



REVIEW

The Stingless Bee Fauna In Brazil (Hymenoptera: Apidae)

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Abstract

The stingless bee fauna currently known from Brazil is summarized, including geographic records by Brazilian states. A total of 244 valid species and about 89 undescribed forms, placed in 29 genera, are recorded for the country. The survey is based mainly on the Catalogue of Bees (Moure's Bee Catalogue) and specimens housed in the Camargo Collection – RPSP. An evaluation of the current taxonomic status and some short comments on biology are also included.

Introduction

Biological collections are essential for studying and understanding biodiversity because they store not only the specimens themselves but also important information associated with those organisms (e.g. Zaher & Young, 2003; Wheeler et al. 2012). The specimens preserved in collections and museums can be an important source of reliable information about the biodiversity, present and past, as well as historical biogeography, if they are adequately studied by taxonomists. The insects or Hexapoda are the most diverse group of organisms, corresponding to ca. 60% of the known species and their representation in entomological collections can reach thousands of specimens mainly due to their abundance in nature (Rafael, 2012). Its large territorial extension and variety of biomes make Brazil one of the most diverse country in terms of insects, housing an estimated >400,000 species (Rafael, 2012). These organisms are important not only in the socio-economic field with direct, both positive or negative impact on human population, but mainly through the role insects play in maintaining many ecosystem services, serving as food to vertebrates and invertebrates, acting as decomposers, recycling

nutrients, or maintaining the plant community by dispersing seeds and especially pollen (Gullan & Cranston, 2008). The Hymenoptera concentrate the most important groups of pollinators, and researchers, governments and NGOs have increasingly given their attention in the last two decades especially to the native bees in order to preserve them (e.g. International Pollinator Initiative – IPI and Iniciativa Brasileira de Polinizadores, MMA, 2006). Some actions have been proposed in order to establish strategies for monitoring and conservation of these organisms, considering their relevance to both wild and cultivated plants (e.g. Kevan & Imperatriz-Fonseca, 2002; Imperatriz-Fonseca et al., 2006). The stingless bees, or Meliponini, a pan-tropical and very ancient group (Camargo, 2008, 2013), deserve special attention as a valuable socio-economic resource. They contribute directly to the pollination of important cultivated plants such as strawberry, “cupuaçu”, “camu-camu”, tomato, avocado, cucumber and others, by rising crop yields and improving fruits quality (e.g. Roubik, 1995; Slaa et al. 2006). Also, these often mild-mannered bees are easily reared and have become an important source of income for beekeepers in the recent decades, by producing mainly honey and wax (e.g. Nogueira-Neto, 1970, 1997; Cortopassi-Laurino et



al., 2006; Contrera et al, 2011; Alves, 2013). In addition to the importance of the “honey-pot” (term coined by P. Vit in order to point out the differences between the honey produced by stingless bees and that produced in combs by *Apis*, especially *A. mellifera* L.; Vit, 2013; Vit et al., 2013a; Alves, 2013) as food, the historical and socio-cultural aspects of the traditional and medicinal uses of the by-products of the stingless bees are also worthy of notice (e.g. Schwarz, 1948; Camargo & Posey, 1990; Engels, 2013; Jones, 2013; Ocampo Rosales, 2013; Quintal & Roubik, 2013; Vit et al. 2013b; Zamora et al., 2013). Concerning the importance and diversity of the stingless bees – 417 species for the Neotropical region up to the last update of the Moure’s bee Catalogue (Camargo & Pedro, 2007a, 2013), in addition to others still not described, a panorama of the stingless bee fauna currently living in Brazil is presented, including geographic records by Brazilian states.

