



Biota Colombiana

ISSN: 0124-5376

biotacol@humboldt.org.co

Instituto de Investigación de Recursos
Biológicos "Alexander von Humboldt"
Colombia

Fernández C., Fernando

Checklist of Genera and Subgenera of Aculeate Hymenoptera of the Neotropical Region
(Hymenoptera: Vespomorpha)

Biota Colombiana, vol. 2, núm. 2, noviembre, 2001, pp. 87- 130

Instituto de Investigación de Recursos Biológicos "Alexander von Humboldt"
Bogotá, Colombia

Available in: <http://www.redalyc.org/articulo.oa?id=49120201>

- How to cite
- Complete issue
- More information about this article
- Journal's homepage in redalyc.org

redalyc.org

Scientific Information System

Network of Scientific Journals from Latin America, the Caribbean, Spain and Portugal

Non-profit academic project, developed under the open access initiative

Checklist of Genera and Subgenera of Aculeate Hymenoptera of the Neotropical Region (Hymenoptera: Vespomorpha)

Fernando Fernández C.

Instituto Humboldt A.A. 8693, Bogotá D.C. Colombia. ffernandez@humboldt.org.co

Key Words: Aculeate Hymenoptera, Synopsis, Genera, Subgenera, Neotropical Region

The aculeate hymenoptera comprises common insects like ants, bees and both potter and paper wasps (Hymenoptera: Vespomorpha or Aculeata). These insects have a significant role in terrestrial ecosystems, especially in the tropics, acting as pollinators, predators, decomposers, etc.

The aculeates of the Neotropical Region comprise 3 superfamilies, 25 families, 807 genera and about 13000 described species (Boxes 1 and 2). They are represented from the upper Jurassic and most families were common by the Cretaceous. Some of the extant genera appeared between the Paleocene and Miocene.

Phylogeny of Vespomorpha

The stinging Hymenoptera (Aculeata or Vespomorpha) constitute a monophyletic clade within the order Hymenoptera. It has been proposed that Aculeata and Ichneumonoidea are sister groups (Ronquist *et al.* 1999; Sharkey & Wahl 1992). Aculeata is composed of three monophyletic superfamilies: Chrysidoidea, Apoidea and Vespoidea.

Works including those by Brothers (1975), Brothers and Carpenter (1993), and Brothers (1999) deal with Aculeata phylogeny. Vespomorpha is considered to be a monophyletic clade, although robust synapomorphies have not been identified for the group (females lacking cerci). Two synapomorphies have been proposed for the superfamilies Apoidea and Vespoidea (aculeates *sensu stricto*): (1) males have 13 antennomeres and females have 12 (although this number has undergone secondary

reduction in some groups), and (2) the seventh metasomal tergum of females is hidden and substantially desclerotized.

Superfamily Chrysidoidea

Cuckoo wasps and relatives. This group is basal among the Aculeates. Its phylogeny has been studied by Carpenter (1986a, 1999) and Brothers and Carpenter (1993). In the Neotropical Region it is comprised of 7 families with around 1000 species. All species are solitary and the females of some groups specialize on specific types of prey. The family Plumariidae has a gondwanan distribution and its biology is poorly known. Scolebythidae is a small family that has been reported in Neotropical America and Australia. Bethyidae is the largest family, with some ectoparasitic species of coleopterans and other insects. Chrysididae (cuckoo wasps) includes species that are ectoparasitic of sawflies, phasmids and nesting Hymenoptera. Sclerogibbidae is a small family, rarely collected, whose members presumably are parasitoids of Embiidina (web-spinners) (Richards 1939; Argaman 1988; Fernández *et al.* 1996). Females of the family Dryinidae are both endo- and ectoparasites of auchenorhynchan homopterans (Cicadelloidea, Fulgoroidea and some Membracoidea) (Hanson & Gauld 1995). Embolemidae is a rare family, of unknown biology, represented in the Neotropics by five species reviewed by Olmi (1995b).

Superfamily Apoidea

Sphecid wasps and bees. Apoidea is the sister group of Vespoidea (Brothers & Carpenter 1993). The works of Alexander (1992b) and Melo (1999) explore the internal

phylogeny of the group. Depending on the authority, the spheciformes are clumped into a single family (Bohart & Menke 1976) or split into several families (Goulet & Huber 1993). Three families were recently established: Ampulicidae (sister group of Sphecidae s. str. + (Crabronidae + Apiformes)), Sphecidae s. str. and Crabronidae (Brothers 1999; Melo 1999). The life histories of the spheciformes include hunting strategies and nidification habits that range from solitary and communal nesting to eusociality in one of its genus.

The apiformes are grouped into a single family (Gauld & Bolton 1988) or split into several families (Goulet & Huber 1993). Works by Roig-Alsina and Michener (1993), and Alexander and Michener (1995) explore the phylogeny of the long-tongued and short-tongued bees, respectively. Five families are currently accepted for the Neotropical Region: Colletidae, Andrenidae (including Oxaeidae), Halictidae, Megachilidae (including Fideliidae) and Apidae (including Anthophoridae). Michener (2000) reviews the biology, phylogeny and systematics of the bees of the world. His work includes keys for all the categories above species level.

Superfamily Vespoidea

Hunter wasps, paper wasps and ants. In spite of their size and importance, there are no autapomorphies available for Vespoidea (Brothers & Carpenter 1993). This group has an enormous richness in terms of life forms and biology (Gauld & Bolton 1988; Hanson & Gauld 1995). It is composed of 10 families and about 7.000 Neotropical species. Sierolomorphidae is the basal group of the superfamily (its biology is unknown) with few representatives in Mesoamerica (Evans 1963). Rhopalosomatidae is a parasitoid family that attacks crickets (Townes 1977). Bradynobaenidae is a poorly known group (Genise 1986; Quintero & Rodríguez 1990). The ants (Formicidae) constitute a monophyletic group comprised of 17 subfamilies, whose phylogenetic relationships are studied by Baroni *et al.* (1992) and Grimaldi *et al.* (1997). A biological synthesis of the group is offered by Hölldobler and Wilson (1990). The family Vespidae, with social groups present, includes potter, paper and mason wasps. Vespidae, and all of its subfamilies, are monophyletic (Carpenter 1982). Generic-level keys have been published for the Masarinae (Richards 1962a; Carpenter 1989), as well as for Eumeninae and Polistinae (Richards 1978). The small family Scoliididae includes wasps that attack the larvae of scarabaeoid beetles, with about 20 species occurring in the Neotropical Region (Bradley 1945). Tiphiidae includes ectoparasitic wasps that

attack ground insects. The phylogenetic relationships among subfamilies of this group were studied by Kimsey (1991). The Pompilidae family includes the spider-hunting wasps; Shimizu (1994) explores the phylogenetic relationships within the family. In spite of some basic studies (Banks 1946, 1947; Evans 1966), this family is poorly known in South America. Mutillidae are the velvet ants (Nonveller 1990), represented by conspicuous females that are well equipped to attack other Hymenoptera nests. There are no available keys of genera for the Neotropical representatives of this family. Sapygidae are parasitoid wasps of other Hymenoptera, and are a poorly known family (Pate 1947).

Catalogues of Vespomorpha

There is a lack of recent catalogues of Neotropical Aculeata. Including fossils, Pagliano and Scaramozzino (1990) presented a synonymy of the 17000 genera and subgenera of Hymenoptera described to date. Gordh and Moczar (1990) offered a catalogue of the Bethyridae of the world and it is possible to extract from Kimsey and Bohart (1990) the list of the Chrysididae species of the world. Olmi *et al.* (2000) list the neotropical Dryinidae species. The work on Sphecidae by Bohart and Menke (1976) includes lists of species worldwide, as well as synonyms of all the categories above species level. Amarante (in press) presents the first available catalogue of sphecid wasps from the Neotropical Region, and Moure and Hurd (1987) provide a catalogue of the Halictidae of the western hemisphere. There is an abridged catalogue available for the ants of the Neotropical Region (Kempf 1972; Brandão 1991) and a catalogue of the ants of the world (Bolton 1995).

Diversity of Families and Superfamilies

Vespoidea and Apoidea are large superfamilies, each of which contains more than 4000 species. The following are the most diverse families of Vespomorpha (taking in account the number of described species with an arbitrary minimum number of 300): Bethyridae, Chrysididae, Dryinidae, Crabronidae, Colletidae, Andrenidae, Halictidae, Megachilidae, Apidae, Formicidae, Vespidae, Pompilidae and Mutillidae. Diverse families, with more than 1000 described species in the Neotropics, include Crabronidae, Apidae, Formicidae, Vespidae and Mutillidae. Formicidae is a hyperdiverse family, with more than 3000 species in the region. The families, subfamilies and tribes of aculeates of the Neotropical Region and the number of described species (or approximate number) for each family and superfamily are summarized in Box 2.

Listado de Géneros y Subgéneros de Himenópteros con Aguijón de la Región Neotropical (Hymenoptera: Vespomorpha)

Fernando Fernández C.

Palabras Clave: Hymenoptera Aculeata, Sinopsis, Géneros, Subgéneros, Neotrópico

Los himenópteros con aguijón (Hymenoptera: Vespomorpha o Aculeata) comprenden insectos comunes como las hormigas, las abejas y las avispas alfareras y papeleras. En conjunto, estos insectos son preponderantes en los ecosistemas terrestres, especialmente tropicales, actuando como polinizadores, depredadores, carroñeros, etc.

En la Región Neotropical, los aculeados comprenden 3 superfamilias, 25 familias, 807 géneros y alrededor de 13000 especies descritas (Cuadros 1 y 2). Se conocen desde el Jurásico superior, y la mayoría de familias ya eran comunes en el Cretáceo; algunos géneros aparecieron entre el Paleoceno y el Mioceno.

Filogenia en Vespomorpha

Los himenópteros con aguijón (Aculeata o Vespomorpha) conforman un clado monofilético dentro del orden Hymenoptera. Se ha propuesto que Aculeata e Ichneumonoidea son grupos hermanos (Ronquist et al. 1999; Sharkey & Wahl 1992). Aculeata se divide en tres superfamilias monofiléticas: Chrysidoidea, Apoidea y Vespoidea.

Brothers (1975), Brothers y Carpenter (1993), y Brothers (1999) estudian la filogenia de Aculeata. Se considera a Vespomorpha como grupo monofilético, aunque no hay sólidas sinapomorfias identificadas para el grupo (hembras sin cerci). Se han propuesto dos sinapomorfias para las superfamilias Apoidea y Vespoidea (los aculeados sensu stricto): 1) hembras con 12 y machos con 13 antenómeros (número que se ha reducido secundariamente en algunos grupos) y 2) hembras con el séptimo tergo del metasoma oculto y no esclerotizado.

Superfamilia Chrysidoidea

Avispas cuclillo y afines. Superfamilia basal de Aculeata. Filogenia estudiada en Carpenter (1986a, 1999) y Brothers y Carpenter (1993). Comprende 7 familias con cerca de 1000 especies en el Neotrópico. Todas sus especies son solitarias, con algunos grupos con hembras espe-

cializadas en un tipo particular de presa. Plumariidae es de distribución gondwánica y biología desconocida; Scolebythidae es una pequeña familia descrita para el Neotrópico y Australia; Bethyidae es la familia más grande de crisidoideos, con algunas especies ectoparásitas de coleópteros y otros insectos; Chrysididae ("avispas cuclillo"), comprende especies ectoparásitas de "sínfitos", fasmópteros y himenópteros nidificadores; Sclerogibidae es una pequeña familia, muy raramente coleccionada, aparentemente parasitoide de Embiina (Richards 1939; Argaman 1988; Fernández et al. 1996). En Dryinidae las hembras atacan «homópteros» auquenorrincos (Cicadelloidea, Fulgoroidea y algunos Membracoidea), como endoparásitas y ectoparásitas (Hanson & Gauld 1995); Embolemidae es una familia rara, de biología desconocida, con cinco especies neotropicales revisadas por Olmi (1995b).

Superfamilia Apoidea

Son las avispas esfécidas y las abejas. Grupo hermano de Vespoidea (Brothers & Carpenter 1993). Alexander (1992b) y Melo (1999) exploran la filogenia interna del grupo. Los esfeciformes se han dividido en una sola familia (Bohart & Menke 1976) o varias (Goulet & Huber 1993). Recientemente se establecieron tres familias: Ampulicidae (grupo hermano de Sphecidae s. str. + (Crabronidae + Apiformes)), Sphecidae s. str. y Crabronidae (Brothers 1999; Melo 1999). Los esfeciformes poseen hábitos variados de caza y nidificación, con gran variedad de formas solitarias, comunales y un género eusocial.

Igualmente, los apiformes se agrupan en una familia (Gauld & Bolton 1988) o varias (Goulet & Huber 1993). Roig-Alsina y Michener (1993), y Alexander y Michener (1995) exploran la filogenia de las abejas de lengua larga y corta, respectivamente. Se aceptan 5 familias para la Región Neotropical: Colletidae, Andrenidae (incluyendo Oxaeidae), Halictidae, Megachilidae (incluyendo Fideliidae) y Apidae (incluyendo Anthophoridae). Michener (2000) estudia la biología, filogenia y sistemática de todas las abejas del Mundo incluyendo claves para todas las categorías supraespecíficas.

Superfamilia Vespoidea

Avispas cazadoras, avispas papeleras y hormigas. A pesar de su tamaño e importancia, no hay autopomorfias para Vespoidea (Brothers y Carpenter 1993). Este es un grupo de gran riqueza en formas de vida y biología (Gauld & Bolton 1988; Hanson & Gauld 1995). Comprende 10 familias y alrededor de 7000 especies neotropicales. Sierolomorphidae es el grupo basal en la superfamilia (biología desconocida) con unas pocas especies en Mesoamérica (Evans 1963). Rhopalosomatidae comprende formas parasitoides de grillos (Townes 1977). Bradynobaenidae es un grupo muy poco estudiado (Genise 1986; Quintero & Rodríguez 1990). Las hormigas (Formicidae) comprenden un grupo monofilético con 17 subfamilias, cuyas relaciones internas estudian Baroni et al. (1992) y Grimaldi et al. (1997). Hölldobler y Wilson (1990) ofrecen una síntesis de la biología del grupo. Vespidae comprende a las avispas “alfareras”, las eumeninas, y las “papeleras” con formas sociales. Familia monofilética, así como cada una de sus subfamilias (Carpenter 1982). Se han publicado claves para géneros de Masarinae en Richards (1962a) y Carpenter (1989); Eumeninae y Polistinae (Richards 1978). Scoliidae es una pequeña familia de avispas que atacan larvas de lamelicornios, con una veintena de especies neotropicales (Bradley 1945). Tiphidae comprende avispas ectoparasitas de insectos del suelo. Kimsey (1991) estudia la filogenia de las subfamilias. Pompilidae comprende a las avispas cazadoras de arañas; Shimizu (1994) explora la filogenia interna en la familia. A pesar de algunos trabajos básicos (Banks 1946, 1947; Evans 1966) esta familia está pobremente estudiada en Suramérica. Mutillidae comprende las “avispa afelpa-das” (Nonveller 1990), con hembras muy conspicuas y bien armadas para el ataque a nidos de otros himenópteros. No existen claves para los géneros de la región. Sapygidae, avispas parasitoides de otros himenópteros, es una familia muy pobremente conocida (Pate 1947).

Catálogos en Vespomorpha

No existen catálogos recientes para las familias de Aculeata en la Región Neotropical. Pagliano y Scaramozzino (1990) presentan un listado sinónimo de los 17000 géneros y subgéneros de Hymenoptera descritos hasta esa fecha, incluyendo fósiles. Gordh y Moczar (1990) ofrecen el catálogo de las Bethyidae del mundo y de Kimsey y Bohart (1990) se puede extraer el listado de especies de las Chrysididae del mundo. Olmi et al. (2000) listan las especies Dryinidae de la región neotropical. El tratado de Sphecidae de Bohart y Menke (1976) incluye listados de especies para todo el mundo, así como el listado sinónimo de todas las categorías por encima de especie. Amarante (en prensa) presenta el primer catálogo de las avispas esfécidas de la Región Neotropical. Moure y Hurd (1987) ofrecen el catálogo de las Halictidae del Hemisferio Occidental. Existe el catálogo abreviado para las hormigas neotropicales (Kempf 1972; Brandão 1991) y el catálogo para las especies del Mundo (Bolton 1995).

Diversidad de Superfamilias y Familias

Vespoidea y Apoidea son superfamilias grandes, con más de 4000 especies cada una. Las familias de Vespomorpha más diversas (en número de especies descritas, tomando un número arbitrario mínimo de 300) son: Bethyidae, Chrysididae, Dryinidae, Crabronidae, Colletidae, Andrenidae, Halictidae, Megachilidae, Apidae, Formicidae, Vespidae, Pompilidae y Mutillidae. Familias muy diversas, con más de 1000 especies descritas para la región, son: Crabronidae, Apidae, Formicidae, Vespidae y Mutillidae. Formicidae es una familia hiperdiversa, con más de 3000 especies en la región. El Cuadro 2 ofrece el listado de las familias, subfamilias y tribus de los aculeados de la Región Neotropical, con el número de especies descritas (o aproximadamente descritas) al frente de cada familia y subfamilia.

Box 1. Comparison between the Aculeata superfamilies (in bold letters) and Hymenoptera of the Neotropical Region: data corresponding to Cynipoidea and Ceraphronoidea are tentative. From Fernández (2000).

Cuadro 1. Comparación de las superfamilias de Aculeata (en negrita) con Hymenoptera en la Región Neotropical: Los datos de Cynipoidea y Ceraphronoidea son tentativos. Tomado de Fernández (2000).

Superfamilies Superfamilias	Genera Number No. Géneros	Species Number No. Especies
Xyeloidea	1	1

Superfamilies Superfamilias	Genera Number No. Géneros	Species Number No. Especies
Tenthredinoidea	115	1027
Megalodontoidea	1	4
Cephoidea	1	1
Siricoidea	10	27
Orussoidea	5	13
Stephanoidea	2	27
Trigonaloidea	8	29
Ichneumonoidea	694	4.637
Chrysidoidea	77	1093
Apoidea	362	5102
Vespoidea	368	7085
Cynipoidea	60	800
Proctotrupoidea	94	334
Platygastridae	82	434
Mymarommatoidea	1	1
Chalcidoidea	625	3300
Megalyroidea	3	3
Ceraphronoidea	12	90
Evanoidea	10	180
Totales/Totals	2530	23724

Box 2. Superfamilies, families, subfamilies and tribes of stinging Hymenoptera of the Neotropical Region. In front of each taxa the following information is given: F: phylogenetic status (M = monophyletic; P = paraphyletic; ? = without information); known or estimated number of genera (Gen) and species (spp); K: availability of keys at the genera (G) or species (E) level. Modified from Fernández (2000).

Cuadro 2. Relación de superfamilias, familias, subfamilias y tribus de himenópteros con aguijón de la Región Neotropical. Al frente de cada taxón se relaciona: F: estatus filogenético (M = monofilético; P = parafiletico; ? = sin información); Números de géneros (Gen) y especies (spp) conocidos o estimados; K: disponibilidad de claves para género (G) o especies (E). Tomado y modificado de Fernández (2000).

Taxon Taxón	F F	Gen Gen	spp spp	K K	Bibliographic References Referencias Bibliográficas
VESPOMORPHA	M	800	13117		Pagliano & Scaramozzino 1990
CHRYSIDOIDEA	M	77	1093		
Plumariidae	M	3	18	E	Roig-Alsina 1994
Scolecbythidae		2	3	E	Evans 1963, Azevedo 1999
Bethylidae	M	24	321	E	Evans 1964, Hawkins & Gordh 1986, Gordh & Moczar 1990
Bethylinae		3	34	G	Evans 1964

Taxon <i>Taxón</i>	F <i>F</i>	Gen <i>Gen</i>	spp <i>spp</i>	K <i>K</i>	Bibliographic References <i>Referencias Bibliográficas</i>
Epyrinae		17	110	G	Evans 1964
Cephalonimini				G	Evans 1964
Epyrini				G	Evans 1964
Sclerodermini				G	Evans 1964
Pristocerinae		4	177	G	Evans 1964
Chrysididae	M	23	306	G	Kimsey & Bohart 1990
Amiseginae		5	61	G	Kimsey & Bohart 1990
Cleptinae		2	16	G	Kimsey & Bohart 1990
Chrysidinae		16	129	G	Kimsey & Bohart 1990
Chrysidini				G	Kimsey & Bohart 1990
Elampini				G	Kimsey & Bohart 1990
Sclerogibbidae	M	2	11+	E	Richards 1939, Argaman 1988
Dryinidae	M	21	424	E	Olmi 1984, 1986, 1989, 1993a, 1995a
Anteoninae		4	168	E	Olmi 1984, 1989
Aphelopinae		2	21	E	Olmi 1984, 1989
Apodryininae		1	1	E	Olmi 1984, 1989
Bocchinae		1	8	E	Olmi 1984, 1989
Dryininae		4	100	E	Olmi 1993b
Gonatopodinae		9	126	E	Olmi 1993b
Embolemidae	M	2	10	E	Olmi 1995b, Amarante <i>et al.</i> 1999
APOIDEA	M	362	5102		Michener 1997, 2000
Ampulicidae	M	3	20	G	Bohart & Menke 1976, Menke & Fernández 1996
Ampulicinae	M	1	6	G	Bohart & Menke 1976
Dolichurinae	M	2	14	G	Bohart & Menke 1976
Sphecidae		14	159	G	Bohart & Menke 1976, Menke & Fernández 1996
Ammophilinae	M	3	30	E	Bohart & Menke 1976
Ammophilini				E	Bohart & Menke 1976
Sceliphrinae	M	8	72	E	Bohart & Menke 1976
Sceliphryni	M			E	Bohart & Menke 1976
Stangeellini	M			E	Bohart & Menke 1976
Sphecinae	M	3	57	E	Bohart & Menke 1976
Pryochini	M			E	Bohart & Menke 1976
Sphecini	M			E	Bohart & Menke 1976
Crabronidae		127	1515	G	Bohart & Menke 1976, Menke & Fernández 1996
Pemphredoninae		18	161	G	Bohart & Menke 1976
Odontosphecini				G	Bohart & Menke 1976
Pemphredonini				G	Bohart & Menke 1976
Psenini				G	Bohart & Menke 1976

