital carina present dorsolaterally (Fig 11a); pronotal fovea absent (Fig 11c); scutellum angled in profile, creating two clearly defined surfaces (Fig 10a); third labial palpomere without bristle ..... *Brachygastra*

7' Head without occipital carina (Fig 11b); pronotal fovea present (Fig 11d); scutellum angled in profile nor creating two surfaces (Fig 10b), third labial palpomere with bristle..... *Nectarinella*  
 8(6). Pronotum without lateral fovea (Fig 12a) ..... 9  
 8' Pronotum with lateral fovea, sometimes very shallow (Fig 12b).....14



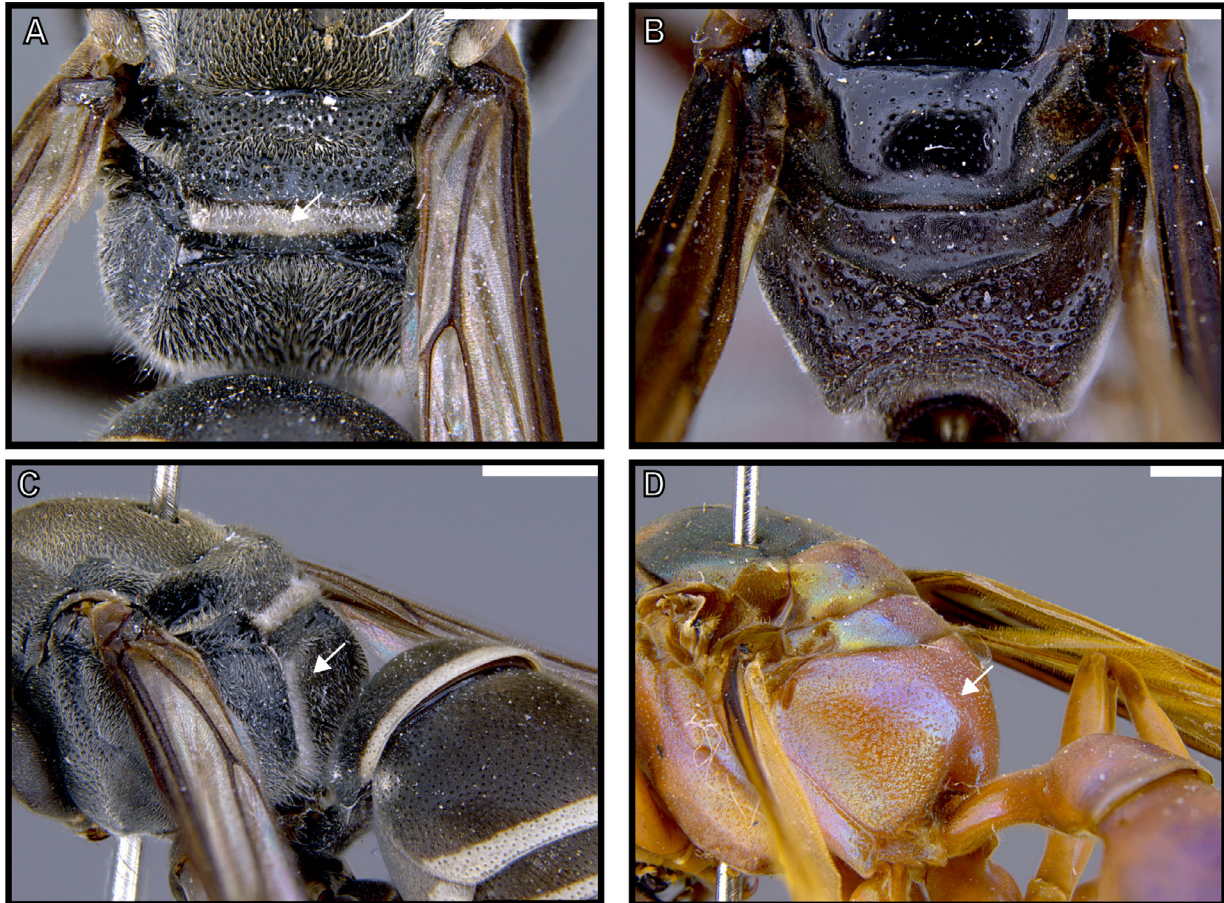
**Fig 11.** Head in dorsal view of *Brachygastra lecheguana* (a) *Nectarinella xavantinensis* (b), arrow indicates occipital carina; pronotum in lateral view of *Brachygastra lecheguana* (c) *Nectarinella xavantinensis* (d), arrow indicates pronotal fovea. Scale bar, 1 mm.



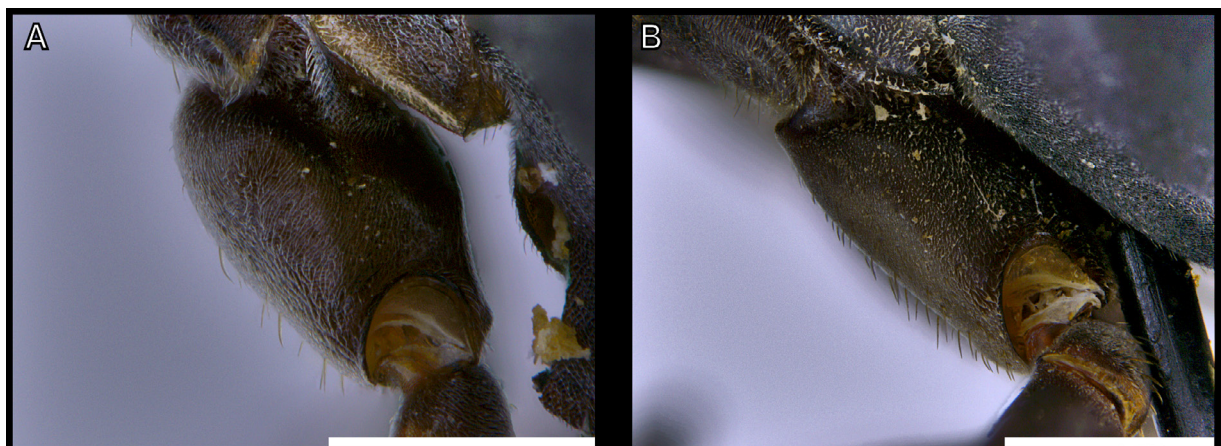
**Fig 12.** Pronotum in lateral view of *Synoeca surinama* (a) and *Pseudopolybia vespiceps* (b), arrow indicates pronotal fovea. Scale bar, 1 mm.

9(8). Metanotum with medial tubercle (Fig 13a); propodeum with dorsolateral carinae (Fig 13c); metasomal segment I compressed; head with occipital carina present dorsolaterally.....*Chartergus*  
 9'. Metanotum without medial tubercle (Fig 13b); propodeum without dorsolateral carinae (Fig 13d); metasomal segment I not compressed; head without occipital carina ..... 10  
 10(9). Forecoxa dorsolaterally produced (Fig 14a).....11  
 10'. Forecoxa not dorsolaterally produced (Fig 14b).....13  
 11(10). Clypeus apically emarginate (Fig 15a); propleuron without lateral crenate groove; cuticle black, bare, and shining.... *Epipona*

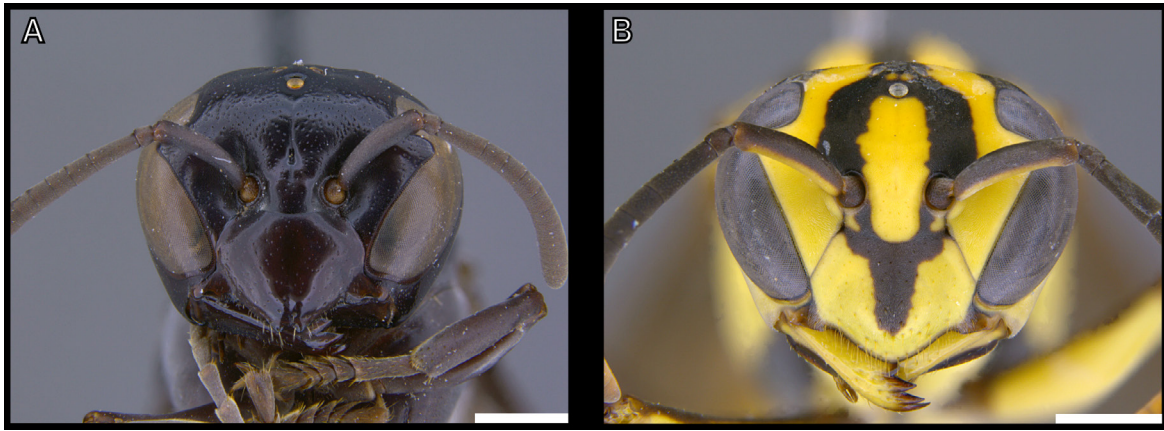
11'. Clypeus apically bluntly pointed (Fig 15b); propleuron with lateral crenate groove; cuticle not shining .....12  
 12(11). Metasomal segment I in dorsal view with maximum width 2× basal width (Fig 16a) ..... *Metapolybia*  
 12'. Metasomal segment I in dorsal view with maximum width 3× basal width (Fig 16b) ..... *Asteloeca*  
 13(10). Posteromedial area of propodeum extensively concave (Fig 17a); body with pale maculations, not metallic; head in lateral view with tempora narrower than eye at the height of the ocular sinus (Fig 17c); clypeus longer than wide.....*Clypearia*