Material and Methods

The survey of species that occur in the Brazilian territory was based mainly on the material housed in the Camargo Collection – RPSP, Department of Biology, Faculty of Philosophy, Sciences and Letters of Ribeirão Preto, University of São Paulo, with reliable determinations made by J.M.F. Camargo, J.S. Moure or by the author, in addition to material studied by the author more recently. Most of information presented here was already compiled in the Moure Bee Catalogue (Camargo & Pedro, 2007a, 2013) and recent taxonomic revisions (Camargo & Moure, 1994, 1996; Camargo, 1996; Camargo & Pedro, 2003, 2004, 2005, 2008, 2009; Pedro & Camargo, 2003, 2009; Marchi & Melo, 2006; Albuquerque & Camargo, 2007). Information from other articles with taxonomic notes such as Melo (2013) was also considered.

Results and Discussion

A total of 244 valid species, and about 89 undescribed forms (species already recognized by the author, but which have not been published yet), affiliated to 29 genera, are recorded for Brazil (Table 1). About 87 are endemic to Brazil, corresponding to ca. 20 % of the estimated Neotropical stingless bee species. Two genera are currently known only from Brazil, *Friesella* and the singular *Trichotrigona* (Camargo & Pedro, 2007b). Of course, the results presented here will be drastically changed with the taxonomic revision of some diversified genera that need reevaluation, mainly *Plebeia*, *Trigona*, *Melipona*, *Scaptotrigona* and *Trigonisca*, which include many undescribed species. Unfortunately, good taxonomists are vanishing and few students show interest for classical taxonomy which demands time and dedication, besides background in different areas of knowledge, mainly morphology.

It is also worth noting that in addition to the taxonomic diversity, the stingless bees exhibit a large diversity of behaviors and ways of life (e.g. Camargo, 2008, 2013), including cleptobiosis (Nogueira-Neto, 1970), necrophagy (Camargo & Roubik, 1991), mutualistic association with coccids (Camargo & Pedro, 2002) and yeast (Camargo & Pedro, 2004), as well as other associations yet poorly studied, such as for *Trichotrigona* (Camargo & Pedro, 2007b). The diversity of architectural solutions and use of different substrates, even including gigantic nests of aggressive bees of the genus *Trigona*, made from the bees’ own pollen feces (Roubik & Moreno, 2009), and association with nests of other organisms such as ants, wasps, termites and birds to construct their nests is impressive (e.g. Camargo & Pedro, 2003; Rasmussen & Camargo, 2008; and compilation by Roubik, 2006). All this biological and taxonomic diversity exhibited by the stingless bees living in Brazil make them amazing objects of study.