Taxon <i>Taxón</i>	F <i>F</i>	Gen <i>Gen</i>	spp <i>spp</i>	K <i>K</i>	Bibliographic References <i>Referencias Bibliográficas</i>
Astatinae		4	22	G	Bohart & Menke 1976
Astatini				E	Bohart & Menke 1976
Crabroninae		46	752	G	Bohart & Menke 1976
Bothynostethini				G	Bohart & Menke 1976
Crabronini				E	Bohart & Menke 1976
Larrini				G	Bohart & Menke 1976
Miscophini				G	Bohart & Menke 1976
Oxybelini				E	Bohart & Menke 1976
Scapheutini				E	Bohart & Menke 1976
Trypoxylini				E	Bohart & Menke 1976
Bembecinae		58	360	G	Bohart & Menke 1976
Alyssonini				G	Bohart & Menke 1976
Bembicini				E	Bohart & Menke 1976
Gorytini				E	Bohart 2000
Heliocausini				E	Bohart & Menke 1976
Mellinae		1	9	E	Bohart & Menke 1976, Menke 1996
Mellinini				E	Bohart & Menke 1976
Nyssonini				G	Bohart & Menke 1976
Stizini				E	Bohart & Menke 1976
Philanthinae		5	212	G	Bohart & Menke 1976
Aphilantopsini				G	Bohart & Menke 1976
Cercerini				G	Bohart & Menke 1976
Philanthini				E	Bohart & Menke 1976
Colletidae	M	22	442	G	Michener 1997, Michener 2000
Colletinae		8	238	G	Michener 2000
Diphaglossinae		9	80	G	Michener 2000
Caupolicanini				G	Michener 2000
Diphaglossini				G	Michener 2000
Dissoglotini				G	Michener 2000
Hylaeinae		1	50	G	Michener 2000
Xeromelissinae		4	74	G	Michener 2000
Chilicolini				G	Michener 2000
Xeromelissini				G	Michener 2000
Andrenidae	M	23	238	G	Michener 2000
Alocandreninae		1	1	E	Michener 2000
Andreninae		3	5	G	Michener 2000
Oxaeinae		2	12	E	Michener 2000
Panurginae		17	220?	G	Michener 2000
Calliopsini				G	Michener 2000
Perditini				G	Michener 2000
Protandrenini				G	Michener 2000

Taxon <i>Taxón</i>	F <i>F</i>	Gen <i>Gen</i>	spp <i>spp</i>	K <i>K</i>	Bibliographic References <i>Referencias Bibliográficas</i>
Protomeliturgini				G	Michener 2000
Halictidae	M	43	800+	G	Moure & Hurd 1987, Michener 2000
Halictinae		40	788+	G	Michener 2000
Augochlorinini				G	Michener 2000
Halictini				G	Michener 2000
Nomiinae		1	1	G	Michener 2000
Rophitinae		2	2	G	Michener 2000
Megachilidae	M	19	350+	G	Michener 2000
Fideliinae	M	1	1	G	Michener 2000
Fideliini				G	Michener 2000
Megachilinae	M	18	349+	G	Michener 2000
Anthidiini				G	Michener 2000
Lithurgiini				G	Michener 2000
Megachilini				G	Michener 2000
Osmiini				G	Michener 2000
Apidae	M	106	1577	G	Michener 2000
Apinae	M	90	1246	G	Michener 2000
Anthophorini	M			E	Brooks 1988
Apini	M			E	Michener 2000
Bombini	M			E	Michener 2000
Centridini	M			E	Michener 2000
Emphorini	M			G	Michener 2000
Ericrocidini	M			G	Michener 2000
Eucerini				G	Michener 2000
Euglossini	M			E	Michener 2000
Exomalopsini				G	Michener 2000
Isepeolini				G	Michener 2000
Melectini				G	Michener 2000
Meliponini				G	Michener 2000
Osirini				G	Michener 2000
Protepeolini				G	Michener 2000
Rhathymini				G	Michener 2000
Tapinotaspini				G	Michener 2000
Tetrapediini				G	Michener 2000
Nomadinae	M	13	191	G	Michener 2000
Brachynomadini				G	Michener 2000
Caenoprosopidini				G	Michener 2000
Epeolini				G	Michener 2000
Nomadini				G	Michener 2000
Xylocopinae	M	3	140	G	Michener 2000
Ceratinini				G	Michener 2000

Taxon <i>Taxón</i>	F <i>F</i>	Gen <i>Gen</i>	spp <i>spp</i>	K <i>K</i>	Bibliographic References <i>Referencias Bibliográficas</i>
Manueliini				G	Michener 2000
Xylocopini				G	Michener 2000
VESPOIDEA	M	368	7085		
Sierolomorphidae	M	1	5	E	Evans 1961
Sierolomorphinae		1	5	E	
Rhopalosomatidae	M	3	20	E	Townes 1977
Bradynobaenidae	M	4	14	G	Genise 1986
Bradynobaeninae		1	6	G	Genise 1986
Typhoctinae		3	8	E	Quintero & Rodríguez 1990
Typhoctini				E	
Eotillini				E	
Formicidae	M	113	3141	G	Bolton 1994, Kempf 1972, Bolton 1995
Ponerinae	P	24	346	G	
Amblyoponini	M			E	Brown 1960
Ectatommini	M			E	Brown 1958
Odontomachini	?			E	Brown 1976, 1978
Paraponerini	M			E	Brown 1958
Platythyreini				E	Brown 1975
Ponerini	M			G	
Proceratiini	?			G	Brown 1958
Thaumatomyrmecini				E	Longino 1988
Typhlomyrmecini				E	Brown 1965
Cerapachyinae	M	4	35	E	
Acantostichini				E	MacKay 1996
Cerapachyini				E	
Cylindromyrmecini				E	Andrade 1998
Ecitoninae	M	5	129	E	Watkins 1976
Chelyomyrmecini				E	Watkins 1976
Ecitonini				E	Watkins 1976
Leptanilloidinae	M	2	7	E	Brandão <i>et al.</i> 1999
Pseudomyrmecinae	M	2	150+	E	Ward 1990
Myrmicinae	M	60	1750	G	
Agroecomyrmecini				E	Brown & Kempf 1967
Attini	M			G	Schultz & Meier 1995
Basicerotini				E	Brown & Kempf 1960
Blepharidattini				G	
Cephalotini	M			E	Kempf 1958, Andrade & Baroni 1999
Crematogastrini	M			G	
Dacetini	M			E	Bolton 2000
Formicoxenini				E	

Taxon <i>Taxón</i>	F <i>F</i>	Gen <i>Gen</i>	spp <i>spp</i>	K <i>K</i>	Bibliographic References <i>Referencias Bibliográficas</i>
Metaponini				E	
Myrmecini				E	
Myrmicini	M			E	
Ochetomyrmecini				G	
Phalacromyrmecini	M			E	
Pheidolini				G	
Pheidologetonini				G	
Solenopsidini	M			G	Bolton 1987
Stegomyrmecini	M			E	Diniz 1990
Stenammini				G	
Tetramoriini	M			E	Bolton 1976
Dolichoderinae	M	8	209	G	Shattuck 1992, Shattuck 1994
Dodichoderini				G	
Formicinae	M	8	515	G	
Brachymyrmecini				G	
Camponotini	M			G	
Gigantiopini				E	
Lasiini				G	
Myrmelachistini				G	
Plagiolepidini				G	
Vespidae	M	79	1330	G	
Masarinae	M	4	20	E	Richards 1962, Sarmiento 1999
Gayellini				E	
Masarini				E	
Eumeninae	M	50	800	G	Sarmiento 1999
Polistinae	M	24	500	E	Richards 1978
Epiponini				E	Richards 1978
Mischocyttarini				E	Richards 1978
Polistini				E	Richards 1978
Vespinae	M	1	4	E	
Scoliidae	M	2	40	E	Bradley 1945
Scoliinae	M	2	40	E	Bradley 1945
Tiphiidae	M	35	228	G	Kimsey 1991
Anthoboscinae	M	4	16	E	Genise 1984
Brachystidinae	M	1	2	E	Wasbauer 1968
Methocinae	M	1	8?	G	Krombein 1979
Myzininae	M	2	10?	G	Krombein 1937
Tiphiinae	M	4	92	E	Allen 1972, Kimsey 1993
Thynninae	M	23	100?	G	Kimsey 1992
Pompilidae	M	59	800	G	Banks 1946, 1947, Evans 1966

Taxon <i>Taxón</i>	F <i>F</i>	Gen <i>Gen</i>	spp <i>spp</i>	K <i>K</i>	Bibliographic References <i>Referencias Bibliográficas</i>
Ceropalinae	M	2	18	E	
Ctenoceratinae	M	2	2	G	
Epipompilinae	M	1	16	E	
Notocyphinae	M	1	34	G	
Pepsinae	M	23	460	G	
Ageniellini	M			G	Evans 1973
Pepsini				G	
Pompilinae	M	30	275	G	Evans 1966
Aporini				G	Bradley 1944
Pompilini				G	Evans 1966, Colomo de Correa 1981
Mutillidae	M	69	1500		Nonveller 1990
Mutillinae	M	6	400		
Ephutiini					
Mutillini					
Sphaerophthalminae	M	63	1100		
Sphaerophthalmini					
Sapygidae	M	3	7	G	Pate 1947
Sapyginae		3	7	G	Pate 1947

Taxonomic List / *Listado Taxonómico*

Under the column Neotropical Distribution the following abbreviations appear: sa = South America, sas = South of South America, san = North of South America, ne = Neotropics, cam = Central America, rd = Dominican Republic, gal = Galapagos Islands, mar = Martinique, and ica = Caribbean Islands. Introduced species are indicated with “*” and “/” is used to indicate groups that occur all the way from the first locality to the second.

En la columna de Distribución Neotropical aparecen las siguientes convenciones: sa = Sudamérica, sas = Sur de Sudamérica, san = Norte de Sudamérica, ne = Neotrópico, cam = Centroamérica, rd = República Dominicana, gal = Islas Galápagos, mar = Martinica, e ica = Islas Caribe. Especies introducidas se denominan con el símbolo “” y “/” indica que el grupo se distribuye desde la primera localidad hasta la segunda.*

Taxon <i>Taxón</i>	Neotropical Distribution <i>Distribución Neotropical</i>	Species Number <i>Número de Especies</i>	Bibliographic Reference <i>Referencia Bibliográfica</i>
SUPERFAMILY/SUPERFAMILIA CHRYSIDOIDEA			
FAMILY/FAMILIA PLUMARIIDAE			Roig-Alsina 1994
<i>Maplurius</i> Roig-Alsina, 1994	ar	1	Roig-Alsina 1994
<i>Plumarius</i> Philippi, 1873	sa	16	Roig-Alsina 1994
<i>Plumaroides</i> Brothers, 1974	ar	1	Roig-Alsina 1994

Taxon Taxón	Neotropical Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
FAMILY/FAMILIA SCOLEBYTHYDAE			Azevedo 1999
<i>Clystospenella</i> Kieffer, 1911	cr co br	1	Azevedo 1999
<i>Dominibythus</i> Prentice, Poinar & Milki, 1996	br	1	Azevedo 1999
FAMILY/FAMILIA BETHYLIDAE			Evans 1964
Subfamily/Subfamilia Bethylinae			Evans 1964
<i>Goniozus</i> Foerster, 1856	ne	25	Evans 1964
<i>Lyptosenella</i> Kieffer, 1911	ch	2	Evans 1964
<i>Prosierola</i> Kieffer, 1905	ne	7	Evans 1964
Subfamily/Subfamilia Epyrinae			Evans 1964
Tribe/Tribu Cephalonimiini			Evans 1964
<i>Cephalonomia</i> Westwood, 1833	sa	3	Evans 1964
<i>Plastanoxus</i> Kieffer, 1905	cr	1	Evans 1964
<i>Prorops</i> Waterson, 1923	br*	1	Evans 1964
Tribe/Tribu Epyrini			Evans 1964
<i>Rhabdepyris</i> Kieffer, 1904	cam br	21	Evans 1964
<i>Anisepyris</i> Kieffer, 1905	ne	24	Evans 1964
<i>Procalyzoa</i> Kieffer, 1905	pn	1	Evans 1964
<i>Epyris</i> Westwood, 1832		19	Evans 1964
(<i>Epyris</i> s.s.)	ne	15	Evans 1964
(<i>Artiepyris</i> Kieffer, 1913)	cam	4	Evans 1964
<i>Aspidepyris</i> Evans, 1964	cam	3	Evans 1964
<i>Bakeriella</i> Kieffer, 1910	ne	14	Evans 1964
<i>Calyozina</i> Enderlein, 1912	pn br	3	Evans 1964
<i>Holepyris</i> Kieffer, 1904	ne	8	Evans 1964
<i>Laelius</i> Ashmead, 1893	cam	1	
Tribe/Tribu Sclerodermini			Evans 1964
<i>Chilepyris</i> Evans, 1964	ch	1	Evans 1964
<i>Glenosema</i> Kieffer, 1905	cr	1	Evans 1964
<i>Lepidosternopsis</i> Ogoblin, 1912	pn br	2	Evans 1964
<i>Scleroderma</i> Latreille, 1809	ne	5	Evans 1964
<i>Alongatepyris</i> Acevedo, 1992	br	1	
Subfamily/Subfamilia Pristocerinae			Evans 1964
<i>Pristocera</i> Klug, 1808	ne	71	Evans 1964
<i>Acrepyris</i> Kieffer, 1905	cam	6	Evans 1964
<i>Dissomphalus</i> Ashmead, 1893	ne	47	Evans 1964
<i>Pseudisobrachium</i> Kieffer, 1904	ne	53	Evans 1964
FAMILY/FAMILIA CHRYSIDIDAE			Kimsey & Bohart 1990
Subfamily/Subfamilia Cleptinae			Kimsey & Bohart 1990
<i>Cleptes</i> Latreille, 1802	ar	1	Kimsey & Bohart 1990
<i>Cleptidea</i> Mocsary, 1904	ne	15	Kimsey & Bohart 1990
Subfamily/Subfamilia Amiseginae			Kimsey & Bohart 1990
<i>Adelphe</i> Mocsary, 1890	ne	37	Kimsey & Bohart 1990
<i>Amisega</i> Cameron, 1898	ne	18	Kimsey & Bohart 1990
<i>Anadelphe</i> Kimsey, 1887	ne	2	Kimsey & Bohart 1990
<i>Duckeia</i> Costa Lima, 1936	br	3	Kimsey & Bohart 1990
<i>Nesogyne</i> Krombein, 1937	rd	1	Kimsey & Bohart 1990
Subfamily/Subfamilia Chrysidinae			Kimsey & Bohart 1990
Tribe/Tribu Chrysidini			Kimsey & Bohart 1990
<i>Chaenochrysis</i> Kimsey & Bohart, 1990	ne	51	Kimsey & Bohart 1990
<i>Gaulea</i> Boysson, 1910	ar	1	Kimsey & Bohart 1990
<i>Ipsiura</i> Linsenmaier, 1959	ne	32?	Kimsey & Bohart 1990
<i>Exochrysis</i> Bohart, 1966	ne?	7?	Kimsey & Bohart 1990
<i>Neochrysis</i> Linsenmaier, 1959	ne	13?	Kimsey & Bohart 1990
<i>Pleurochrysis</i> Bohart, 1966	ne	20?	Kimsey & Bohart 1990

Taxon <i>Taxón</i>	Neotropical Distribution <i>Distribución</i> <i>Neotropical</i>	Species Number <i>Número</i> <i>de Especies</i>	Bibliographic Reference <i>Referencia</i> <i>Bibliográfica</i>
<i>Pseudospinolia</i> Linsenmaier, 1951	ch	1	Kimsey & Bohart 1990
<i>Chrysis</i> Linnaeus, 1758	ne	12?	Kimsey & Bohart 1990
Tribe/Tribu Elampini			Kimsey & Bohart 1990
<i>Exallopyga</i> French, 1985	ne	3	Kimsey & Bohart 1990
<i>Elampus</i> Spinola, 1806	cam br	3	Kimsey & Bohart 1990
<i>Hedychridium</i> Abeille, 1878	ne	3	Kimsey & Bohart 1990
<i>Hedychrum</i> Latreille, 1802	ne	6	Kimsey & Bohart 1990
<i>Holophris</i> Mocsary, 1890	ne	6	Kimsey & Bohart 1990
<i>Holopyga</i> Dahlbom, 1845	ne	7	Kimsey & Bohart 1990
<i>Muesebeckidium</i> Krombein, 1969	ne	1	Kimsey & Bohart 1990
<i>Omalus</i> Panzer, 1801	ne	5	Kimsey & Bohart 1990
FAMILY/FAMILIA SCLEROGIBBIDAE			Olmi en preparación
<i>Probethylus</i> Ashmead, 1902	me tt co ar	3	
<i>Sclerogiba</i> Riggio & De Stefani, 1888	ne	8+	
FAMILY/FAMILIA DRYINIDAE			Olmi 1984, 1989, 1995a; Olmi <i>et al.</i> 2000
Subfamily/Subfamilia Aphelopinae			Olmi 1984; Olmi <i>et al.</i> 2000
<i>Aphelopus</i> Dalman, 1823	ne	11	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Crovettia</i> Olmi, 1984	ne	10	Olmi 1984; Olmi <i>et al.</i> 2000
Subfamily/Subfamilia Anteoninae			Olmi 1984; Olmi <i>et al.</i> 2000
<i>Anteon</i> Jurine, 1807	ne	65	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Deinodryinus</i> R. Perkins, 1907	ne	100	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Lonchodryinus</i> Kieffer, 1905	ne	2	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Metanteon</i> Olmi, 1984	ar ch	1	Olmi 1984; Olmi <i>et al.</i> 2000
Subfamily/Subfamilia Apodryinae			Olmi 1984; Olmi <i>et al.</i> 2000
<i>Apodryinus</i> Olmi, 1984	ch ar	1	Olmi 1984; Olmi <i>et al.</i> 2000
Subfamily/Subfamilia Bocchinae			Olmi 1984; Olmi <i>et al.</i> 2000
<i>Bocchus</i> Ashmead, 1893	ne	8	Olmi 1984; Olmi <i>et al.</i> 2000
Subfamily/Subfamilia Dryininae			Olmi 1984; Olmi <i>et al.</i> 2000
<i>Dryinus</i> Latreille, 1804	ne	89	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Gonadryinus</i> Olmi, 1989	cam	1	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Megadryinus</i> Richards, 1953	tt pe ar	2	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Thaumadryinus</i> R. Perkins, 1905	ne	8	Olmi 1984; Olmi <i>et al.</i> 2000
Subfamily/Subfamilia Gonatopodinae			Olmi 1984; Olmi <i>et al.</i> 2000
<i>Adryinus</i> Olmi, 1984	mar	1	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Echthrodelphax</i> R. Perkins, 1903	ica	1	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Esagonatopus</i> Olmi, 1984	br ar	2	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Eucamptonyx</i> Perkins, 1907	ne	8	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Gonatopus</i> Ljungh, 1810	ne	96	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Haplogonatopus</i> R. Perkins, 1905	ne	3	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Neodryinus</i> R. Perkins, 1905	ne	12	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Pareucamptonyx</i> Olmi, 1989	cr /br	2	Olmi 1984; Olmi <i>et al.</i> 2000
<i>Trichogonatopus</i> Kieffer, 1913	ne	11	Olmi 1984; Olmi <i>et al.</i> 2000
FAMILY/FAMILIA EMBOLEMIDAE			Olmi 1995b; Amarante <i>et al.</i> 1999
<i>Ampulicomorpha</i> Ashmead, 1833	ar	1	Olmi 1995; Amarante <i>et al.</i> 1999
<i>Embolemus</i> Westwood, 1833	ne	5	Olmi 1995; Amarante <i>et al.</i> 1999
SUPERFAMILY/SUPERFAMILIA APOIDEA			
FAMILY/FAMILIA AMPULICIDAE			Bohart & Menke 1976
Subfamily/Subfamilia Dolichurinae			Bohart & Menke 1976
<i>Dolichurus</i> Latreille, 1809		3	Bohart & Menke 1976
<i>Paradolichurus</i> Williams, 1960		3	Bohart & Menke 1976

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
Subfamily/Subfamilia Ampulicinae <i>Ampulex</i> Jurine, 1807		14	Bohart & Menke 1976 Bohart & Menke 1976
FAMILY/FAMILIA SPHECIDAE			Bohart & Menke 1976
Subfamily/Subfamilia Sceliphrinae			Bohart & Menke 1976
Tribe/Tribu Stangeellini <i>Stangeella</i> Menke, 1962		1	Bohart & Menke 1976 Bohart & Menke 1976
Tribe/Tribu Sceliphriini <i>Chalybion</i> Dahlbom, 1843		2	Bohart & Menke 1976 Bohart & Menke 1976
<i>Chlorion</i> Latreille, 1802		5	Bohart & Menke 1976
<i>Dynatus</i> Lepeletier, 1845		3	Bohart & Menke 1976
<i>Penepodium</i> Menke, 1976		22	Bohart & Menke 1976
<i>Podium</i> Fabricius, 1804		19	Bohart & Menke 1976
<i>Sceliphron</i> Klug, 1801		4	Bohart & Menke 1976
<i>Trigonopsis</i> Perty, 1833		16	Vardy 1978
Subfamily/Subfamilia Sphecinae			Bohart & Menke 1976
Tribe/Tribu Sphecini <i>Isodontia</i> Patton, 1881		16	Bohart & Menke 1976 Bohart & Menke 1976
<i>Sphex</i> Linnaeus, 1758		28	Bohart & Menke 1976
Tribe/Tribu Prionochyini <i>Prionyx</i> Vander Linden, 1827		13	Bohart & Menke 1976 Bohart & Menke 1976
Subfamily/Subfamilia Ammophilinae			Bohart & Menke 1976
Tribe/Tribu Ammophilini <i>Ammophila</i> W. Kirby, 1798		17	Bohart & Menke 1976
<i>Eremnophila</i> Menke, 1964		9	Bohart & Menke 1976
<i>Podalonia</i> Fernald, 1927		4	Bohart & Menke 1976
FAMILY/FAMILIA CRABRONIDAE			Bohart & Menke 1976
Subfamily/Subfamilia Pemphredoninae			
Tribe/Tribu Odontosphecini <i>Odontosphe</i> Arnold, 1951	bo ar	3	Rubio 1976 Rubio 1976 Finnamore 1997
Tribe/Tribu Psenini Subtribe/Subtribu Psenina <i>Mimumesa</i> Malloch, 1933	cam ica tt	3	
<i>Psen</i> Latreille, 1796	cu me/ho pe br	8	van Lith 1975a
<i>Pseneo</i> Malloch, 1933	ne	15	van Lith 1975a, b
Subtribe/Subtribu Psenulina <i>Pluto</i> Pate, 1937	ne	27	van Lith 1979
<i>Psenulus</i> Kohl, 1896	me /br	3	Bohart & Grissell 1969; van Lith 1978
Tribe/Tribu Pemphredonini Subtribe/Subtribu Pemphredonina <i>Passaloecus</i> Shuckard, 1837	br	1	Vincent 1979; Amarante & Vincent 1993
<i>Polemistus</i> Saussure, 1892	me /br	3	Menke & Vincent 1983
Subtribe/Subtribu Stigmina <i>Araucostigmus</i> Finnamore, 1995	ch	3	
<i>Aykhustigmus</i> Finnamore, 1995	sa	4	
<i>Incastigmus</i> Finnamore, 1995	sa ica	25	
<i>Llaghastigmus</i> Finnamore, 1995	sa	14	
<i>Parastigmus</i> Antropov, 1992	ar	1	Antropov 1992a
<i>Stigmus</i> Panzer, 1804	ne	10	
Subtribe/Subtribu Spilomenina <i>Microstigmus</i> Ducke, 1907	ne	22	Menke 1989
<i>Spilomena</i> Shuckard, 1838	ne	17	Antropov 1991, 1992b, 1993a
<i>Xysma</i> Pate, 1937	cr ec br	1	
Subtribe/Subtribu Ammoplanina <i>Ammoplanus</i> Giraud, 1869	ch	1	Sielfeld 1980a