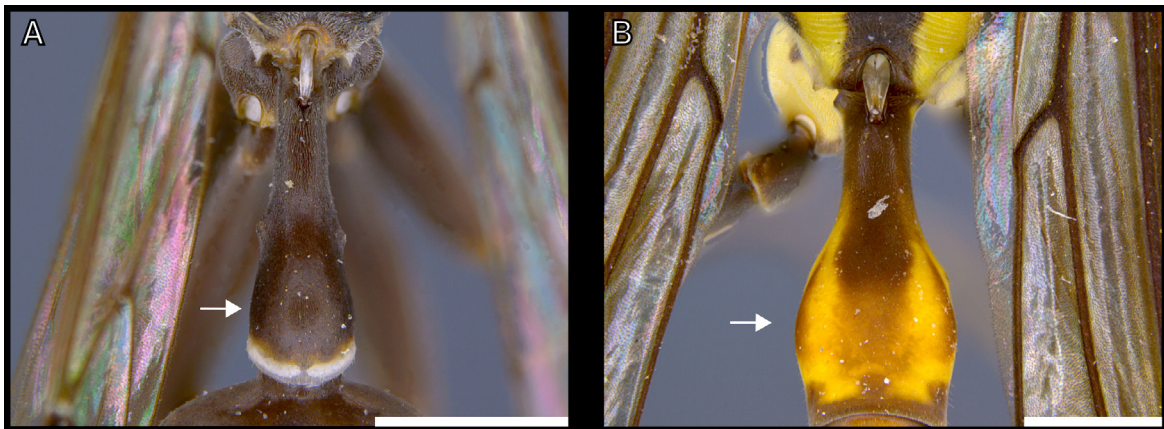
**Fig 13.** Metanotum in dorsal view of *Chartergus metanotalis* (a) and *Epipona niger* (b), arrow indicates medial tubercle; propodeum in lateral view of *Chartergus metanotalis* (c) and *Synoeca chalibea* (d), arrow indicates dorsolateral carinae. Scale bar, 1 mm.



**Fig 14.** Procoxa of *Metapolybia aztecoides* (scale bar, 0.5 mm) (a) and *Synoeca septentrionalis* (b). Scale bar, 1 mm.



**Fig 15.** Head in frontal view of *Epipona niger* (a) and *Asteloeca traili* (b). Scale bar, 1 mm.



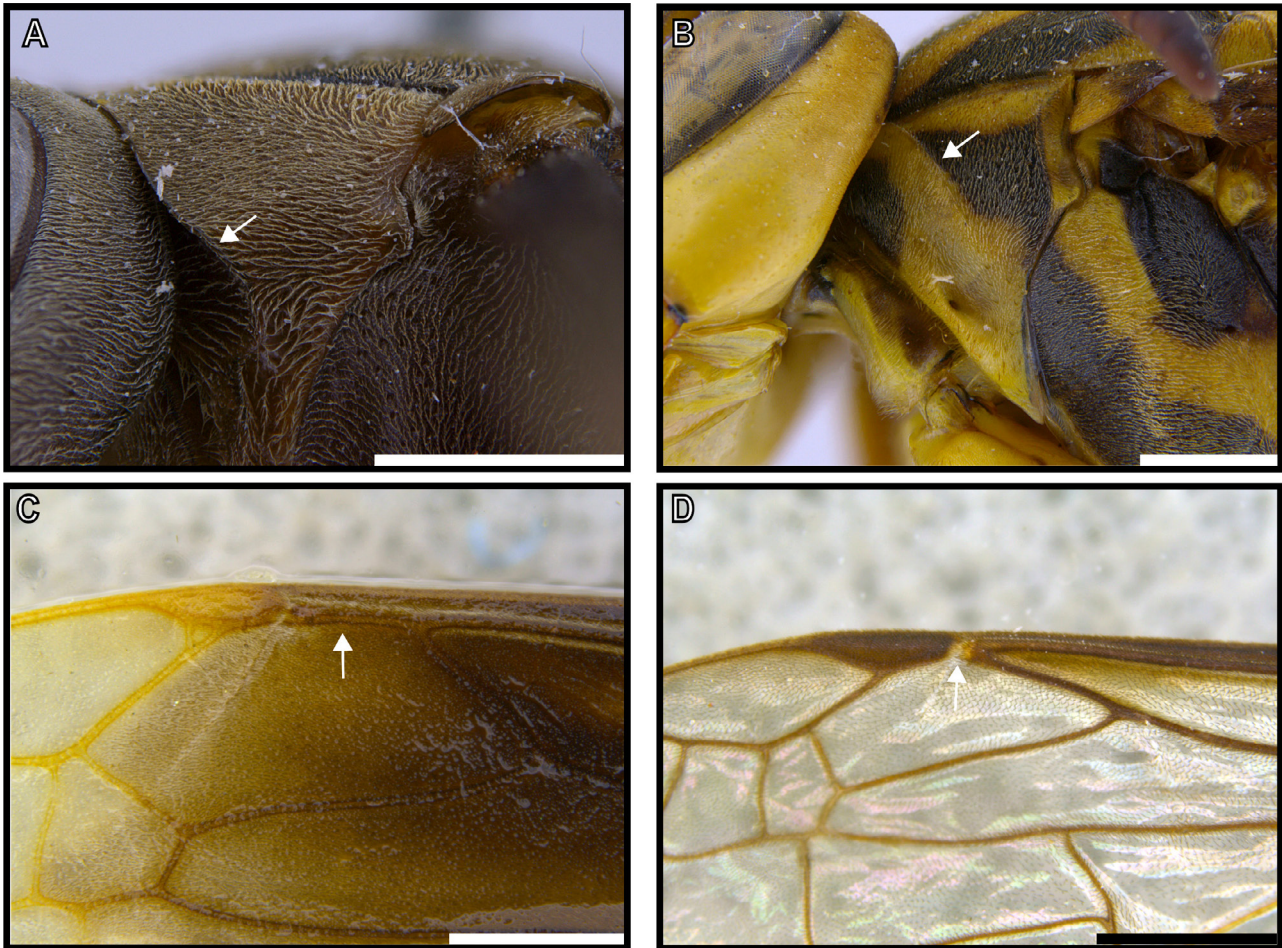
**Fig 16.** Metasomal segment I in dorsal view of *Metapolybia aztecoides* (a) and *Asteloeca traili* (b); arrow indicates width of metasomal segment. Scale bar, 1 mm.



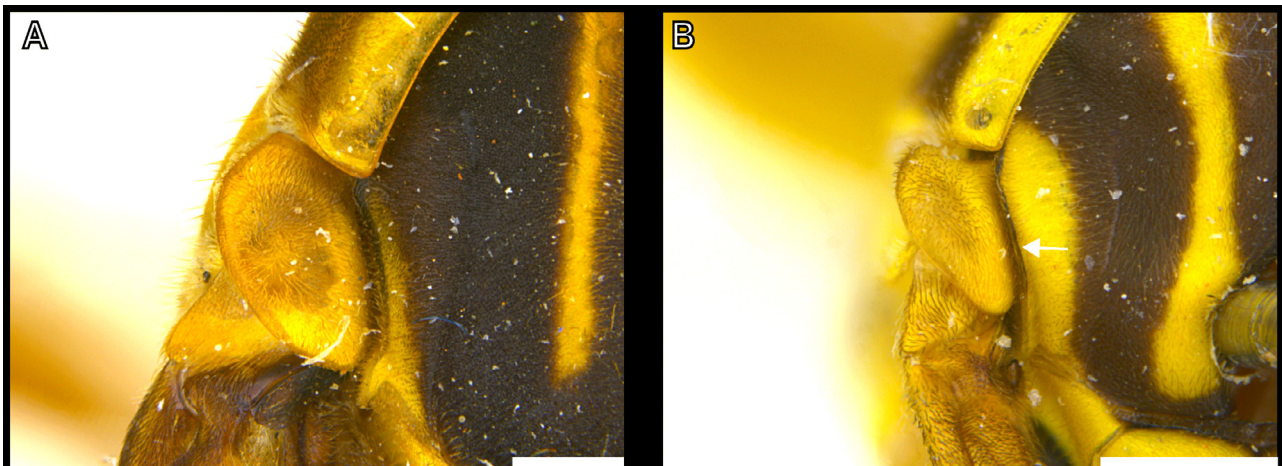
**Fig 17.** Propodeum in dorsal view of *Clypearia duckei* (a) *Synoeca chalibea* (b), arrow indicates concavity; pronotum in lateral view of *Clypearia duckei* (c) *Synoeca chalibea* (d), arrow indicates tempora. Scale bar, 1 mm.

13'. Posteromedial area of propodeum clearly convex with at most a slender concavity (Fig 17b); body without pale maculations, cuticle partly to entirely bluish metallic or yellowish with some bluish highlights; head in lateral view with tempora as wide or wider than eye at ocular sinus (Fig 17d); clypeus at most as long as wide ..... *Synoeca*  
 14(8). Pronotum with dorsal carina sinuous in lateral view (Fig 18a); forewing with prestigma about as long as pterostigma (Fig 18c)..... *Parachartergus*

14'. Pronotum without sinuous carina in lateral view or very weak (Fig 18b); forewing with prestigma shorter than pterostigma (Fig 18d) .....15  
 15(14). Scutum with posterolateral lamella anteriorly absent, not adjoining tegula (Fig 19a).....16  
 15'. Scutum with posterolateral lamella present adjoining tegula (Fig 19b) .....18  
 16(15). Clypeus with square lateral lobes and sharply pointed apex (Fig 20a), mesepisternum with dorsal groove.... *Angiopolybia*



**Fig 18.** Pronotum in lateral view of *Parachartergus fraternus* (a) *Pseudopolybia vespiceps* (b), arrow indicates pronotal carina; hindwing of *Parachartergus fraternus* (c) *Chartergellus communis* (d). Scale bar, 1 mm.



**Fig 19.** Scutum and tegula in dorsal view of *Angiopolybia pallens* (a) and *Agelaia cajennensis* (b); arrow indicates lamella. Scale bar, 0.5 mm.