Table 1. Stingless bees (Meliponini) found in the Brazilian territory.

Genus	Number of valid species and additional undescribed forms [indicated in square brackets]		Species found in the Brazilian territory (†)
	Total	occurring in Brazil	
<i>Aparatrigona</i>	2	1	<i>impunctata</i> (Ducke, 1916) (AC, AP AM, MT, PA, RO, RR)
<i>Camargoia</i>	3	3	<i>camargoi</i> Moure, 1989 (AP, AM) <i>nordestina</i> Camargo, 1996 \$ (BA, CE, PI, TO) <i>pilicornis</i> (Ducke, 1910) \$ (MA, PA)
<i>Celetrigona</i>	4	4	<i>euclidiana</i> Camargo & Pedro, 2009 (AC) <i>hirsuticornis</i> Camargo & Pedro, 2009 \$ (AC, AM, MT, RO) <i>longicornis</i> (Friese, 1903) (AM, GO, MA, MT, PA, RO) <i>mañanara</i> Camargo & Pedro, 2009 (AP, AM, PA)
<i>Cephalotrigona</i>	5	2 [+1]	<i>capitata</i> (Smith, 1854) # (AP, CE, ES, MT, MG, PA, PR, SC, SP) <i>femorata</i> (Smith, 1854) (AP, AM, MA, PA, RO)
<i>Dolichotrigona</i>	10	7	<i>browni</i> Camargo & Pedro, 2005 (AC, MT, RO) <i>clavicornis</i> Camargo & Pedro, 2005 \$ (AC, AM, RO) <i>longitarsis</i> ((Ducke, 1916) (AC, AM, MA, MT, PA, RO) <i>mendersoni</i> Camargo & Pedro, 2005 \$ (AC, AM, RO) <i>moratoi</i> Camargo & Pedro, 2005 \$ (AC, AM) <i>rondoni</i> Camargo & Pedro, 2005 \$ (RO) <i>tavaresi</i> Camargo & Pedro, 2005 \$ (AC, AM)
<i>Duckeola</i>	2	2	<i>ghiliani</i> (Spinola, 1853) (AP, AM, MT, PA, RO) <i>pavani</i> (Moure, 1963) (AM)
<i>Friesella</i>	1	1 [+1]	<i>schrottkyi</i> (Friese, 1900) \$ (ES, MG, PR, SP)
<i>Frieseomelitta</i>	16	13 [+5]	<i>dispar</i> (Moure, 1950) \$ (BA, ES, MG, PB) <i>doederleini</i> (Friese, 1900) \$ (BA, CE, MA, MT, MG, PB, PE, PI, RN) <i>flavicornis</i> (Fabricius, 1798) (AP, AM, PA, RR) <i>francoi</i> (Moure, 1946) \$ (BA, ES, PB, PE, SE) <i>freiremaiai</i> (Moure, 1963) # (BA, ES) <i>languida</i> Moure, 1990 \$ (BA, GO, MG, SP) <i>longipes</i> (Smith, 1854) # (PA) <i>meadewaldoi</i> (Cockerell, 1915) # (*) <i>paranigra</i> (Schwarz, 1940) (AM) <i>portoi</i> (Friese, 1900) (AM, MA, PA) <i>silvestrii</i> (Friese, 1902) (MT) <i>trichocerata</i> Moure, 1990 # (AP, AM, PA) <i>varia</i> (Lepeletier, 1836) (BA, GO, MT, MG, SP, TO)