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
Subfamily/Subfamilia Astatinae			
Tribe/Tribu Astatini			
<i>Astata</i> Latreille, 1796	ne	13	Parker 1966
<i>Diploplectron</i> Fox, 1893	me	3	
<i>Dryudella</i> Spinola, 1843	me	5	
<i>Uniplectron</i> Parker, 1966	me	1	
Subfamily/Subfamilia Crabroninae			
(includes / incluye Larrinae)			
Tribe/Tribu Larrini			
Subtribe/Subtribu Larrina			
<i>Larra</i> Fabricius, 1793	ne	7	Menke 1992
<i>Liris</i> Fabricius, 1804	ne	75	
Subtribe/Subtribu Tachytina			
<i>Parapiagetia</i> Kohl, 1896	ar pr	2	Bohart 1979 Pulawski 1988
<i>Tachytes</i> Panzer, 1806	ne	60	
<i>Tachysphex</i> Kohl, 1883	ne	31	
Tribe/Tribu Miscophini			
<i>Lyroda</i> Say, 1837	br ec	4	Sielfeld 1975, 1976, 1980c; Bohart 1990a, 1990b
<i>Miscophus</i> Jurine, 1807	cr pn br	2	
<i>Nitela</i> Latreille, 1809	cr ec pe br	7	
<i>Plenoculus</i> Fox, 1893	me	3	
<i>Solierella</i> Spinola, 1851	ne	24	
Tribe/Tribu Trypoxylini			
<i>Aulacophilus</i> F. Smith, 1869	me /br	3	Menke 1988 Menke 1988
<i>Pison</i> Jurine, 1808	ne	42	
<i>Pisonopsis</i> W. Fox, 1893	cr ar ch	3	
<i>Pisoxylon</i> Menke, 1968	co pe br	1	
<i>Trypoxylon</i> Latreille, 1796	ne	156	Vardy 1987
Tribe/Tribu Bothynostethini			
<i>Bothynostethus</i> Kohl, 1884	me /pr	9	Vardy 1987 Vardy 1987 Menke & Vardy 1980
<i>Sanaviron</i> Vardy, 1987	ar	1	
<i>Willinkiella</i> Menke, 1968	br bo ar	2	
Tribe/Tribu Scapheutini			
<i>Bohartella</i> Menke, 1968	cr /br	2	Menke & Vardy 1980
<i>Scapheutes</i> Handlirsch, 1887	cr /ar	3	
Tribe/Tribu Oxybelini			
<i>Belomicrus</i> Costa, 1871	me	1	Bohart 1992, 1993
<i>Oxybelus</i> Latreille, 1796	ne	59	
Tribe/Tribu Crabronini			
<i>Alinia</i> Antropov, 1993	vn /ar	3	Antropov 1993b; Leclercq 1993
<i>Anacrabro</i> Packard, 1866	ne	10	
<i>Chimila</i> Pate, 1944	me cr /br bo	4	Leclercq 1980c
<i>Crabro</i> Fabricius, 1775	me /cr	8	
<i>Crossocerus</i> Lepeletier & Brullé, 1834	ne	10	Leclercq 1991
<i>Echucoides</i> Leclercq, 1957	ec pe bo	2	
<i>Ectemnius</i> Dahlbom, 1845	ne	41	Leclercq 1980a
<i>Enoplolindenius</i> Rohwer, 1911	ne	16	
<i>Entomocrabro</i> Kohl, 1905	ne	10	Leclercq 1980c Leclercq 1994a
<i>Entomognathus</i> Dahlbom, 1844	cam	3	
<i>Foxita</i> Pate, 1898	cr /pr	17	Leclercq 1979
<i>Holcorhopalum</i> Cameron, 1904	me /ar	8	
<i>Huacrabro</i> Leclercq, 2000	ica	1	Leclercq 1979
<i>Huavea</i> Pate, 1948	me	1	
<i>Lecrenierus</i> Leclercq, 1977	cr /ar	11	Leclercq 1979
<i>Lestica</i> Billberg, 1820	ne	4	
<i>Moniaecera</i> Ashmead, 1899	me	1	

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
<i>Pae</i> Pate, 1944 (<i>Lamocrabro</i> Leclercq, 1951) ¹	me /br bo	3	
<i>Parataruma</i> Kimsey, 1982	me /br	2	Kimsey 1982
<i>Podagritus</i> Spinola, 1851	ne	44	Leclercq 1980d , 1981, 1982
<i>Quexua</i> Pate, 1942	cr /br bo	12	Leclercq 1980b
<i>Rhopalum</i> Stephens, 1829	ne	23	Leclercq 1994b
<i>Tracheliodes</i> Morawitz, 1866	ec br pr	2	
<i>Taruma</i> Pate, 1944 ²	me br pr	1	
Subfamily/Subfamilia Mellininae Tribe/Tribu Mellinini <i>Mellinus</i> Fabricius, 1790	me /vn br?	9	Siri & Bohart 1974; Menke 1996
Subfamily/Subfamilia Bembecinae Tribe/Tribu Heliocausini <i>Acanthocausus</i> Fritz & Toro, 1977	ar	1	Fritz & Toro 1977
<i>Heliocausus</i> Kohl, 1892	sas	3	Fritz & Toro 1977
<i>Tiquipa</i> Fritz & Toro, 1977	br ar pr	4	Fritz & Toro 1977
Tribe/Tribu Alyssonini <i>Alysson</i> Panzer, 1806	me	2	Fritz & Toro 1977
<i>Didineis</i> Wesmae, 1852	cu	1	Fritz & Toro 1977
Tribe/Tribu Nyssonini <i>Antomartinezius</i> Fritz, 1955	ar	3	Fritz & Toro 1977
<i>Cresson</i> Pate, 1938	ch	1	Fritz & Toro 1977
<i>Epinysson</i> Pate, 1935	ne	10	Fritz & Toro 1977
<i>Foxia</i> Ashmead, 1898	me /ar	17	Fritz & Toro 1977
<i>Idionysson</i> Pate, 1940	sa	3	Fritz & Toro 1977
<i>Losada</i> Pate, 1940	vn /pr	3	Fritz & Toro 1977
<i>Metanysson</i> Ashmead, 1899	me /ar	11	Fritz 1974
<i>Neonysson</i> Bohart, 1968	ch	2	Fritz 1974
<i>Perisson</i> Pate, 1938	ar	1	Fritz 1974
<i>Zanysson</i> Rohwer, 1921	ne	15	Fritz 1974
Tribe/Tribu Gorytini <i>Allogorytes</i> Bohart, 2000			
<i>Argogorytes</i> Ashmead, 1899	cr br pr	2	Fritz 1974
<i>Aroliagorytes</i> Bohart, 2000			
<i>Clitemnestra</i> Spinola, 1851	ch	3	Fritz 1974
<i>Epigorytes</i> Bohart, 2000	cr /co		
<i>Harpactus</i> Shuckard, 1837 ³	me	1	Bohart 1980
<i>Hoplisoides</i> Gribodo, 1884	ne	23	Bohart 1980
<i>Leiogorytes</i> Bohart, 2000	me	1	
<i>Leurogorytes</i> Bohart, 2000	ar	1	
<i>Lestiphorus</i> Lepeletier, 1832	cr	1	Bohart 1980
<i>Liogorytes</i> Bohart, 1967	br bo ar	6	Bohart 1980
<i>Megistommum</i> Schulz, 1906	me /pr	8	Bohart 1980
<i>Neogorytes</i> Bohart, 1976	cr ec pe	1	Bohart 1980
<i>Neoplilus</i> Bohart, 1967	ne		Bohart 1980
<i>Ochleroptera</i> Holmberg, 1903	gu /ar	10	Bohart 1980
<i>Oryttus</i> Spinola, 1836	ch ar	2	Bohart 1980
<i>Psammaletes</i> Pate, 1936	me /cr	2	Bohart 1980
<i>Pseudoplilus</i> Ashmead, 1899	me a cr	8	Bohart 1969a, b
<i>Pterygorytes</i> Bohart, 1967	co br	3	Bohart 1969a, b
<i>Sagenista</i> Bohart, 1967	ne	7	Bohart 1969a, b
<i>Sphecius</i> Dahlbom, 1943	me /ho br ar	3	Bohart 1969a, b
<i>Stethogorytes</i> Bohart, 2000			
<i>Tanyoprymnus</i> Cameron, 1905	me /cr	1	Bohart 1969a, b
<i>Trachogorytes</i> Bohart, 2000	cr	1	
<i>Tretogorytes</i> Bohart, 2000	br	1	

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
Tribe/Tribu Stizini			Bohart 1969a, b
<i>Bembecinus</i> A. Costa, 1859	ne	11	Bohart 1969a, b
<i>Stizus</i> Latreille, 1802	me	1	Stubblefield 1984
<i>Stizoides</i> Guérin-Meneville, 1844	me	2	
Tribe/Tribu Bembecini			Stubblefield 1984
Subtribe/Subtribu Bembecina			Stubblefield 1984
<i>Bembix</i> Fabricius, 1775	ne	10	Stubblefield 1984
<i>Bicyrtes</i> Lepeletier, 1845	ne	17	Stubblefield 1984
<i>Carlobembix</i> Willink, 1958	ar	1	Stubblefield 1984
<i>Editha</i> J. Parker, 1929	sa	6	Stubblefield 1984
<i>Hemidula</i> Burmeister, 1874	ar	2	Stubblefield 1984
<i>Microbembex</i> Patton, 1879	ne	22	Bohart & Willink 1989; Bohart 1993
<i>Rubrica</i> J. Parker, 1929	ne	4	Bohart & Willink 1989; Bohart 1993
<i>Selman</i> J. Parker, 1929	br ar	1	Bohart & Willink 1989; Bohart 1993
<i>Stictia</i> Illiger, 1807	ne	26	Bohart & Willink 1989; Bohart 1993
<i>Trichostictia</i> J. Parker, 1929	pe ch ar	3	Bohart & Willink 1989; Bohart 1993
<i>Zyzyx</i> Pate, 1937	pe ch ar	1	Bohart & Willink 1989; Bohart 1993
Subtribe/Subtribu Stictiellina			Bohart & Gillaspay 1985
<i>Glenosticta</i> Gillaspay, 1962	me	5	Bohart & Gillaspay 1985
<i>Microstictia</i> Gillaspay, 1963	me	5	Bohart & Gillaspay 1985
<i>Steniolia</i> Say, 1837	me /ec	2	Bohart & Gillaspay 1985
<i>Stictiella</i> Parker, 1917	me	2	Bohart & Gillaspay 1985
Subfamily/Subfamilia Philanthinae			Alexander 1992a
Tribe/Tribu Philanthini			Alexander 1992a
<i>Philanthus</i> Fabricius, 1790	me cam	4	Alexander 1992a
<i>Trachypus</i> Klug, 1810	ne	31	Rubio 1976
Tribe/Tribu Cercerini			Rubio 1976
<i>Cerceris</i> Latreille, 1803	ne	169	Fritz & Mariluis 1977, 1979; Fritz 1983a, 1983b, 1989, 1990
<i>Eucerceris</i> Cresson, 1865	me /pn		
Tribe/Tribu Aphilantopsini			
<i>Clypeadon</i> Patton, 1897	me	2	
FAMILY/FAMILIA COLLETIDAE			Michener 2000
Subfamily/Subfamilia Colletinae			Michener 1986b
<i>Colletes</i> Latreille, 1802	ne	90	Michener 1986b
<i>Mourecotelles</i> Toro & Cabezas, 1977			Michener 1986b
(<i>Hemicotelles</i> Toro & Cabezas, 1977)	ar ch	2	Michener 1986b
(<i>Mourecotelles</i> Toro & Cabezas, 1977)	bo ch ar	8	Michener 1986b
(<i>Xanthocotelles</i> Toro & Cabezas, 1979)	ch ar	11	Michener 1986b
<i>Brachyglossula</i> Hedicke, 1922	bo ar	4	Michener 1986b
<i>Eulonchopria</i> Bréthes, 1909			Michener 1986b
(<i>Ethalonchopria</i> Michener, 1989)	bo br	2	Michener 1986b
(<i>Eulonchopria</i> Bréthes, 1909)	ne	3	Michener 1986b
<i>Leioproctus</i> Smith, 1853	pe /ar	aprox. 100	Michener 1986b
(<i>Cephalocolletes</i> Michener, 1989)	ar	1	Michener 1986b
(<i>Chilicolletes</i> Michener, 1989)	ch	2	Michener 1986b
(<i>Glossopasiphae</i> Michener, 1989)	br	1	Michener 1986b
(<i>Halictanthrena</i> Ducke, 1907)	br	1	Michener 1986b
(<i>Hexanthes</i> Oglobin, 1948)	br ar	1	Michener 1986b
(<i>Holmbergeria</i> Jörgensen, 1912)	ar pr	2	Michener 1986b
(<i>Hoplocolletes</i> Michener, 1965)	br	1	Michener 1986b
(<i>Kylopasiphae</i> Michener, 1989)	ar	1	Michener 1986b
(<i>Leioproctus</i> s. str.)	br	1	Michener 1986b
(<i>Nomiocolletes</i> Bréthes, 1909)	pe br bo ar	5	Michener 1986b
(<i>Perditomorpha</i> Ashmead, 1899)	pe /br	45	Michener 1986b

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
(<i>Protodiscelis</i> Brethes, 1909)	br pr	4	Michener 1986b
(<i>Pygopasiphae</i> Michener, 1989)	ar	2	Michener 1986b
(<i>Reedapis</i> Michener, 1989)	ch	3	Michener 1986b
(<i>Sarocolletes</i> Michener, 1989)	ar	8	Michener 1986b
(<i>Spinolapis</i> Moure, 1951)	ch ar	3	Michener 1986b
(<i>Tetraglossula</i> Oglobin, 1948)	br ar	5	Michener 1986b
(<i>Torocolletes</i> Michener, 1989)	ch	2	Michener 1986b
<i>Lonchopria</i> Vachal, 1905			Michener 1986b
(<i>Biglossa</i> Friese, 1906)	co /ar	9	Michener 1986b
(<i>Ctenosibyne</i> Moure, 1956)	br	1	Michener 1986b
(<i>Lonchoprella</i> Michener, 1989)	ar	1	Michener 1986b
(<i>Lonchopria</i> s. str.)	ch ar	4	Michener 1986b
(<i>Porterapis</i> Michener, 1989)	ch	1	Michener 1986b
<i>Lonchorhyncha</i> Michener, 1989	ec	1	Michener 1986b
<i>Niltonia</i> Moure, 1964	br	1	Michener 1986b
Subfamily/Subfamilia Diphaglossinae			Michener 1986b
Tribe/Tribu Caupolicanini			Michener 1986b
<i>Caupolicana</i> Spinola, 1851			Michener 1986b
(<i>Alayoapis</i> Michener, 1966)	cu	1	Michener 1986b
(<i>Caupolicana</i> s. str.)	sa	25	Michener 1986b
(<i>Willinkapis</i> Moure, 1953)	pe ar	2	Michener 1986b
(<i>Zikanapis</i> Moure, 1945)	ne	7	Michener 1986b
<i>Crawfordapis</i> Moure, 1964	cam	1	Michener 1986b
<i>Ptiloglossa</i> Smith, 1853	ne	30	Michener 1986b
Tribe/Tribu Diphaglossini			Michener 1986b
<i>Cadeguala</i> Reed, 1892	bo ch ar	2	Michener 1986b
<i>Cadegualina</i> Michener, 1986	vn /bo	1	Michener 1986b
<i>Diphaglossa</i> Spinola, 1851	ch	1	Michener 1986b
Tribe/Tribu Dissoglottini			Michener 1986b
<i>Mydrosoma</i> Smith, 1879	me /br	8	Michener 1986b
<i>Mydrosomella</i> Michener, 1986	ar	1	Michener 1986b
<i>Ptiloglossidia</i> Moure, 1953	br ar	1	Michener 1986b
Subfamily/Subfamilia Hylaeinae			Michener 1986b
<i>Hylaeus</i> F., 1793			Michener 1986b
(<i>Cephylaeus</i> Moure, 1972)	br	1	Michener 1986b
(<i>Gongyloprodopis</i> Snelling, 1982)	sa	5	Michener 1986b
(<i>Hylaeana</i> Michener, 1954)	ne	19?	Michener 1986b
(<i>Hylaeopsis</i> Michener, 1954)	ne	25+	Michener 1986b
(<i>Spatulariella</i> Popov, 1939)	ch*	1	Michener 1986b
Subfamily/Subfamilia Xeromelissinae			Michener 1986b
Tribe/Tribu Chilicolini			Michener 1986b
<i>Chilicola</i> Spinola, 1851			Michener 1986b
(<i>Anoediscelis</i> Toro & Moldenke, 1979)	ne	14	Michener 1986b
(<i>Chilicola</i> Spinola, 1851)	ch	4	Michener 1986b
(<i>Chilioediscelis</i> Toro & Moldenke, 1979)	ch ar	3	Michener 1986b
(<i>Hylaeosoma</i> Ashmead, 1898)	ne	8	Michener 1986b
(<i>Oediscelis</i> Philippi, 1866)	ch br ar	20	Michener 1986b
(<i>Prosopoides</i> Friese, 1908)	br pr	2	Michener 1986b
(<i>Pseudiscelis</i> Friese, 1906)	ar	2	Michener 1986b
Tribe/Tribu Xeromelissini			Michener 1986b
<i>Chilimelissa</i> Toro & Moldenke, 1979	ch ar	17	Michener 1986b
<i>Xenochilicola</i> Toro & Moldenke, 1979	ch	3	Michener 1986b
<i>Xeromelissa</i> Cockerell, 1926	pe ch	1	Michener 1986b

Taxon <i>Taxón</i>	Neotropical Distribution <i>Distribución</i> <i>Neotropical</i>	Species Number <i>Número</i> <i>de Especies</i>	Bibliographic Reference <i>Referencia</i> <i>Bibliográfica</i>
FAMILY/FAMILIA ANDRENIDAE			Michener 2000
Subfamily/Subfamilia Alocandreninae			Michener 1986c
<i>Alocandrena</i> Michener, 1986	pe	1	Michener 1986c
Subfamily/Subfamilia Andreninae			Michener 1986c
<i>Andrena</i> Fabricius, 1775			Michener 1986c
(<i>Aporandrena</i> Lanham, 1949)	pn	1	Michener 1986c
(<i>Callandrena</i> Cockerell, 1898)	cam	1	Michener 1986c
<i>Euherbstia</i> Friese, 1925	ch	1	Michener 1986c
<i>Orphana</i> Vachal, 1909	ch	2	Michener 1986c
Subfamily/Subfamilia Oxaeinae			Hurd & Linsley 1976
<i>Oxaea</i> Klug, 1807			Hurd & Linsley 1976
(<i>Mesoxaea</i> Hurd & Linsley, 1976)	cam	3	Hurd & Linsley 1976
(<i>Oxaea</i> s.str.)	ne	8	Hurd & Linsley 1976
<i>Protoxaea</i> Cockerell & Porter, 1899			Hurd & Linsley 1976
(<i>Notoxaea</i> Hurd & Linsley, 1976)	sa	1	Hurd & Linsley 1976
Subfamily/Subfamilia Panurginae			Ruz & Rozen 1993
Tribe/Tribu Calliopsini			Ruz 1991
<i>Acamptopoeum</i> Cockerell, 1905	co /ar	8	Ruz 1991
<i>Arhysosage</i> Bréthes, 1922	ar	3	Ruz 1991
<i>Calliopsis</i> Smith, 1853			Ruz 1991
(<i>Calliopsis</i> Smith, 1853)	ne	12	Ruz 1991
(<i>Ceroliopoeum</i> Ruz, 1991)	ar	1	Ruz 1991
(<i>Liopoeodes</i> Ruz, 1991)	ar	1	Ruz 1991
(<i>Liopoeum</i> Friese, 1906)	ch ar	4	Ruz 1991
<i>Callonychium</i> Bréthes, 1922			Ruz 1991
(<i>Callonychium</i> Bréthes, 1922 s. s.)	br pr ar	6	Ruz 1991
(<i>Paranychium</i> Toro & Herrera, 1980)	ch ar	5	Ruz 1991
<i>Spinoliella</i> Ashmead, 1899			Ruz 1991
(<i>Peniella</i> Toro & Ruz, 1973)	ch	4	Ruz 1991
(<i>Spinoliella</i> Ashmead, 1899 s. s.)	ch	2	Ruz 1991
Tribe/Tribu Perditini			Michener 2000
<i>Perdita</i> Smith, 1853	ne gu		Michener 2000
(<i>Perdita</i> s. str.)	gu	5?	Michener 2000
Tribe/Tribu Protandrenini			Michener 2000
<i>Anthrenoides</i> Ducke, 1907	sas	8	Michener 2000
<i>Chaeturginus</i> Lucas de Oliveira & Moure, 1963	br	1	Michener 2000
<i>Lipanthus</i> Reed, 1894	ch ar	20	Ruz & Toro 1983
(<i>Leptophanthus</i> Ruz & Toro, 1983)	ch ar	7	Ruz & Toro 1983
(<i>Lipanthus</i> s. str.)	ch	4	Ruz & Toro 1983
(<i>Melalipanthus</i> Ruz & Toro, 1983)	ch	2	Ruz & Toro 1983
(<i>Neolipanthus</i> Ruz & Toro, 1983)	ch	1	Ruz & Toro 1983
(<i>Pseudolipanthus</i> Ruz & Toro, 1983)	ch ar	4	Ruz & Toro 1983
(<i>Tricholipanthus</i> Ruz & Toro, 1983)	ch	3	Ruz & Toro 1983
(<i>Xenolipanthus</i> Ruz & Toro, 1983)	ch	4	Ruz & Toro 1983
<i>Neffapis</i> Ruz, 1995	ch	1	Rozen & Ruz 1995
<i>Parapsaenythia</i> Friese, 1908	sas	2	Michener 2000
<i>Protandrena</i> Cockerell, 1896			Michener 2000
(<i>Austropanurgus</i> Toro, 1980)	ch	1	Michener 2000
(<i>Heterosarus</i> Robertson, 1918)	pn sa	8	Michener 2000
(<i>Parasarus</i> Ruz, 1993)	ch ar	3	Michener 2000
(<i>Pterosarus</i> Timberlake, 1967)	me /gu	10	Michener 2000
<i>Psaenythia</i> Gerstaecker, 1868	sas	80?	Michener 2000
<i>Pseudopanurgus</i> Cockerell, 1897	me /cr	10	Michener 2000
<i>Rhopitulus</i> Ducke, 1907			Michener 2000
(<i>Cephalurgus</i> Ducke, 1907)	pr br	5	Michener 2000
(<i>Rhopitulus</i> s.s.)	br ar	3	Michener 2000