16'. Clypeus with rounded lateral lobes and apex bluntly pointed (Fig 20b), mesepisternum without dorsal groove.....17  
 17(16). Lateral ocelli almost as far apart as the distance from each to eyes (Fig 21a); metasomal segment I not petiolate in dorsal view; eyes bristled (Fig 21a); (NOT PRESENT IN COLOMBIA)..... *Protonectarina*

17'. Lateral ocelli closer to each other than either is to the eyes (Fig 21b); metasomal segment I usually petiolate in dorsal view; eyes usually not bristled..... *Polybia*  
 18(15). Head in dorsal view with occipital carina (Fig 22a)....19  
 18' Head in dorsal view without occipital carina (Fig 22b)....20

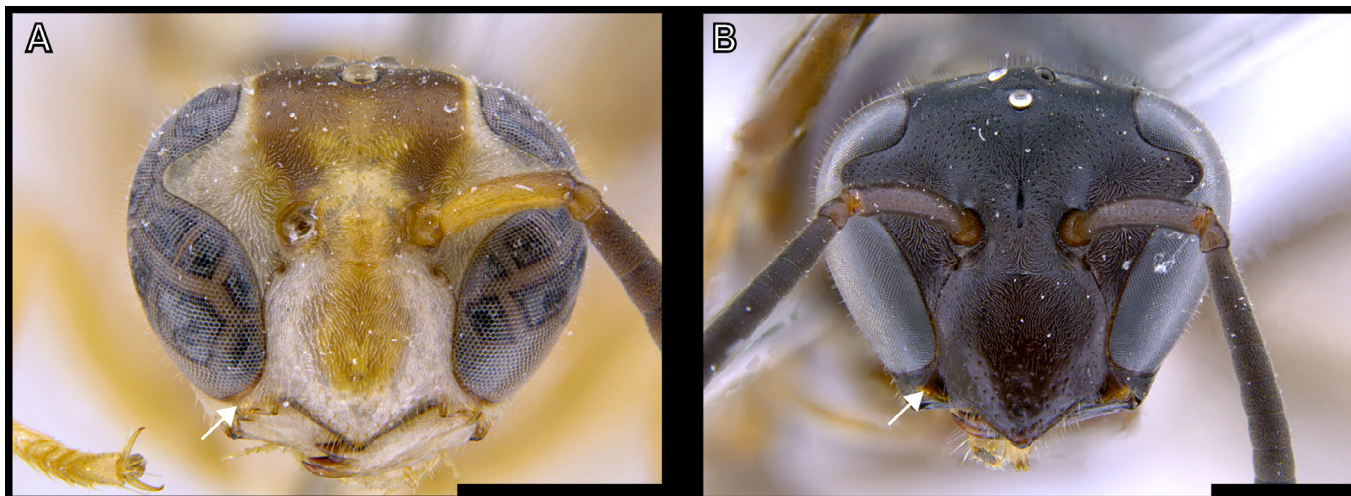


Fig 20. Head in frontal view of *Angiopolybia pallens* (a) and *Polybia ignobilis* (b); arrow indicates lateral lobes of clypeus. Scale bar, 1 mm.



Fig 21. Head in frontal view of *Protonectarina sylveirae* (a) and *Polybia micans* (b). Scale bar, 1 mm.

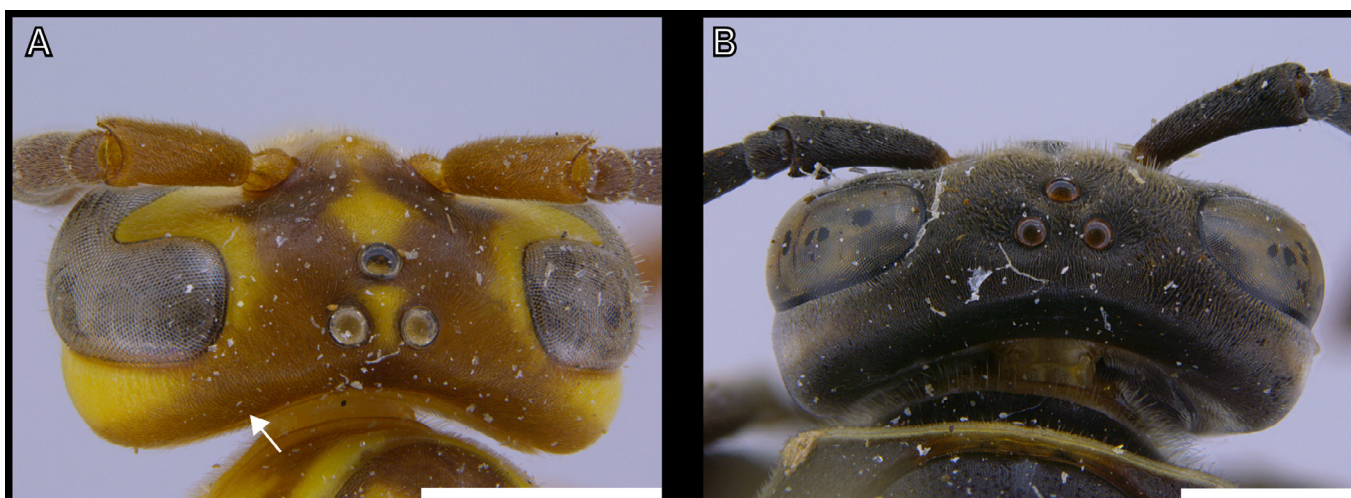


Fig 22. Head in dorsal view of *Agelaija cajennensis* (a) and *Chartergellus nigerrimus* (b); arrow indicates occipital carina. Scale bar, 1 mm.

19(18). Mesepisternum with dorsal groove (Fig 23a)....*Agelaia*  
 19'. Mesepisternum without dorsal groove (Fig 23b)....*Leipomeles*  
 20(18). Maxillary palpi five-segmented and labial palpi three-segmented (Fig 24a). Mesepisternum without dorsal groove (Fig 24c) ..... *Chartergellus*  
 20'. Maxillary palpi six-segmented and labial palpi four-segmented (Fig 24b); mesepisternum with dorsal groove (Fig 24d)..... *Pseudopolybia*

In conclusion, this review adds 68 species to the knowledge of Polistinae diversity of Colombia and documents the geographic distribution of 275 species in the country. The results highlight Colombia as a refuge for a high level of diversity among social wasps. Further research into the diversity of the family Polistinae is suggested, with a focus on regions such as the Pacific and the Caribbean.



Fig 23. Mesepisternum of *Agelaia cajennensis* (a) and *Leipomeles dorsata* (b); arrow indicates dorsal groove. Scale bar, 1 mm.

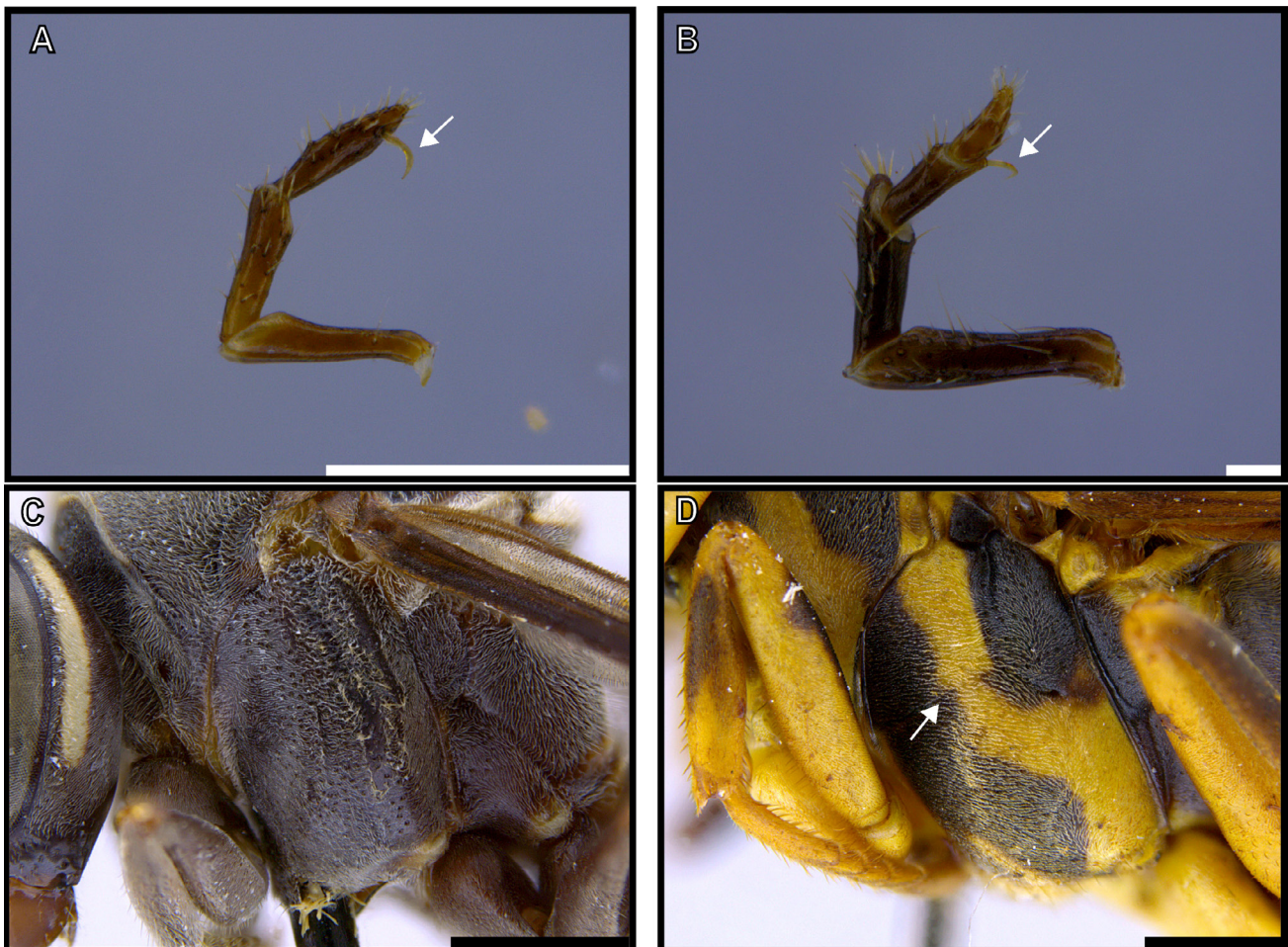


Fig 24. Palpi formula of *Chartergellus communis* (scale bar, 0.5 mm) (a) and *Pseudopolybia vespiceps* (scale bar, 0.1 mm) (b); Mesepisternum of *Chartergellus communis* (c) and *Pseudopolybia vespiceps* (d). Scale bar, 1 mm.