Table 1. Stingless bees (Meliponini) found in the Brazilian territory. (Cont.)

Genus	Number of valid species and additional undescribed forms [indicated in square brackets]		Species found in the Brazilian territory (†)
	Total	Occurring in Brazil	
<i>Geotrigona</i>	22	10 [+1]	<i>aequinoctialis</i> (Ducke, 1925) \$ (CE, MA, PA) <i>fulvohirta</i> (Friese, 1900) (AC, AM) <i>kwyrakai</i> Camargo & Moure, 1996 \$ (PA, RO) <i>mattogrossensis</i> (Ducke, 1925) (MT, PA, RO) <i>mombuca</i> (Smith, 1863) (BA, GO, MA, MT, MS, MG, PA, PI, SP, TO) <i>subfulva</i> Camargo & Moure, 1996 \$ (AM) <i>subgrisea</i> (Cockerell, 1920) (RR) <i>subnigra</i> (Schwarz, 1940) (AP, AM, PA) <i>subterranea</i> (Friese, 1901) \$ (BA, MG, PR, SP) <i>xanthopoda</i> Camargo & Moure, 1996 \$ (PB, PE)
<i>Lestrimelitta</i>	23	14	<i>ciliata</i> Marchi & Melo, 2006 \$ (PA) <i>ehrharti</i> (Friese, 1931) \$ (AL, ES, MG, PR, RJ, SC, SP) <i>glaberrima</i> Oliveira & Marchi, 2005 (AP) <i>glabrata</i> Camargo & Moure, 1996 (AC, AM, MT, RR) <i>limao</i> (Smith, 1863) \$ (BA, CE, DF, GO, MA, MG, RO, SP) <i>maracaia</i> Marchi & Melo, 2006 \$ (AM, RO, RR) <i>monodonta</i> Camargo & Moure, 1989 \$ (AM, MA, PA, RR) <i>nana</i> Melo, 2003 \$ (AP) <i>rufa</i> (Friese, 1903) (AM, MT, PA, RO) <i>rufipes</i> (Friese, 1903) (AM, BA, CE, ES, GO, MA, MT, MG, PA, PR, PI, RS, RO, RR, SC, SP, TO) <i>similis</i> Marchi & Melo, 2006 \$ (PA) <i>spinosa</i> Marchi & Melo, 2006 (PA) <i>sulina</i> Marchi & Melo, 2006 (PR, RS, SC) <i>tropica</i> Marchi & Melo, 2006 \$ (BA, CE, RJ)
<i>Leurotrigona</i>	4	3	<i>gracilis</i> Pedro & Camargo, 2009 \$ (AC, AM, RO) <i>muelleri</i> (Friese, 1900) # (BA, ES, GO, MA, MT, MS, MG, PR, PB, RO, SC, SP) <i>pusilla</i> Moure & Camargo, in Moure <i>et al.</i> , 1988 (AP, AM, PA)
<i>Melipona</i> <i>M. (Eomelipona)</i>	74 (15)	40 10 [+2]	<i>amazonica</i> Schulz, 1905 \$ (AC, AP, AM, PA, RO) <i>asilvai</i> Moure, 1971 \$ (AL, BA, CE, MG, PB, PE, PI, RN, SE) <i>bicolor</i> Lepeletier, 1836 (BA, ES, MG, PR, RJ, RS, SC, SP) <i>bradley</i> Schwarz, 1932 (AP, AM, MT, PA, RO, RR) <i>illustris</i> Schwarz, 1932 (PA, MT) <i>marginata</i> Lepeletier, 1836 \$ (BA, CE, ES, GO, MG, RJ, SP) <i>ogilviei</i> Schwarz, 1932 (AP, AM, PA, TO) <i>puncticollis</i> Friese, 1902 (AM*, MA, PA) <i>torrida</i> (= <i>M. obscurior</i>) Friese, 1916 (MT*, PR, RS, SC, SP); see Melo, 2013 <i>tumupasa</i> Schwarz, 1932 (AC) <i>compressipes</i> (Fabricius, 1804) (AP, AM, RR) <i>fasciculata</i> Smith, 1854 \$ (MA, MT, PA, PI, TO) <i>grandis</i> Guérin, 1834 (AC, AM, MT, RO) <i>interrupta</i> Latreille, 1811 (AP, AM, PA) <i>quinquefasciata</i> Lepeletier, 1836 # (CE, DF, ES, GO, MT, MS, MG, PR, RJ, RS, RO, SC, SP)