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
Tribe/Tribu Protomeliturgini			Michener 2000
<i>Protomeliturga</i> Ducke, 1912	br	1	Michener 2000
Género A Brooks & González	co	2	Michener 2000
FAMILY/FAMILIA HALICTIDAE			Moure & Hurd 1987; Michener 2000
Subfamily/Subfamilia Rophitinae			Moure & Hurd 1987; Michener 2000
<i>Ceblurgus</i> Urban & Moure, 1993	br	1	Moure & Hurd 1987; Michener 2000
<i>Penapis</i> Michener, 1965	ch	1	Moure & Hurd 1987; Michener 2000
Subfamily/Subfamilia Halictinae			Moure & Hurd 1987; Michener 2000
Tribe/Tribu Augochlorini			Moure & Hurd 1987; Michener 2000
<i>Andinaugochlora</i> Eickwort, 1969	ec	1	Moure & Hurd 1987; Michener 2000
<i>Ariphanarthra</i> Moure, 1951	br pr	1	Moure & Hurd 1987; Michener 2000
<i>Augochlora</i> Smith, 1853			Moure & Hurd 1987; Michener 2000
(<i>Aethechlora</i> Moure & Hurd, 1987)	pe	1	Moure & Hurd 1987; Michener 2000
(<i>Augochlora</i> s.s. Smith, 1853)	ne	71	Moure & Hurd 1987; Michener 2000
(<i>Mycterochlora</i> Eickwort, 1969)	ne	3	Moure & Hurd 1987; Michener 2000
(<i>Oxystoglossella</i> Eickwort, 1969)	ne	27	Moure & Hurd 1987; Michener 2000
(Subgén. A Moure & Hurd, 1987)	ne	14	Moure & Hurd 1987; Michener 2000
<i>Augochlorella</i> Sandhouse, 1937	ec br ar	17	Moure & Hurd 1987; Michener 2000
(<i>Augochlorella</i> s.str.)	ne	10	Moure & Hurd 1987; Michener 2000
(<i>Ceratalictus</i> Moure, 1943)	sas	5	Moure & Hurd 1987; Michener 2000
(<i>Pereirapis</i> Moure, 1943)	pn br	4	Moure & Hurd 1987; Michener 2000
<i>Augochlorodes</i> Moure, 1958	br	1	Moure & Hurd 1987; Michener 2000
<i>Augochloropsis</i> Cockerell, 1897	ne		Moure & Hurd 1987; Michener 2000
(<i>Augochloropsis</i> s.str.)			Moure & Hurd 1987; Michener 2000
(<i>Paraugochloropsis</i> Schrottky, 1906)			Moure & Hurd 1987; Michener 2000
<i>Caenoaugochlora</i> Michener, 1954	ne	14	Moure & Hurd 1987; Michener 2000
(<i>Caenoaugochlora</i> s.str. Michener, 1954)		13	Moure & Hurd 1987; Michener 2000
(<i>Ctenaugochlora</i> Eickwort, 1969)	pn	1	Moure & Hurd 1987; Michener 2000
<i>Ceratalictus</i> Moure, 1943	sa	4	Moure & Hurd 1987; Michener 2000
<i>Chlerogas</i> Vachal, 1904	pe	2	Moure & Hurd 1987; Michener 2000
<i>Chlerogella</i> Michener, 1954			Moure & Hurd 1987; Michener 2000
<i>Corynura</i> Spinola, 1851	ne	23	Moure & Hurd 1987; Michener 2000
(<i>Corynura</i> s.str. Spinola, 1851)	cam /ch	18	Moure & Hurd 1987; Michener 2000
(<i>Callochlora</i> Moure, 1954)	sa	4	Moure & Hurd 1987; Michener 2000
(Subgén. A Moure & Hurd, 1987)	cam	1	Moure & Hurd 1987; Michener 2000
<i>Corynurella</i> Eickwort, 1969	br	1	Moure & Hurd 1987; Michener 2000
<i>Halictillus</i> Moure, 1947	br	1	Moure & Hurd 1987; Michener 2000
<i>Ischnomelissa</i> Engel, 1997	co	1	Moure & Hurd 1987; Michener 2000
<i>Megalopta</i> Smith, 1853	cam sa	28	Moure & Hurd 1987; Michener 2000
<i>Megaloptidia</i> Cockerell, 1900	gf br	4	Moure & Hurd 1987; Michener 2000
<i>Megommation</i> Moure, 1943			Moure & Hurd 1987; Michener 2000
(<i>Megommation</i> s.str. Moure, 1943)	sas	1	Moure & Hurd 1987; Michener 2000
(<i>Megaloptina</i> Eickwort, 1969)	cr br	2	Moure & Hurd 1987; Michener 2000
(<i>Megaloptilla</i> Moure & Hurd, 1987)	pe	1	Moure & Hurd 1987; Michener 2000
<i>Micrommation</i> Moure, 1969	br	1	Moure & Hurd 1987; Michener 2000
<i>Neocorynura</i> Schrottky, 1910			Moure & Hurd 1987; Michener 2000
(<i>Neocorynura</i> Schrottky, 1910 s.s.)	pe bo sas	64	Moure & Hurd 1987; Michener 2000
(<i>Neocorynuroides</i> Eickwort, 1969)	pe	1	Moure & Hurd 1987; Michener 2000
<i>Neocorynurella</i> Engel & Klein, 1997	co vn	2	Moure & Hurd 1987; Michener 2000
<i>Paroxystoglossa</i> Moure, 1941	sas	10	Moure & Hurd 1987; Michener 2000
<i>Pseudaugochlora</i> Michener, 1965	ne		Moure & Hurd 1987; Michener 2000
<i>Pseudaugochloropsis</i> Schrottky, 1906	ne	7	Moure & Hurd 1987; Michener 2000
<i>Rhectomia</i> Moure, 1947	br	1	Moure & Hurd 1987; Michener 2000
<i>Rhinocorynura</i> Schrottky, 1909	am /ar	5	Moure & Hurd 1987; Michener 2000
<i>Temnosoma</i> Smith, 1853			Moure & Hurd 1987; Michener 2000

Taxon Taxón	Neotropical Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
(<i>Micraugochlora</i> Schrottky, 1909)	ar	1	Moure & Hurd 1987; Michener 2000
(<i>Temnosoma</i> s. str.)	sas	6	Moure & Hurd 1987; Michener 2000
<i>Thectochlora</i> Moure, 1941	br pr	1	Moure & Hurd 1987; Michener 2000
Tribe/Tribu Halictini			Moure & Hurd 1987; Michener 2000
<i>Agapostemon</i> Guérin, 1844	cam sa	40	Moure & Hurd 1987; Michener 2000
<i>Caenohalictus</i> Cameron, 1903	sa	47	Moure & Hurd 1987; Michener 2000
<i>Habralictus</i> Moure, 1941		21	Moure & Hurd 1987; Michener 2000
(<i>Habralictus</i> s.str.)	cam /br	21	Moure & Hurd 1987; Michener 2000
(<i>Zikaniella</i> Moure, 1941)	br	1	Moure & Hurd 1987; Michener 2000
<i>Halictus</i> Latreille, 1804	me /vn	3	Moure & Hurd 1987; Michener 2000
(<i>Odontalictus</i> Robertson, 1918)	ne	1	Moure & Hurd 1987; Michener 2000
(<i>Seladonia</i> Robertson, 1918)	ne	2	Moure & Hurd 1987; Michener 2000
<i>Lasioglossum</i> Curtis, 1833	cam sa	46	Moure & Hurd 1987; Michener 2000
(<i>Evylaeus</i> Robertson, 1902)	cam	3	Moure & Hurd 1987; Michener 2000
(<i>Lasioglossum</i> Curtis, 1833)	pn /cr	2	Moure & Hurd 1987; Michener 2000
(<i>Paralictus</i> Robertson, 1901)	cam sa	44	Moure & Hurd 1987; Michener 2000
<i>Microsphecodes</i> Eickwort & Stage, 1972 ⁴	ica cam br co	7	Moure & Hurd 1987; Michener 2000
<i>Paragapostemon</i> Vachal, 1911	me /co	5	Moure & Hurd 1987; Michener 2000
<i>Pseudagapostemon</i> Schrottky, 1909	sa	19	Moure & Hurd 1987; Michener 2000
<i>Ptilocleptis</i> Michener, 1978	me /br	3	Moure & Hurd 1987; Michener 2000
<i>Rhinotula</i> Friese, 1922	cam /bo	1	Moure & Hurd 1987; Michener 2000
<i>Ruizantheda</i> Moure, 1964			Moure & Hurd 1987; Michener 2000
(<i>Oragapostemon</i> Cure, 1989)			Moure & Hurd 1987; Michener 2000
(<i>Ruizantheda</i> s.str. Moure, 1964)	ch ar pe	1	Moure & Hurd 1987; Michener 2000
(<i>Ruizanthedella</i> Moure, 1964)	ar ch	2	Moure & Hurd 1987; Michener 2000
<i>Sphex</i> Latreille, 1805	sa	32	Moure & Hurd 1987; Michener 2000
(<i>Austrosphex</i> Michener, 1978)	sa	32	Moure & Hurd 1987; Michener 2000
Subfamily/Subfamilia Nomiinae			Moure & Hurd 1987; Michener 2000
<i>Nomia</i> Latreille, 1804	cu bh	1	Moure & Hurd 1987; Michener 2000
FAMILY/FAMILIA MEGACHILIDAE			Michener 2000
Subfamily/Subfamilia Fideliinae			Michener 2000
Tribe/Tribu Fideliini			Michener 2000
<i>Neofidelia</i> Moure & Michener, 1955	ch	1	Michener 2000
Subfamily/Subfamilia Megachilinae			Michener 2000
Tribe/Tribu Anthidiini			Michener 2000
<i>Anthidium</i> F., 1804			Michener 2000
(<i>Anthidium</i> F. s. str.)	ne	21	Michener 2000
(<i>Anthidiellum</i> Cockerell, 1904)	cam	2	Michener 2000
<i>Anthodiocetes</i> Holmberg, 1903			Michener 2000
(<i>Anthodiocetes</i> s.s.)	ne	18	Michener 2000
(<i>Bothranthidium</i> Moure, 1947)	br pr	1	Michener 2000
<i>Dianthidium</i> Cockerell, 1906			Michener 2000
(<i>Adanthidium</i> Moure, 1965)			Michener 2000
(<i>Deracanthidium</i> Griswold & Michener, 1988)	me		Michener 2000
<i>Duckeanthidium</i> Moure & Hurd, 1960	sa	5	Michener 2000
<i>Epanthidium</i> Moure, 1947			Michener 2000
(<i>Ananthidium</i> Urban, 1991)	sas	2	Michener 2000
(<i>Carloticola</i> Urban, 1990)	me sa	3	Michener 2000
(<i>Epanthidium</i> s.str.)	sas	18	Michener 2000
<i>Hoplostelis</i> Dominique, 1898			Michener 2000
(<i>Austrostelis</i> Michener & Griswold, 1994)	ne	8	Michener 2000
(<i>Hoplostelis</i> s.str.)	ne	3	Michener 2000
(<i>Rhynostelis</i> Moure & Urban, 1994)	br	1	Michener 2000
<i>Hypanthidioides</i> Moure, 1947			Michener 2000
(<i>Anthidulum</i> Michener, 1948)	ne	4	Michener 2000

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
(<i>Ctenanthidium</i> Urban, 1993)	sas	3?	Michener 2000
(<i>Dichanthidium</i> Moure, 1947)	ar bo	2	Michener 2000
(<i>Dicranthidium</i> Moure & Urban, 1975)	co br	6	Michener 2000
(<i>Hypanthidiodes</i> s.s.)	br	1	Michener 2000
(<i>Michanthidium</i> Urban, 1994)	br ar	2	Michener 2000
(<i>Mielkeanthidium</i> Urban, 1996)	br	2	Michener 2000
(<i>Moureanthidium</i> Urban, 1995)	br	5	Michener 2000
(<i>Saranthidium</i> Moure & Hurd, 1960)			Michener 2000
<i>Hypanthidium</i> Cockerell, 1904			Michener 2000
(<i>Hypanthidium</i> s. str.)	ne	18	Michener 2000
(<i>Tylanthidium</i> Urban, 1994)	br	1	Michener 2000
<i>Notanthidium</i> Isensee, 1927			Michener 2000
(<i>Allanthidium</i> Moure, 1947)	pe /ar	7	Michener 2000
(<i>Notanthidium</i> s. str.)	ch ar	1	Michener 2000
<i>Paranthidium</i> Cockerell & Cockerell, 1901			Michener 2000
(<i>Paranthidium</i> s. str.)	cam	2?	Michener 2000
(<i>Rapanthidium</i> Michener, 1948)	cam	4	Michener 2000
<i>Stelis</i> Panzer, 1806			Michener 2000
(<i>Dolichostelis</i> Parker & Bohart, 1979)			Michener 2000
Tribe/Tribu Lithurgini			Michener 2000
<i>Lithurge</i> Latreille, 1825	ne	21	Michener 2000
(<i>Lithurge</i> s.str.)	br*	1	Michener 2000
(<i>Lithurgopsis</i> Fox, 1902)	ne	3	Michener 2000
<i>Microthurge</i> Michener, 1983	bo br ar	4	Michener 2000
<i>Trichothurgus</i> Moure, 1949	sas	13	Michener 2000
Tribe/Tribu Megachilini			Michener 2000
<i>Coelioxys</i> Latreille, 1809			Michener 2000
(<i>Acrocoelioxys</i> Mitchell, 1973)	ne	10?	Michener 2000
(<i>Boreocoelioxys</i> Mitchell, 1973)	cam	3?	Michener 2000
(<i>Cyrtocoelioxys</i> Mitchell, 1973)	ne	40	Michener 2000
(<i>Glyptocoelioxys</i> Mitchell, 1973)	ne	50+	Michener 2000
(<i>Haplocoelioxys</i> Mitchell, 1973)	ne	3+	Michener 2000
(<i>Neocoelioxys</i> Mitchell, 1973)	ne	7	Michener 2000
(<i>Platyoelioxys</i> Mitchell, 1973)	ne	1	Michener 2000
(<i>Rhinocoelioxys</i> Mitchell, 1973)	ne	5	Michener 2000
(<i>Synocoelioxys</i> Mitchell, 1973)	me /cr	3+	Michener 2000
<i>Megachile</i> Latreille, 1802			Michener 2000
Group/Grupo 1			
(<i>Chrysosaurus</i> Mitchell, 1943)	me ar	25	Michener 2000
(<i>Cressoniella</i> Mitchell, 1934)	me ar	6+	Michener 2000
(<i>Dasymegachile</i> Mitchell, 1943)	pe /ar		Michener 2000
(<i>Eutricharaea</i> Thomson, 1872)	an ar ch	1?	Michener 2000
(<i>Leptorachis</i> Mitchell, 1934)	ne	30	Michener 2000
(<i>Melanosarus</i> Mitchell, 1934)	ne	6+	Michener 2000
(<i>Moureana</i> Mitchell, 1980)	sas	8	Michener 2000
(<i>Neochelynia</i> Schrottky, 1920)	ne	5+	Michener 2000
(<i>Pseudocentron</i> Mitchell, 1934)	ne	60+	Michener 2000
(<i>Ptilosaroides</i> Mitchell, 1980)	pn sa	3	Michener 2000
(<i>Ptilosarus</i> Mitchell, 1943)	ne	12+	Michener 2000
(<i>Rhyssomegachile</i> Mitchell, 1980)	br	1	Michener 2000
(<i>Sayapis</i> Titus, 1906)	ne	10	Michener 2000
(<i>Schrottkyapis</i> Mitchell, 1980)	br pr	1	Michener 2000
(<i>Stelodides</i> Moure, 1953)	ch ar	1	Michener 2000
(<i>Trichurochile</i> Mitchell, 1980)	bo br pr ar	1	Michener 2000
(<i>Tylomegachile</i> Moure, 1953)	ne	1	Michener 2000
(<i>Zonomegachile</i> Mitchell, 1980)	sa	3+	Michener 2000
Group/Grupo 2			

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
<i>(Callomegachile</i> Michener, 1962)	an am*	2?	Michener 2000
<i>(Chelostomoides</i> Robertson, 1901)	ne	10	Michener 2000
<i>(Pseudomegachile</i> Friese, 1898)	an	1	Michener 2000
Tribe/Tribu Osmiini			Michener 2000
<i>Heriades</i> Spinola, 1808			Michener 2000
<i>(Neotrypetes</i> Robertson, 1908)			Michener 2000
<i>Osmia</i> Panzer, 1806			Michener 2000
<i>(Diceratasmia</i> Robertson, 1903)			Michener 2000
FAMILY/FAMILIA APIDAE			Michener 2000
Subfamily/Subfamilia Apinae			
Tribe/Tribu Anthophorini			Brooks 1988
<i>Anthophora</i> Latreille, 1803	ne	13	Brooks 1988
<i>(Anthophoroides</i> Cockerell & Cockerell, 1901)	cam	1	Brooks 1988
<i>(Heliophila</i> Klug, 1807)	ec	1	Brooks 1988
<i>(Mystacanthophora</i> Brooks, 1988)	ne	10	Brooks 1988
Tribe/Tribu Apini			Michener 1990
<i>Apis</i> L., 1758	ne	1	Michener 1990
Tribe/Tribu Bombini			Michener 1990
<i>Bombus</i> Latreille, 1802	me /ar	43	Michener 1990
<i>(Brachycephalibombus</i> Williams, 1985)	me /ho	1	Michener 1990
<i>(Coccineobombus</i> Skorikov, 1922)	ec /ar	2	Michener 1990
<i>(Dasybombus</i> Labougle & Ayala, 1985)	me /gu pe	3	Michener 1990
<i>(Fervidobombus</i> Skorikov, 1922)	ne		Michener 1990
<i>(Funebribombus</i> Skorikov, 1922)	sa	2	Michener 1990
<i>(Robustobombus</i> Skorikov, 1922)	ne	5	Michener 1990
<i>(Rubicundobombus</i> Skorikov, 1922)	sa	1	Michener 1990
Tribe/Tribu Centridini			Snelling 1984
<i>Centris</i> F., 1804	eu ar	156	Snelling 1984
<i>(Acritocentris</i> Snelling, 1974)	eu	4	Snelling 1984
<i>(Centris</i> s.s. F., 1804)	es br	22	Snelling 1984
<i>(Exallocentris</i> Snelling, 1974)	me	1	Snelling 1984
<i>(Hemisiella</i> Moure, 1945)	ne	11	Snelling 1984
<i>(Heterocentris</i> Cockerell, 1899)	ne	6	Snelling 1984
<i>(Melanocentris</i> Friese, 1900)	ne	21	Snelling 1984
<i>(Paracentris</i> Cameron, 1903)	eu cam	15	Snelling 1984
<i>(Ptilocentris</i> Snelling, 1984)	co ec pe cr	1	Snelling 1984
<i>(Ptilotopus</i> Klug, 1810)	ne	18	Snelling 1984
<i>(Trachina</i> Klug, 1807)	ne	10	Snelling 1984
<i>(Xanthemis</i> Moure, 1945)	ne	4	Snelling 1984
<i>(Xerocentris</i> Snelling, 1974)			Snelling 1984
<i>(Wagenknechtia</i> Moure, 1950)	sa	4	Snelling 1984
<i>Epicharis</i> Klug, 1807			Snelling 1984
<i>(Anepicharis</i> Moure, 1945)			Snelling 1984
<i>(Cyphepicharis</i> Moure, 1945)			Snelling 1984
<i>(Epicharana</i> Michener, 1954)	ne	aprox. 10	Snelling 1984
<i>(Epicharis</i> s.s. Klug, 1807)			Snelling 1984
<i>(Epicharitides</i> Moure, 1945)	ne	7	Snelling 1984
<i>(Epicharoides</i> Radoszkowski, 1884)	ne	4	Snelling 1984
<i>(Hoplepicharis</i> Moure, 1945)	ne	4	Snelling 1984
<i>(Parepicharis</i> Moure, 1945)	ne	2	Snelling 1984
<i>(Triepicharis</i> Moure, 1945)			Snelling 1984
Tribe/Tribu Empforini			Roig-Alsina 1997
<i>Alepidosceles</i> Moure, 1947	br ar	6	Roig-Alsina 1997
<i>Ancyloscelis</i> Latreille, 1829	es ar	16	Roig-Alsina 1997
<i>Diadasia</i> Patton, 1879	ne	15	Roig-Alsina 1997

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
<i>Diadasina</i> Michener, 1954 (<i>Diadasina</i> s. str.)	br ar	4	Roig-Alsina 1997
(<i>Leptometriella</i> Roig-Alsina, 1998)	ar	1	Roig-Alsina 1997
<i>Meliphilopsis</i> Roig-Alsina, 1994	ar	2	Roig-Alsina 1994
<i>Melitoma</i> Lepeletier & Serville, 1828	ne	10	Roig-Alsina 1997
<i>Melitomella</i> Roig-Alsina, 1998	pn br	2	Roig-Alsina 1997
<i>Ptilothrix</i> Smith, 1853	sa	10	Roig-Alsina 1997
<i>Toromelissa</i> Roig-Alsina, 1998	ch	1	Roig-Alsina 1997
Tribe/Tribu Ericrocidini			Snelling & Brooks 1985
<i>Acanthopus</i> Klug, 1807	tt san	5	Snelling & Brooks 1985
<i>Aglaomelissa</i> Snelling & Brooks, 1985	cr /vn	1	Snelling & Brooks 1985
<i>Ctenioschelus</i> Romand, 1940	ne	2	Snelling & Brooks 1985
<i>Epiclopus</i> Spinola, 1851	ch ar	3	Snelling & Brooks 1985
<i>Hopliphora</i> Lepeletier, 1841	sa	9	Snelling & Brooks 1985
<i>Mesochaira</i> Lepeletier & Serville, 1825	me a pr	6	Snelling & Brooks 1985
<i>Mesonychum</i> Lepeletier & Serville, 1825	pe br ch ar	14	Snelling & Brooks 1985
<i>Mesoplia</i> Lepeletier, 1841	ne	23	Snelling & Brooks 1985
(<i>Eumelissa</i> Snelling & Brooks, 1985)	cr sa	6	Snelling & Brooks 1985
(<i>Mesoplia</i> s.s.)	eu ar	17	Snelling & Brooks 1985
Tribe/Tribu Eucerini			Michener 2000
<i>Alloscirtetica</i> Holmberg, 1909			Michener 2000
(<i>Alloscirtetica</i> s.s.)	ec pe ch ar	36	Michener 2000
(<i>Megascirtetica</i> Moure & Michener, 1955)	br	1	Michener 2000
<i>Canephorula</i> Jörgensen, 1909	ar	1	Michener 2000
<i>Eucerinoda</i> Michener & Moure, 1957	ch	1	Michener 2000
<i>Florilegus</i> Robertson, 1900			Michener 2000
(<i>Florilegus</i> s.s.)	eu ar	6	Michener 2000
(<i>Floriraptor</i> Moure & Michener, 1955)	pn ar	1	Michener 2000
(<i>Eufloilegus</i> Oglobin, 1955)	am a ar	5	Michener 2000
<i>Gaesischia</i> Michener, La Berge & Moure, 1955			Michener 2000
(<i>Dasyhalonia</i> Michener, La Berge & Moure, 1955)	ar	2	Michener 2000
(<i>Gaesischia</i> s.s.)	br ar	19	Michener 2000
(<i>Gaesischiana</i> Michener, La Berge & Moure, 1955)	ne	3	Michener 2000
(<i>Gaesischiopsis</i> Michener, LaBerge & Moure, 1955)	br pr	7	Michener 2000
(<i>Pachyhalonia</i> Moure & Michener, 1955)	br ar	3	Michener 2000
(<i>Prodasyhalonia</i> LaBerge, 1958)	me	1	Michener 2000
<i>Gaesochira</i> Moure & Michener, 1955	sa	1	Michener 2000
<i>Hamatothrix</i> Urban, 1989	ar	1	Michener 2000
<i>Lophothygater</i> Moure & Michener, 1955	am	1	Michener 2000
<i>Martinapis</i> Cockerell, 1929			Michener 2000
(<i>Martinapis</i> s.s.)	eu me	2	Michener 2000
(<i>Svastropsis</i> Moure & Michener, 1955)	ar	1	Michener 2000
(<i>Ecplectica</i> Holmberg, 1884)	ne	8	Michener 2000
(<i>Eumelissodes</i> LaBerge, 1956)	cam	12?	Michener 2000
<i>Melissodes</i> s.s. Latreille, 1829	pn tt gi br	10?	Michener 2000
<i>Melissoptila</i> Holmberg, 1884			Michener 2000
(<i>Comeptila</i> Moure & Michener, 1955)	br /ar	3	Michener 2000
(<i>Melissoptila</i> s.s.)			Michener 2000
(<i>Ptilomelissa</i> Moure, 1943)	ne	18	Michener 2000
<i>Micronychapis</i> Moure & Michener, 1955	br	1	Michener 2000
<i>Pachysvastra</i> Moure & Michener, 1955	br	1	Michener 2000
<i>Peponapis</i> Robertson, 1902	ne	6?	Michener 2000
<i>Platysvastra</i> Moure, 1967	gi	1	Michener 2000
<i>Santiago</i> Urban, 1989	br	1	Michener 2000
<i>Svastra</i> Holmberg, 1884	ch ar	3	Michener 2000
(<i>Epimelissodes</i> Ashmead, 1899)	cr	2	Michener 2000
(<i>Svastra</i> s.s.)	ch ar	3	Michener 2000