**Table 1.** List of species of Polistinae recorded from Colombia and their known distribution. Species marked with an (°) are considered Colombian-endemic, continental species with unknown distribution are marked with a question mark (?), those marked with an asterisk (\*) are additions to previous published lists, and those with a double asterisk (\*\*\*) are replacement names due to synonymies. <sup>1</sup>: AMA: Amazonía, AND: Andina, CAR: Caribe, ORI: Orinoquía, PAC: Pacífica; <sup>2</sup>: Ama: Amazonas, Ant: Antioquia, Ara: Arauca, Atl: Atlántico, Bol: Bolívar, Boy: Boyacá, Cal: Caldas, Caq: Caquetá, Cas: Casanare, Cau: Cauca, Ces: Cesar, Cho: Chocó, Cor: Córdoba, Cun: Cundinamarca, Gai: Guainía, Gua: Guaviare, Gaj: Guajira, Hui: Huila, Nar: Nariño, Nsant: Norte de Santander, Mag: Magdalena, Met: Meta, Put: Putumayo, Qui: Quindío, Ris: Risaralda, San: Santander, Suc: Sucre, Tol: Tolima, VdC: Valle del Cauca, Vap: Vaupés, Vic: Vichada.

Taxon	Colombian Regions <sup>1</sup>	Colombian Departaments <sup>2</sup>
<b>Tribe Epiponini</b>		
<b>Genus <i>Agelaia</i> Lepeletier</b>		
1 <i>Agelaia angulata</i> (Fabricius, 1804)	AMA, AND, CAR, ORI, PAC*	Ama, Ant, Boy, Caq, Cho, Cun, Cor, Mag, Met, Nar, Put, Ris, San, Suc, Tol, Vap
2 <i>Agelaia angulicollis</i> (Spinola, 1851)	AMA, AND*, ORI, PAC*	Ama, Caq, Cho, Hui, Met, Nar, Put, San, VdC
3 <i>Agelaia areata</i> (Say, 1837)	AMA, AND, CAR, ORI, PAC	Ant, Atl, Boy, Cal, Cas, Cau, Ces, Cun, Cho, Cor, Qui, Hui, Mag, Met, Nar, Put, Ris, Nsan, San, Tol, VdC, Vap
4 <i>Agelaia baezae</i> (Richards, 1943)	AMA*, AND, ORI	Ant, Cal, Cau, Cun, Boy, Hui, Met, Put, Ris, San, Tol, VdC
5 <i>Agelaia brevistigma</i> (Richards, 1978)	AMA, AND*, ORI*	Ama, Cau, Cun, Hui, Gua, Met
6 <i>Agelaia cajennensis</i> (Fabricius, 1798)	AMA, AND, CAR*, ORI*, PAC*	Ama, Ara, Boy, Cau, Ces, Mag, Met, Nar, Put, Tol, VdC, Vic
7 <i>Agelaia centralis</i> (Cameron, 1907) *	AMA, AND, CAR, ORI	Ant, Ara, Boy, Cun, Nar, Mag, Met, Put, San, Tol, VdC, Ris
8 <i>Agelaia flavipennis</i> (Ducke, 1905)	AMA, AND, CAR*, ORI*	Ant, Boy, Caq, Cun, Met, Suc, Put, Vap
9 <i>Agelaia fulvofasciata</i> (DeGeer, 1773)	AMA, AND, CAR*, ORI	Ama, Bol, Boy, Caq, Cas, Cun, Gaj, Gua, Met, Put, San, Tol, Vic
10 <i>Agelaia hamiltoni</i> (Richards, 1978)	AMA, AND, CAR*, ORI*, PAC*	Ama, Boy, Bol, Caq, Cun, Gaj, Met, Suc, San, Tol, VdC
11 <i>Agelaia lobipleura lobipleura</i> (Richards, 1978)	AMA*, AND*	VdC, Put
12 <i>Agelaia melanopyga</i> Cooper, 2000 *	AMA, AND, CAR, PAC	Ama, Ant, Boy, Caq, Ces, Cun, Cho, Mag, Nar, Put, San
13 <i>Agelaia multipicta</i> (Haliday, 1836)	AMA, AND, CAR*, ORI, PAC	Ama, Ant, Ara, Boy, Cal, Cun, Nar, Mag, Met, Ris, San, Vic
14 <i>Agelaia myrmecophila</i> (Ducke, 1905)	AMA, AND, CAR, ORI, PAC	Ant, Cal, Cau, Cho, Cor, Cun, Bol, Mag, Met, Nar, Ris, Tol, VdC
15 <i>Agelaia nigrescens</i> Cooper, 2001 *	AMA	Put
16 <i>Agelaia ornata</i> (Ducke, 1905) *	AMA, ORI	Ama, Met
17 <i>Agelaia pallipes festae</i> (Zavattari, 1906) *	AMA	Ama, Put
<i>pallipes</i> (Olivier, 1792)	AMA, AND, ORI	Ama, Boy, Caq, Cal, Cun, Hui, Met, Nar, Put, Tol
18 <i>Agelaia pallividentris</i> (Richards, 1978)	AMA	Ama, Put
19 <i>Agelaia panamaensis</i> (Cameron, 1906)	CAR*, ORI*	Ara, Bol, Ces, Mag
20 <i>Agelaia pleuralis</i> Cooper, 2000 *	AND, CAR	Nar, Bol, Boy
21 <i>Agelaia testacea</i> (Fabricius, 1804)	AMA, CAR*, ORI	Ama, Caq, Met, Put
22 <i>Agelaia timida</i> Cooper, 2000 *	AMA, ORI	Met, Put
23 <i>Agelaia yepocapa</i> Cooper, 2000 *	?	?
<b>Genus <i>Angiopolybia</i> Araujo</b>		
24 <i>Angiopolybia pallens</i> (Lepeletier, 1836)	AMA, AND, ORI	Ama, Caq, Cas, Cun, Met, Nar, Put, Vap
25 <i>Angiopolybia paraensis</i> (Spinola, 1851)	AMA, ORI, AND*	Ama, Caq, San, Put, Gai, Met
26 <i>Angiopolybia zischkai</i> Richards, 1978	AMA, AND, CAR	Ama, Cun, Mag, Put, VdC

**Table 1.** List of species of Polistinae recorded from Colombia and their known distribution. (Continuation)

<b>Taxon</b>	<b>Colombian Regions<sup>1</sup></b>	<b>Colombian Departaments<sup>2</sup></b>
<b>Tribe Epiponini</b>		
<b>Genus <i>Apoica</i> Lepeletier</b>		
<b>Subgenus (<i>Apoica</i>) Lepeletier</b>		
27 <i>Apoica albimacula</i> (Fabricius, 1804) *	AMA	Ama
28 <i>Apoica ambracarina</i> Pickett, 2003 *	AMA, AND, PAC, ORI	Caq, Cun, Gua, Met, VdC, Vic
29 <i>Apoica flavissima</i> van der Vecht, 1972	AMA, CAR	Atl, Bol, Caq, Suc
30 <i>Apoica gelida</i> van der Vecht, 1972	CAR*	Bol, Ces
31 <i>Apoica pallens</i> (Fabricius, 1804)	AMA, AND, CAR, ORI, PAC	Ant, Ama, Ara, Bol, Boy, Caq, Cas, Cun, Mag, Met, Put, San, Suc, Tol, VdC
32 <i>Apoica pallida</i> (Olivier, 1792)	AND*, ORI*	Ara, VdC
33 <i>Apoica strigata</i> Richards, 1978	AMA, AND*, ORI*, PAC	Ama, Caq, Cho, Met, Nar, San, VdC
34 <i>Apoica thoracica</i> du Buysson, 1906	AMA, AND, CAR*, ORI, PAC	Ama, Ant, Ara, Boy, Cas, Caq, Cun, Cho, Met, Nar, Put, San, VdC, Vic
<b>Subgenus (<i>Deuteroipoica</i>) Dalla Torre</b>		
35 <i>Apoica arborea</i> de Saussure, 1854	AMA	Caq
<b>Genus <i>Asteloeca</i> Raw *</b>		
36 <i>Asteloeca ujhelyii</i> Ducke, 1909 *	AMA	Put
<b>Genus <i>Brachygastra</i> Perty</b>		
37 <i>Brachygastra albula</i> Richards, 1978	AMA	Caq
38 <i>Brachygastra augusti</i> (de Saussure, 1854)	AMA, AND, CAR, ORI	Ama, Boy, Cal, Caq, Cau, Cun, Met, Put, San, Tol, VdC
39 <i>Brachygastra bacculaurea</i> (von Ihering, 1903)	AMA*, AND	Ant, Boy, Cal, Cun, Qui, San, VdC
40 <i>Brachygastra bilineolata</i> Spinola, 1841	AMA*, AND*, CAR*, ORI	Ara, Bol, Boy, Cas, Mag, Met, VdC
41 <i>Brachygastra buyssoni</i> (Ducke, 1905) *	AMA	Caq
42 <i>Brachygastra cooperi</i> Andena & Carpenter, 2011 *	AMA	Caq
43 <i>Brachygastra lecheguana</i> (Latreille, 1824)	AMA, AND, CAR, ORI*	Ant, Atl, Boy, Bol, Cas, Cun, Gua, Hui, Mag, Met, Nar, San, Tol, VdC
44 <i>Brachygastra moebiana</i> (de Saussure, 1867)	AND*, ORI	Met, Nar
45 <i>Brachygastra myersi</i> Bequaert, 1943	AND*, PAC	Cal, Cau, Nar, Ris
46 <i>Brachygastra propodealis</i> Bequaert, 1943	AMA, CAR*, ORI	Caq, Met, Put
47 <i>Brachygastra scutellaris</i> (Fabricius, 1804)	AMA, AND*, ORI	Ama, Ant, Boy, Caq, Cal, Met, Put, San, Tol, VdC
48 <i>Brachygastra smithii</i> (de Saussure, 1854)	AMA, AND, CAR, ORI	Boy, Cun, Mag, Met, San, VdC
<b>Genus <i>Chartergellus</i> Bequaert</b>		
49 <i>Chartergellus amazonicus</i> Richards, 1978	AMA, AND*, ORI	Ama, Caq, Hui, Met
50 <i>Chartergellus atectus</i> Richards, 1978	PAC	VdC
51 <i>Chartergellus nigerrimus</i> Richards, 1978	PAC	VdC
52 <i>Chartergellus punctatior</i> Richards, 1978	AMA, AND*, ORI, PAC	Met, Nar, Put, VdC
<b>Genus <i>Charterginus</i> Fox</b>		
53 <i>Charterginus carinatus</i> (Zavattari, 1906)	CAR, AND*	Ant, Bol, Suc, San
54 <i>Charterginus fulvus</i> Fox, 1898	AMA, AND*, ORI	Ama, Caq, Met, Nar, Put, San
55 <i>Charterginus weyrauchi</i> Richards, 1978 *	AND, CAR, PAC	Ant, Cho, Nar, Suc, VdC
56 <i>Charterginus zavattarii</i> Richards, 1978 *	AND*, CAR*, PAC	Nar, Suc, VdC
<b>Genus <i>Chartergus</i> Lepeletier</b>		
57 <i>Chartergus artifex</i> (Christ, 1791) **	AMA, ORI	Put, Vap, Met
58 <i>Chartergus globiventris</i> de Saussure, 1854	AMA	Ama, Put
59 <i>Chartergus metanotalis</i> Richards, 1978	AMA	Ama

