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CATALOGUE OF “PONEROMORPH” ANT TYPE SPECIMENS (HYMENOPTERA, FORMICIDAE) DEPOSITED IN THE MUSEU DE ZOOLOGIA DA UNIVERSIDADE DE SÃO PAULO, BRAZIL

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ABSTRACT

The present catalogue lists the type specimens of 112 nominal “poneromorph” ant species housed in the Formicidae collection of the Hymenoptera laboratory, Museu de Zoologia da Universidade de São Paulo (MZSP). The catalogue includes types of Amblyoponinae, Ectatomminae, Heteroponerinae, Ponerinae, and Proceratiinae, that is, all poneromorph (sensu Bolton, 2003) but for the monotypic Paraponerinae, of which the collection bears no type specimens. We present here information on type categories (holotype, paratype, syntype, lectotype, and paralectotype), label data, nomenclatural changes since the original description and type specimens conservation status. At last we present indexes for the taxa names presented.

KEYWORDS: Hymenoptera, ants, types, MZSP, Amblyoponinae, Ectatomminae, Heteroponerinae, Ponerinae, Proceratiinae.

INTRODUCTION

The Formicidae collection housed in the Hymenoptera laboratory of the Museu de Zoologia da Universidade de São Paulo (MZSP) is under construction since the end of the 19th century and is today one of the largest and more representative ant collections in and for the Neotropical region, as regard to the number of specimens, including types, and localities (Brandão, 2000). The history of the MZSP Formicidae collection was outlined by Klingenberg & Brandão (2005), when they listed the Attini types in the same collection.

The purpose of the present catalogue is to provide updated information on poneromorph type specimens of the MZSP collection, following Article 72 F.4 of the International Code for Zoological Nomenclature (1999).

The poneromorph group of ants, as defined by Bolton (2003), is distributed worldwide and consists of circa 1,700 described species in 49 genera of six subfamilies: Amblyoponinae, Ectatomminae, Heteroponerinae, Paraponerinae, Ponerinae and Proceratiinae (Bolton *et al.*, 2006). In spite of Bolton's (2003) consideration of poneromorph as an “unofficial group-name”, he distinguished it from other closely related

assemblages of subfamilies within the Formicidae. Recent molecular studies, (Ward, 2007, and included references) however, do not support the monophyly of the group of subfamilies Bolton included in his poneromorphs. Notwithstanding, this phylogenetically artificial group of ants has ecological meaning, as the species included share predaceous non-migratory habits and hence impose similar ecological impacts in other small animals fauna. This is why we decided to treat them as a group, as we believe readers would find useful to have this information together in a single publication. To evidence the artificial character of the subfamilies group we use from now on the notation "poneromorphs". The only "poneromorph" subfamily not represented by type specimens in the MZSP is the monotypic Paraponerinae.

MATERIAL AND METHODS

In preparing this catalogue, all specimens bearing type labels were studied by comparing information in the original descriptions; information regarding references not available in the laboratory library was found in Agosti & Johnson (2005). More information was acquired through the handwritten catalogues of Hermann von Ihering, Hermann von Luederwaldt, Walter W. Kempf, and Thomas Borgmeier, all deposited in the MZSP. The classification used follows Bolton *et al.* (2006) and includes the changes published by Mackay & Mackay (2006). The nomenclature for types follows Frizzell (1933) and the ICZN (1999) definitions.

To avoid unnecessary duplication, we do not present full taxonomic references, which can be found in Bolton *et al.* (2006). The combination of type names are cited alphabetically within subfamilies and genera, as accepted nowadays. We use the following abbreviations: coll. = collection, Coll. Borgm. = T. Borgmeier Collection, DZSP = Departamento de Zoologia da Secretaria de Agricultura de São Paulo Collection (nowadays MZSP), FM = Field Museum of Natural History, MCZ = Museum of Comparative Zoology at Harvard University, MP = Museu Paulista da Universidade de São Paulo, MZSP = Museu de Zoologia da Universidade de São Paulo, USNM = United States National Museum of Natural History, WMMann = W. M. Mann Collection, and WWK or Coll. Kempf = W. W. Kempf Collection; w = worker, g = gyne, m = male; col. = collector; leg. = legit. Furthermore, we indicate the conservation status of the type specimens recorded in the present catalogue by the abbreviations: L = leg, and A = antenna. L1,

L2 and L3 represent thus the left legs and L4, L5 and L6 the right legs, or their missing parts. We use A1 for the left antenna and A2 for right antenna, noting also missing segments using the same notation. Finally, we present an index of all the valid names listed in the present catalogue. The complete information regarding all names listed here can be found in Bolton *et al.* (2006).

To present the information regarding MZSP poneromorph types, we adopted the following order: species name, author, year of publication: page number in which the species name first appeared; type specimen category: number of type specimens with the respective sexes / castes; locality (in the original language, mainly Portuguese), date, collector, and additional information not given in labels, but present in the written catalogues and other sources (presented between brackets). When necessary, we comment on the conservation status of the types, indicating lacking body parts or whether the specimen is disarticulated (in all cases kept in the same pin), and indicate the changes in taxonomic status of the species here listed.

RESULTS

The present catalogue includes types of 112 nominal species, of which 82 (73%) are still valid, while 30 (27%) were considered junior synonyms by previous authors. Of the rich poneromorph type collection housed in the MZSP, 24 are represented by holotypes only, whereas 19 by holotypes and paratypes, 32 only by paratypes, 35 by syntypes, and two by lectotypes. The majority of the types (66%) was described by Father Thomas Borgmeier, Father Walter W. Kempf, Willian M. Brown Jr. and F. Santschi.

Subfamily Amblyoponinae

Tribe Amblyoponini

Genus *Amblyopone* Erichson, 1842

Amblyopone agostii Lacau & Delabie, 2002:36. Holotype: w; paratype: w. Brasil. BA[hia], Monte Pascoal, 16°52'03"S e 39°55'03"W; 18.vii.1997; Santos, J.R.M. [col.]. Paratype: 1 worker, disarticulated head, missing L1 tarsi, L2 claw, L3 tibia, L4 tarsi, L5 femur, L6 claw.

Amblyopone cleae Delabie in Lacau & Delabie, 2002:34. Holotype: w; paratypes: 3 w. Brasil, Ba[Bahia], Itororo[ó], 1 km N. Fazenda

Engenho Novo, 14°57'31"S e 40°02'33"W, alt. 600 m; 20.vii.2000; S. Lacau col. Paratype: 1 worker, disarticulated L6 tarsi.

Amblyopone falcata Lattke, 1991d:1. Paratype: 1 w. P[ue]rto Rico, [Guayama], carr. 7740, km 4, San Lorenzo; 22.iv.1980; J.A. Torres, leg.

Amblyopone lurilabes Lattke, 1991d:2. Paratype: 1 w. Ven[e]zuela, Portuguesa, 1000 m, 6 km SE Biscucuy, 9°18'N e 70°01'W; 18.viii.1983; J. Lattke [leg.]; nest beneath rock coffee plant, n° 438.

Amblyopone monrosi Brown, 1960a:188. Holotype: w. Chile, 10 Mi[les] NE [Northeast] of Pucon; 12.i.1951; [E.S.] Ross and [A.E.] Michelbacher col.

Stigmatomma (Fulakora) elongata st. *barreto* Bruch, 1921:184. Holotype: w. Rep. Argentina, Prov. Buenos Aires [Estancia San Jerónimo, Monte Veloz]; 17.xi.1919; C. Bruch [col.]; ex nido de *Ctenomys*. Missing L6 tibia. Combination in *Amblyopone* and junior synonym of *Amblyopone elongata* (Santschi, 1912e:519) (see Borgmeier, 1957a:110).

Stigmatomma (Fulakora) elongatum var. *paranense* Santschi, 1925b:6. Syntype: w. [Brazil], Paraná, Rio Negro; [no date]; Reichensperger [leg.]; n° 3780. Combination in *Amblyopone* and junior synonym of *Amblyopone elongata* (Santschi, 1912e:519) (see Borgmeier, 1957a:110).