<i>M. (Melikerria)</i>	(10)	5 [+1]	<i>favosa</i> (Fabricius, 1798) (RR) <i>mandacaia</i> Smith, 1863 \$ (AL, BA, CE, PB, PE, PI, RN, SE) <i>orbigny</i> (Guérin, 1844) (MT, MS) <i>quadrifasciata</i> Lepeletier, 1836 (AL, BA, ES, GO, MS, MG, PB, PR, PE, RJ, RS, SC, SP, SE) <i>subnitida</i> Ducke, 1910 \$ (AL, BA, CE, MA, PB, PE, PI, RN, SE)
<i>M. (Melipona)</i>	(13)	5 [+1]	<i>brachychaeta</i> Moure, 1950 (MT, RO) <i>capitosa</i> Moure, 1962 (AP, AM) <i>capixaba</i> Moure & Camargo, 1994 \$ (ES) <i>cramptoni</i> Cockerell, 1920 (RR) <i>crinita</i> Moure & Kerr, 1950 (AC, AM, RO) <i>dubia</i> Moure & Kerr, 1950 \$ (AC, AM, RO) <i>eburnea</i> Friese, 1900 (AC, AM) <i>flavolineata</i> Friese, 1900 # \$ (CE*, MA, PA, TO) <i>fuliginosa</i> Lepeletier, 1836 (AC, AM, BA, ES, MT, PA, PI*, SP) <i>fulva</i> Lepeletier, 1836 (AP, AM, PA, RR) <i>fuscopilosa</i> Moure & Kerr, 1950 (AC, AM) <i>lateralis</i> Erichson, 1848 (AP, AM, PA, RR) <i>melanoventer</i> Schwarz, 1932 \$ (AC*, AM, MA, MT, PA, RO) <i>mondury</i> Smith, 1863 \$ (BA, ES, MG, PR, RJ, RS*, SC, SP) <i>nebulosa</i> Camargo, 1988 (AC, AM, PA) <i>paraensis</i> Ducke, 1916 (AP, AM, PA) <i>rufiventris</i> Lepeletier, 1836 # \$ (BA, GO, MT, MS, MG, PI, SP) <i>scutellaris</i> Latreille, 1811 \$ (AL, BA, CE, PB, PE, RN, SE) <i>seminigra</i> Friese, 1903 # (AC, AM, MA, MT, PA, RO, RR, TO) <i>titania</i> (Gribodo, 1893) (AM)
<i>Meliwillea</i>	1	0	
<i>Mourella</i>	1	1	<i>caerulea</i> (Friese, 1900) (PR, RS, SC)
<i>Nannotrigona</i>	10	7 [+1]	<i>chapadana</i> (Schwarz, 1938) (GO, MT) <i>dutrae</i> (Friese, 1901) \$ (PA) <i>melanocera</i> (Schwarz, 1938) (AC, AM) <i>minuta</i> (Lepeletier, 1836) # \$ (PA*) <i>punctata</i> (Smith, 1854) (AP, PA) <i>schultzei</i> (Friese, 1901) (AP, AM, PA) <i>testaceicornis</i> (Lepeletier, 1836) (BA, ES, GO, MS, MG, PR, RJ, RS, SC, SP)
<i>Nogueirapis</i>	4	2 [+1]	<i>buteli</i> (Friese, 1900) (AM) <i>minor</i> (Moure & Camargo, 1982) (AP, AM)
<i>Oxytrigona</i>	11	5 [+5]	<i>flaveola</i> (Friese, 1900) # (ES) <i>ignis</i> Camargo, 1984 \$ (AM, MA, PA) <i>mulfordi</i> (Schwarz, 1948) (AC, RO) <i>obscura</i> (Friese, 1900) (AP, AM, MT, PA, RO) <i>tataira</i> (Smith, 1863) # (BA, ES, MS, MG, PR, RJ, SC, SP)
<i>Parapartamona</i>	7	0	
<i>Paratrigona</i>	32	16 [+3]	<i>catabolonota</i> Camargo & Moure, 1994 \$ (AM) <i>compsa</i> Camargo & Moure, 1994 \$ (AM) <i>crassicornis</i> Camargo & Moure, 1994 \$ (PA) <i>euxanthospila</i> Camargo & Moure, 1994 \$ (AM)