**Table 1.** List of species of Polistinae recorded from Colombia and their known distribution. (Continuation)

	<b>Taxon</b>	<b>Colombian Regions<sup>1</sup></b>	<b>Colombian Departaments<sup>2</sup></b>
	<b>Tribe Epiponini</b>		
	<b>Genus <i>Clypearia</i> de Saussure</b>		
60	<i>Clypearia naumanni</i> Richards, 1978	CAR, ORI	Mag, Met
61	<i>Clypearia sulcata</i> (de Saussure, 1854) *	AMA	Put
62	<i>Clypearia weyrauchi</i> Richards, 1978	AMA	Put
	<b>Genus <i>Epipona</i> Latreille</b>		
63	<i>Epipona guerini</i> (de Saussure, 1854)	AMA, AND, PAC*, ORI	Ara, Ant, Boy, Caq, Cau, Cun, Hui, Met, Nar, Ris, San, VdC
64	<i>Epipona media</i> Cooper, 2002 *	AMA, AND	Cau, Caq, Gua, Put
65	<i>Epipona niger</i> (Brèthes, 1926)	AND, CAR, ORI, PAC	Ant, Ara, Cau, Cun, Hui, Mag, Nar, VdC
66	<i>Epipona quadrituberculata</i> (Gribodo, 1892) *	AMA, AND	Put, Vap, San
67	<i>Epipona tatua</i> (Cuvier, 1797)	AMA, AND, ORI	Caq, Met, Put, San, Vap
	<b>Genus <i>Leipomeles</i> Möbius</b>		
68	<i>Leipomeles dorsata</i> (Fabricius, 1804)	AMA, AND*, ORI	Ama, Caq, Gai, Met, Nar, Put, Vap
69	<i>Leipomeles spilogastra</i> (Cameron, 1912) *	AMA, AND	Nar, Put, Vap
	<b>Genus <i>Metapolybia</i> Ducke</b>		
70	<i>Metapolybia acincta</i> Richards, 1978	AMA	Put
71	<i>Metapolybia azteca</i> Araujo, 1945	AMA*, AND*, ORI*, PAC	Ant, Ama, Cho, Met, VdC
72	<i>Metapolybia aztecoides</i> Richards, 1978	AMA*, AND, CAR, ORI, PAC	Boy, Cau, Cun, Cho, Mag, Met, Nar, Put, San, Suc, VdC
73	<i>Metapolybia cingulata</i> (Fabricius, 1804)	AMA*, AND, CAR*, ORI	Boy, Mag, Met, Put, San, VdC
74	<i>Metapolybia docilis</i> Richards, 1978	AMA, AND*, ORI, PAC	Cal, Met, Nar, Put, VdC
75	<i>Metapolybia encantata</i> Cooper, 1999 *x	AMA	Ama
76	<i>Metapolybia miltoni</i> Andena & Carpenter, 2012 *	ORI	Met
77	<i>Metapolybia nigra</i> Richards, 1978	AMA	Ama, Caq, Gua
78	<i>Metapolybia rufata</i> Richards, 1978	AND	Cun
79	<i>Metapolybia servilis</i> Cooper, 1999 *	?	?
80	<i>Metapolybia silvicola</i> Cooper, 1999 *	AMA	Ama, Put
81	<i>Metapolybia suffusa</i> (Fox, 1898)	AMA, AND, ORI	Boy, Met, Put, Vap
82	<i>Metapolybia sulamerica</i> Carpenter, 2024*x	AND	Boy
	<b>Genus <i>Nectarinella</i> Bequaert</b>		
83	<i>Nectarinella championi</i> (Dover, 1925)	CAR, PAC*	Suc, Cho*
	<b>Genus <i>Parachartergus</i> R. von Ihering</b>		
84	<i>Parachartergus amazonensis</i> Ducke, 1905	AMA, AND*, ORI*, PAC	Ama, Caq, Met, Nar, Put
85	<i>Parachartergus apicalis</i> (Fabricius, 1804)	AND, CAR, ORI	Ant, Boy, Cal, Cun, Mag, Met, Nar, Tol, Ris, San, VdC
86	<i>Parachartergus colobopterus</i> (Lichtenstein, 1796)	AMA, AND, CAR	Ama, Ant, Bol, Cor, Guaj, Mag, Suc, Tol, VdC,
87	<i>Parachartergus fraternus</i> (Gribodo, 1892)	AMA, AND, CAR, ORI	Ama, Ant, Bol, Boy, Ces, Cun, Gua, Hui, Mag, Met, Nar, Nsan, Put, Ris, San, Suc, Tol, VdC, Vap
88	<i>Parachartergus fuldigipennis</i> (de Saussure, 1854)	AMA, AND*, ORI	Ama, Caq, Met, Nar, Put
89	<i>Parachartergus griseus</i> (Fox, 1898)	AMA	Put
90	<i>Parachartergus pacificus</i> Cooper, 2000*x	PAC	Nar
91	<i>Parachartergus richardsi</i> Willink, 1959	AMA, AND, CAR*, ORI	Ama, Ara, Gua, Mag, Met, Put, San, Tol
92	<i>Parachartergus smithii</i> (de Saussure, 1854)	AMA, AND, CAR, ORI*, PAC	Mag, Met, Cun, San
93	<i>Parachartergus weyrauchi</i> Willink, 1959	AMA, ORI	Met, Put, Vap