Subfamily Ectatomminae

Tribe Ectatommini

Genus *Ectatomma* F. Smith, 1858a

Ectatomma gibbum Kugler, C & W.L. Brown, 1982:4. Paratype: 1 w. Costa Rica, Heredia, Finca La Selva; 10.x.[19]72; Monte Lloyd [leg.]; A45P125. Missing L2 trochanter. Paratypes: 1 w. Costa Rica, Heredia, Finca La Selva; 14-17.i.[19]73; W.L.Brown; rainfor. 1 w. Nicaragua, El Tuna, 30 km E [of] Matagalpa, H'[igh]way 5, 330 m; 19.vi.1978; C. Kugler & J. Hahn. Disarticulated head.

Ectatomma goninion Kugler & Brown, 1982:5. Paratype: 1 w. Colombia, Chocó [Departament], Finca los Guaduales, 10 km SW S[an] José del Palmar, Rio Torito 760 m; 1-4.vi.1978; C. Kugler [leg.]; on forest slope.

Ectatomma opaciventre var. *permagna* Forel, 1908h:342. Syntype: 1 w. Brazil, S[ão] Paulo, S[ão] P[aulo]; [no date, no col.]; MP # 11.950 / Coll. Borgm.

2640. Missing L2 femur. Raised to species *Ectatomma permagna* Forel, 1908h:342 (see Brown, 1958g:209).

Ectatomma planidens Borgmeier, 1939:418. Syntype: 10 w. [Brazil], S[ão] P[aulo], Pindamonhangaba; v.1930; T. Borgmeier [leg.]; Coll. Borgm. # 5323. 1 worker, missing L2 and L3 femur. 1 worker, missing L6 tibia. 1 worker, missing L5 tibia. Syntype: 1 w. [Brazil], Goyas [Goiás]; xii.[19]33 [in the original descriptions appears as iii.1933]; Schwarzmaier [leg.]. Missing A1 funiculus.

Ectatomma suzanae Almeida, 1986:24. Holotype: m. Brasil, S[ão] P[aulo], Barueri; 17.xii.1965; K. Lenko col. Missing L5 tarsi, A1 and A2 part and torn gaster.

Ectatomma vizottoi Almeida, 1987a:180. Holotype: w. [Brazil], MT [Mato Grosso], Três Lagoas, Faz. Retiro de Telhas; 22.v.1964; [no col.]; exp. Depto Zool., Cerrado. Missing L4 tarsi, L5 tarsi, A2 funiculus. Paratypes: 2 g. [Brazil], MT [Mato Grosso], Três Lagoas, Faz. Canaã, marg. esq. rio Sucuriu; iv.1967; F. Lane col.; n° 4709.1 gyne, missing L2 femur. 1 gyne, missing L2 trochanter.

Note: We found in the MZSP collection 2 workers of *Ectatomma suzanae* labelled as Holotype and Paratype, although they do not appear in the respective original description of Almeida (1986:24), and hence can not be treated as type specimens.

Genus *Gnamptogenys* Roger, 1863a

Alfaria striolata Borgmeier, 1957a:116. Holotype: w. Brasilien [Brazil, Santa Catarina], Nova Teutonia, 27°11'B[S] 52°23'L[W], 300 bis 500 m; x.[19]55; Fritz Plaumann [leg.]. Missing L2 tarsi. Combination in *Gnamptogenys* by Brown (1958g:229).

Ectatomma (Gnamptogenys) mordax subsp. *sebastiani* Borgmeier, 1937b:220. Syntypes: 5 w. [Brazil], Goiás, [Goiânia], Campinas; 6.v.1933; [P.J.S.] Schwarzmaier [leg.]; Coll. Borgm. # 5470. Combination in *Gnamptogenys* by Mann (1922:3). Junior synonym of *Gnamptogenys mordax* (Smith, 1858a:98) (see Brown, 1958g:228).

Ectatomma (Gnamptogenys) nigrifrons Borgmeier, 1948a:199. Syntypes: 1 g, 2 w. Peru, Valle Chanchamayo, 800 m; 1.viii.1939; [W.] Weyrauch leg. 1 worker, missing L1 trochanter, L2 tarsi, L6 claw and head. Combination in *Gnamptog-*

- enys* by Brown (1958g:228). Junior synonym of *Gnamptogenys hartmani* (Lattke, 1995:169).
- Ectatomma (Holcoponera) striatulum* var. *angustiloba* Forel, 1908h:341. Syntypes: 3 g, 1 w. [Brazil], S[ão] P[aulo], São Paulo, Ipiranga; 21.x.1906; H. Luederwaldt [col.]; MP # 5838 / Coll. Borgm. # 1959. 1 gyne, missing L2, L3 and L4 tarsi. 1 gyne, missing L3 tarsi. Combination in *Holcoponera* by Emery (1911e:40). Combination in *Gnamptogenys* and junior synonym of *Gnamptogenys striatula* by Mayr in Radoszkowsky, 1884:32 (see Brown, 1958g:229).
- Ectatomma (Parectatomma) schubarti* Borgmeier 1948a:198. Syntypes: 9 w. [Brazil], S[ão] P[aulo], Monte Alegre; iv.1944; O. Schubart [leg.]. 1 worker, missing L1 and L3 tarsi, L4 and L5 tibia. 1 worker, missing L3 tibia. 1 worker, missing L2 femur. 1 worker, missing L1 and L3 tarsi. 1 worker, missing L2 tarsi, L3 tibia. 1 worker, missing L6 claw. 1 worker, missing L1 tarsi. Combination in *Gnamptogenys* by Brown (1958g:229). Junior synonym of *Gnamptogenys menozzii* (Borgmeier, 1928a:32) (see Lattke, 1995:175).
- Ectatomma (Parectatomma) triangulare* r. *richteri* Forel, 1913m:203. Syntype: w. Rep. Argentina, Prov. Buenos Aires, Belgrano casa Richter; [no date]; C. Bruch [Richter leg.]; n° 189. Combination in *Gnamptogenys* and junior synonym of *Gnamptogenys triangularis* (Mayr, 1887:544) (see Brown, 1958g:230).
- Gnamptogenys bisulca* Kempf & Brown, 1968:92. Paratypes: 6 w. Colombia, Dept[ment del] Valle, Loboguerrero to Represa de Calima, km 38, ca. 1600 m; 14.iii.1967; R.B. Root & W.L. Brown [cols.]; wet mt.[montane] forest. Paratypes: 6 w. Colombia, Dept[ment del] Valle, Pichindé Vy[Valley] SW Cali, 1570 m.; 22.iii.1967; R.B. Root & W.L. Brown [cols.]; mt[montane] rainfor[est]. 2 w. Colombia, Dept[ment del] Valle, TV[Television] tower Rd[Road] Salidito, W. of Cali, 1900-2100 m.; 23.iii.1967; R.B. Root & W.L. Brown [col.].
- Gnamptogenys boliviensis* Lattke, 1995:160. Paratype: w. Bolivia, Tumupasa; [no date but Lattke (1995) informed in the original description that a single specimen of the type series bears the label "Mulford Biological Expedition, 1921-1922"] W.M. Mann [leg.]. Missing L2 claw, L3 tarsi.
- Gnamptogenys caelata* Kempf, 1967a:121. Holotype: w. [Brazil], PR[Paraná], Iguacu; iv.1965; F. Plauermann [col.]; [WWK] # 4117. Missing L5 tarsi.
- Gnamptogenys concinna* var. *conica* Borgmeier, 1929:196. Holotype: w. [Insel Trinidad; 1912; Forel col.]; [MP] # 17233. Junior synonym of *Gnamptogenys concinna* (Smith, F., 1858a:103) (see Brown, 1958g:227).
- Gnamptogenys concinna* var. *semicircularis* Borgmeier, 1929:195. Holotype: w. Brazil, Rio de Janeiro [the description says: probably from Mato Grosso]; [no date; no col.]; Coll. Borgm. # 463, 52. Missing A1 and A2 funiculus, L1 tarsi, L2 trochanter, L3 and L4, originally pinned and now glued on a paper triangle. Junior synonym of *Gnamptogenys concinna* (Smith, F., 1858a:103) (see Brown, 1958g:227).
- Gnamptogenys kalabiti* Brown, 1958g:308. Paratypes: 2 w. Kalabiti Country, N. Borneo, 3000 ft[feet]; [no date]; R. Mjöberg [col.]; MCZ # 29865. 1 worker, missing L2 trochanter. Junior synonym of *Gnamptogenys laevior* (Forel, 1905f:7) (see Lattke, 2004:200).
- Gnamptogenys kempfi* Lenko, 1964a:257. Holotype: w; paratype: 1 g, 33 w. Brasil, MT [Mato Grosso], Utiariti, 325 m., Rio Papagaio; vii.1961; K. Lenko col.; n° 1577. 1 worker, missing L5 and L6 femur.
- Gnamptogenys lanei* Kempf, 1960e:388. Holotype: w. [Brazil], Amapá, km 180, Rio Amaparí; 8.vii.1959; J. Lane col.
- Gnamptogenys macretes* Brown, 1958g:313. Paratype: 1 g. Papua [New Guinea], Bisianumu nr. Sogeri, 500 m; 15-20.iii.[19]55; E.O. Wilson [col.]; rainforest; n° 655 / MCZ # 29867.
- Gnamptogenys mecotyle* Brown, 1958g:318. Paratype: 1 w. Bolivia, Lower Rio Madidi; ii.1922; W.M. Mann [col.]. Missing L6 tarsi.
- Gnamptogenys mediatrix* Brown, 1958g:326. Paratype: 1 w. Brazil, Para[á]; [no date]; [Dr. F.] Baker [leg.]; Holotype nest series. Disarticulated A2 funiculus. Paratypes: 1 w. [Brazil, Rio de Janeiro], Rio [Rio de Janeiro], Jardim Botânico; viii.[19]35; H.S Lopes [leg.]. 2 w. [Brazil, Rio de Janeiro], Rio de Janeiro; [no date]; H.Souza Lopes [leg.].
- Gnamptogenys nana* Kempf, 1960f:422. Holotype: w. [Brazil], S[ão] P[aulo], Agudos; 29.viii.1958; R. Müller [col.]; [WWK] # 2633.
- Gnamptogenys perspicax* Kempf & Brown, 1970:316. Paratypes: 8 w. Colombia, Dept. Valle, Pichindé Vy[Valley], SW Cali, 1570 m; 22.iii.1967; R.B. Root & W.L. Brown [leg.]; mt[mountain] rainfor[est], R-I. 1 worker, missing L3 trochanter, L5 tarsi, L6 tibia. 1 worker missing L3 tarsi. 1 worker, missing L4 and L5 femur.