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	Total	Occurring in Brazil	
			<i>femoralis</i> Camargo & Moure, 1994 (AP)*** <i>haeckeli</i> (Friese, 1900) (MT, PA, RO) <i>incerta</i> Camargo & Moure, 1994 \$ (BA, MG, PB) <i>lineata</i> (Lepelletier, 1836) # (BA, CE, GO, MA, MT, MG, PA, PB, PE, PR, PI, SP, TO) <i>lineatifrons</i> (Schwarz, 1938) \$ (AM, PA) <i>melanaspis</i> Camargo & Moure, 1994 \$ (AM) <i>nuda</i> (Schwarz, 1943) (AC) <i>myrmecophila</i> Moure, 1989 \$ (RO) <i>pacifica</i> (Schwarz, 1943) (AC, RO) <i>pannosa</i> Moure, 1989 (AP, AM, PA) <i>peltata</i> (Spinola, 1853) \$ (MA, PA) <i>prosopiformis</i> (Gribodo, 1893) (AC, AM, PA, RO) <i>pubnuda</i> Moure, 1947 \$ (BA, MG, PA, PR, RJ, RS, SC, SP)
<i>Paratrigonoides</i>	1	0	
<i>Partamona</i>	32	23 [+3]	<i>ailylae</i> Camargo, 1980 (AC, AM, CE, GO, MA, MT, MS, MG, PA, PI, RO, SP, TO) <i>auripennis</i> Pedro & Camargo, 2003 (AP, AM, PA) <i>batesi</i> Pedro & Camargo, 2003 \$ (AC, AM) <i>chapidicola</i> Pedro & Camargo, 2003 \$ (MA, PA, PE, PI, TO) <i>combinata</i> Pedro & Camargo, 2003 (AC, DF, GO, MA, MT, MS, MG, PA, RO, SP, TO) <i>criptica</i> Pedro & Camargo, 2003 \$ (ES, MG, RJ, SP) <i>cupira</i> (Smith, 1863) \$ (DF, GO, MS, MG, SP) <i>epiphytophila</i> Pedro & Camargo, 2003 (AC, AM) <i>ferreirai</i> Pedro & Camargo, 2003 (AP, AM, PA, RR) <i>gregaria</i> Pedro & Camargo, 2003 \$ (AM, PA) <i>helleri</i> (Friese, 1900) \$ (BA, ES, MG, PR, RJ, SC, SP) <i>littoralis</i> Pedro & Camargo, 2003 \$ (PB, RN) <i>mourei</i> Camargo, 1980 (AM, PA, RR) <i>mulata</i> Moure, in Camargo, 1980 (MT, MS) <i>nhambiquara</i> Pedro & Camargo, 2003 (GO, MT, MS, PA, RO) <i>nigrior</i> Cockerell, 1925) (RR) <i>pearsoni</i> Pedro & Camargo, 2003 (AP, AM, MA, PA) <i>rustica</i> Pedro & Camargo, 2003 \$ (BA, MG) <i>seridoensis</i> Pedro & Camargo, 2003 \$ (CE, MA, PB, PE, RN) <i>sooretamae</i> Pedro & Camargo, 2003 \$ (BA, ES) <i>subtilis</i> Pedro & Camargo, 2003 (AC) <i>testacea</i> (Klug, 1807) (AC, AP, AM, CE, MA, PA, RO) <i>vicina</i> Camargo, 1980 (AC, AP, AM, MT, PA, RO, RR)
<i>Plebeia</i>	40	19 [+10]	<i>alvarengai</i> Moure, 1994 \$ (AM, MT, PA, RO) <i>catamarcensis</i> (Holmberg, 1903) (MS, RS) <i>droryana</i> (Friese, 1900) # (BA, ES, MG, PA, PE, RJ, RS, SC, SP) <i>emerina</i> (Friese, 1900) (PR, RS, SC, SP) <i>flavocincta</i> (Cockerell, 1912) \$ (BA, PB, PE, PI) <i>grapiuna</i> Melo & Costa, 2009 \$ (BA) <i>julianii</i> Moure, 1962 # (PR) <i>lucii</i> Moure, 2004 \$ (ES, MG) <i>margaritae</i> Moure, 1962 (AM, MT, RO) <i>meridionalis</i> (Ducke, 1916) # (ES, MG, PR, RJ) <i>minima</i> (Gribodo, 1893) # (AC, AP, AM, MA, MT, PA) <i>mosquito</i> (Smith, 1863) \$ # (MG, RJ) <i>nigriceps</i> (Friese, 1901) (PR, RS, SC, SP) <i>phrynostoma</i> Moure, 2004 \$ (ES, MG) <i>poecilochroa</i> Moure & Camargo, 1993 \$ (ES, MG) <i>remota</i> (Holmberg, 1903) (ES, MG, PR, RS, SC, SP) <i>saiqui</i> (Friese, 1900) \$ (MG, PR, RS, SC, SP) <i>varicolor</i> (Ducke, 1916) (AM, PA, RO) <i>wittmanni</i> Moure & Camargo, 1989 (RS)