**Table 1.** List of species of Polistinae recorded from Colombia and their known distribution. (Continuation)

<b>Taxon</b>	<b>Colombian Regions<sup>1</sup></b>	<b>Colombian Departaments<sup>2</sup></b>	
<b>Tribe Epiponini</b>			
<b>Genus <i>Polybia</i> Lepeletier</b>			
<b>Subgenus (<i>Alpha</i>) Richards</b>			
94	<i>Polybia bifasciata</i> de Saussure, 1854	AMA, AND, ORI, PAC	Ama, Boy, Cho, Met, Nar, Put, Ris, Vap
95	<i>Polybia quadricinta</i> de Saussure, 1854	AMA, ORI	Caq, Met, Put
96	<i>Polybia signata</i> Ducke, 1910	AMA	Put, Caq
<b>Subgenus (<i>Apopolybia</i>) Richards</b>			
97	<i>Polybia jurinei</i> de Saussure, 1854	AMA, AND, ORI	Ama, Boy, Caq, Cal, Cas, Cun, Gai, Met, Put, San
98	<i>Polybia simillima</i> Smith, 1862	AND*, CAR, ORI*, PAC	Atl, Cal, Boy, Mag, Met, Nar, San
<b>Subgenus (<i>Cylindroeca</i>) Richards</b>			
99	<i>Polybia dimidiata</i> (Olivier, 1792)	AMA*, AND*, ORI	Ant, Met, Vap, Vic
<b>Subgenus (<i>Formicola</i>) Richards</b>			
100	<i>Polybia rejecta</i> (Fabricius, 1798)	AMA, AND, CAR, ORI, PAC	Ama, Ant, Ara, Bol, Boy, Cal, Caq, Cas, Cau, Cho, Cun, Mag, Met, Gai, Put, Ris, Suc, Tol, VdC
<b>Subgenus (<i>Furnariana</i>) Richards</b>			
101	<i>Polybia furnaria</i> R. von Ihering, 1904*	AND	San
102	<i>Polybia richardsi</i> Cooper, 1993	AMA, AND*	Ama, Put, San
<b>Subgenus (<i>Myraptera</i>) Withe</b>			
103	<i>Polybia aequatorialis</i> <i>aequatorialis</i> Zavattari, 1906	AMA*, AND, ORI	Ant, Ama, Cau, Cun, Met
104	<i>Polybia barbouri</i> Bequaert, 1943	AND, PAC*	Nar, VdC
105	<i>Polybia bicyttarella</i> Richards, 1951	ORI	Met
106	<i>Polybia bistriata</i> (Fabricius, 1804)	AMA, AND, ORI	Ama, Ant, Caq, Met, Put, Vap
107	<i>Polybia catillifex</i> Möbius, 1856	AMA, AND, ORI, PAC	Ama, Caq, Boy, Met, Put, VdC
108	<i>Polybia dimorpha</i> Richards, 1978	AND*, PAC	Nar, Cho
109	<i>Polybia fastidiosuscula</i> de Saussure, 1854	AMA, PAC*	Put, VdC
110	<i>Polybia flavifrons</i> <i>hecuba</i> Richards, 1951	AMA*, AND	Cal, Cau, Nar, Put, Ris
111	<i>Polybia juruana</i> von Ihering, 1904	AND*	Cun
112	<i>Polybia nidulatrix</i> Bequaert, 1933	AND, PAC	Cau, Nar, San, VdC
113	<i>Polybia occidentalis</i> <i>bohemani</i> Holmgren, 1868	AMA*, AND*, CAR, ORI*	Ant, Cal, Cun, Cor, Hui, Mag, Met, Nar, Put, San, Tol, VdC, Vap
	<i>occidentalis</i> (Olivier, 1792)	AMA, AND, CAR, ORI, PAC	Ama, Ara, Ant, Boy, Bol, Cal, Cas, Cau, Cun, Caq, Cor, Cho, Hui, Mag, Met, Nar, Ris, San, Tol, VdC
	<i>venezuelana</i> Giordani Soika, 1965	AMA*, AND, CAR, ORI, PAC	Ara, Boy, Bol, Cal, Cas, Cor, Cun, Gua, Hui, Met, Nar, Put, Tol, San, VdC
114	<i>Polybia parvulina</i> Richards, 1970	AND, PAC	Ant, Hui, VdC
115	<i>Polybia platycephala</i> <i>sylvestris</i> Richards, 1978	AMA, CAR*	Ama, Caq, Mag, Put, Vap
116	<i>Polybia plebeja</i> de Saussure, 1867 **	AMA, AND, CAR, ORI, PAC	Ama, Cau, Cho, Mag, Met, Nar, Put, VdC
117	<i>Polybia scrobalis</i> <i>pronotalis</i> Richards, 1970	AMA, AND, PAC	Ama, Ant, Caq, Put, VdC
	<i>scrobalis</i> Richards, 1970	AMA	Ama, Caq
	<i>surinama</i> Richards, 1970	AMA*, AND, CAR*, ORI*	Ama, Ara, Mag, Met, Nar, Put, Vap

**Table 1.** List of species of Polistinae recorded from Colombia and their known distribution. (Continuation)

<b>Taxon</b>	<b>Colombian Regions<sup>1</sup></b>	<b>Colombian Departaments<sup>2</sup></b>
<b>Tribe Epiponini</b>		
<b>Genus <i>Polybia</i> Lepeletier</b>		
<b>Subgenus (<i>Pedothoea</i>) Richards</b>		
118 <i>Polybia emaciata</i> Lucas, 1879	AMA, AND, CAR, ORI, PAC	Ama, Ant, Ara, Cal, Cun, Caq, Cau, Cho, Gua, Hui, Mag, Met, Nar, Put, San, Suc, Tol, VdC, Vap
119 <i>Polybia singularis</i> Ducke, 1909	AMA*, AND*, ORI*	Caq, Met, Put, VdC
<b>Subgenus (<i>Platypolybia</i>) Richards</b>		
120 <i>Polybia procellosa</i>		
<i>dubitata</i> Ducke, 1910	AMA, AND*	Vap, VdC
<i>procellosa</i> Zavattari, 1906	AMA, ORI	Ama, Caq, Met, Put
<b>Subgenus (<i>Polybia</i>) Lepeletier</b>		
121 <i>Polybia liliacea</i> (Fabricius, 1804)	AMA, AND, ORI, PAC	Ama, Ant, Boy, Caq, Cal, Gua, Met, Nar, Put, San, Vic, Vap
122 <i>Polybia striata</i> (Fabricius, 1787)	AMA, AND, ORI	Ara, Boy, Caq, Met, Put, Vic
<b>Subgenus (<i>Synocoides</i>) Ducke</b>		
123 <i>Polybia depressa</i> (Ducke, 1905) **	AMA, AND, ORI	Met, Nar, Vap
<b>Subgenus (<i>Trichinothorax</i>) Carpenter and Day</b>		
124 <i>Polybia chrysothorax</i> (Lichtenstein, 1796)	AND, CAR, ORI, PAC	Ant, Ara, Bol, Boy, Cun, Cho, Cor, Mag, San, Tol
125 <i>Polybia eberhardae</i> Cooper, 1993	AMA	Caq, Vap
126 <i>Polybia flavitincta</i> Fox, 1898	AMA*, AND, ORI*, PAC	Ant, Ama, Ara, Bol, Caq, Cho, Hui, Met, Nar, Ris, VdC
127 <i>Polybia gorytoides</i>		
<i>sculpturata</i> Ducke, 1904	AMA*, AND, ORI	Ama, Caq, Met, Gua
128 <i>Polybia ignobilis</i> (Haliday, 1836)	AMA, AND, CAR, ORI, PAC	Ant, Ara, Atl, Bol, Boy, Cal, Cas, Caq, Cun, Cau, Ces, Cord, Gua, Hui, Mag, Met, Nar, Nsant, Ris, San, Suc, Tol, VdC, Vic
129 <i>Polybia lugubris</i> de Saussure, 1854 *	AMA	Ama
130 <i>Polybia micans</i> Ducke, 1904	AMA	Caq, Put, Vic
131 <i>Polybia rauli</i>		
<i>rauli</i> Bequaert, 1933	AMA*, AND, CAR*, ORI	Cal, Cun, Boy, Mag, Nar, Put, Ris, San, Tol, VdC
132 <i>Polybia rufitarsis</i>		
<i>peruviana</i> Bequaert, 1944	AMA, AND	Ama, Put
133 <i>Polybia sericea</i> (Olivier, 1792)	AMA*, AND, CAR, ORI, PAC*	Ara, Atl, Bol, Boy, Caq, Cas, Cun, Mag, Met, San, Vap, Vic
134 <i>Polybia tinctipennis</i>		
<i>nebulosa</i> Bequaert, 1944	AMA, CAR	Mag, Put
<i>tinctipennis</i> Fox, 1898	AMA	Vap
135 <i>Polybia velutina</i> Ducke, 1907	AMA, AND, CAR*, ORI	Ama, Caq, Met, Put, Suc
<b>Genus <i>Protopolybia</i> Ducke</b>		
136 <i>Protopolybia acutiscutis</i> (Cameron, 1906)	AMA, AND, CAR*, ORI, PAC*	Ant, Caq, Cau, Ces, Cho, Cor, Mag, Met, Nar, Put, San
137 <i>Protopolybia alvarengai</i> (Richards, 1978)	AND*, PAC	Nar, Ant
138 <i>Protopolybia amarella</i> Bequaert, 1944	AMA, AND, ORI	Ama, Cun, Met, Put
139 <i>Protopolybia bella</i> R. von Ihering, 1903	?	?
140 <i>Protopolybia chartergoides</i> (Gribodo, 1892)	AMA, AND*, CAR*, ORI	Ama, Ant, Boy, Caq, Cord, Mag, Met, Put, Tol, VdC, Vap
141 <i>Protopolybia clypeata</i> Santos, Silveira and Carpenter, 2015 *	AMA	Caq
142 <i>Protopolybia colombiana</i> Santos, Silveira and Carpenter, 2015 *	AMA, AND, ORI, PAC	Met, Nar, VdC, Vap