- Gnamptogenys pneodonax* Kempf, 1968b:375. Holotype: w. Brasil, Amazonas, Benjamin Constant; 18-28.ix.1962; K. Lenko col.; "em húmus". Junior synonym of *Gnamptogenys minuta* (Emery, 1896g:106) (see Lattke 1992a:127).
- Gnamptogenys semiferox* Brown, 1958g:324. Paratype: 1 w. Dom[inican] Rep[ublic], MT[Mato Grosso], Diego de Ocampo, 3-4,000 ft [3000-4000 feet]; vii.[19]38; [P.J.] Darlington [leg.].
- Gnamptogenys soror* Kempf & Brown, 1968:90. Paratype: 1 w. Brazil, Pará, Pirelli [Rubber] Plantation, Iriboca, nr[near] Belém; 23.viii.1962; P.F. Darlington [leg.]; [Brown catalog n°] # B-317. Junior synonym of *Gnamptogenys caelata* Kempf, 1967a:121 (see Lattke, 1992a:126).
- Gnamptogenys turmalis* Kempf & Brown, 1968:93. Paratypes: 21 w. [Panamá], Barro Colorado I[island], Canal Zone; 17 w in [8].i.1960; W.L. Brown & E.S. McCluskey [leg.]; B-53; and 4 other workers in 22.iii.1967; R.D.Akre [col.]; n° 67-259. 1 worker, missing L3 tarsi, L6 tarsi. Junior synonym of *Gnamptogenys hartmani* (Wheeler, W.M., 1915b:390) (see Lattke, 1995:169).
- Gnamptogenys vriesi* Brandão & Lattke, 1990:490. Holotype: w; paratype: 1 g. Ecuador, pr. [near] Los Tayos, Morona Santiago; 3.viii.[1]976; Tjitte de Vries col. 1 worker, missing L2 tarsus, L5 tarsus.
- Gnamptogenys ypirangensis* Borgmeier, 1928b:60. Syntypes: 2 w. [Brazil], S[ão] P[aulo], São Paulo, Ipiranga; [i.1911; Luederwaldt leg.]; MP # 15736 / Coll. Borgm. # 2630. 1 worker, missing L1 femur. 1 worker, missing L2 tarsus, L4 femur and disarticulated L3 tarsus and gaster. Junior synonym of *Gnamptogenys sulcata* (Smith, F., 1858a:99) (see Brown, 1958g:229).
- Holcoponera brasiliensis* sub. *simplicoides* var. *hybrida* Santschi, 1929h:455. Syntypes: 4 w. [Brazil], S[ão] P[aulo], Alto da Serra; [no date; Borgmeier leg.]; MP # 15811 and 15845 / Coll. Borgm. # 2624 and 283. 1 worker, missing L4 tarsus and mandibles. 1 worker, missing L4 leg. 1 worker, missing L1 tarsus, L4 leg, L 5 tarsus. Unavailable name according Bolton 1995b:211; material referred to *Gnamptogenys striatula* Mayr in Radoszkowsky, 1884:32 (see Brown, 1958g:229).
- Holcoponera brasiliensis* var. *calcarata* Santschi, 1929h:452. Syntypes: 3 w. [Brazil], S[ão] P[aulo], Iguape; ii.1927; B.S. Pessoa [col.]; Coll. Borgm # 1366. Combination in *Gnamptogenys* and junior synonym of *Gnamptogenys striatula* Mayr in Radoszkowsky, 1884:32 (see Brown, 1958g:229).
- Holcoponera brasiliensis* var. *pernambucana* Santschi, 1929h:452. Attributed to Borgmeier. Syntype: 1 m, 2 w. [Brazil], Pern[ambuco], Tapeira; [ix.1927]; B. Pickel [col.]; Coll. Borgm. # 1709. Combination in *Gnamptogenys* and junior synonym of *Gnamptogenys striatula* Mayr (1884:32) (see Brown, 1958g:229).
- Holcoponera menozzii* Borgmeier, 1928a:32. Syntypes: 1 g, 4 w. [Brazil], R[io Grande do] S[ul], N[ova] Petrópolis; 8.i.1927; P. Buck S.J. [col.]; Coll. Borgm. # 1417. 1 worker, missing A2. Combination in *Ectatomma (Parectatomma)* by Santschi (1929h:476). Combination in *Gnamptogenys* by Brown (1958g:228).
- Holcoponera möelleri* var. *splendens* Santschi, 1929h:450. Syntypes: 2 m, 2 w. [Brazil], S[anta] C[atarina], Ibirama, ex-Hamônia; [no date]; Luederwaldt col.; MP # 15451 / Coll. Borgm. # 1943; [in the original descriptions listed only 1 male]. 1 male, missing L4 tibia, A2 funiculus. Combination in *Gnamptogenys* and junior synonym of *Gnamptogenys moelleri* (Forel, 1912d:34) (see Brown, 1958g:228).
- Holcoponera regularis* Santschi, 1929h:457. Syntypes: 3 w. [Brazil], R[io de] J[aneiro], Petrópolis, Cascatina; 28.xii.1927, xii.1927; T. Borg[meier] col.; Coll. Borgmeier # 3247. 1 worker, missing L1 tibia, L3 trochanter, L4 and L6 tarsus. 1 worker, missing L2 trochanter, A1 funiculus. 1 worker, missing L2 tibia, A1 and A2 funiculus. Combination in *Gnamptogenys* by Brown (1958g:227). Junior synonym of *Gnamptogenys striatula* Mayr, 1884:32 (see Lattke, 1995:186).
- Holcoponera rustica* st. *wheeleri* Santschi, 1929h:448. Syntypes: 2 w. Costa Rica, Port[o] Limon; 24.xi.1911, 24.xi.1921; [date appears as 24.xi.1928 in the original descriptions]; W.M. Wheeler [col.]. Combination in *Gnamptogenys* and raised to species (Brown, 1958g:230).
- Holcoponera teffensis* Santschi, 1929h:449. Attributed to Borgmeier. Syntypes: 1 w. [Brazil], Amaz.[onas], Teffé; 1921; Tastevin [col.]; Coll. Borgm. # 2514. Missing L4 leg. Combination in *Gnamptogenys* by Brown (1958g:229). Junior synonym of *Gnamptogenys moelleri* (Forel, 1912d:34) (see Lattke, 1995:176).