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
<i>Svastrides</i> Michener, La Berge & Moure, 1955	ch ar	5	Michener 2000
<i>Svastrina</i> Moure & Michener, 1955	ar	1	Michener 2000
<i>Thygater</i> Holmberg, 1884			Michener 2000
(<i>Nectarodiaeta</i> Holmberg, 1903)	br /ar	2	Michener 2000
(<i>Thygater</i> s.s.)	ne	23	Michener 2000
<i>Trichocerapis</i> Cockerell, 1904			Michener 2000
(<i>Dithygater</i> Moure & Michener, 1955)	br	1	Michener 2000
(<i>Trichocerapis</i> s. str.)	br /pr	5	Michener 2000
<i>Xenoglossa</i> Smith, 1854			Michener 2000
(<i>Xenoglossa</i> s. str.)	ne	5	Michener 2000
Tribe/Tribu Euglossini			Michener 1990
<i>Aglae</i> Lepeletier & Serville, 1825	pn bo	1	Michener 1990
<i>Eufriesea</i> Cockerell, 1908	ne	52	Michener 1990
<i>Euglossa</i> Latreille, 1802	ne	105	Michener 1990
<i>Eulaema</i> Lepeletier, 1841	ne	13	Michener 1990
<i>Exaerete</i> Hoffmannsegg, 1817	ne	6	Michener 1990
Tribe/Tribu Exomalopsini			Michener 2000
<i>Anthophorula</i> Cockerell, 1897			Michener 2000
(<i>Isomalopsis</i> Michener & Moure, 1957)	ar	1	Michener 2000
<i>Eremapis</i> Ogloblin, 1956	ar	1	Michener 2000
<i>Chilimalopsis</i> Toro, 1976	ch	1	Roig-Alsina 1992
<i>Exomalopsis</i> Spinola, 1853			Michener 2000
(<i>Diomalopsis</i> Michener & Moure, 1957)	br pr	2	Michener 2000
(<i>Exomalopsis</i> s.s.)	ne	55	Michener 2000
(<i>Phanomalopsis</i> Michener & Moure, 1957)	ne	15	Michener 2000
<i>Stilbomalopsis</i> Silveira, 1995	cam	11	Michener 2000
<i>Teratognatha</i> Ogloblin, 1956	ar	1	Michener 2000
Tribe/Tribu Isepeolini			Roig-Alsina 1991a
<i>Isepeolus</i> Cockerell, 1907	co /ar	11	Roig-Alsina 1991a
<i>Melectoides</i> Taschenberg, 1883	ar ch	10	Roig-Alsina 1991a
Tribe/Tribu Melectini			Michener 2000
<i>Xeromelecta</i> Linsley, 1939			Michener 2000
(<i>Nesomelecta</i> Michener, 1948)	ica	1	Michener 2000
Tribe/Tribu Meliponini			Michener 2000
<i>Camargoia</i> Moure, 1989	br	1	Michener 2000
<i>Cephalotrigona</i> Schwarz, 1940	me /ar	3	Michener 2000
<i>Lestrimelitta</i> Friese, 1903	me /ar	10	Michener 2000
<i>Melipona</i> Illiger, 1806	me /ar	40	Michener 2000
<i>Meliwillea</i> Roubik, Camargo & Lobo, 1997	cr pn	1	Michener 2000
<i>Nannotrigona</i> Cockerell, 1922	me /br	9	Michener 2000
<i>Oxytrigona</i> Cockerell, 1917	me /bo	8	Michener 2000
<i>Paratrigona</i> Schwarz, 1938	me /ar	12	Michener 2000
<i>Partamona</i> Schwarz, 1939	me /br	16	Michener 2000
<i>Plebeia</i> Schwarz, 1938			Michener 2000
(<i>Nogueirapis</i> Moure, 1961)	cr /br	3	Michener 2000
(<i>Plebeia</i> Schwarz, 1938 s.s.)	me /ar	30	Michener 2000
(<i>Scaura</i> Schwarz, 1938)	me /br	4	Michener 2000
(<i>Schwarziana</i> Moure, 1943)	br	1	Michener 2000
<i>Scaptotrigona</i> Moure, 1942	me /br	25	Michener 2000
<i>Trichotrigona</i> Camargo & Moure, 1983	br	1	Michener 2000
<i>Trigona</i> Jurine, 1807			Michener 2000
(<i>Duckeola</i> Moure, 1944)	br	2	Michener 2000
(<i>Frieseomelitta</i> R. von Ihering, 1912)	me /br	10	Michener 2000
(<i>Geotrigona</i> Moure, 1943)	me /ar	3	Michener 2000
(<i>Tetragona</i> Lepeletier & Serville, 1828)	me /br	13	Michener 2000
(<i>Tetragonisca</i> Moure, 1947)	me /ar	4	Michener 2000
(<i>Trigona</i> Jurine, 1807 s.s.)	me /ar	30	Michener 2000

Taxon Taxón	Neotropical Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
<i>Trigonisca</i> Moure, 1950	me /pr	17	Michener 2000
Tribe/Tribu Osirini			Michener 2000
<i>Ecclitodes</i> Roig-Alsina, 1989	ch ar	2	Roig-Alsina 1989a
<i>Osirinus</i> Roig-Alsina, 1989	br ar	3	Roig-Alsina 1989a
<i>Osiris</i> Smith, 1854	ne	20	Roig-Alsina 1989a
<i>Parepeolus</i> Ducke, 1912	br /ar	4	Roig-Alsina 1989a
<i>Protosiris</i> Roig-Alsina, 1989	pn /br	4	Roig-Alsina 1989a
Tribe/Tribu Protepeolini			Michener 2000
<i>Leiopodus</i> Smith, 1854	sa	2	Michener 2000
<i>Protepeolus</i> Linsley & Michener, 1937	eu ar	2	Michener 2000
Tribe/Tribu Rhathymini			Michener 2000
<i>Rhathymus</i> Lepeletier & Serville, 1825	ne	6	Michener 2000
Tribe/Tribu Tapinotaspidini			Roig-Alsina 1997
<i>Arhysoceble</i> Moure, 1948	br ar	5	Roig-Alsina 1997
<i>Caenonomada</i> Ashmead, 1899	br ar	5	Roig-Alsina 1997
<i>Chalepogenus</i> Holmberg, 1903			Roig-Alsina 1997
(<i>Chalepogenus</i> s. str.)	ch ar	7	Roig-Alsina 1997
(<i>Lanthanomelissa</i> Holmberg, 1903)	br pn	5	Roig-Alsina 1997
<i>Monoeca</i> Lepeletier & Serville, 1828	me br	6	Roig-Alsina 1997
<i>Paratetrapedia</i> Moure, 1957			Roig-Alsina 1997
(<i>Amphipedia</i> Michener & Moure, 1957)	br	1	Roig-Alsina 1997
(<i>Lophopedia</i> Michener & Moure, 1957)	me /br	7	Roig-Alsina 1997
(<i>Paratetrapedia</i> s.s.)	ne	14	Roig-Alsina 1997
(<i>Tropidopedia</i> Michener & Moure, 1957)	br	2	Roig-Alsina 1997
(<i>Xanthopedia</i> Michener & Moure, 1957)	me br	5	Roig-Alsina 1997
<i>Tapinotaspis</i> Holmberg, 1903	br ar	3	Roig-Alsina 1997
<i>Tapinotaspoides</i> Moure, 1944	br pr ar	4	Roig-Alsina 1997
<i>Trigonopedia</i> Moure, 1941	br	4	Roig-Alsina 1997
Tribe/Tribu Tetrapedini			Michener 2000
<i>Coelioxoides</i> Cresson, 1878	ne	3	Roig-Alsina 1990
<i>Tetrapedia</i> Klug, 1810	ne	13	Michener 2000
Subfamily/Subfamilia Nomadinae			Roig-Alsina 1991b
Tribe/Tribu Brachynomadini			Michener 2000
<i>Brachynomada</i> Holmberg, 1886	sa	8	Michener 2000
<i>Kelita</i> Sandhouse, 1943	ch ar	5	Michener 2000
(<i>Kelita</i> s. str.)	ch	4	Michener 2000
(<i>Spinokelita</i> Rozen, 1997)	ar	1	Michener 2000
<i>Trichonomada</i> Michener, 2000	br	1	Michener 2000
Tribe/Tribu Caenoprosopidini			Roig-Alsina 1987a
<i>Caenoprosopina</i> Roig-Alsina, 1987	ar	1	Roig-Alsina 1987a
<i>Caenoprosopis</i> Holmberg, 1886	br a ar	1	Roig-Alsina 1987a
Tribe/Tribu Epeolini			Michener 2000
<i>Coptepeolus</i> Moure, 1955	br	1	Michener 2000
<i>Doeringiella</i> Holmberg, 1886			Roig-Alsina 1989b
(<i>Doeringiella</i> s. str.)	pe ch ar	31	Roig-Alsina 1989b
(<i>Pseudepeolus</i> Holmberg, 1886)	br ar	2	Roig-Alsina 1989b
(<i>Triepeolus</i> Robertson, 1901)	sa	7	Roig-Alsina 1989b
<i>Epeolus</i> Latreille, 1802	ne	25?	Michener 2000
(<i>Trophocleptria</i> Holmberg, 1886)			Michener 2000
<i>Odyneropsis</i> Schrottky, 1902	cam sa	9	Michener 2000
<i>Rhinepeolus</i> Moure, 1955	sa	1	Michener 2000
<i>Rhogepeolus</i> Moure, 1955	ar		Roig-Alsina 1996
<i>Thalestria</i> Smith, 1854	ne	1	Michener 2000
Tribe/Tribu Nomadini			Michener 2000
<i>Nomada</i> Scopoli, 1770	ne	33	Michener 2000

Taxon <i>Taxón</i>	Neotropical Distribution <i>Distribución</i> <i>Neotropical</i>	Species Number <i>Número</i> <i>de Especies</i>	Bibliographic Reference <i>Referencia</i> <i>Bibliográfica</i>
Subfamily/Subfamilia Xylocopinae			Michener 2000
Tribe/Tribu Ceratinini			Michener 2000
<i>Ceratina</i> Latreille, 1802			Michener 2000
(<i>Ceratinula</i> Moure, 1941)	ne	25	Michener 2000
(<i>Crewella</i> Cockerell, 1903)	ne	12	Michener 2000
(<i>Rhysoceratina</i> Michener, 2000)	sas	5	Michener 2000
(<i>Zadontomerus</i> Ashmead, 1899)	cam	6	Michener 2000
Tribe/Tribu Manueliini			Michener 2000
<i>Manuelia</i> Vachal, 1905	ch ar	3	Michener 2000
Tribe/Tribu Xylocopini			Hurd 1978
<i>Xylocopa</i> Latreille, 1802	am	98	Michener 2000
(<i>Cirroxylocopa</i> Hurd & Moure, 1963)	br pr	1	Michener 2000
(<i>Dasyxylocopa</i> Hurd & Moure, 1963)	br ar	1	Michener 2000
(<i>Diaxylocopa</i> Hurd & Moure, 1963)	br	1	Michener 2000
(<i>Ioxylocopa</i> Hurd & Moure, 1963)	br ar	1	Michener 2000
(<i>Monoxylocopa</i> Hurd & Moure, 1963)	br	1	Michener 2000
(<i>Nanoxylocopa</i> Hurd & Moure, 1963)	bo br /ar	1	Michener 2000
(<i>Neoxylocopa</i> Michener, 1954)	eu /ar ica gal	49	Michener 2000
(<i>Notoxylocopa</i> Hurd, 1956)	eu a ec	2	Michener 2000
(<i>Schoenherria</i> Lepeletier, 1841)	eu /ar	29	Michener 2000
(<i>Stenoxylocopa</i> Hurd & Moure, 1960)	eu /ar	5	Michener 2000
(<i>Xylocopoda</i> Hurd & Moure, 1963)	br	2	Michener 2000
(<i>Xylocopoides</i> Michener, 1954)	me /cr	5	Michener 2000
(<i>Xylocopopsis</i> Hurd & Moure, 1963)	br pr ar	1	Michener 2000
SUPERFAMILY/SUPERFAMILIA VESPOIDEA			
FAMILY/FAMILIA SIEROLOMORPHIDAE			Evans 1961
Subfamily/Subfamilia Sierolomorphinae			
<i>Sierolomorpha</i> Ashmead, 1903	cam	5	Evans 1961
FAMILY/FAMILIA TIPHIIDAE			
Subfamily/Subfamilia Anthoboscinae			Genise 1984
<i>Anthosila</i> Genise, 1984	sa	8	Genise 1984
<i>Calchaquila</i> Genise, 1984	ar	3	Genise 1984
<i>Cosila</i> Guérin, 1838	br ch	2	Genise 1984
<i>Tiphiodes</i> Bréthes, 1913	bo ar	3	Genise 1984
Subfamily/Subfamilia Brachystidinae			Genise 1984
<i>Quemaya</i> Pate, 1947	me /cr	1	Kimsey 1993
Subfamily/Subfamilia Methocinae			Kimsey 1993
<i>Methoca</i> Latreille, 1809			Kimsey 1993
Subfamily/Subfamilia Myzininae			Kimsey 1993
<i>Myzinum</i> Latreille, 1803			Kimsey 1993
<i>Pterombrus</i> Smith, 1869			Kimsey 1993
Subfamily/Subfamilia Tiphinae			Allen 1972; Kimsey 1993
<i>Epomidiopteron</i> Romand, 1836	san	1	Allen 1972; Kimsey 1993
<i>Mallochia</i> Allen, 1971			Allen 1972; Kimsey 1993
<i>Megatiphia</i> Kimsey, 1993	pe	1	Allen 1972; Kimsey 1993
<i>Paratiphia</i> Sichel, 1864			Allen 1972; Kimsey 1993
<i>Tiphia</i> Fabricius, 1775			Allen 1972; Kimsey 1993
Subfamily/Subfamilia Thynninae			Kimsey 1991
<i>Aelurus</i> Klug, 1842			Kimsey 1991
<i>Ammodromus</i> Guérin, 1838			Kimsey 1991
<i>Anodontyra</i> Westwood, 1835			Kimsey 1991
<i>Argenthynnus</i> Genise, 1991	ar	1	Kimsey 1991

Taxon Taxón	Neotropical Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
<i>Atopothylnus</i> Kimsey, 1991	br	1	Kimsey 1991
<i>Brethynnus</i> Genise, 1991	sas	4	Kimsey 1991
<i>Chrysothylnus</i> Turner, 1910			Kimsey 1991
<i>Dolichothylnus</i> Turner, 1910			Kimsey 1991
<i>Elaphroptera</i> Guérin, 1838	sas	20	Kimsey 1991
<i>Eucyrtothylnus</i> Turner, 1910			Kimsey 1991
<i>Glottynnus</i> Genise, 1991	ar	1	Kimsey 1991
<i>Glottynoides</i> Kimsey, 1991	ar	1	Kimsey 1991
<i>Merithynnus</i> Kimsey, 1991	vn	2	Kimsey 1991
<i>Mesothylnus</i> Kimsey, 1991	br	1	Kimsey 1991
<i>Ornepetes</i> Guérin, 1838			Kimsey 1991
<i>Parelaphroptera</i> Turner, 1910			Kimsey 1991
<i>Pseudaelaphroptera</i> Ashmead, 1903			Kimsey 1991
<i>Rostrylnus</i> Genise, 1991			Kimsey 1991
<i>Scotaena</i> Klug, 1810			Kimsey 1991
<i>Spilothylnus</i> Ashmead, 1903			Kimsey 1991
<i>Telephoromyia</i> Guérin, 1838			Kimsey 1991
<i>Upa</i> Kimsey, 1991	br pr ar	1	Kimsey 1991
<i>Zeena</i> Kimsey, 1991	br	3	Kimsey 1991
FAMILY/FAMILIA SAPYGIDAE			Pate 1947
Subfamily/Subfamilia Sapyginae			Pate 1947
<i>Araucania</i> Pate, 1947	ch	1	Pate 1947
<i>Huarpea</i> Pate, 1947	ar	4	Pate 1947
<i>Polochrum</i> Spinola, 1806			Pate 1947
<i>Polochridium</i> Gussakovskji, 1933			Pate 1947
FAMILY/FAMILIA MUTILLIDAE			Nonveller 1990
Subfamily/Subfamilia Sphaerophthalminae			Nonveller 1990
Tribe/Tribu Sphaerophthalmini			Nonveller 1990
Subtribe/Subtribu Sphaerophthalmina			Nonveller 1990
<i>Allotila</i> Schuster, 1949	ar	1	Nonveller 1990
<i>Ancipitotilla</i> Mickel, 1952	gi	1	Nonveller 1990
<i>Anomophotopsis</i> Schuster, 1949	ar	1	Nonveller 1990
<i>Atillum</i> André, 1903	sas	52	Nonveller 1990
<i>Calomutilla</i> Mickel, 1952	me br gi	4	Nonveller 1990
<i>Chaetotilla</i> Schuster, 1949	ar	1	Nonveller 1990
<i>Darditilla</i> Casal, 1965	bo /ar	38	Nonveller 1990
<i>Dimorphomutilla</i> Ashmead, 1903	ch ar	12	Nonveller 1990
<i>Euspinolia</i> Ashmead, 1903	pe ch ar	14	Nonveller 1990
<i>Gurisita</i> Casal, 1970	ar	1	Nonveller 1990
<i>Hoplocrates</i> Mickel, 1937	ne	39	Nonveller 1990
<i>Hoplognathoca</i> Suarez, 1962	me ec	4	Nonveller 1990
<i>Hoplomutilla</i> Ashmead, 1899	ne	94	Nonveller 1990
<i>Horcomutilla</i> Casal, 1962	pn sa	11	Nonveller 1990
<i>Invreilla</i> Suarez, 1966	me	2	Nonveller 1990
<i>Jamaitilla</i> Casal, 1965	ja	1	Nonveller 1990
<i>Lynchiatilla</i> Casal, 1963	sas	9	Nonveller 1990
<i>Mickelia</i> Suarez, 1966	br	2	Nonveller 1990
<i>Pappognatha</i> Mickel, 1939	pn sa	13	Nonveller 1990
<i>Patquiatilla</i> Casal, 1962	ar	2	Nonveller 1990
<i>Pertyella</i> Mickel, 1952	pn sa	14	Nonveller 1990
<i>Pseudomethoca</i> Ashmead, 1896	me gi	50	Nonveller 1990
<i>Seabratilla</i> Casal, 1963	br	1	Nonveller 1990
<i>Sphinctopsis</i> Mickel, 1928	pe ar	23	Nonveller 1990

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
<i>Tallium</i> André, 1903	bo ar	34	Nonveller 1990
<i>Vianatilla</i> Casal, 1962	br ar	3	Nonveller 1990
Subtribe/Subtribu <i>Pseudomethocina</i>			Nonveller 1990
<i>Acanthophotopsis</i> Schuster, 1958	me	2	Nonveller 1990
<i>Acrophotopsis</i> Schuster, 1958	me	2	Nonveller 1990
<i>Bordontilla</i> Fritz & Martínez, 1975	ar	1	Nonveller 1990
<i>Cephalomutilla</i> André, 1908	sas	11	Nonveller 1990
<i>Ceratophotopsis</i> Schuster, 1949	pr br		Nonveller 1990
<i>Chasquitilla</i> Casal, 1970	ar	1	Nonveller 1990
<i>Dasymutilla</i> Ashmead, 1899	ne	53	Nonveller 1990
<i>Dilophotopsis</i> Schuster, 1958	me	3	Nonveller 1990
<i>Leucospilomutilla</i> Ashmead, 1903	gi pr	3	Nonveller 1990
<i>Limaytilla</i> Casal, 1964	ar	3	Nonveller 1990
<i>Lomochaeta</i> Mickel, 1936	me ar	4	Nonveller 1990
<i>Lophomutilla</i> Mickel, 1952	sa	18	Nonveller 1990
<i>Lophostigma</i> Mickel, 1952	pn sa	10	Nonveller 1990
<i>Nanotopsis</i> Schuster, 1949	br	1	Nonveller 1990
<i>Neomutilla</i> Reed, 1898	ch	1	Nonveller 1990
<i>Odontophotopsis</i> Viereck, 1903			Nonveller 1990
<i>Odontophotopsis</i> s. str.	me	19	Nonveller 1990
<i>Paramutilla</i> Mickel, 1973	cr	1	Nonveller 1990
<i>Photomorphus</i> Viereck, 1930			Nonveller 1990
<i>Photomorphina</i> Schuster, 1952	me gu	10	Nonveller 1990
<i>Xenomorphus</i> Schuster, 1958	me	1	Nonveller 1990
<i>Protophotopsis</i> Schuster, 1947			Nonveller 1990
<i>Protophotopsis</i> s. str.	cr pn	1	Nonveller 1990
<i>Protophotopsiella</i> Schuster, 1949	br ar	2	Nonveller 1990
<i>Ptilomutilla</i> André, 1905	pr br	3	Nonveller 1990
<i>Reedomutilla</i> Mickel, 1964	ch ar	5	Nonveller 1990
<i>Scaptodactyla</i> Burmeister, 1875	sas	6	Nonveller 1990
<i>Scaptopoda</i> Lynch, 1878	ar	1	Nonveller 1990
<i>Sphaerophthalma</i> Blake			Nonveller 1990
<i>Xenophotopsis</i> Schuster, 1958	me	1	Nonveller 1990
<i>Micromutilla</i> Ashmead, 1899	me	4	Nonveller 1990
<i>Photopsis</i> Blake, 1871	me ec ch	28	Nonveller 1990
<i>Photopsioides</i> Schuster, 1958	me	1	Nonveller 1990
<i>Suarezitilla</i> Casal, 1968	bo /ar	9	Nonveller 1990
<i>Tobantilla</i> Casal, 1964	ar	3	Nonveller 1990
<i>Traumatomutilla</i> André, 1901	sa	176	Nonveller 1990
<i>Xystromutilla</i> André, 1905	ne	8	Nonveller 1990
<i>Sphaerolphtamini</i> Incertae sedis		104	Nonveller 1990
Subfamily/Subfamilia Mutillinae			Nonveller 1990
Tribe/Tribu Mutillini			Nonveller 1990
Subtribe/Subtribu <i>Smicromirmina</i>			Nonveller 1990
<i>Timulla</i> Asmead, 1899			Nonveller 1990
<i>Timulla</i> s. str.	ne	173	Nonveller 1990
Tribe/Tribu Ephutini			Nonveller 1990
<i>Ephuamelia</i> Casal, 1968	ur ar	2	Nonveller 1990
<i>Ephuchaya</i> Casal, 1968	ur ar	1	Nonveller 1990
<i>Ephuseabra</i> Casal, 1968	br ar	1	Nonveller 1990
<i>Ephusuarezia</i> Casal, 1968	sas	6	Nonveller 1990
<i>Ephuta</i> Say, 1836			Nonveller 1990
<i>Arcasina</i> Nagy, 1970	su	1	Nonveller 1990
<i>Ephuta</i> s. str.	ne	207	Nonveller 1990
Mutillidae incertae sedis		43	Nonveller 1990