**Table 1.** List of species of Polistinae recorded from Colombia and their known distribution. (Continuation)

<b>Taxon</b>	<b>Colombian Regions<sup>1</sup></b>	<b>Colombian Departaments<sup>2</sup></b>
<b>Tribe Epiponini</b>		
<b>Genus <i>Protopolybia</i> Ducke</b>		
143 <i>Protopolybia diligens</i> (Smith, 1857) *	AMA	Ama
144 <i>Protopolybia emortualis</i> (de Saussure, 1855)	AND, CAR, ORI	Cun, Mag, Met, San, Suc, Tol
145 <i>Protopolybia exigua</i> (de Saussure, 1854)	AMA, CAR, ORI, PAC	Ama, Ara, Caq, Cho, Cun, Mag, Met, San, Suc, VdC
146 <i>Protopolybia fuscatus</i> (Fox, 1898)	AMA, AND*	Ant, Boy, Put, VdC
147 <i>Protopolybia isthmensis</i> (Richards, 1978) *	AND*	Tol
148 <i>Protopolybia minutissima</i> (Spinola, 1851)	AMA*, AND, ORI*	Ama, Met, Nar, San, Vap
149 <i>Protopolybia panamensis</i> (Zavattari, 1906)	AND*, CAR*	Ant, Boy, Cun, Mag, San
150 <i>Protopolybia perfulvula</i> Bequaert, 1944	AND, CAR	Atl, Suc, VdC
151 <i>Protopolybia picteti</i> (de Saussure, 1854)	AND*, CAR	Mag, Tol, San
152 <i>Protopolybia rotundata</i> Ducke, 1910 *	AMA, AND	Ama, Nar, Suc
153 <i>Protopolybia scutellaris</i> Bequaert, 1944	AND*, PAC	Ant, Nar, VdC
154 <i>Protopolybia sedula</i> (de Saussure, 1854)	AMA, AND*, CAR*	Ant, Ama, Caq, Hui, Mag, Met, Nar, Put, VdC
155 <i>Protopolybia wheeleri</i> Bequaert, 1944 *	AND	Ant, Ris
<b>Genus <i>Pseudopolybia</i> de Saussure</b>		
156 <i>Pseudopolybia compressa</i> (de Saussure, 1854)	AMA, AND*, ORI*	Ant, Cau, Hui, Met, San
157 <i>Pseudopolybia vespiceps</i> (de Saussure, 1863)	AMA	Ama, Caq
<b>Genus <i>Synoeca</i> de Saussure</b>		
158 <i>Synoeca chalibea</i> de Saussure, 1852	PAC	Nar
159 <i>Synoeca septentrionalis</i> Richards, 1978	AMA, AND, CAR, ORI, PAC	Ant, Ara, Atl, Bol, Boy, Caq, Cal, Cau, Cun, Cho, Hui, Mag, Met, Ris, Nar, San, Suc, Tol, VdC
160 <i>Synoeca surinama</i> (Linnaeus, 1767)	AMA, AND, CAR, ORI, PAC	Ama, Boy, Caq, Cas, Cun, Mag, Met, San, Tol, VdC, Vap
161 <i>Synoeca virginea</i> (Fabricius, 1804)	AMA, ORI	Ama, Caq, Met, Put, Vap
<b>Tribe Mischocyttarini</b>		
<b>Genus <i>Mischocyttarus</i> de Saussure</b>		
<b>Subgenus (<i>Artifex</i>) Silveira</b>		
162 <i>Mischocyttarus artifex</i> Ducke, 1914	AMA	Ama, Put
163 <i>Mischocyttarus chloroecus</i> Cooper, 1998 *	AMA	Ama, Caq, Put
164 <i>Mischocyttarus filipendulus</i> Cooper, 1998 * x	AMA	Ama, Put
165 <i>Mischocyttarus interruptus</i> Richards, 1978	AMA	Ama
166 <i>Mischocyttarus leucoecus</i> Cooper, 1998 *	AMA	Put
167 <i>Mischocyttarus maculipennis</i> Cooper, 1998 * x	AMA	Put
168 <i>Mischocyttarus mirificus</i> Zikán, 1935	AMA	Put
169 <i>Mischocyttarus nigroclavatus</i> Zikán, 1935*	AND	Nar
170 <i>Mischocyttarus oecothrix</i> Richards, 1940	AMA*, PAC	Nar, Caq
171 <i>Mischocyttarus peruviansis</i> Richards, 1945 *	AMA	Ama, Put
172 <i>Mischocyttarus polymorphus</i> Cooper, 1998 * x	AMA	Ama, Caq, Put
173 <i>Mischocyttarus reflexicollis</i> Zikán, 1935	AMA	Ama, Put
174 <i>Mischocyttarus sylvestris</i> Richards, 1945	AMA*, ORI	Ama, Ara
175 <i>Mischocyttarus synoecus</i> Richards, 1940	AMA, AND*, ORI*	Ama, Caq, Met, Nar
176 <i>Mischocyttarus undulatus</i> (Ducke, 1905)	AMA	Put

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	<b>Taxon</b>	<b>Colombian Regions<sup>1</sup></b>	<b>Colombian Departaments<sup>2</sup></b>
	<b>Tribe Mischocyttarini</b>		
	<b>Genus <i>Mischocyttarus</i> de Saussure</b>		
	<b>Subgenus (<i>Cerberus</i>) Silveira</b>		
177	<i>Mischocyttarus cerberus</i>		
	<i>acheron</i> Richards, 1940	AMA	Caq
	<i>cerberus</i> Ducke, 1918	AMA	Caq, Put
178	<i>Mischocyttarus illusorius</i> Richards, 1978	AMA, PAC	Nar, Put
179	<i>Mischocyttarus narinensis</i> Cooper, 1998 * <sup>x</sup>	AND	Nar
	<b>Subgenus (<i>Clypeopolybia</i>) Brèthes</b>		
180	<i>Mischocyttarus carbonarius</i>		
	<i>carbonarius</i> (de Saussure, 1854)	AMA	Ama, Caq, Put, Vap
	<i>tibialis</i> Richards, 1978	AMA*, AND*, PAC	Ama, Ant, Caq, Cau, Nar
181	<i>Mischocyttarus flavicans</i>		
	<i>flavicans</i> (Fabricius, 1804) *	AMA, ORI	Caq, Met
	<b>Subgenus (<i>Haplometrobis</i>) Richards</b>		
182	<i>Mischocyttarus cooperi</i> Richards, 1978	PAC	Nar
183	<i>Mischocyttarus macarenae</i> Cooper, 1998 * <sup>x</sup>	ORI	Met
184	<i>Mischocyttarus naumanni</i> Richards, 1978 *	AMA	Caq, Put
185	<i>Mischocyttarus ornatus</i> Zikán, 1949	AMA	Caq
186	<i>Mischocyttarus saussurei</i> Zikán, 1949	AMA	Caq
187	<i>Mischocyttarus weyrauchi</i> Zikán, 1949	AMA	Put
	<b>Subgenus (<i>Kappa</i>) de Saussure</b>		
188	<i>Mischocyttarus deceptus</i> (Fox, 1895) *	AND, CAR	San, Suc
189	<i>Mischocyttarus imitator</i> (Ducke, 1904) *	AND, CAR, ORI	Ara, Nar, Suc, Mag
190	<i>Mischocyttarus injucundus</i> (de Saussure, 1854)	AMA, ORI*	Ama, Put, Met
191	<i>Mischocyttarus latissimus</i> Richards, 1978	AMA	Ama
192	<i>Mischocyttarus magdalenensis</i> Silveira, 2006 * <sup>x</sup>	AND, CAR	Mag, Nar
193	<i>Mischocyttarus metathoracicus</i> (de Saussure, 1854) *	?	?
194	<i>Mischocyttarus mocsaryi</i> Ducke, 1909 *	ORI	Ara
195	<i>Mischocyttarus occiduus</i> Silveira, 2006 * <sup>x</sup>	AND	Cau, Nar
196	<i>Mischocyttarus pseudomimeticus</i> (Schulz, 1904)	AMA*, ORI	Met, Caq
	<b>Subgenus (<i>Megacanthopus</i>) Ducke</b>		
197	<i>Mischocyttarus collarellus</i> Richards, 1940	AND*, CAR*, PAC*	Cau, Mag, Nar, VdC
198	<i>Mischocyttarus collaris</i> (Ducke, 1904)	AMA	Vap
199	<i>Mischocyttarus inexpectatus</i> Cooper, 1997 * <sup>x</sup>	AND	Nar
200	<i>Mischocyttarus melanopygus</i> Richards, 1945	AMA	Ama, Caq
201	<i>Mischocyttarus saturatus</i> Zikán, 1949	AMA, AND*, ORI	Ama, Ara, Met, Nar, Put
	<b>Subgenus (<i>Mischocyttarus</i>) de Saussure</b>		
202	<i>Mischocyttarus drewseni</i>		
	<i>andimus</i> Zikán, 1949	AND	Ant
	<i>drewseni</i> de Saussure, 1949	AMA*, AND*	Cau, Ara, VdC, San, Boy
203	<i>Mischocyttarus labiatus</i> (Fabricius, 1804)	AMA, AND, ORI, PAC	Ama, Ant, Ara, Boy, Caq, Cal, Ces, Cho Cun, Nar, Ris, San, VdC
204	<i>Mischocyttarus lindigi</i> Richards, 1945 * <sup>x</sup>	AMA, AND	Cun
205	<i>Mischocyttarus mattogrossoensis</i> Zikán, 1935	AND*, ORI	Boy, Cas, Met
206	<i>Mischocyttarus rotundicollis</i> (Cameron, 1912)	AND, ORI, PAC	Cho, Met, VdC
207	<i>Mischocyttarus tomentosus</i> Zikán, 1935	AMA*, AND*, ORI*, PAC*	Ama, Caq, Cho Met, Put, Ris, Vap