Note: We found In the MZSP collection specimens of *Gnamptogenys horni* labelled as "eutopotype", although they do not belong to the type series and thus does not appear in the original description by Sants-

chi (1929h:475), they are thus not here treated as type specimens.

Tribe Typhlomyrmecini

Genus *Typhlomyrmex* Mayr, 1862

Typhlomyrmex meire Lacau, Villemant & Delabie, 2004. Paratypes: 5 w, 5 g, 2 m. Brazil, Bahia, Ilhéus, Fazenda Recreio, 14°45'21"S e 39°13'34"[W], alt. 36 m; 14.vi.2002; S. Lacau & B. Jahyny col.; n° 436, 438, 439, 444, 448, 465, 466, 467, 469, 484. 1 worker, missing L3 tarsus, A1. 1 worker, missing L5 tarsus. 1 worker, missing L2 tarsus, L3 femur, L5 tibia. 1 worker, missing L4 tibia. 1 gyne, missing L3 trochanter, L5 tibia. 1 gyne, missing left wings and right hindwing. 1 gyne, missing L3 and L4 femur. 1 male, missing L2 femur, L5, L6 femur.

Typhlomyrmex prolatius Brown, 1965c:72. Holotype: g. Costa Rica, San José; 1940; H. Schmidt [leg.]; [W]WK # 5. Missing L3 femur, right hindwing.

Subfamily Heteroponerinae

Tribo Heteroponerini

Genus *Acanthoponera* Mayr, 1862

Acanthoponera crassa Brown, 1958g:255. Paratype: 1 w. Ecuador, 6 mi[les] W[est of] Santo Domingo de los Colorados, Pichincha; 23.ii.1955; E.I. Schlinger & E.S. Ross col. Junior synonym of *Acanthoponera minor* (Forel, 1899b:9) (see Kempf & Brown, 1968:90).

Acanthoponera goeldii subsp. *goyana* Borgmeier, 1939:418. Holotype: w. [Brasil], GO[Goiás, Goiânia], Campinas; ix.1927; [P.] Schwarzmaier [leg.]; Coll. Borgm. # 1753. Missing A1 and A2 funiculus. Junior synonym of *Acanthoponera mucronata* (Roger, 1860:299) (see Brown, 1958g:194).

Genus *Heteroponera* Mayr, 1887

Acanthoponera dolo var. *schwebeli* Luederwaldt, 1918:54. Lectotype: 1 w. [Brazil], S[ão] Paulo, Alto da Serra [São Paulo]; [no date; E. Schwebel leg.]; n° 17.556. Missing A1, A2, L6 claw.

Junior synonym of *Heteroponera inermis* Emery, 1894d:143 (see Kempf, 1962a:36).

Heteroponera angulata Borgmeier, 1959a:310. Syn-types: 7 w. [Brazil, Espírito Santo], S[anta] Tereza; 27.vii.1928 [date appears as 20.vii.1928 in the original description]; O. Conde [leg.]; Coll. Borgm. # 4291. 1 worker, disarticulated head; missing L1 tibia, L4 trochanter, L5 tibia, A1, A2 funiculus. 1 worker, missing L1 trochanter, L2 tibia, L3 tibia, L6 claw, A1 funiculus. 1 worker, disarticulated head and L6, missing L1, L2, L3 femur. 1 worker, disarticulated A2, missing A1, A2 funiculus, L1 claw. 1 worker, missing L2 trochanter, L3 tarsus. 1 worker, missing head.

Heteroponera flava Kempf, 1962a:38. Holotype: w; paratypes: 1 g, 13 w. [Brazil, São Paulo], S[erra] Cantareira; 1.iii.1959; [W.W.] Kempf & [V. dos] Santos [leg.]; Coll. Kempf # 2992. Paratypes: 1 worker, missing L5 femur, L6 tarsus. 1 worker, missing L2 trochanter, L6 femur. 1 worker, missing L2 tarsus. 1 worker, missing L1 and L4 tarsus. 1 worker, missing L3 tarsus. 1 worker, missing L1 claw, L2 tarsus, L4 and L6 claw. 1 worker, missing A1. 1 worker, missing L5 and L6 tarsus. 1 worker, missing L2 trochanter, L3 tibia, L5 claw. 1 worker, missing gaster. 1 worker, missing A1.

Heteroponera inca Brown, 1958g:259. Paratypes: 6 w. Colombia, Valle, 6 mi[les] W[est] of Cali, 1630 m; 20.iii.1955; E.I. Schinger & E.S. Ross [leg.]; Holotype nest series. 1 worker, missing A1 funiculus. 1 worker, missing A1 funiculus. 1 worker, missing head.

Heteroponera mayri Kempf, 1962a:43. Holotype: 1 w; paratypes: 8 g, 39 w. [Brazil], S[anta] C[atarina], Chapecó; vii.1960; F. Plaumann [col.]; WWK # 3562. Paratypes: 1 gyne, missing A1 funiculus. 1 gyne, missing L3 femur. 1 worker, missing L2 claw. 1 worker, disarticulated head; missing A1 e A2. 1 worker, disarticulated head; missing L1, L4. 1 worker, missing L2 tarsus. 1 worker, missing L3 tarsus. 1 worker, missing L6 tarsus.

Heteroponera microps Borgmeier, 1957a:112. Holotype: w; paratype: 1 w. Brasilien [Brazil, Santa Catarina], Nova Teutonia, 27°11'B. 52°23'L; Holotype: x.1953 [dates in the description appears as iv.1954], and paratype: iv.1954; Fritz Plaumann[leg.]; 300 bis 500 m, n. sp. NB eyes, mands (in the label paratype). Holotype: missing L2 tarsus. Paratype: missing L1 claw, L2 and 3 trochanter, A1 funiculus.

Heteroponera monticola Kempf & Brown, 1970:312. Paratypes: 15 w. Colombia, Dept. Valle,

TV[Television] Tower Rd[Road], Salidito, W. of Cali, 1900-2100 m; 23.iii.1967; R.B. Root & W.L. Brown [leg.]; C-25 in rotten wood. 1 worker, missing L2 and L5 femur. 1 worker, missing L1 trochanter, L3 tibia, L6 tarsus, A1. 1 worker, disarticulated head, missing L4 femur, A2. 1 worker, missing L2 femur. 1 worker, missing L1 femur.