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
FAMILY/FAMILIA POMPILIDAE			
Subfamily/Subfamilia Ceropalinae <i>Ceropales</i> Latreille, 1796 <i>Irenangelus</i> Schulz, 1906	sa ne	8	
Subfamily/Subfamilia Notocyphinae <i>Notocyphus</i> Smith, 1855	ne	34	
Subfamily/Subfamilia Epipompilinae <i>Epipompilus</i> Kohl, 1884	ne	16	Evans 1961, 1966
Subfamily/Subfamilia Pompilinae			Evans 1966
Tribe/Tribu Aporini			Bradley 1944
<i>Aporus</i> Spinola, 1808			Bradley 1944, Evans 1973a
<i>Aporus</i> s.s.	cam co	10	Bradley 1944, Evans 1973a
<i>Allaporus</i> Banks, 1933	me	8	Bradley 1944
<i>Cosmiaporus</i> Bradley, 1944	br	2	Bradley 1944
<i>Neoplaniceps</i> Bradley, 1944	an	6	Bradley 1944
<i>Notoplaniceps</i> Bradley, 1944	pn br	3	Bradley 1944
<i>Aspidaporus</i> Bradley, 1944	br	2	Bradley 1944
<i>Drepanaporus</i> Bradley, 1944	cu	1	Bradley 1944
<i>Euplaniceps</i> Haupt, 1930	sa	12	Bradley 1944
<i>Psorthaspis</i> Banks, 1919	cam an co	27	Bradley 1944
<i>Rhabdaporus</i> Bradley, 1944	br	1	Bradley 1944
Tribe/Tribu Pompilini			Evans 1966
<i>Agenioideus</i> Ashmead, 1902	cam sas	3	Evans 1966
<i>Agenioideus</i> s.s.			Evans 1966
<i>Enkbansia</i> Evans, 1965	br pr	2	Evans 1966
<i>Allochaes</i> Banks, 1917	me	1	Evans 1966
<i>Ammosphex</i> Wilcke, 1942	cam	1	Evans 1966
<i>Anoplius</i> Dufour, 1834			Evans 1966
<i>Anopliodes</i> Banks, 1939	cam ica sa	4	Evans 1966
<i>Anoplius</i> s.s.	ne	12	Evans 1966
<i>Arachnophroctonus</i> Howard, 1901	ne	42	Evans 1966
<i>Lophopompilus</i> Radoszkowski, 1887	me gu ica	3	Evans 1966
<i>Notiochaes</i> Banks, 1917	ne	2	Evans 1966
<i>Aplochaes</i> Banks, 1944	ho br	2	Evans 1966
<i>Aporinellus</i> Banks, 1911	cam br	4	Evans 1966
<i>Arachnospila</i> Kinkaid, 1900	me pe ar	3	Evans 1966
<i>Aridestus</i> Banks, 1947	pr	1	Evans 1966
<i>Austrochaes</i> Banks, 1947	sa	8	Evans 1966
<i>Balboana</i> Banks, 1944	ne	10	Evans 1966
<i>Chalcochaes</i> Banks, 1917	me	2	Evans 1966
<i>Dicranoplius</i> Haupt, 1950	tt br	9	Evans 1966
<i>Episyron</i> Schiodte, 1837	cam pe ar	1	Evans 1966
<i>Evagetes</i> Lepeletier, 1845	cam sas	4	Evans 1966
<i>Neanoplius</i> Banks, 1947	br	1	Evans 1966
<i>Paracyphononyx</i> Gribodo, 1884	sa	13	Evans 1966
<i>Poecilopompilus</i> Howard, 1901	ne	18	Colomo de Correa 1998
<i>Priochilus</i> Banks, 1944	ne	21	Evans 1966
<i>Tachypompilus</i> Ashmead, 1902	ne	13	Evans 1966
<i>Tastiotenia</i> Evans, 1950	me	1	Evans 1966
Subfamily/Subfamilia Ctenoceratinae			
<i>Hypoferreola</i> Ashmead, 1902	ar		

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
<i>Lepidocnemis</i> Haupt, 1930	ar	1	
Subfamily/Subfamilia Pepsinae			
Tribe/Tribu Pepsini			
<i>Adirostes</i> Banks, 1946	pe	4	Roig-Alsina 1986
<i>Aimatocare</i> Roig-Alsina, 1989	sa	5	Roig-Alsina 1989c
<i>Anacyphonyx</i> Banks, 1946	br ar	5	
<i>Caliadurgus</i> Pate, 1946	ne	25	Roig-Alsina 1982b
<i>Calopompilus</i> Ashmead, 1900	me /gu	1	
<i>Chirodamus</i> Haliday, 1837	vn ar	5	Evans 1968
<i>Dipogon</i> Fox, 1897	co br	4	
<i>Entypus</i> Dahlbom, 1843	co ar	21	Roig-Alsina 1981
<i>Hemipepsis</i> Bradley, 1944			
<i>Minagenia</i> Banks, 1934	tt co br	6	
<i>Pepsis</i> Fabricius, 1805	ne	150	Vardy 2000
<i>Plagicurgus</i> Roig-Alsina, 1982	br ar	2	Roig-Alsina 1982a
<i>Pompilocalus</i> Roig-Alsina, 1989	sa	28	Roig-Alsina 1989c
<i>Priocnemis</i> Schiodte, 1837	cu sa	4	
<i>Priocnessus</i> Banks, 1925	ne	16	
<i>Sphictostethus</i> Kohl, 1884	sas	11	Roig-Alsina 1987b
Tribe/Tribu Ageniellini			
<i>Ageniella</i> Banks, 1912			Evans 1973b
<i>Ageniella</i> s.s.	ne	8	Evans 1973b
<i>Alasagenia</i> Banks, 1944	ne	5	Evans 1973b
<i>Ameragenia</i> Banks, 1945	ne	16	Evans 1973b
<i>Cyrtagenia</i> Evans, 1973	pe ar	2	Evans 1973b
<i>Lyssagenia</i> Banks, 1946	ne	3	Evans 1973b
<i>Nemagenia</i> Banks, 1944	ne	1	Evans 1973b
<i>Priophanes</i> Banks, 1944	ne	19	Evans 1973b
<i>Atopagenia</i> Wasbauer, 1987	cr pn	1	Wasbauer 1987
<i>Auplopus</i> Spinola, 1841	ne	101	Evans 1973b
<i>Dimorphagenia</i> Evans, 1973	ec	1	Evans 1973b
<i>Mystacagenia</i> Evans, 1973	pn br pe	4	Evans 1973b
<i>Phanocheilus</i> Banks, 1944	sa	4	Evans 1973b
<i>Priocnemella</i> Banks, 1925	ne	12	Evans 1973b
FAMILY/FAMILIA RHOPALOSOMATIDAE			Townes 1981
<i>Rhopalosoma</i> Cresson, 1865	ne	17	Townes 1981
<i>Olixon</i> Cameron, 1887	ne	2	Townes 1981
<i>Liosphex</i> Townes, 1977	br	1	Townes 1981
FAMILY/FAMILIA BRADYNOBAENIDAE			Genise 1986; Nonveller 1990
Subfamily/Subfamilia Bradynobaeninae			Genise 1986; Nonveller 1990
<i>Bradynobaenus</i> Spinola, 1851	ch ar	6	Genise 1986; Nonveller 1990
Subfamily/Subfamilia Typhoctinae			Genise 1986; Nonveller 1990
Tribe/Tribu Typhoctini			Genise 1986; Nonveller 1990
<i>Typhoctes</i> Ashmead, 1899	cam	3	Genise 1986; Nonveller 1990
<i>Typhoctoides</i> Brothers, 1974	bo ch ar	1	Genise 1986; Nonveller 1990
Tribe/Tribu Eotillini			Genise 1986; Nonveller 1990
<i>Eotilla</i> Schuster, 1949	sas	3	Genise 1986; Nonveller 1990
<i>Prototilla</i> Schuster, 1949	ar	1	Genise 1986; Nonveller 1990
FAMILY/FAMILIA FORMICIDAE			Bolton 1994, 1995; Ward <i>et al.</i> 1996

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
Subfamily/Subfamilia Cerapachyinae			Brown 1975
Tribe/Tribu Acanthostichini			MacKay 1997
<i>Acantostichus</i> Mayr, 1887	ne	10	
Tribe/Tribu Cerapachyini			Brown 1975
<i>Cerapachys</i> F. Smith, 1857	ne	10	
<i>Sphinctomyrmex</i> Mayr, 1866	br	1	
Tribe/Tribu Cyldromyrmecini			Andrade 1998
<i>Cylindromyrmex</i> Mayr, 1870	ne	10	
Subfamily/Subfamilia Dolichoderinae			Shattuck 1992, 1993
Tribe/Tribu Dolichoderini			Shattuck 1992, 1993
<i>Anillidris</i> Santschi, 1936	ar	1	Shattuck 1992, 1993
<i>Azteca</i> Forel, 1878	ne	70	Shattuck 1992, 1993
<i>Dolichoderus</i> Lund, 1831	ne	54	Shattuck 1992, 1993
<i>Dorymyrmex</i> Mayr, 1866	ne	41	Shattuck 1992, 1993
<i>Forelius</i> Emery, 1888	ne	16	Shattuck 1992, 1993
<i>Linepithema</i> Mayr, 1866	ne	14	Shattuck 1992, 1993
<i>Tapinoma</i> Foerster, 1850	ne	11	Shattuck 1992, 1993
<i>Technomyrmex</i> Mayr, 1870	pn	1	Shattuck 1992, 1993
Subfamily/Subfamilia Ecitoninae			Watkins 1976
Tribe/Tribu Cheliomyrmecini			Watkins 1976
<i>Cheliomyrmex</i> Mayr, 1870	ne	4	Watkins 1976
Tribe/Tribu Ecitonini			Watkins 1976
<i>Eciton</i> Latreille, 1804	ne	12	Watkins 1976
<i>Labidus</i> Jurine, 1807	ne	8	Watkins 1976
<i>Neivamyrmex</i> Borgmeier, 1955	ne	103	Watkins 1976
<i>Nomamyrmex</i> Borgmeier, 1936	ne	2	Watkins 1976
Subfamily/Subfamilia Formicinae			
Tribe/Tribu Brachymyrmecini			
<i>Brachymyrmex</i> Mayr, 1868	ne	35	
Tribe/Tribu Camponotini			
<i>Camponotus</i> Mayr, 1861 ⁵	ne	350	
Tribe/Tribu Gigantiopini			
<i>Gigantiops</i> Roger, 1863	ne	1	
Tribe/Tribu Lasiini			
<i>Paratrechina</i> Motschulsky, 1893	ne	24	
<i>Prenolepis</i> Mayr, 1861			
Tribe/Tribu Myrmelachistini			
<i>Myrmelachista</i> Roger, 1863	ne	47	
Tribe/Tribu Plagiolepidini			
<i>Acropyga</i> Roger, 1862	ne	27	
<i>Anoplolepis</i> Santschi, 1914	ne*	1	
Subfamily/Subfamilia Leptanilloidinae			
<i>Asphinctanilloides</i> Brandão, Agosti & Blum, 1999	br	3	Brandão <i>et al.</i> 1999
<i>Leptanilloides</i> Mann, 1923	sa	5	Brandão <i>et al.</i> 1999
Subfamily/Subfamilia Myrmicinae			
Tribe/Tribu Agroecomyrmecini			
<i>Tatuidris</i> Brown & Kempf, 1968	cam	1	Brown & Kempf 1967
Tribe/Tribu Attini			
<i>Acromyrmex</i> Mayr, 1865	ne	25	Goncalves 1961
<i>Apterostigma</i> Mayr, 1865	ne	47	Lattke 1997
<i>Atta</i> Fabricius, 1804	ne	14	
<i>Cyphomyrmex</i> Mayr, 1862	ne	36	Snelling & Longino 1992

Taxon Taxón	Neotropical Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
<i>Mycetarotes</i> Emery, 1913	br	2	
<i>Mycetophylax</i> Emery, 1913	sa	6	
<i>Mycetosoritis</i> Wheeler, 1907	br ar	3	
<i>Mycocephurus</i> Forel, 1893	ne	4	
<i>Myrmicocrypta</i> F. Smith, 1860	ne	24	
<i>Pseudoatta</i> Gallardo, 1916	ar	1	
<i>Sericomyrmex</i> Mayr, 1865	ne	19	
<i>Trachymyrmex</i> Forel, 1893	ne	36	
Tribe/Tribu Basicerotini			Brown & Kempf 1960
<i>Basiceros</i> Schulz, 1906	ne	6	Brown & Kempf 1960
<i>Octostruma</i> Forel, 1912	ne	12	Brown & Kempf 1960
<i>Eurhopalothrix</i> Brown & Kempf, 1960	ne	10	Brown & Kempf 1960
<i>Rhopalothrix</i> Mayr, 1860	ne	8	Brown & Kempf 1960
<i>Talaridris</i> Weber, 1941	tt	1	Brown & Kempf 1960
<i>Protalaridris</i> Brown, 1981	co ec	1	Brown 1980a
Tribe/Tribu Blepharidattini			
<i>Blepharidatta</i> Wheeler, 1915	sa	2	
<i>Wasmannia</i> Forel, 1893	ne	10	
Tribe/Tribu Cephalotini			Andrade & Baroni 1999
<i>Cephalotes</i> Latreille, 1802	ne	160	Andrade & Baroni 1999
<i>Procryptocerus</i> Emery, 1887	ne	40	Andrade & Baroni 1999
Tribe/Tribu Crematogastrini			
<i>Crematogaster</i> Lund, 1831	ne	72	
Tribe/Tribu Dacetini			Bolton 1999, 2000
<i>Acanthognathus</i> Mayr, 1887	ne	6	Bolton 2000
<i>Daceton</i> Perty, 1833	ne	1	Bolton 2000
<i>Pyramica</i> Roger, 1862			Bolton 2000
<i>Strumigenys</i> F. Smith, 1860			Bolton 2000
Tribe/Tribu Formicoxenini			
<i>Cardiocondyla</i> Emery, 1869	ne	2	MacKay 1995
<i>Lepthothorax</i> Mayr, 1855	ne	86	
Tribe/Tribu Metaponini			
<i>Xenomyrmex</i> Forel, 1884	cam	2	
Tribe/Tribu Myrmecini			
<i>Perissomyrmex</i> M.R. Smith, 1947	cam	1	
Tribe/Tribu Myrmicini			
<i>Hylomyrma</i> Forel, 1912	ne	13	Kempf 1973a
<i>Pogonomyrmex</i> Mayr, 1868	ne	34	Taber 1998
Tribe/Tribu Ochetomyrmecini			
<i>Ochetomyrmex</i> Mayr, 1877	ne	5	
<i>Tranopelta</i> Mayr, 1866	ne	4	
Tribe/Tribu Phalacromyrmecini			Bolton 1999
<i>Phalacromyrmex</i> Kempf, 1960	br	1	Kempf 1960a
Tribe/Tribu Pheidolini			
<i>Aphaenogaster</i> Mayr, 1853	cam co	8	
<i>Pheidole</i> Westwood, 1841	ne	800	
<i>Lenomyrmex</i> Fernández & Palacio, 1999	pn co ec	5	Fernández & Palacio 1999
Tribe/Tribu Pheidologetonini			
<i>Carebara</i> Westwood, 1841	ne	5	
<i>Oligomyrmex</i> Mayr, 1867	ne	9	
<i>Paedalgus</i> Forel, 1911	co br	5	
Tribe/Tribu Solenopsidini			Bolton 1987
<i>Allomerus</i> Mayr, 1877	ne	3	Bolton 1987
<i>Antichthonidris</i> Snelling, 1975	sas	2	Bolton 1987
<i>Carebarella</i> Emery, 1905	sa	3	Bolton 1987
<i>Megalomyrmex</i> Forel, 1884	ne	35	Bolton 1987
<i>Monomorium</i> Mayr, 1855	ne	8	Bolton 1987

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
<i>Nothidris</i> Ettershank, 1966	sa	3	Bolton 1987
<i>Oxyepoecus</i> Santschi, 1929	br ar	12	Bolton 1987
<i>Solenopsis</i> Westwood, 1841	ne	90	Bolton 1987
Tribe/Tribu Stegomyrmecini			
<i>Stegomyrmex</i> Emery, 1912	ne	3	Diniz 1990
Tribe/Tribu Stenammini			
<i>Lachnomyrmex</i> Wheeler, 1910	ne	3	Fernández & Baena 1997
<i>Rogeria</i> Emery, 1894	ne	21	Kugler 1994
<i>Adelomyrmex</i> Emery, 1897	ne	20	
<i>Bariamyrmex</i> Lattke, 1990	vn	1	
Tribe/Tribu Tetramoriini			Bolton 1976
<i>Tetramorium</i> Mayr, 1855	ne	4	
Subfamily/Subfamilia Pseudomyrmecinae			
<i>Myrcidris</i> Ward, 1990	gi br	2	Ward 1990
<i>Pseudomyrmex</i> Lund, 1831	ne	114	Ward 1990
Subfamily/Subfamilia Ponerinae			
Tribe/Tribu Amblyoponini			Brown 1960
<i>Amblyopone</i> Erichson, 1842	ne	11	Lattke 1991
<i>Prionopelta</i> Mayr, 1866	ne	5	Brown 1960
Tribe/Tribu Ectatommini			Brown 1958
<i>Ectatomma</i> F. Smith, 1858	ne	14	Kugler & Brown 1982
<i>Gnamptogenys</i> Roger, 1863	ne	70	Lattke 1995
<i>Heteroponera</i> Mayr, 1877	ne	12	Brown 1958
<i>Acanthoponera</i> Mayr, 1882	ne	4	Brown 1958
Tribe/Tribu Paraponerini			Brown 1958
<i>Paraponera</i> F. Smith, 1858	ne	1	Brown 1958
Tribe/Tribu Proceratiini			Brown 1958
<i>Proceratium</i> Roger, 1863	ne	4	Brown 1958
<i>Discothyrea</i> Roger, 1863	ne	7	Brown 1958
Tribe/Tribu Platythyreini			Brown 1975
<i>Platythyrea</i> Roger, 1863	ne	8	Brown 1975
<i>Probolomyrmex</i> Mayr, 1901	ne	3	Agosti 1994
Tribe/Tribu Typhlomymecini			Brown 1965
<i>Typhlomymex</i> Mayr, 1862	ne	6	
Tribe/Tribu Odontomachini			Brown 1976, 1978
<i>Odontomachus</i> Latreille, 1804	ne	24	Brown 1976, 1978
<i>Anochetus</i> Mayr, 1861	ne	23	Brown 1976, 1978
Tribe/Tribu Thaumatomyrmecini			Kempf 1975
<i>Thaumatomyrmex</i> Mayr, 1887	ne	5	Kempf 1975
Tribe/Tribu Ponerini			
<i>Hypoponera</i> Santschi, 1938	ne	35	
<i>Pachycondyla</i> F. Smith, 1858	ne	57	
<i>Centromyrmex</i> Mayr, 1866	ne	3	
<i>Belonopelta</i> Mayr, 1870	ne	2	
<i>Simopelta</i> Mann, 1922	ne	10	
<i>Leptogenys</i> Roger, 1861	ne	37	
FAMILY/FAMILIA SCOLIIDAE			
Subfamily/Subfamilia Scoliinae			
<i>Scolia</i> Fabricius, 1775	ne	10?	
Subfamily/Subfamilia Campsomerinae			
<i>Campsomeris</i> Guérin, 1838	me	40?	Bradley 1945