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<b>Taxon</b>	<b>Colombian Regions<sup>1</sup></b>	<b>Colombian Departaments<sup>2</sup></b>
<b>Tribe Mischocyttarini</b>		
<b>Genus <i>Mischocyttarus</i> de Saussure</b>		
<b>Subgenus (<i>Monogynoecus</i>) Richards</b>		
208 <i>Mischocyttarus foveatus</i> Richards, 1945	AMA	Caq, Put, Vap
209 <i>Mischocyttarus insolitus</i> Zikán, 1949	AMA	Ama, Caq
210 <i>Mischocyttarus lecointei</i> <i>lecointei</i> (Ducke, 1904)	AMA	Ama, Caq, Put
211 <i>Mischocyttarus melanops</i> Cooper, 1996 * x	AMA	Put
212 <i>Mischocyttarus metoecus</i> Richards, 1940	AMA	Put
<b>Subgenus (<i>Omega</i>) de Saussure</b>		
213 <i>Mischocyttarus alboniger</i> Richards, 1978	AMA, ORI*	Ama, Caq, Met, Vap
214 <i>Mischocyttarus bequaertii</i> Richards, 1945 x	ORI	Met
215 <i>Mischocyttarus elegantulus</i> Zikán, 1949	AMA, ORI*	Put, Met
216 <i>Mischocyttarus ignotus</i> Zikan, 1949	AMA, ORI, PAC	Met, Put, VdC
217 <i>Mischocyttarus melanoxanthus</i> Richards, 1978	AMA, CAR, ORI	Ama, Mag, Met, Put
218 <i>Mischocyttarus punctatus</i> (Ducke, 1904)	AMA, AND, ORI*	Met, Put, Suc, VdC, Vap
219 <i>Mischocyttarus silvicola</i> Zikán, 1949	AMA, ORI	Ama, Caq, Met, Put, Vap
220 <i>Mischocyttarus surinamensis</i> <i>surinamensis</i> (de Saussure, 1854)	AMA, AND*, ORI	Ama, Ara, Met, Nar, Vap
221 <i>Mischocyttarus tenuis</i> Richards, 1945	AMA, ORI	Met, Put
222 <i>Mischocyttarus vaqueroi</i> Zikán, 1949	AMA, AND*, CAR, ORI, PAC	Mag, Met, Nar, Put, VdC
223 <i>Mischocyttarus anchicaya</i> Silveira, 2015 * x	AND, CAR	Mag, Nar
224 <i>Mischocyttarus tayrona</i> Silveira, 2015 *	CAR	Mag
225 <i>Mischocyttarus verissimoi</i> Silveira, 2015 *	ORI	Met
226 <i>Mischocyttarus xanthocerus</i> Richards, 1945	AMA, PAC	Nar, Put
<b>Subgenus (<i>Phi</i>) de Saussure</b>		
227 <i>Mischocyttarus achagua</i> Silveira, 2013 * x	ORI	Met
228 <i>Mischocyttarus angulatus</i> <i>angulatus</i> Richards, 1945	AND*, CAR	Mag, San
		Ant, Boy, Cal, Cau, Cun, Qui, Hui, Mag, Met, Ris, San, Tol, VdC
229 <i>Mischocyttarus barbatus</i> Richards, 1945	AND*, PAC	Ant, Cal, Cau, Hui, Nar, Ris, VdC
230 <i>Mischocyttarus basimacula</i> (Cameron, 1906)	AND, CAR*, PAC	Ant, Boy, Cau, Ces, Mag, Nar, San, Tol, VdC
231 <i>Mischocyttarus flavicornis</i> Zikán, 1935	AMA*, AND*, CAR*, ORI	Ara, Mag, Met, Nar, Put
232 <i>Mischocyttarus hirsutus</i> Richards, 1945	AND, ORI*	Ara, Boy, Cal, Cau, Cun, Hui, Nar, Ris, San, VdC
233 <i>Mischocyttarus muisca</i> Silveira, 2013 * x	AND, CAR	Cun, Bol, Tol
234 <i>Mischocyttarus oreophilus</i> Zikán, 1949 *	?	?
235 <i>Mischocyttarus petiolatus</i> Richards, 1978	AMA	Put
236 <i>Mischocyttarus phthisicus</i> (Fabricius, 1793)	?	?
237 <i>Mischocyttarus rufomaculatus</i> Richards, 1945	AMA, AND	Hui, Put
238 <i>Mischocyttarus uniformis</i> Silveira, 2013 * x	CAR	Atl, Cor, Mag
239 <i>Mischocyttarus waunan</i> Silveira, 2013 *	AND, PAC	Nar, VdC
<b>Subgenus (<i>Scytokeraia</i>) Cooper</b>		
240 <i>Mischocyttarus alienus</i> Richards, 1978	PAC	VdC
241 <i>Mischocyttarus fraudulentus</i> Richards, 1978	PAC	Nar
242 <i>Mischocyttarus juditai</i> Cooper, 1997 *	AMA	Caq
243 <i>Mischocyttarus stenoecus</i> Richards, 1978 x	AND*, PAC	Nar, VdC
244 <i>Mischocyttarus telembi</i> Cooper, 1997 * x	AND	Nar

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<b>Tribe Mischocyttarini</b>			
<b>Genus <i>Mischocyttarus</i> de Saussure</b>			
<b>Subgenus (<i>Incertae sedis</i>)</b>			
245	<i>Mischocyttarus chanchamayoensis</i> Richards, 1978 *	AMA	Caq, Put
246	<i>Mischocyttarus reclusus</i> Cooper, 1996 **x	AMA	Caq, Put
247	<i>Mischocyttarus tectus</i> Cooper, 1996 *	AMA	Put
<b>Tribe Polistini</b>			
<b>Genus <i>Polistes</i> Latreille</b>			
<b>Subgenus (<i>Aphanilopterus</i>) Meunier</b>			
248	<i>Polistes adelphus</i> Richards, 1978	AMA, AND, PAC	Ant, San, VdC, Vap
249	<i>Polistes aterrimus</i> de Saussure, 1853	AMA*, AND, CAR	Ant, Boy, Caq, Cal, Cau, Cun, Mag, Nar, San, Tol, VdC
250	<i>Polistes canadensis</i> <i>canadensis</i> (Linnaeus, 1758)	AMA, PAC, CAR*, ORI	Ama, Ara, Boy, Caq, Cau, Cun, Cas, Gua, Hui, Mag, Met, Tol, VdC, Vic
251	<i>Polistes erythrocephalus</i> Latreille, 1813	AND, CAR, ORI, PAC	Ant, Boy, Cau, Cun, Cor, Hui, Mag, Met, Qui, Ris, San, Tol, VdC
252	<i>Polistes goeldii</i> Ducke, 1904	AND*, PAC, CAR*, ORI*	Cun, Nar, VdC, Mag, Met
253	<i>Polistes infuscatus</i> <i>ecuadorius</i> Richards, 1978* <i>infuscatus</i> Lepeletier, 1836 <i>mariae</i> Richards, 1978 <i>metensis</i> Richards, 1978	AND, PAC AND AND, CAR, ORI, PAC AND*, ORI, PAC	Cau, Cho, Nar, VdC Hui, VdC Atl, Cun, Hui, Met, San, VdC Cal, Cho, San, Tol
254	<i>Polistes lanio</i> <i>lanio</i> (Fabricius, 1775) <i>weberi</i> Bequaert, 1949	ORI* CAR*	Ara, Met Mag
255	<i>Polistes melanotus</i> Richards, 1978	AMA, AND, CAR*, ORI*	Ant, Boy, Cun, Mag, Met
256	<i>Polistes myersi</i> <i>myersi</i> Bequaert, 1934	AMA, AND, CAR, ORI, PAC	Ant, Atl, Bol, Boy, Cal, Caq, Cau, Cho, Ces, Cun, Hui, Mag, Met, Ris, San, Tol, VdC, Vic
257	<i>Polistes rufidens</i> de Saussure, 1853	AND*, CAR, PAC	Ant, Mag, Ris
258	<i>Polistes versicolor</i> <i>flavoguttatus</i> Bequaert, 1934 <i>versicolor</i> (Olivier, 1792)	AND AMA, AND, CAR, ORI, PAC	San Ama, Ant, Ara, Atl, Bol, Boy, Caq, Cas, Ces, Cau, Cal, Cun, Cho, Hui, Mag, Met, Nar, Ris, San, Suc, Tol, VdC, Vic
259	<i>Polistes minor</i> Palisot de Beauvois, 1818 *	AND	Cun
260	<i>Polistes simillimus</i> Zikán, 1951 *	AND	Cun, VdC
<b>Subgenus (<i>Epicnemius</i>) Richards</b>			
261	<i>Polistes bicolor</i> Lepeletier, 1836	AMA, AND*, ORI	Ama, Ara, Caq, Cau, San
262	<i>Polistes billardieri</i> <i>biglumoides</i> Ducke, 1904 <i>billardieri</i> Fabricius, 1804	AMA*, AND, ORI AND, CAR*, ORI	Ara, Vap Ant, Mag, Met, San
263	<i>Polistes claripennis</i> Ducke, 1904	AMA	Ama, Caq, Put
264	<i>Polistes cinerascens</i> de Saussure, 1854*	AND	Cun
265	<i>Polistes deceptor</i> Schulz, 1905	AMA	Caq, Put
266	<i>Polistes occipitalis</i> Ducke, 1904	AND*, CAR*, ORI	Mag, Met, San
267	<i>Polistes pacificus</i> Fabricius, 1804	AMA, AND, ORI, PAC	Ant, Ara, Cau, Cho, Met, Nar, San, VdC, Vap, Vic
268	<i>Polistes rufiventris</i> Ducke, 1904	AMA, AND, ORI	Ama, Met, Put, San, VdC

**Table 1.** List of species of Polistinae recorded from Colombia and their known distribution. (Continuation)

Taxon	Colombian Regions <sup>1</sup>	Colombian Departaments <sup>2</sup>
<b>Tribe Polistini</b>		
<b>Genus <i>Polistes</i></b>		
<b>Subgenus (<i>Epicnemius</i>) Richards</b>		
269 <i>Polistes subsericeus</i> de Saussure, 1854	AMA *, AND*, ORI	Ara, Boy, Caq, Met, Vic
270 <i>Polistes testaceicolor</i> Bequaert, 1937	AMA, ORI	Caq, Met
271 <i>Polistes geminatus</i> *		
<i>guyanensis</i> Cameron, 1912*	AMA	Vap
272 <i>Polistes melanosoma</i> de Saussure, 1853 *	AMA	Put
273 <i>Polistes niger</i> Brèthes, 1903 *	AND	San
<b>Subgenus (<i>Onerarius</i>) Richards</b>		
274 <i>Polistes carnifex</i>		
<i>boliviensis</i> Bequaert, 1936	AMA *, AND, CAR*, ORI, PAC*	Ama, Ant, Boy, Cal, Caq, Cas, Cau, Cun, Cho, Qui, Hui, Mag, Met, Ris, San, Tol, Gua, VdC
<i>carnifex</i> (Fabricius, 1775)	AMA *, AND, CAR, ORI, PAC	Ant, Bol, Cau, Caq, Cun, Cho, Mag, Ris, San, Tol, VdC
<i>rufipennis</i> Latreille, 1817	CAR*, PAC	Cau, Nar, Mag, VdC
<b>Subgenus (<i>Palisotius</i>) Richards</b>		
275 <i>Polistes major</i>		
<i>colombianus</i> Bequaert, 1940	CAR	Ara, Mag
<i>major</i> Palisot de Beauvois, 1818	CAR, ORI*	Met
<i>weyrauchi</i> Bequaert, 1940	CAR, ORI	Ara, Mag

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## Authors' Contribution

MND: conceptualization, methodology, investigation, analysis, writing-original draft, visualization, supervision.

GBC: methodology, writing-original draft, visualization

FBN: conceptualization, writing-review & editing, validation, supervision, resources, and funding

AS: conceptualization, methodology, investigation, writing-original draft, supervision

CES: conceptualization, methodology, investigation, analysis, writing-review & editing, visualization, supervision.

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