Heteroponera robusta Kempf, 1962a:36. Holotype: w; paratypes: 1 g, 28 w. Brasil, S[ão] P[aulo], Salesópolis, Est[ação] Biol[ógica] Boracéia; 13.ix.1960; K. Lenko [col.]; n° 1480. Holotype: missing L2 tarsus. Paratypes: 1 worker, missing L1 claw. 1 worker, missing L2 tarsus, A1 funiculus. 1 worker, disarticulated gaster in part. 1 worker, missing L5 tarsus. 1 worker, missing L2 trochanter, L3 tibia. 1 worker, disarticulated head. 1 worker, missing L3 tibia. 1 worker, missing L3 femur. 1 worker, missing L3 tibia. 1 worker, missing L1. 1 worker, missing L2 femur, L3 tibia.

Subfamily Ponerinae

Tribe Platythyreini

Genus *Platythyrea* Roger, 1863a

Platythyrea exigua Kempf, 1964a:142. Holotype: w; paratypes: 6 w, 1 g. Brasil; MT[Mato Grosso], Utiariti, Rio Papagaio; viii.1961 and 2 paratypes in vii.1961 [date appears as viii.1961 in the original descriptions]; K. Lenko col.; n° 1659. 1 gyne, missing wings.

Platythyrea prizo Kugler, 1977:216. Paratype: 1 w. Costa Rica, Heredia, O[rganization for]T[ropical]S[tudies] LaSelva field Sta[Station] Puerto Viejo de Sarapiquí, Rio Puerto Viejo, 10°26'N-83°59'W; 5.iii.1973; J. Wagner, J. Kethley leg.; FM(HD) # 73-292 / 73CRIII9iLS: 100cc Berlese root mat[erial], light br[own] duff grass-like plant.

Tribo Ponerini

Genus *Anochetus* Mayr, 1861

Anochetus altisquamis forma *fumata* Luederwaldt, 1918:53. Syntype: 1 w. [Brazil], São Paulo, S[ão] P[aulo], Ipiranga; [no date; no col.]; MP # 18.848 / n° 2899. Junior synonym of *Anoche-*

tus altisquamis Mayr, 1887:529 (see Kempf & Lenko, 1976:58).

Anochetus elegans Lattke, 1987a:353. Paratype: 1 w. Colombia, Valle, 1300 m Rio San Juan afl. Del Digua, ca. El Queremal; 24.v.1975; J. Lattke, leg. Missing L6 tibia, A1, disarticulated head.

Anochetus (Stenomyrmex) haytianus Wheeler & Mann, 1914:15. Syntypes: 3 w. Haiti, Mts[Mountains] N[orth of] Jacmel; [no date]; W.M. Mann [col.]; WMMann # 1954. 1 worker, missing L3 tarsus. 1 worker, missing head. Synonymy of *Stenomyrmex* under *Anochetus* by Brown (1978c:552).

Anochetus (Stenomyrmex) horridus Kempf, 1964f:239. Holotype: w. [Brazil], Belém, Est[ado] Pará; 12-19.viii.1962; K. Lenko col.; n° 2272. Paratype: 1 w. Brasil, Amazonas, Manaus to Itacoatiara Rd., km 49; 24.viii.1962; W.L.Brown. Synonymy of *Stenomyrmex* under *Anochetus* by Brown, 1978c:552.

Anochetus (Stenomyrmex) oriens Kempf, 1964f:240. Holotype: w. [Brazil], Espírito Santo, Parque Sooretama; 30.viii.1961; F.M. de Oliveira col. Synonymy of *Stenomyrmex* under *Anochetus* by Brown, 1978c:552.

Anochetus (Stenomyrmex) vexator Kempf, 1964f:243. Holotype: w. Brasil, Mato Grosso, Barra do Tapirapé; 20.xi.1960; B. Malkin col.; n° 1384. Missing L4 and L6 femur. Synonymy of *Stenomyrmex* under *Anochetus* by Brown, 1978c:552.

Anochetus vullensis Lattke, 1987a:355. Paratypes: 2 w. Col[ombia], Valle, El Carmen, 1500 m via Cali-B[uen]ventura NE do El Carmen; 28.ix.[19]75; J. Lattke, leg. 1 worker, missing L5 tarsus.

Genus *Centromyrmex* Mayr, 1866b

Centromyrmex brachycola var. *paulina* Forel, 1911e:287. Syntype: 1 w. [Brazil], São Paulo, São Paulo], SP, Ipiranga; 17.x.1907; H. Luederwaldt [col.]; n° 10.853. Junior synonym of *Centromyrmex brachycola* (Roger 1861a:5) (see Kempf 1967b:405).

Centromyrmex gigas Forel, 1911e:287. Syntype: 1 g. [Brazil], São Paulo], São Paulo, Ipiranga; 17.x.1907; H. Luederwaldt [col.]; DZSP # 10.052 / Coll. Borgm. # 2642.

Genus *Dinoponera* Roger, 1861a

Dinoponera australis bucki Borgmeier, 1937b:228. Syntypes: 2 w, 1 m. [Brazil], R[io Grande do]

S[ul], Palmeira; 27.i.1929; P. Buck [S.J. leg.]; n° 324 / Coll. Borgm. 4826. 1 worker, missing A1 funiculus. 2 worker, missing L4 tarsus. 1 male, missing L2 tibia, A1 funiculus.

Dinoponera australis nigricolor Borgmeier, 1937b:228. Syntypes: 7 w, 1 puparium. [Brazil], Go[Goiás, Goiânia], Campinas; 6-8.ii.1936; R. Spitz [leg.]; coll. Borgmeier # 5787. 1 worker, missing L6 tarsus. 1 worker, missing L6 tarsus, A2. 1 worker, missing L6 tarsus. 1 worker, missing L4 tarsus, L6 tarsus, A2. 1 worker, missing L2 tarsus, L4. 1 male, missing L3 tarsus, L4 tarsus, L6, A1 funiculus, A2 funiculus. Syntypes: 1 m. [Brazil], Go[Goiás, Goiânia], Campinas; 5.v.1933; [P.J.S.] Schwarzmaier [leg]. 4 w. [Brasil], Go[Goiás, Goiânia], Campinas; 4.xi.[19]37; [P.J.S.] Schwarzmaier [leg]. 1 worker, missing A1. 2 w [Brasil], Go[Goiás, Goiânia], Campinas; 6.iii.[19]36; [P.J.S.] Schwarzmaier [leg]. 1 worker, missing L6 tarsus. 1 w [Brasil], Go[Goiás, Goiânia], Campinas; [no date]; [P.J.S.] Schwarzmaier [leg].

Genus *Hypoponera* Roger, 1861a

Ponera opaciceps var. *pampana* Santschi, 1925e:153. Syntype: 3 g, 2 w. [Argentina], Catam[arca], Cerro Colorado; [no date]; Weiser [col.]; n° 1545. 2 gynes, missing right hindwing. 1 gyne, missing wings. Combination in *Hypoponera* by Kempf (1972b:123).

Ponera vernacula Kempf, 1962b:13. Holotype: 1 w; paratypes: 6 w. [Brazil, São Paulo], SP [São Paulo], Serra da Cantareira; 31.i.1960; Kempf & Santos [leg.]; [WWK] # 3394. Paratypes: 1 worker, missing L4 tibia. Combination in *Hypoponera* by Kempf (1972b:124).

Note: We found in the MZSP collection 7 specimens of *Ponera iheringi* from [Brazil] RJ, Campo Itatiaia, 6 labelled as Syntypes and 1 labelled as Paratype, although this locality does not appear in the respective original description by Forel (1908h:344), and hence can not be treated as type specimens.

Genus *Leptogenys* Roger, 1861a

Leptogenys bohlsi weiseri Santschi, 1925e:153. Syntype: 1 w. [Argentina], S[Santa] Fé, Fives Lille; [no date]; Weiser [col.]. Missing L6 tarsus, A1.

Leptogenys (Leptogenys) amazonica Borgmeier, 1930:25. Holotype: w. [Brazil, Amazonas, Tefé; 1921; Irmão Tastevin leg.]; n° 2526.

Leptogenys (Leptogenys) peninsularis Mann, 1926:102. Syntypes: 3 w. [Mexico], Baja Cal[ifornia], Comondu; x.1923; W.M. Mann col.; U.S.N.M. # 29048. 1 worker, missing A1, A2 funiculus. 1 worker, missing A1, A2.