<i>Proplebeia</i>	4	0	
<i>Pilotrigona</i>	3	2	<i>lurida</i> (Smith, 1854) (AC, AP, AM, MA, MT, PA, RO, RR) <i>pereneae</i> (Schwarz, 1943) (AC, AM)
<i>Scaptotrigona</i>	22	9 [+10]	<i>affabra</i> (Moure, 1989) \$ (PA, RO) <i>bipunctata</i> (Lepelletier, 1836) (AC, CE, MA, MG, PA, PR, RJ, RS, SC) <i>depilis</i> (Moure, 1942) (MS, MG, PR, RS, SP) <i>fulvicutis</i> (Moure, 1964) (AP, AM) <i>polysticta</i> Moure, 1950 (AC, GO, MA, MT, MG, PA, PI, RO, SP, TO) <i>postica</i> (Latreille, 1807) # (PA)* <i>tricolorata</i> Camargo, 1988 (AM, MT, RO) <i>tubiba</i> (Smith, 1863) # \$ (ES, MG, RJ, SP)* <i>xanthotricha</i> Moure, 1950 \$ (BA, ES, MG, PR, RJ, SC, SP)
<i>Scaura</i>	5	4 [+2]	<i>atlantica</i> Melo, 2004 \$ (BA, ES, MG) <i>latitarsis</i> (Friese, 1900) # (AC, AP, AM, MG, PA, PR, RJ, RO, SP) <i>longula</i> (Lepelletier, 1836) # (AP, AM, BA, GO, MA, MT, MG, PA, SP) <i>tenuis</i> (Ducke, 1916) (AM, MT, PA)
<i>Schwarziana</i>	2	2 [+2] see Melo, 2003	<i>mourei</i> Melo, 2003 (GO, MS, MG, TO) <i>quadripunctata</i> (Lepelletier, 1836) (BA, ES, GO, MG, PR, RJ, RS, SC, SP)
<i>Schwarzula</i>	2	2	<i>coccidophila</i> Camargo & Pedro, 2002 (AC, AM, RO) <i>timida</i> (Silvestre, 1902) (AC, AM, MT, MS, MG, PA, RO, SP)
<i>Tetragona</i>	13	10 [+5]	<i>beebei</i> (Schwarz, 1938) (AM, PA) <i>clavipes</i> (Fabricius, 1804) # (RR) <i>dorsalis</i> (Smith, 1854) # (AP, AM, CE, MA, PA, RO) <i>elongata</i> Lepelletier & Serville, 1828 # ** (SP, MG) <i>essequiboensis</i> (Schwarz, 1940) (AM, RO) <i>goettei</i> (Friese, 1900) (AC, AM, MT, PA, RO) <i>handlirschii</i> (Friese, 1900) (AP, AM, PA, RR) <i>kaieteurensis</i> (Schwarz, 1938) (AM, PA) <i>quadrangula</i> \$ (GO, MA, MG, MT, PA, SP, TO) <i>truncata</i> Moure, 1971 (AM, GO, MA, MT, PA, RO)
<i>Tetragonisca</i>	4	3 [+2]	<i>angustula</i> (Latreille, 1811) # (BRAZIL) <i>febrigi</i> (Schwarz, 1938) (MT, MS, PR, RS, SP) <i>weyrauchii</i> (Schwarz, 1943) (AC, MT, RO)
<i>Trichotrigona</i>	1	1 [+1]	<i>extranea</i> Camargo & Moure, 1983 \$ (AM)
<i>Trigona</i>	32	21 [+12]	<i>albipennis</i> Almeida, 1995 # (AC, AM, MT, PA, RO) <i>amalthea</i> (Olivier, 1789) (AM, MT, RO) <i>amazonensis</i> (Ducke, 1916) (AC, AM, MT, PA, RO, TO) <i>branneri</i> Cockerell, 1912 (AM, GO, MA, MT, PA, RO, TO)