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
FAMILY/FAMILIA VESPIDAE			
Subfamily/Subfamilia Masarinae			Richards 1962b
Tribe/Tribu Gayellini			Richards 1962b
<i>Gayella</i> Spinola, 1851	sas	6	Richards 1962b
<i>Paramasaris</i> Cameron, 1901	ne	4	Richards 1962b
Tribe/Tribu Masarini			Richards 1962b
<i>Ceramiops</i> Zavattari, 1910			Richards 1962b
<i>Trimeria</i> De Saussure, 1954			Richards 1962b
Subfamily/Subfamilia Eumeninae			Sarmiento 1999
<i>Alphamenes</i> Van der Vecht, 1977	ne	6	Sarmiento 1999
<i>Ancistroceroides</i> Saussure, 1855	ne	20	Sarmiento 1999
<i>Ancistrocerus</i> Wesmael, 1836	ne	6	Sarmiento 1999
<i>Antezumia</i> Saussure, 1875	ne	1	Sarmiento 1999
<i>Argentozeuthus</i> Stange, 1979	sas	1	Sarmiento 1999
<i>Brachymenes</i> Giordani-Soika, 1961	pn sa	2	Sarmiento 1999
<i>Cephalastor</i> Giordani-Soika, 1981	su	1	Sarmiento 1999
<i>Ctenochilus</i> Saussure, 1856	sas		Sarmiento 1999
<i>Cuyodynerus</i> Willink, 1968	sas		Sarmiento 1999
<i>Cyphomenes</i> Giordani-Soika, 1978	sa	3	Sarmiento 1999
<i>Delta</i> Saussure, 1855	ne*		Sarmiento 1999
<i>Eumenes</i> Latreille, 1802	ne	7	Sarmiento 1999
<i>Gamma</i> Zavattari, 1912	sa	4	Sarmiento 1999
<i>Gastrodynerus</i> Bohart, 1984	ne		Sarmiento 1999
<i>Hypalastaroides</i> Saussure, 1856	ne	28	Sarmiento 1999
<i>Hypancistrocerus</i> Saussure, 1855	co ec	2?	Sarmiento 1999
<i>Hypodynerus</i> Saussure, 1855	sa		Sarmiento 1999
<i>Incodinynerus</i> Willink, 1967	sa	8	Sarmiento 1999
<i>Laevimenes</i> Giordani-Soika, 1978	sas	2	Sarmiento 1999
<i>Leptochilus</i> Saussure, 1853	cam /co	3?	Sarmiento 1999
<i>Minixi</i> Giordani-Soika, 1978	ne	4	Sarmiento 1999
<i>Monobia</i> Saussure, 1852	ne	31	Sarmiento 1999
<i>Montezumia</i> Saussure, 1852	ne	48	Sarmiento 1999
<i>Omicron</i> Saussure, 1855	ne	50	Sarmiento 1999
<i>Pachymenes</i> Saussure, 1852	ne	11	Sarmiento 1999
<i>Parancistrocerus</i> Bequaert, 1925	ne		Sarmiento 1999
<i>Pararhaphidoglossa</i> Schulthess, 1910	ne	22	Sarmiento 1999
<i>Parazumia</i> Saussure, 1855	sa	2	Sarmiento 1999
<i>Pachodynerus</i> Saussure, 1870			Sarmiento 1999
<i>Pirhosigma</i> Giordani-Soika, 1978	ne	7	Sarmiento 1999
<i>Plagiolabra</i> Schulthess, 1903	sa	1	Sarmiento 1999
<i>Protodiscoelius</i> Dalla Torre, 1904	sas		Sarmiento 1999
<i>Pseudacaromenes</i> Giordani-Soika, 1978	cr /br		Sarmiento 1999
<i>Pseudodynerus</i> Saussure, 1855	ne	7	Sarmiento 1999
<i>Santamenes</i> Giordani-Soika, 1990	ne	4	Sarmiento 1999
<i>Sphaeromenes</i> Giordani-Soika, 1978	pe	1	Sarmiento 1999
<i>Stenodynerus</i> Saussure, 1863	ne	6?	Sarmiento 1999
<i>Stenosigma</i> Giordani-Soika, 1978	pn br	4	Sarmiento 1999
<i>Symmorphus</i> Wesmael, 1836	cam?		Sarmiento 1999
<i>Zeta</i> Saussure, 1855	ne	4	Sarmiento 1999
<i>Zethus</i> Fabricius, 1804	ne	180?	Sarmiento 1999
Subfamily/Subfamilia Polistinae			Richards 1978; Sarmiento 1997
Tribe/Tribu Polistini			Richards 1978; Sarmiento 1997
<i>Polistes</i> Latreille, 1802	am	83	Richards 1978; Sarmiento 1997
Tribe/Tribu Mischocyttarini			Richards 1978; Sarmiento 1997

Taxon Taxón	Neotropical Distribution Distribución Neotropical	Species Number Número de Especies	Bibliographic Reference Referencia Bibliográfica
<i>Myschocyttarus</i> Saussure, 1853	ne	204	Richards 1978; Sarmiento 1997
Tribe/Tribu Epiponini			Richards 1978; Sarmiento 1997
<i>Agelaia</i> Lepeletier, 1836	ne	21	Richards 1978; Sarmiento 1997
<i>Angiopolybia</i> Araujo, 1946	pn sa	4	Richards 1978; Sarmiento 1997
<i>Apoica</i> Lepeletier, 1836	ne	8	Richards 1978; Sarmiento 1997
<i>Brachygastra</i> Pery, 1833	ne	16	Richards 1978; Sarmiento 1997
<i>Chartergellus</i> Bequaert, 1938	pn sa	7	Richards 1978; Sarmiento 1997
<i>Charterginus</i> Fox, 1898	ne	6	Richards 1978; Sarmiento 1997
<i>Chartergus</i> Lepeletier, 1836	sa	3	Richards 1978; Sarmiento 1997
<i>Clypearia</i> Saussure, 1854	pn /bo	7	Richards 1978; Sarmiento 1997
<i>Epipona</i> Latreille, 1802	ne	3	Richards 1978; Sarmiento 1997
<i>Leipomeles</i> Moebius, 1856	ne	2	Richards 1978; Sarmiento 1997
<i>Occipitalia</i> Richards, 1978	sa	2	Richards 1978; Sarmiento 1997
<i>Metapolybia</i> Ducke, 1905	ne	8	Richards 1978; Sarmiento 1997
<i>Nectarinella</i> Bequaert, 1938	cr /co	1	Richards 1978; Sarmiento 1997
<i>Synoeca</i> Saussure, 1852	ne	5	Richards 1978; Sarmiento 1997
<i>Synoecoides</i> Ducke, 1905	co pe br	1	Richards 1978; Sarmiento 1997
<i>Parachartergus</i> von Ihering, 1904	ne	17	Richards 1978; Sarmiento 1997
<i>Polybia</i> Lepeletier, 1836	ne	57	Richards 1978; Sarmiento 1997
<i>Protopolybia</i> Ducke, 1905	ne	28	Richards 1978; Sarmiento 1997
<i>Pseudopolybia</i> Saussure, 1863	ne	4	Richards 1978; Sarmiento 1997

¹ Subgenus of *Pae* according to Lecrercq in literature

¹ Subgénero de *Pae* de acuerdo a Lecrercq en literatura

² could be / puede ser = *Foxita*

³ *Dienoplus* Fox is synonym, see Pulawski, 1985

³ *Dienoplus* Fox es sinónimo, ver Pulawski, 1985

⁴ = *Sphecodes*?

⁵ *Dendromyrmex* Emery is synonym, see Fernández 2001

⁵ *Dendromyrmex* Emery es sinónimo, ver Fernández 2001

Acknowledgments / Agradecimientos

The elaboration of this synopsis was made possible thanks to numerous colleagues and friends who offered their help in various ways. Among them stand out Arnold S. Menke (Smithsonian Institution), Charles D. Michener (University of Kansas), Massimo Olmi (University of Tuscia, Italy) and Michael Sharkey (University of Kentucky).

La elaboración del presente diagnóstico ha sido posible gracias a numerosos colegas y amigos que han ofrecido su ayuda en diversas formas. Entre ellos destaco a Arnold S. Menke (Smithsonian Institution), Charles D. Michener (Universidad de Kansas), Massimo Olmi (Universidad de Tuscia, Italia), y Michael Sharkey (Universidad de Kentucky).

Literature Cited / Literatura Citada

Agosti D. (1994) A revision of the South American species of the ant genus *Probolomyrmex* (Hymenoptera: Formicidae) *Journal of the New York Entomological Society* 102:429-434

Alexander R. (1992a) A cladistic analysis of the subfamily Philanthinae (Hymenoptera: Sphecidae) *Systematic Entomology* 17:91-108

Alexander R. (1992b) An exploratory analysis of cladistic relationships within the superfamily Apoidea, with special reference to sphecids wasps *J. Hym. Res.* 1:25-61

Alexander R., C.D. Michener (1995) Phylogenetic studies of the families of short-tongued bees *University of Kansas Science Bulletin* 55:377-424

- Allen H.W. (1972) A monographic study of the subfamily Tiphinae (Hymenoptera: Tiphidae) of South America *Smithsonian Contributions to Zoology* 113:1-76
- Amarante S.T.P. (en prensa) Catálogo de los esfécidos de la región Neotropical (Hymenoptera: Apoidea: Sphecidae & Crabronidae)
- Amarante S.T.P., C.R.F. Brandao, J.M. Carpenter (1999) A new species of *Embolemus* Westwood from the Mata Atlantica of Brazil (Hymenoptera: Embolemidae) *American Museum Novitates* no. 3266:1-7
- Amarante S.T.P., D.L. Vincent (1993) *Passaloecus pictus* in Brazil *Sphecos* 26:6
- Andrade M.L. (1998) Fossil and extant species of *Cylindromyrmex* (Hymenoptera: Formicidae) *Revue Suisse de Zoologie* 105(3):581-664
- Andrade M.L., C. Baroni Urbani (1999) Diversity and adaptation in the ant genus *Cephalotes*, past and present (Hymenoptera: Formicidae) *Stuttgarter Beiträge zur Naturkunde Serie B*, 271:1-889
- Antropov A.V. (1991) To the knowledge of the fauna of the genus *Spilomena* (Hymenoptera, Sphecidae) of South America *Zool. Zhurnal* 70(11):57-62. (En Ruso: Traducción al inglés en *Ent. Rev.* 71(2):49-54, 1992)
- Antropov A.V. (1992a) *Parastigmus* a new genus of the subtribe Stigmina from South America (Hymenoptera: Sphecidae: Pemphredonidae) *Linzer Biol. Beitr.* 24:97-101
- Antropov A.V. (1992b) Five new neotropical species of the genus *Spilomena* (Hymenoptera: Sphecidae: Pemphredonidae), with additional comments on previously described species *Russian Ent. J.* 1(2):67-73
- Antropov A.V. (1993a) Further supplements to the knowledge of the neotropical fauna of digger wasps of the genus *Spilomena* Shuckard (Hymenoptera: Sphecidae: Pemphredonidae) *Russian Ent. J.* 1(2):41-57
- Antropov A.V. (1993b) *Alinia carinata* gen. et. sp. n. – A new representative of the tribe Crabronini (Hymenoptera, Sphecidae) from South America *Ent Obozr.* 72:190-193 (En Ruso: traducción al inglés en *Ent. Rev.* 72:29-32, 1993)
- Argaman Q. (1988) Generic synopsis of Sclerogibbidae (Hymenoptera) *Ann. Hist. Nat. Mus. Nat. Hung.* 80:177-187
- Azevedo C.O. (1999) A key to world species of Scolebythyidae (Hymenoptera: Chrysidoidea), with description of a new species of *Dominibythus* from Brazil *J. Hym. Res.* 8(1):1-5
- Banks N. (1946) Studies of South American Psammocharidae Part I *Bulletin of the Museum of Comparative Zoology* 96:311-525
- Banks N. (1947) Studies of South American Psammocharidae Part II *Bulletin of the Museum of Comparative Zoology* 99:371-486
- Baroni C., B. Bolton, P.S. Ward (1992) The internal phylogeny of ants (Hymenoptera: Formicidae) *Systematic Entomology* 17:301-329
- Bohart R.M. (1969a) New species of *Pseudoplisus* of North and Central America I. The *phaleratus* group (Hymenoptera: Sphecidae) *Journal of the Kansas Entomological Society* 41:494-501 (Erróneamente fechado 1968)
- Bohart R.M. (1969b) New species of *Pseudoplisus* from North America II. (Hymenoptera: Sphecidae) *Journal of the Kansas Entomological Society* 42:392-405
- Bohart R.M. (1979) *Tachytes* of South America (Hymenoptera, Sphecidae, Larrinae) *Transactions of the American Entomology Society* 104:435-505
- Bohart R.M. (1980) A review of the North American species of *Dienoplus* (Hymenoptera: Sphecidae) *Pan-Pacific Entomology* 56:63-70
- Bohart R.M. (1990a) New species of *Solierella* from western North America (Hymenoptera: Sphecidae) *Psyche* 97:193-202
- Bohart R.M. (1990b) New species and a key to North American *Solierella* in the *inermis* group (Hymenoptera: Sphecidae: Larrinae: Miscophini) *Psyche* 97:229-240
- Bohart R.M. (1992) The genus *Oxybelus* en Chile (Hymenoptera: Sphecidae: Crabroninae) *H. Hym. Res.* 1:157-163
- Bohart R.M. (1993) Notes on *Microbembex* with new species from Texas, Mexico and El Salvador (Hymenoptera, Sphecidae, Nyssoninae) *Journal of the Kansas Entomological Society* 66:274-279
- Bohart R.M. (2000) A review of gorytini in the Neotropical Region (Hymenoptera: Sphecidae: Bembicinae) *Contributions on Entomology, International* 4(2):113-259
- Bohart R.M., J.E. Gillaspay (1985) California sand wasp of the tribe Stictiellina *Bull. Calif. Insect Surv.* 27:1-89
- Bohart R.M., E.E. Grissell (1969) New species of Psenini (Hymenoptera, Sphecidae) *Pan-Pacific Entomology* 45:216-221
- Bohart R.M., A.S. Menke (1976) *Sphecid wasps of the World, a generic revision* University of California Press, Berkeley
- Bohart R.M., A. Willink (1989) The genus *Microbembex* in Argentina (Hymenoptera: Sphecidae) *Transactions of the American Entomology Society* 114:295-310
- Bolton B. (1976) The ant tribe Tetramoriini (Hymenoptera: Formicidae). Constituent genera, review of smaller genera and revision of *Triglyphothrix* Forel

- Bulletin of the British Museum* (Natural History), Entomology 34:281-379
- Bolton B. (1987) A review of the *Solenopsis* genus-group and revision of Afrotropical *Monomorium* Mayr (Hymenoptera: Formicidae) *Bulletin of the British Museum* (Natural History), Entomology 54:263-452
- Bolton B. (1994) *Identification Guide to the Ant Genera of the World* Harvard University Press, Cambridge
- Bolton B. (1995) *A New general Catalogue of the Ants of the World* Harvard University Press, Cambridge
- Bolton B. (1999) Ant genera of the tribe Dacetoniini (Hymenoptera: Formicidae) *Journal of Natural History* 33:1639-1689
- Bolton B. (2000) The ant tribe Dacetini *Memoirs of the American Entomological Institute* 65 (Part 1+ 2):1-1028
- Bradley Ch. (1944) A preliminary revision of the Pompilinae (Exclusive of the tribe Pompilini) of the America (Hymenoptera: Pompilidae) *Transactions of the American Entomology Society* 70:23-157
- Bradley J.C. (1945) The Scoliidae (Hymenoptera) of northern South America, with especial reference to Venezuela. I. The genus *Campsomeris*. *Bol. Entomol. Venez.* 4(1):1-36
- Brandão C.R.F. (1991) Adendos ao catálogo abreviado das formigas da regioao Neotropical *Revta. Bras. Entomol.* 35:319-412
- Brandão C.R.F., J.L.M. Diniz, D. Agosti, J.H. Delabie (1999) Revision of the Neotropical Ant Subfamily Leptanilloidinae *Systematic Entomology* 24(1):17-36
- Brooks R.W. (1988) Systematics and phylogeny of the anthophorine bees *University of Kansas Science Bulletin* 53:436-575
- Brothers D.J. (1975) Phylogeny and Classification of the Aculeate Hymenoptera, with special reference to Mutillidae *University of Kansas Science Bulletin* 50(11):483-648
- Brothers D.J. (1999) Phylogeny and Evolution of wasps, ants and bees (Hymenoptera, Chrysidoidea, Vespoidea and Apoidea) *Zool. Scripta* 28(1-2):233-249
- Brothers D.J., J.M. Carpenter (1993) Phylogeny of Aculeata: Chrysidoidea and Vespoidea (Hymenoptera) *J. Hym. Res.* 2:227-302
- Brown W.L. (1958) Contributions toward a reclassification of Formicidae. II. Tribe Ectatommini (Hymenoptera) *Bulletin of the Museum of Comparative Zoology*, Harvard College 118:173-362
- Brown W.L. (1960) Contributions toward a reclassification of Formicidae. III. Tribe Amblyoponini (Hymenoptera) *Bulletin of the Museum of Comparative Zoology*, Harvard University 122:143-230
- Brown W.L. (1965) Contributions toward a reclassification of Formicidae. IV. Tribe Typhlomyrmecini (Hymenoptera) *Psyche* (Cambridge) 72:65-78
- Brown W.L. (1975) Contributions toward a reclassification of Formicidae. V. Ponerinae, tribes Platythyreini, Cerapachyini, Cyldromyrmecini, Acanthostichini, and Aenictogitini *Search Agriculture* (Ithaca N.Y.) 5(1):1-115
- Brown W.L. (1976) Contributions toward a reclassification of Formicidae. Part VI. Ponerinae, tribe Ponerini, subtribe Odontomachiti. Section A. Introduction, subtribal characters. Genus *Odontomachus*. *Studia Entomologica* 19:67-171
- Brown W.L. (1978) Contributions toward a reclassification of Formicidae. Part VI. Ponerinae, tribe Ponerini, subtribe Odontomachiti. Section B. Genus *Anochetus* and bibliography *Studia Entomologica* 20:549-638
- Brown W.L. (1980a) *Protalaridris* genus nov. *Pilot Register of Zoology*. Card No. 37
- Brown W.L., Jr., W.W. Kempf (1960) A world revision of the ant tribe Basicerotini *Studia Entomologica* (N.S.) 3:161-250
- Brown W.L., Jr., W.W. Kempf (1967) *Tatuidris*, a remarkable new genus of Formicidae (Hymenoptera) *Psyche* (Cambridge) 74:183-190
- Carpenter J.M. (1982) The phylogenetic relationships and natural classification of the Vespoidea (Hymenoptera) *Systematic Entomology* 7:11-38
- Carpenter J.M. (1986a) Cladistics of the Chrysidoidea (Hymenoptera) *Journal of the New York Entomological Society* 94:303-330
- Carpenter J.M. (1989) The phylogenetic system of the Gayellini (Hymenoptera: Vespidae: Masarinae) *Psyche* 95:211-241
- Carpenter J.M. (1999) What do we known about chrysidoid relationships? *Zool. Scripta* 28(1-2):215-231
- Colomo de Correa M.V. (1981) Clave para los géneros argentinos de la subfamilia Pompilinae (Hymenoptera: Pompilidae) *Neotropica* 27(77):17-26
- Colomo de Correa M.V. (1998) Análisis cladístico del género *Poecilopompilus* Howard (Hymenoptera, Pompilidae) y clave para especies *Insecta Mundi* 12(1-2):103-112
- Diniz J.M.L. (1990) Revisao sistemática da tribo Stegomyrmecini, com a descripcão de uma nova espécie (Hymenoptera: Formicidae) *Revista Brasileira de Biología* 34:277-295
- Evans H.E. (1961) A preliminary review of the Nearctic species of *Sierolomorpha* (Hymenoptera) *Breviora* 140:1-12
- Evans H.E. (1963) A new family of wasps *Psyche* 70:7-16

- Evans H.E. (1964) A synopsis of the American Bethyridae (Hymenoptera: Aculeata) *Bulletin of the Museum of Comparative Zoology* 132:1-122
- Evans H.E. (1966) A revision of the Mexican and Central American spider wasps of the subfamily Pompilinae (Hymenoptera: Pompilidae) *Memoirs of the American Entomology Society* 20:1-442
- Evans H.E. (1968) Studies on the Neotropical Pompilidae (Hymenoptera) IV. Examples on dual sex limited mimicry in *Chirodamus*. *Psyche* 75(1):1-22
- Evans H.E. (1973a) Studies on Neotropical Pompilidae (Hymenoptera) VIII. The Genus *Aporus* Spinola in South America *Studia Entomologica* 16:353-370
- Evans H.E. (1973b) Studies on Neotropical Pompilidae (Hymenoptera) IX. The Genera of *Auplopodini* *Psyche* 80:212-226
- Fernández F. (2000) Sistemática y filogenia de los himenópteros de la Región Neotropical: Estado del conocimiento y perspectivas pp. 211-231 En: F. Martín Piera, J.J. Morrone & A. Melic (eds.) *Hacia un proyecto Cyted para el Inventario y Estimación de la Diversidad Entomológica en Iberoamérica: PrIBES 2000*, Monografías Tercer Milenio, Vol. 1, Zaragoza, España
- Fernández F. (2001) Revisión de las hormigas *Camponotus* del subgénero *Dendromyrmex* (Hymenoptera: Formicidae) *Pápeis Avulsos de Zoologia* (São Paulo) 42(4):47-100
- Fernández F., M.L.H. Baena (1997) Ants of Colombia VII: New species of the genera *Lachnomyrmex* Wheeler and *Megalomyrmex* Forel (Hymenoptera: Formicidae) *Caldasia* 19(1-2):109-114
- Fernández F., E.E. Palacio (1999) *Lenomyrmex*, an enigmatic new ant genus from the Neotropical region (Hymenoptera: Formicidae: Myrmicinae) *Systematic Entomology* 24:7-16
- Fernández F., M. Rodríguez, G. Ulloa (1996) Primer registro de la familia Sclerogibbidae para Colombia *Sphecos* 30:10
- Finnamore A.T. (1997) A new genus and species of psenine wasp from Africa and a key to genera (Hymenoptera: Pemphredonidae: Pseninae) *Can. Ent.* 119:1081-1094
- Fritz M.A. (1974) Nyssonini neotropicales IV. (Hymenoptera: Sphecidae: Nyssoninae) *Anal. Mus. Hist. Nat. Valparaiso* 6:191:201 (Erróneamente fechado 1973)
- Fritz M.A. (1983a) Himenópteros neotropicales III. *Rev. Soc. Ent. Arg.* 42:25-30
- Fritz M.A. (1983b) Especies neotropicales del género *Cerceris* Latr. del grupo *neogenita* (Hym., Sphecidae) *Rev. Soc. Ent. Arg.* 42:161-170
- Fritz M.A. (1989) Las especies Argentinas y Paraguayas del género *Cerceris* Latreille, de los grupos "pollens" y "rugulosa" (Hymenoptera: Sphecidae) *Insecta Mundi* 3:261-270
- Fritz M.A. (1990) Especies neotropicales del género *Cerceris* Latr. de los grupos "morrae" y "ljubae" (Hym., Sphecidae) *Rev. Soc. Ent. Arg.* 48:149-160
- Fritz M.A., J.C. Mariluis (1977) Especies neotropicales del grupo *spathulifera* del género *Cerceris* Latr. (Hym., Sphecidae) *Rev. Soc. Ent. Arg.* 35:95-113
- Fritz M.A., J.C. Mariluis (1979) Especies neotropicales del género *Cerceris* Latr. del grupo "gaudebunda" (Hymenoptera: Sphecidae) *Acta Sci. Ent.* 12:21-39 (Erróneamente fechado 1978)
- Fritz M.A., H. Toro (1977) Las especies de *Heliocausini* (Hym., Sphecidae, Nyssoninae) *Rev. Soc. Ent. Arg.* 35:17-38 (Erróneamente fechado 1975-1976)
- Genise J.F. (1984) Las Anthoboscinae neotropicales y comentarios sobre la diversidad de la subfamilia (Hymenoptera, Tiphidae) *Rev. Soc. Entomol. Arg.* 43:195-220
- Genise J.F. (1986) Las Bradynobaenidae y algunas modificaciones a la clasificación general de Hymenoptera Aculeata *Physis* (C) 44:39-53
- Goncalves C.R. (1961) O genero *Acromyrmex* no Brasil (Hym. Formicidae) *Studia Entomologica* 4:113-180
- Gordh H., L. Moczar (1990) A catalog of the world Bethyridae (Hymenoptera: Aculeata) *Memoirs of the American Entomological Institute* 46:1-364
- Gauld I.D., B. Bolton (eds.) (1988) *The Hymenoptera* Oxford university Press, Oxford
- Goulet H., J. Huber (eds.) (1993) *Hymenoptera of the World: An identification guide to families* Agriculture Canada, Ottawa
- Grimaldi D., D. Agosti, J.M. Carpenter (1997) New and rediscovered primitive ants (Hymenoptera: Formicidae) in cretaceous amber from New Jersey, and their phylogenetic relationships *American Museum Novitates* 3208:1-43
- Hanson P., I.D. Gauld (eds.) (1995) *Hymenoptera of Costa Rica* Oxford University Press, Oxford
- Hawkins B.A., G. Gordh (1986) Bibliography of the World Literature of the Bethyridae (Hymenoptera: Bethyloidea) *Insecta Mundi* 1(4):261-283
- Hölldobler B., E.O. Wilson (1990) *The Ants* Harvard University Press
- Hurd P.D. Jr. (1978) *An Annotated Catalog of the Carpenter Bees (Genus Xylocopa Latreille) of the Western Hemisphere* [5] + 106 pp. Washington: Smithsonian Institution Press
- Hurd P.D., E.G. Linsley (1976) The bee family Oxaeidae with a revision of the North American species *Smithsonian Contributions to Zoology* no. 220:1-75
- Kempf W.W. (1958) New studies of the ant tribe Cephalotini (Hym. Formicidae) *Studia Entomologica* (n.s.) 1:1-168