Leptogenys (Lobopelta) hanseni Borgmeier, 1930:3. Holotype: w; paratype: 1 w. [Brasil], R[io] G[rande] do S[ul], Parecy Novo; [7.x.1927; Hansen col.]; Coll. Borgm. # 3616. 1 worker, missing L5 trochanter, A2. Synonymy of *Lobopelta* under *Leptogenys* by Bolton (1975a:240).

Leptogenys (Lobopelta) melzeri Borgmeier, 1930:27. Holotype: w. [Brazil, Goiás, Goiânia, Campinas; 6.x.1928; P.J.S. Schwarzmaier C.S.S.R. leg.]; n° 4701. Synonymy of *Lobopelta* under *Leptogenys* by Bolton (1975a:240).

Leptogenys (Lobopelta) rubicunda Borgmeier, 1930:28. Syntype: 1 w. [Brazil], R[io] de J[aneiro], Petrópolis; 13.ix.1928; Wilt[uschnio] col.; n° 4744. Junior synonym of *Leptogenys crudelis* (Smith, F., 1858a:97) (see Borgmeier, 1932b:485). Synonymy of *Lobopelta* under *Leptogenys* by Bolton (1975a:240).

Leptogenys (Lobopelta) vogeli Borgmeier, 1933b:226. Syntype: 2 w. [Brazil, Rio de Janeiro], Petrópolis; i.1930; M. Vogel col.; n° 7.579. 1 worker, missing L1, L4 and L6 tibia, A1 funiculus. 1 worker, missing A1, disarticulated gaster. Synonymy of *Lobopelta* under *Leptogenys* by Bolton (1975a:240).

Note: We found in the MZSP collection 1 specimen of *Leptogenys (Lobopelta) luederwaldti* labelled as Cotype from [Brazil] São Paulo, Ipiranga, although this locality does not appear in the original description by Forel (1913m:206), and hence can not be treated as type specimen.

Genus *Odontomachus* Latreille, 1804

Odontomachus allolabis Kempf, 1974c:551. Holotype: g. [Brazil], Acre, Cruzeiro do Sul; xii.1963; P.L. Herbst col.; n° 9116. Missing L2 and L3 tibia, A1, A2.

Odontomachus biumbonatus Brown, 1976c:131. Holotype: w; paratypes: 4 w. Ecuador, Limon Cocha [Limoncocha] & vic[inity]; ix-x.1964; H.R. Hermann col. Paratypes: 1 worker, missing A1 funiculus. 1 worker, missing L2, L5 and L6 tar-

sus, A1, A2 funiculus. Paratypes: 1 w. Ecuador, Limon Cocha, Prov. Napo, 00°24'S, 76°36'W; 10.vii.1923; Peter L. Kazan col.; n° 140. Disarticulated head. 4 w. Peru, Tingo Maria & vic.[vicinity]; 9-12.iii.1967; W.L. Brown & W. Sherbrooke col. 1 g. Peru, Quincemil, Dep. Cuzco 750 m; ix.1962; L. Pena col. Torn wings, missing L5 tarsus. 1 w. Brazil, Amazonas, Rio Tarumá; 2.viii.1962; W.L.Brown col.; High Falla, M-/03. 4 w. Brazil, Pará, Icoaraci; 3.viii.1962; W.L. Brown col.; B-22. 1 w. Brazil, Pará, Canindé (Rio Gurupi); x.1964; B. Malkin col.

Odontomachus bradleyi Brown, 1976c:133. Paratype: 1 w. Peru, Huacapistana; 3.vi.1920; J.C. Bradley col.; n° 535. Missing L2 femur, A1 and A2 funiculus.

Odontomachus caelatus Brown, 1976c:140. Holotype: w; paratypes: 2 w. Brasil, Amazonas, Manaus, Reserva Ducke; 9.vi.1971; W.L. & D.E. Brown col.; n° V-6. Paratype: 1 worker, missing L5 femur. Paratypes: 3 w. B[ritish] G[uiana], Gr[Great] Batavia; 4.viii.1920; W.M.W. [Wheeler] col.; n° 371. Missing L6 tibia. 1 worker, missing L3 tarsus. 1 w. Ecuador, Oriente, Limoncocha, 00°24'S, 76°36'W; 27.vii.1970; Peter L. Kazan col.; n° 196.

Odontomachus mormo Brown, 1976c:161. Paratype: 1 w. Ecuador, Pichincha, 4300 ft[feet], 3 km E.[East] Tandapi; 21.vi.1975; S. & J. Peck col.; wet ravine B-303. Missing A1 funiculus.

Odontomachus spissus Kempf, 1962b:17. Holotype: w; paratype: 1 w. Brasil, MT [Mato Grosso], Utiairiti, Rio Papagaio, 325 m; vii.1961; K. Lenko col.; n° 1583.

Odontomachus yucatecus Brown, 1976c:169. Paratype: 1 w. Mex[ico], Campeche 10 km E[ast]; 28-29. vii.1953; E. O. Wilson col.; n° 132. Missing L5 tarsus, L6 tibia.

Note: We found in the MZSP collection 2 specimens of *Odontomachus caelatus* labeled as paratypes, although they were not listed in the original description by Brown (1976c:140), and hence can not be treated as type specimens.

Genus *Pachycondyla* Smith, F., 1858a

Euponera (Trachymesopus) stigma subsp. *compressinodis* Borgmeier, 1928b:62. Holotype: w. [Brazil], S[ão] Paulo, Raiz da Serra; [30.ix.1907; Luederwaldt leg.]; n° 9.966. Missing L4 tibia.

Junior synonym of *Pachycondyla cauta* (Mann, 1922:8) (see Brown, 1963a:7).

Neoponera (Eumecopone) goyana Borgmeier, 1937b:230. Holotype: w. [Brazil], GO [Goiás, Goiânia], Campinas; iii.1930; Schwarzmaier [leg.]. Missing A1 funiculus, A2. Combination in *Pachycondyla* by Brown (1995a:305).

Neoponera mesonotalis Santschi, 1923c:246. Syntypes: 2 w. [Brazil], S[anta] C[atarina], Blumenau. [no date]; M. Witte[col.]; Coll. Borgm. # 3776. Combination in *Pachycondyla* by Brown (1995a:305).

Neoponera stipitum Forel 1901k:348. Syntype: 1 w. Colombia, St Antonio, [Sierra] Nevada [de Santa-Marta, 1000 metres]; [no date and col.]; [MP] # 3367. Junior synonym of *Pachycondyla crenata* (Roger, 1861a:3) (see Brown 1957e:233).

Leptogenys bucki Borgmeier, 1927b:57. Syntypes: 4 w. [Brazil, Rio Grande do Sul], Porto Alegre, Glória; [15.xi.1926]; [P. Pio] Buck [S.J. leg.]; Coll. Borgm. # 1201. 1 w missing L3 femur. Combination in *Euponera* by Borgmeier (1928a:39). Combination in *Mesoponera* by Kempf (1972b:141). Combination in *Pachycondyla* by Brown (1995a:303).

Pachycondyla fuscoatra subsp. *inca* Emery 1901b:48. Syntype: 1 w. Peru, Ocobamba, Bolívia; [no date]; [MM] Staudinger [col.]; n° 528. Junior synonym of *Pachycondyla impressa* (Roger, 1861a:60) (see Kempf 1961e:195).