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Genus	Number of valid species and additional undescribed forms [indicated in square brackets]		Species found in the Brazilian territory (†)
	Total	Occurring in Brazil	
			<i>braueri</i> Friese, 1900 (BA, ES, PR, RJ, SP) <i>chanchamayoensis</i> (AC, AM, MT, PA, RO) <i>ciliipes</i> (Fabricius, 1804) (AC, AP, AM, GO, MG, MT, PA, RO, RR, SP) <i>crassipes</i> (Fabricius, 1793) (AP, AM, MT, PA) <i>dallatorreana</i> Friese, 1900 (AP, AM, MA, MT, PA, RO, TO) <i>dimidiata</i> Smith, 1854, (AM, MT, PA, RO) <i>guianae</i> Cockerell, 1910 # (AC, AP, AM, CE, MT, PA, PB, RO, TO) <i>hyalinata</i> (Lepeletier, 1836) (BA, DF, GO, MA, MT, MS, MG, PA, PI, SP, TO) <i>hypogaea</i> Silvestri, 1902 # (AM, MA, MT, PA, SP) <i>lacteipennis</i> Friese, 1900 (AC, AM, GO, MT, PA, RO, RR) <i>pallens</i> (Fabricius, 1798) # (AC, AP, AM, GO, MA, PA, RO, RR, TO) <i>pellucida</i> Cockerell, 1912 \$ (MT, PA, RO) <i>recurva</i> Smith, 1863 # (AC, AM, CE, GO, MA, MT, MG, PA, PI, RO, SP, TO) <i>sesquipedalis</i> Almeida, 1984 (AP) <i>spiniipes</i> (Fabricius, 1793) # (AL, BA, CE, ES, GO, MA, MT, MS, MG, PA, PB, PR, PE, PI, RJ, RN, RS, SC, SP, SE, TO) <i>truculenta</i> Almeida, 1984 (AC, AP, AM, BA, GO, MA, MT, MS, MG, PA, RO, SP) <i>williana</i> Friese, 1900 (AC, AP, AM, MA, MT, PA, RO, RR)
<i>Trigonisca</i>	25	16 [+10]	<i>bidentata</i> Albuquerque & Camargo, 2007 \$ (RO) <i>ceophloei</i> (Schwarz, 1938) (AM) <i>dobzhanskyi</i> (Moure, 1950) (AM, PA) <i>duckei</i> (Friese, 1900) (AM, CE, MA, MT, PA, RR) <i>extrema</i> Albuquerque & Camargo, 2007 \$ (AM) <i>flavicans</i> (Moure, 1950) \$ (AM) <i>fraissei</i> (Friese, 1901) \$ (AM, MT, PA, RO) <i>graefferi</i> (Friese, 1900) (AM) <i>hirticornis</i> Albuquerque & Camargo, 2007 \$ (RO) <i>intermedia</i> Moure, 1900 \$ (BA, ES, MT, MG, SP) <i>meridionalis</i> Albuquerque & Camargo, 2007 \$ (MA, MT, MG, PA, SP) <i>nataliae</i> (Moure, 1950) \$ (MA, MT, PA, RO) <i>pediculana</i> (Fabricius, 1804) (BA, CE, MA, PB) <i>unidentata</i> Albuquerque & Camargo, 2007 \$ (AM) <i>variegatifrons</i> Albuquerque & Camargo, 2007 \$ (MT, PA, RO) <i>vitrifrons</i> Albuquerque & Camargo, 2007 \$ (AM, PA)
TOTAL	418	244 [+89]	

Taxonomic reevaluation is needed or it is currently under revision, in such a way that the geographic distribution is not well defined (only the type locality is reliable); \$ Species found only in the Brazilian territory; * Geographic record uncertain; ** *Tetragona elongata* (Sm.) was considered as a junior synonym of *Tetragona clavipes* in Moure's bee Catalogue, but the name is being validated here in order to include the form from Southeastern Brazil, previously determined as *T. clavipes* group or *T. aff. clavipes* or *T. cf. clavipes* or even as *T. clavipes* (Fab.); *** Gabriel A. R. Melo, personal information.

(†) Brazilian states: Acre (AC); Alagoas (AL); Amapá (AP); Amazonas (AM); Bahia (BA); Ceará (CE); Espírito Santo (ES); Goiás (GO); Maranhão (MA); Mato Grosso (MT); Mato Grosso do Sul (MS); Minas Gerais (MG); Pará (PA); Paraíba (PB); Paraná (PR); Pernambuco (PE); Piauí (PI); Rio de Janeiro (RJ); Rio Grande do Norte (RN); Rio Grande do Sul (RS); Rondônia (RO); Roraima (RR); Santa Catarina (SC); São Paulo (SP); Sergipe (SE); Tocantins (TO).

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