- Kempf W.W. (1960a) *Phalacromyrmex*, a new ant genus from southern Brazil (Hymenoptera: Formicidae) *Revista Brasileira de Biologia* 20:89-92
- Kempf W.W. (1972) Catálogo abreviado das formigas da região neotropical (Hymenoptera: Formicidae) *Studia Entomologica* 15:3-344
- Kempf W.W. (1973a) A revision of the Neotropical myrmicine genus *Hylomyrma* Forel (Hymenoptera: Formicidae) *Studia Entomologica* 16:225-260
- Kempf W.W. (1975) A revision of the Neotropical ponerine ant genus *Thaumatomyrmex* Mayr (Hymenoptera: Formicidae) *Studia Entomologica* 18:95-126
- Kimsey L.S. (1982) *Parataruma*, a new genus of neotropical Crabronini (Hymenoptera, Sphecidae) *Psyche* 89:169-173
- Kimsey L.S. (1991) Relationships among the tephritid wasp subfamilies (Hymenoptera) *Systematic Entomology* 16:427-438
- Kimsey L.S. (1992) Phylogenetic relations among the South American thynnine tephritid wasps (Hymenoptera) *Systematic Entomology* 17:133-144
- Kimsey L.S. (1993) An unusual new tephritid genus from Peru and a key to American genera of Tephritinae (Hymenoptera) *Pan-Pacific Entomology* 69:213-217
- Kimsey L.S., R. M. Bohart (1990) *The Chrysididae Wasps of the World* Oxford University Press, Oxford
- Krombein K.V. (1937) Studies in the Tephritidae (Hymenoptera: Aculeata). I. A review of the genera of Myzininae *Annals of the Entomological Society of America* 30:26-30
- Krombein K.V. (1979) Studies in the Tephritidae. XII. A new genus of Methocinae with notes on the subgenera of *Methoca* Latreille (Hymenoptera, Aculeata) *Proceedings of the Entomological Society of Washington* 81:424-434
- Kugler C. (1994) A revision of the ant genus *Rogeria* with description of the sting apparatus (Hymenoptera: Formicidae) *Journal of Hymenoptera Research* 3:17-89
- Kugler C., W.L. Brown (1982) Revisionary and other studies on the ant genus *Ectatomma*, including the description of two new species *Search Agriculture* (Ithaca, N.Y.) 24:1-8
- Lattke J.E. (1991) Studies of neotropical *Amblyopone* Erichson (Hymenoptera: Formicidae) en Venezuela *Contributions in Science. Los Angeles County Museum* 428:1-7
- Lattke J.E. (1995) Revision of the ant genus *Gnamptogenys* in the New World (Hymenoptera: Formicidae) *Journal of Hymenoptera Research* 4:137-193
- Lattke J.E. (1997) Revisión del género *Apterostigma* Mayr (Hymenoptera: Formicidae) *Arquivos de Zoologia* (Museu de Zoologia da Universidade de São Paulo) 34:121-221
- Leclercq J. (1979) *Lecrenierus* genre nouveau de Crabroniens sudaméricains (Hymenoptera: Sphecidae) *Bull. Rech. Agron. Gembloux* 12:55-70 (la fecha 1977 es errónea)
- Leclercq J. (1980a) Crabroniens d'Amérique Latine appartenant aux genres *Entomocrabro* Kohl et *Tracheliodes* Morawits (Hymenoptera: Sphecidae) *Bull. Ann. Soc. Roy. Belge Ent.* 116:233-245
- Leclercq J. (1980b) Crabroniens du genre *Quexua* Pate trouvés en Amérique Latine (Hymenoptera: Sphecidae) *Bull. Rech. Agron. Gembloux* 51:61-70
- Leclercq J. (1980c) Crabroniens d'Amérique Latine appartenant aux genres que Vernon S. L. Pate nomma *Chimila*, *Foxita* et *Taruma* (Hymenoptera: Sphecidae) *Bull. Soc. Roy. Sci. Liege* 49:70-83
- Leclercq J. (1980d) Crabroniens du Chili des genres *Podagritys* Spinola, 1851 et *Rhopalum* Stephens, 1829 (Hymenoptera: Sphecidae) *Bull. Ann. Soc. R. Belge Ent.* 130:231-265
- Leclercq J. (1981) *Podagritys* (*Chilichuca*) *brieni* n. sp. et 27 autres espèces de *Podagritys* de l'Amérique du sud (Hymenoptera, Sphecidae, Crabroninae) *Ann. Soc. Roy. Zool. Belg.* 111:65-88
- Leclercq J. (1982) Identification de 39 espèces de *podagritys* Spinolasous-genre *Parechuca* Leclercq trouvés en Amérique Latine (Hymenoptera, Sphecidae, Crabroninae) *Ann. Soc. Roy. Zool. Belgique* 112:251-279
- Leclercq J. (1991) Hyménoptères sphecides crabroniens du genre *Ectemnius* Dahlbom trouvés en Amérique Latine *Bull. Soc. Roy. Sci. Liege* 60:3-29
- Leclercq J. (1993) Hyménoptères sphecides crabroniens du genre *Alinia* Antropov, 1993 d'Amérique du sud *Lambillionea* 93:411-416
- Leclercq J. (1994a) Hyménoptères sphecides crabroniens du genre *Holcorhopalum* Cameron, 1904 d'Amérique Latine *Lambillionea* 94:167-174
- Longino J.T. (1988) Notes on the taxonomy of the Neotropical ant genus *Thaumatomyrmex* Mayr In: J.C. Trager (ed.) *Advances in Myrmecology*, New York, 551 pp.
- MacKay W.P. (1995) New distributional records for the ant genus *Cardiocondyla* in the New World (Hymenoptera: Formicidae) *Pan-Pacific Entomology* 71(3):169-172
- MacKay W.P. (1996) A revision of the ant genus *Acanthostichus* (Hymenoptera: Formicidae) *Sociobiology* 27:129-179
- MacKay W.P. (1997) A revision of the Neotropical ants of the genus *Camponotus*, subgenus *Myrmentoma* (Hymenoptera: Formicidae) *Proceedings of the Entomological Society of Washington* 99(1):194-203

- Melo G.A.R. (1999) Phylogenetic relationships and classification of ten major lineages of Apoidea (Hymenoptera), with emphasis on the crabronid wasps *Sci. Pap. Nat. Hist. Mus. U. Kansas* 14:1-55
- Menke A.S. (1988) *Pison* in the New World: a revision (Hymenoptera: Sphecidae: Trypoxylini) *Contributions of the American Entomological Institute* 24(3):1-172
- Menke A.S. (1989) *Arpactophilus* reassessed, with three bizarre new species from New Guinea (Hymenoptera: Sphecidae: Pemphredonidae) *Invertebrate Taxonomy* 2:737-747 (Erróneamente fechado 1988)
- Menke A.S. (1992) Mole cricket hunters of the genus *Larra* in the New World (Hymenoptera: Sphecidae: Larrinae) *Journal of Hymenoptera Research* 1:175-234
- Menke A.S. (1996) Neotropical *Mellinus*: A review (Hymenoptera: Sphecidae) *Mem. Ent. Scoc. Wash.* 17:125-141
- Menke A.S., F. Fernández (1996) Claves ilustradas para las subfamilias, tribus y géneros de esfécidos neotropicales (Apoidea: Sphecidae) *Revista de Biología Tropical* Vol. 44, suppl. 2, 1-68
- Menke A.S., C. Vardy (1980) A synopsis of the tribe Scapheutini (Hymenoptera: Sphecidae) *Pap. Avul. Zool.* 34:73-85
- Menke A.S., D.L. Vincent (1983) A review of the genus *Polemistus* in the New World (Hymenoptera: Sphecidae) *Pan-Pacific Entomology* 59:163-175
- Michener C.D. (1986b) A review of the tribes Diphaglossini and Dissoglottini *University of Kansas Science Bulletin* 53:183-214
- Michener C.D. (1986c) New Peruvian genus and a generic review of Andreninae *Annals of the Entomological Society of America* 79:62-72
- Michener C.D. (1990) Classification of the Apidae *University of Kansas Science Bulletin* 54:75-153
- Michener C.D. (1997) Genus-Group Names of Bees and Supplemental Family-Group Names *Nat. Hist. Mus. Univ. Kan. Sci. Entomol. Pap.* 1:1-81
- Michener C.D. (2000) *Bees of the World* John Hopkins University Press
- Moure J.S. (1994) *Lissopedia*, gen. n. de Paratetrapediini para a regio neotropical, com as descrições de três espécies novas *Revista Brasileira de Zoolo-gia* 12:939-951
- Moure J.S., Hurd P.D., Jr. (1987) *An Annotated Catalog of the Halictid Bees of the Western Hemisphere* (Hymenoptera: Halictidae) 405 pp. Smithsonian Institution Press, Washington D.C.
- Nonveller G. (1990) *Catalogue of the Mutillidae, Myrmosidae and Bradynobaenidae of the Neotropical Region including Mexico* (Insecta: Hymenoptera) Hymenopterum Catalogus Pars 18, SPB Academic Publishing, Netherlands
- Olmi M. (1984) A revision of the Dryinidae (Hymenoptera) *Memoirs of the American Entomological Institute* 37:1-1913
- Olmi M. (1986) New Species of Dryinidae (Hymenoptera, Chrysidoidea) *Boll. Mus. Reg. Sci. Nat. Tor.* 5:211-238
- Olmi M. (1989) Supplement to the revision of the world Dryinidae (Hymenoptera Chrysidoidea) *Frust. Entomol. (N.S.)* 12:109-395
- Olmi M. (1993a) Dryinidae di Costa Rica: catalogo e considerazioni biogeografiche de evollutive (Hymenoptera: Chrysidoidea) *Boll. Soc. Entomol. Ital.* 124:186-200
- Olmi M. (1993b) A new generic classification for Thaumatomydriinae, Dryininae and Gonatopodinae, with descriptions of new species (Hymenoptera: Dryinidae) *Boll. Zool. Agr. Bachic. (Ser. II)* 25:57-89
- Olmi M. (1995a) Contribution to the knowledge of the world Dryinidae (Hymenoptera Chrysidoidea) *Phytophaga* 6:3-54
- Olmi M. (1995b) A revision of the World Embolemidae (Hymenoptera Chrysidoidea) *Frust. Entomol.* 8(31):85-146
- Olmi M., E. Virla, F. Fernández (2000) Las Avispas Dryinidae de la Región Neotropical (Hymenoptera: Chrysidoidea) *Biota Colombiana* 1(2):141-163
- Pagliano G., P. Scaramozzino (1990) Elenco del Generi di Hymenoptera del Mondo *Mem. Soc. Entomol. Ital.* 68:1-210
- Parker F.D. (1966) On the subfamily Astatinae. Part III. A new genus of Mexican Astatinae, with notes on related genera (Hymenoptera: Sphecidae) *Annals of the Entomological Society of America* 59:765-767
- Pate V.S.L. (1947) Neotropical Sapygidae with a conspectus of the family (Hymenoptera Aculeata) *Acta Zool. Lilloana* 4:393-426
- Pulawski M.J. (1985) *Harpactus* Shuckard, 1837, the valid name for the genus currently called *Dienoplus* Fox, 1894 (Hymenoptera: Sphecidae) *Syst. Ent.* 10:59-63
- Pulawski M.J. (1988) Revision of the North American *Tachysphex* wasps including Central American and Caribbean species (Hymenoptera: Sphecidae) *Mem. Calif. Acad. Sci.* 10:1-211.
- Quintero D., R. Rodríguez (1990) New Species of *Typhoctes* from Panama (Hymenoptera: Typhoctidae) *Annals of the Entomological Society of America* 83(1):30-35
- Richards O.W. (1939) The Bethyridae subfamily Sclerogibbidae (Hymenoptera) *Proc. R. Entomol. Soc. London, Series B* 8:211-223

- Richards O.W. (1962a) *A revisional study of the masarid wasps* (Hymenoptera: Vespidae) British Museum (Natural History), London, England, 302pp.
- Richards O.W. (1962b) *A revisional study of the masarid wasps* (Hymenoptera: Vespoidea) British Museum (Natural History), London, England, 294pp.
- Richards O.W. (1978) *The Social wasps of the Americas excluding the Vespinae* British Museum (Natural History), London, 580 pp.
- Roig-Alsina A. (1981) Revisión del género *Entypus* Dahlbom en la Argentina (Hymenoptera: Pompilidae) *Rev. Soc. Ent. Arg.* 40(1-4):311-336
- Roig-Alsina A. (1982a) *Plagicurgus*, nuevo género de Pepsinae Neotropicales (Hymenoptera, Pompilidae) *Physis* Sec. C 41(100):73-77
- Roig-Alsina A. (1982b) Revisión del género *Caliadurgus* Pate en la Argentina (Hymenoptera: Pompilidae) *Rev. Soc. Ent. Arg.* 41(1-4):233-252
- Roig-Alsina A. (1986) Contribución al conocimiento de los Pepsinae sudamericanos. II. El género *Adirostes* Banks (Hymenoptera, Pompilidae) *Rev. Soc. Ent. Arg.* 43(4):165-170
- Roig-Alsina A. (1987a) The classification of the Caenoprosopidini *Journal of the Kansas Entomological Society* 60:305-315
- Roig-Alsina A. (1987b) Contribución al conocimiento de los Pepsinae sudamericanos. IV. El género *Sphictostethus* Kohl (Hymenoptera, Pompilidae) *Rev. Soc. Ent. Arg.* 44(3-4):277-315
- Roig-Alsina A. (1989a) The tribe Osirini, its scope, classification and revision of the genera *Parepeolus* and *Osirinus*. *University of Kansas Science Bulletin* 54:1-23
- Roig-Alsina A. (1989b) A revision of the bee genus *Doeringiella*. *University of Kansas Science Bulletin* 53:576-621
- Roig-Alsina A. (1989c) La posición sistemática de los grupos hasta ahora incluidos en *Chirodamus* Haliday *sensu lato* y revisión de *Pompilocalus* gen. nov. (Hymenoptera: Pompilidae) *Rev. Soc. Ent. Arg.* 47(1-4):3-73
- Roig-Alsina A. (1990) *Coelioxoides* Cresson, a parasitic genus of the Tetrapediini *Journal of the Kansas Entomological Society* 63:279-287
- Roig-Alsina A. (1991a) Revision of the cleptoparasitic bee tribe Isepeolini *University of Kansas Science Bulletin* 54:257-288
- Roig-Alsina A. (1991b) Cladistic analysis of the Nomadinae s. str. with description of a new genus *Journal of the Kansas Entomological Society* 64:23-37
- Roig-Alsina A. (1992) La presencia de *Chilimalopsis* Toro en la Argentina y descripción de una nueva especie *Neotropica* 38:149-153
- Roig-Alsina A. (1994) A new genus of Plumariidae, with notes on the relationships among the genera of the family (Hymenoptera, Chrysidoidea, Plumariidae) *Mitteilungen der Münchner Entomologischen Gesellschaft* 84:91-96
- Roig-Alsina A. (1996) Las especies del género *Rhogepeolus* Moure *Neotropica* 42:55-59
- Roig-Alsina A. (1997) A generic studies of the bees of the tribe Tapinotaspidini, with notes on the evolution of their oil-collecting structures *Mitteilungen der Münchner Entomologischen Gesellschaft* 87:3-21
- Roig-Alsina A., C.D. Michener (1993) Studies of the phylogeny and classification of long-tongued bees *University of Kansas Science Bulletin* 55:124-162
- Ronquist A., A.P. Rasnitsyn, A. Roy, K. Erikson, M. Lindgren (1999) Phylogeny of the Hymenoptera: A cladistic reanalysis of Rasnitsyn's (1988) data *Zool. Scripta* 28(1-2):13-50
- Rozen J.G., Ruz L. (1995) South American panurgine bees (Andrenidae: Panurginae), Part II: Adult, immature stages, and biology of *Neffapis longilingua*, a new genus and species with an elongate glossa *American Museum Novitates* no. 3136:1-15
- Rubio E. (1976) Revisión del género *Trachypus* Klug (Hymenoptera: Sphecidae) *Rev. Fac. Agron. Univ. Zulia* 3(1):7-87
- Ruz L. (1991) Classification and phylogenetic relationships of the panurgine bees: The Calliopsini and allies *University of Kansas Science Bulletin* 54:209-256
- Ruz L., J.G. Rozen (1993) South American panurgine bees (Apoidea: Andrenidae: Panurginae), Part I. Biology, mature larva, and description of a new genus and species *American Museum Novitates* no. 3057:1-12
- Ruz L., H. Toro (1983) Revisión of the bee genus *Liphanthus*. *University of Kansas Science Bulletin* 52:235-299
- Sarmiento C (1999) Distribución de las Avispas Sociales en Colombia (Hymenoptera: Vespidae: Polistinae) *Biogeographica* 75(1):17-36
- Schultz T.R., R. Meier (1995) A phylogenetic analysis of the fungus-growing ants (Hymenoptera: Myrmicinae: Attini) based on morphological characters of the larvae *Systematic Entomology* 20:337-370
- Sharkey M.J., D.B. Wahl (1992) Cladistics of the Ichneumonoidae (Hymenoptera) *Journal of Hymenoptera Research* 1:15-24
- Shattuck S.O. (1992) Generic revision of the ant subfamily Dolichoderinae *Sociobiology* 21:1-181
- Shattuck S.O. (1993) Revision of the *Iridomyrmex purpureus* species-group (Hymenoptera: Formicidae) *Invertebrate Taxonomy* 7:113-149
- Shattuck S.O. (1994) Taxonomic catalog of the ant subfamilies Aneuretinae and Dolichoderinae *Univ. Cal. Pub. Entomol.* 112:1-241

- Shimizu A. (1994) Phylogeny and Classification of the family Pompilidae (Hymenoptera) *Bulletin of Natural History*, Tokyo Met. Univ. 2:1-142
- Sielfeld W.H. (1975) Contribución al conocimiento de los Miscophini (Hym., Sphecidae, Larrinae) neotropicales *Rev. Chilena Ent.* 8:95-116
- Sielfeld W.H. (1976) Nuevas especies Chilenas del género *Solierella* Spin (Hymenoptera: Larrinae: Miscophini) *Rev. Chilena Ent.* 9:57-61
- Sielfeld W.H. (1980a) Presencia de la subtribu Ammoplanina en Chile (Hymenoptera: Sphecidae: Pemphredoninae) *Rev. Chilena Ent.* 10:67-70
- Sielfeld W.H. (1980c) Nuevos antecedentes sobre el género *Solierella* Spin en Chile (Hymenoptera: Larrinae: Miscophini) *Rev. Chilena Ent.* 10:85-90
- Siri M.L., R.M. Bohart (1974) A review of the genus *Mellinus* (Hymenoptera: Sphecidae) *Pan-Pacific Entomology* 50:169-176
- Snelling R.R. (1984) Studies on the taxonomy and distribution of American centridine bees *Contributions in Science, Natural Museum of Los Angeles County* no. 361:1-33
- Snelling R.R., R.W. Brooks (1985) A review of the genera of cleptoparasitic bees of the tribe Ericrocini *Contributions in Science, Natural Museum of Los Angeles County* no. 369:1-34
- Snelling R.R., J.T. Longino (1992) Revisionary notes on the fungus-growing ants of the genus *Cyphomyrmex*, *rimosus* group (Hymenoptera: Formicidae: Attini) In: D. Quintero and A. Aiello (eds.) *Insects of Panama and Mesoamerica: Selected Studies*. pp. 479-494. Oxford University Press, Oxford
- Stubblefield J.W. (1984) Genus *Stizus* Latreille in North America (Hymenoptera: Nyssoninae) *Bull. Mus. Comp. Zool.* 150:397-428
- Taber S.W. (1998) *The World of the Harvester ants Texas A 4 M University press, College Station*, 213 pp.
- Townes H. (1977) A revision of the Rhopalosomatidae (Hymenoptera) *Contributions of the American Entomological Institute* 8:1-367
- van Lith J.P. (1975a) Neotropical species of *Psen* and *Pseneo* (Hymenoptera, Sphecidae, Psenini) *Tijdschr. V. Ent.* 118:1-41
- van Lith J.P. (1975b) New Neotropical species of *Pseneo* (Hymenoptera, Sphecidae, Psenini) *Ent. Bericht.* 35:170-173
- van Lith J.P. (1978) A Brazilian *Psenulus* (Hymenoptera, Sphecidae, Psenini) *Ent. Bericht.* 38:91-94
- van Lith J.P. (1979) The New World genus *Pluto* (Hymenoptera, Sphecidae, Psenini) *Tijdschr. V. Ent.* 122:127-239
- Vardy C.R. (1978) A revision of the neotropical wasp genus *Trigonopsis* Perty (Hymenoptera: Sphecidae) *Bulletin of the British Museum (Natural History)*, Entomology 37:117-152
- Vardy C.R. (1987) Three new taxa of neotropical Larrinae (Hymenoptera: Sphecidae) and a new prey record *Ent. Mon. Mag.* 123:99-105
- Vincent D.L. (1979) A revision of the genus *Passaloecus* (Hymenoptera: Sphecidae) in America north of Mexico *Wasman J. Biol.* 36:127-198
- Ward P.S. (1990) The ant subfamily Pseudomyrmecinae (Hymenoptera: Formicidae) generic revision and relationship to other formicids *Systematic Entomology* 15:449-489
- Ward P.S., B. Bolton, S.O. Shattuck, W.L. Brown Jr. (1996) *A Bibliography of Ant Systematics* University of California Publications in Entomology 116 pp.
- Wasbauer M.S. (1968) New genera of male Brachycistidinae with redescription of *Brachycistellus* Baker and a key to North American genera *Pan-Pacific Entomology* 44:184-197
- Wasbauer M.S. (1987) A new genus of Ageniellini from Central America (Hymenoptera: Pompilidae: Pepsinae) *Psyche* 94:181-187
- Watkins J.F. (1976) *The identification and Distribution of New World Army Ants (Dorylinae: Formicidae)* 102 pp. Baylor University Press, Waco Texas