Pachycondyla lenis Kempf, 1961e:197. Holotype: w. [Brazil], R[io de] J[aneiro], Petrópolis; 1944; W.W. Kempf [col.]. Missing L3 tibia. Paratypes: 1 w, 2 g. [Brazil], R[io de] J[aneiro], Petrópolis; 1944, 27.viii.1944, ix.1944; W.W. Kempf. 1 worker, missing L1 tibia, L2 femur, L3 tibia. A1 funiculus, disarticulated A2. 1 gyne, missing wings. 1 g. [Brazil], R[io de] J[aneiro], Petrópolis; x.1918; [T.] Borgmeier; Coll. Borgm. # 467. Missing A1, A2. 1 w. [Brazil], S[ão] P[aulo], Alto da Serra [Caminho do Mar]; 26.v.1957; [W.W.] Kempf & [V. dos] Santos; n° 1844. 4 w. Brasil, S[ão] Paulo; 6.iii.1958; K. Lenko col.; [2 w with label n° 265A and 2 w with label Coleção Campos Sera / n° 266]. 2 w. [Brazil]; PR[Paraná], Rio Azul, 1000 m; x.1959; F. Plauermann; [WWK] # 3156. 1 worker, missing L3. 1 worker, missing L5 tarsus.

Pachycondyla lenkoi Kempf, 1962b:4. Holotype: 1 w. [Brazil], Mato Grosso, Rio Sacre; 6.viii.1961. K. Lenko col.; n° 1623. Missing L5 tibia.

Pachycondyla magnifica Borgmeier, 1929:196. Lectotype: 1 w. [Brazil], GO[Goiás, Goiânia], Cam-

pinas; ii.1928; [P.J.S.] Schwarzmaier [C.S.S.R. leg.]; Coll. Borgm. # 3751. Missing L5 tarsus.

Pachycondyla metanotalis Luederwaldt, 1918:54. Holotype: w. [Brazil, Minas Gerais; no date; H. Luederwaldt leg.]; n° 17.195.

Pachycondyla schoedli Mackay & Mackay, 2006. Paratype: 1 w. Ecuador, Pichincha, Bellavista Reserve, 2250 m Ridge Trail, 12 km S. Nane-galito 00°00'54'S e 78°40'56'W; 28.x.1999; R. Anderson [leg.]; n° 211, CASENT 0428728 99-211B, cloud forest litter.

Trachymesopus gilberti Kempf 1960f:425. Holotype: w. [Brazil], S[ão] P[aulo], Agudos; 7.i.1959; C. Gilbert[leg.]; WWK # 2869. Paratypes: 2 g. [Brazil], S[ão] P[aulo], Agudos; 23-II-1955, 4-XII-1955; W. Kempf. 1 gyne, missing wings. 1 gyne, missing left forewing. Combination in *Mesoponera* by Wheeler & Wheeler (1971b:1206). Combination in *Pachycondyla* by Brown (1995a:305).

Note: We found in the MZSP collection specimens of *Pachycondyla becculata*, *Pachycondyla cermua*, *Pachycondyla lattkei* and *Pachycondyla rupinicola* Mackay & Mackay, 2005 (see <http://www.utep.edu/leb/antgenera.html>) labelled as Paratypes, although these names have never been formally published, and hence the specimens can not be treated as types.

Genus *Ponera* Latreille, 1804

Ponera exotica Smith, M.R., 1962b:378. Paratypes: 3 w. [USA], N[orth] Carolina, Croatan Nati[onal] For[est] 2 mi[les] E[ast of] Croatan; 20.viii.1960; W.G.Carter [col.]; n° 65968. 1 worker, missing Head. 1 worker, missing A2 funiculus.

Genus *Simopelta* Mann, 1922

Simopelta bicolor Borgmeier, 1950a:377. Syntypes: 10 w. [Brazil], Esp[írito] S[anto], S[anta] Teresa; [4.xi.1928]; O. Conde [leg.]; Coll. Borgmeier # 4754. 1 worker, missing A2. 1 worker, missing head and legs. 1 worker, disarticulated L6 trochanter. 1 worker, missing L1 femur.

Belonopelta minima Brandão, 1989:136. Holotype: w; paratype: 1 w. Brasil, BA[hia], Ilhéus, CEPEC – área Zoolo[logia] km 22 Ilhéus-Itab[una] road BR 415; Holotype: x.[19]86. Paratype: 03.xii.[19]87; J. Delabie leg.; n° 62 sob folhiço,

solo entre 0-15 cm prof. Cacau sombra – árvore n° 178, 371 – Quadra G. Combination in *Simopelta* by Bolton (1995b:383). Note: date of all type specimens appears as 16.vi.1986 in the original description.

Simopelta oculata Gotwald & Brown, 1967:267. Paratypes: 9 w. Costa Rica, [Limón Province], vic. Guapiles, R[io] Toro Amarillo; 25.ii-9.iii.1966; W.L. Brown [in the original description the collectors are N. Scott and W.L. Brown, Jr.].

Tribe Thaumatomyrmecini

Genus *Thaumatomyrmex* Mayr, 1887

Thaumatomyrmex atrox Weber, 1939a:98. Paratype: 1 w. Trinidad, St. Augustine, B.W.I., Foothills N[orth] of Tunapuna; 29.vii.[19]35; N.A. Weber [col.]; n° 253 / M.C.Z. # 32205. Missing L2 and L3 tarsus.

Thaumatomyrmex contumax Kempf, 1975b:108. Holotype: w. [Brazil], PE[Pernambuco], Araripina; 4.i.1973; R. Montenegro [leg.]; n° 407 / [WWK] # 8443. Disarticulated L4 tarsus

Subfamily Proceratiinae

Tribo Proceratiini

Gênero *Discothyrea* Roger, 1863a

Discothyrea sexarticulata Borgmeier, 1954a:191. Holotype: w; paratypes: 2 g, 1 w. Brasilien [Brazil, Santa Catarina], Nova Teutonia, 27°11'B. 52°23'L.; viii.1952; Fritz Plaumann [leg.]. Paratypes: 1 gyne, missing L2 tarsus. 1 gyne and 1 worker, missing A1.

Gênero *Proceratium* Roger, 1863a

Proceratium australe De Andrade, 2003a:345. Paratypes: 2 w. [Australia], Queensland, 17.10S, 145.39E, Boar Pocket, rainforest, 720 m; 9-12. x.1986; R.W. Taylor [col.]; ANIC ANTS VIAL # 44.122. 1 worker, missing L2 tarsus.

Proceratium boltoni Leston, 1971:118. Paratype: w. Ghana, Legon, A[cc]a D[istrict]; 8.vii.1970; D. Leston [col.].

Proceratium brasiliense Borgmeier, 1959a:309. Syntypes: 3 w. Brasilien [Brazil, Santa Catarina],

Nova Teutonia, 27°11'B. 52°23'L., 300 bis 500 m; viii.1957, x.1957, vi.1958 [date appears as 1957 in the original description]; Fritz Plaumann [col.]. 1 worker, missing L5 femur. Syn-types: 1 w. [Brazil], S[anta] C[atarina], Xaxim; xii.1957; F. Plaumann. 1 w. [Brazil, São Paulo], S[ão] P[aulo], [Serra da] Cantareira; i.iii.1959; Kempf & Santos; n° 2984.

Proceratium goliath Kempf & Brown, 1968:94. Paratypes: 2 w. Costa Rica, [Limón Province], vic. Guapiles, R[io] Toro Amarillo; 25.ii-9.iii.1966 [in the original description the date appears as 3-4.iii.1966]; W.L. Brown [leg.]. 1 worker, missing L3 tarsus.

Proceratium mexicanum De Andrade, 2003a:155. Paratype: 1 w. Mex[ico], Tamps, Antigue Morelos; 9.vii.1969; S. & J. Peck [col.]; Ber 167, palm-thorn for[est]. litter.

Symphincta cavernicola Borgmeier, 1937b:221. Holotype: g. Panama, Chilibrillo Caves; 1931; L.H. Dunn [leg.]; C-99. Disarticulated gaster; missing left wings and right forewing. Combination in *Proceratium* by Dalla Torre (1893:18). Junior synonym of *Proceratium micrommatum* (Roger, 1863a:176) (see Borgmeier 1957a:118).

RESUMO

O presente catálogo lista os espécimes-tipo de 112 espécies nominais de formigas poneromorfas depositados no Laboratório de Hymenoptera do Museu de Zoologia da Universidade de São Paulo (MZSP). O catálogo inclui tipos das subfamílias poneromorfas (no sentido de Bolton, 2003), isto é, *Amblyoponinae*, *Ectatomminae*, *Heteroponerinae*, *Ponerinae* e *Proceratiinae*, exceto *Paraponerinae*, monotípica, não representada nesta coleção por espécimes-tipo. Aqui são apresentadas informações sobre as categorias dos tipos de poneromorfos na coleção do MZSP (holótipo, parátipo, sintipo, lectótipo e paralectótipo), além de dados do rótulo, mudanças nomenclaturais desde a publicação original e uma breve avaliação sobre o estado de conservação dos espécimes. Por último, apresentamos índices para os taxons aqui catalogados.

PALAVRAS-CHAVE: Hymenoptera, formigas, tipos, MZSP, *Amblyoponinae*, *Ectatomminae*, *Heteroponerinae*, *Ponerinae*, *Proceratiinae*

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APPENDIX

INDEX I: Currently valid names of the listed taxa, followed by their cited synonyms, when present.

- Acanthoponera minor* – *Acanthoponera crassa*
Acanthoponera mucronata – *Acanthoponera goeldii* subsp. *goyana*
Amblyopone agostii
Amblyopone cleae
Amblyopone elongata – *Stigmatomma (Fulakora) elongatum* var. *paranense* – *Stigmatomma (Fulakora) elongata* st. *barretoii*
Amblyopone falcata
Amblyopone lurilabes
Amblyopone monrosi
Anochetus altisquamis – *Anochetus altisquamis forma fumata*
Anochetus elegans
Anochetus haytianus
Anochetus horridus
Anochetus oriens
Anochetus vallensis
Anochetus vexator
Centromyrmex brachycola – *Centromyrmex brachycola* var. *paulina*
Centromyrmex gigas
Dinoponera australis bucki
Dinoponera australis nigricolor
Discothyrea sexarticulata
Ectatomma gibbum
Ectatomma goninion
Ectatomma permagnum
Ectatomma planidens
Ectatomma suzanae
Ectatomma vizottoi
Gnamptogenys bisulca
Gnamptogenys boliviensis
Gnamptogenys caelata
Gnamptogenys caelata – *Gnamptogenys soror*
Gnamptogenys concinna – *Gnamptogenys concinna* var. *semicircularis* – *Gnamptogenys concinna* var. *conica*
Gnamptogenys hartmani – *Ectatomma (Gnamptogenys) nigrifrons*
Gnamptogenys kempfi
Gnamptogenys laevior – *Gnamptogenys kalabit*
Gnamptogenys lanei
Gnamptogenys macretes
Gnamptogenys mecotyle
Gnamptogenys mediatrix
Gnamptogenys menozzii
Gnamptogenys menozzii – *Ectatomma (Parectatomma) schubarti*
Gnamptogenys minuta – *Gnamptogenys pneodonax*
Gnamptogenys moelleri – *Holcaponera möelleri* var. *splendens*
Gnamptogenys moelleri – *Holcaponera teffensis*
Gnamptogenys mordax – *Ectatomma (Gnamptogenys) mordax* subsp. *sebastiani*
Gnamptogenys nana
Gnamptogenys perspicax
Gnamptogenys semiferox

Gnamptogenys striatula – *Holcoperona brasiliensis* var. *pernambucana* – *Holcoperona brasiliensis* var. *calcarata* – *Ectatomma* (*Holcoperona*) *striatulum* var. *angustiloba* – *Holcoperona brasiliensis* sub. *simplicoides* var. *hybrida*
Gnamptogenys striatula – *Holcoperona regularis*
Gnamptogenys striolata
Gnamptogenys sulcata – *Gnamptogenys ypirangensis*
Gnamptogenys triangularis – *Ectatomma* (*Parectatomma*) *triangulare* r. *richteri*
Gnamptogenys vriesi
Gnamptogenys wheeleri
Gnamptogenyshartmani – *Gnamptogenys turmalis*
Heteroponera angulata
Heteroponera flava
Heteroponera inca
Heteroponera inermis – *Acanthoponera dolo* var. *schwebeli*
Heteroponera mayri
Heteroponera microps
Heteroponera monticola
Heteroponera robusta
HypoPonera opaciceps var. *pampana*
HypoPonera vernacula
Leptogenys bohlsi weiseri
Leptogenys crudelis – *Leptogenys* (*Lobopelta*) *rubicunda*
Leptogenys hanseni
Leptogenys peninsularis
Lobopelta vogeli
Odontomachus allolabis
Odontomachus biumbonatus
Odontomachus bradleyi
Odontomachus caelatus
Odontomachus mormo
Odontomachus spissus
Odontomachus yucatecus
Pachycondyla bucki
Pachycondyla cauta – *Euponera* (*Trachymesopus*) *stigma* subsp. *compressinodis*
Pachycondyla crenata – *Neoponera stipitum*
Pachycondyla gilberti
Pachycondyla goyana
Pachycondyla impressa – *Pachycondyla fuscoatra* subsp. *inca*
Pachycondyla lenis
Pachycondyla lenkoi
Pachycondyla magnifica
Pachycondyla mesonotalis
Pachycondyla metanotalis
Pachycondyla schoedli
Platythyrea exigua
Platythyrea prizo
Ponera exotica
Proceratium australe
Proceratium boltoni
Proceratium brasiliense
Proceratium goliath
Proceratium mexicanum
Proceratium micrommatum – *Sysphincta cavernicola*
Simopelta bicolor

Simopelta minima
Simopelta oculata
Thaumatomyrmex atrox
Thaumatomyrmex contumax
Typhlomyrmex meire
Typhlomyrmex prolatus

INDEX II: List of cited synonyms, followed by respective valid names.

Acanthoponera crassa – *Acanthoponera minor*
Acanthoponera dolo var. *schwebeli* – *Heteroponera inermis*
Acanthoponera goeldii subsp. *goyana* – *Acanthoponera mucronata*
Anochetus altisquamis forma *fumata* – *Anochetus altisquamis*
Centromyrmex brachycola var. *paulina* – *Centromyrmex brachycola*
Ectatomma (*Gnamptogenys*) *mordax* subsp. *sebastiani* – *Gnamptogenys mordax*
Ectatomma (*Gnamptogenys*) *nigrifrons* – *Gnamptogenys hartmani*
Ectatomma (*Holcoponera*) *striatulum* var. *angustiloba* – *Gnamptogenys striatula*
Ectatomma (*Parectatomma*) *schubarti* – *Gnamptogenys menozzii*
Ectatomma (*Parectatomma*) *triangulare* r. *richteri* – *Gnamptogenys triangularis*
Euponera (*Trachymesopus*) *stigma* subsp. *compressinodis* – *Pachycondyla cauta*
Gnamptogenys concinna var. *conica* – *Gnamptogenys concinna*
Gnamptogenys concinna var. *semicircularis* – *Gnamptogenys concinna*
Gnamptogenys kalabiti – *Gnamptogenys laevior*
Gnamptogenys pneodonax – *Gnamptogenys minuta*
Gnamptogenys soror – *Gnamptogenys caelata*
Gnamptogenys turmalis – *Gnamptogenys hartmani*
Gnamptogenys ypirangensis – *Gnamptogenys sulcata*
Holcoponera brasiliensis sub. *simplicoides* var. *hybrida* – *Gnamptogenys striatula*
Holcoponera brasiliensis var. *calcarata* – *Gnamptogenys striatula*
Holcoponera brasiliensis var. *pernambucana* – *Gnamptogenys striatula*
Holcoponera möelleri var. *splendens* – *Gnamptogenys moelleri*
Holcoponera regularis – *Gnamptogenys striatula*
Holcoponera teffensis – *Gnamptogenys moelleri*
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Stigmatomma (*Fulakora*) *elongatum* var. *paranense* – *Amblyopone elongata*
Sysphincta cavernicola – *Proceratium micrommatum*

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