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## A CATALOGUE OF THE PSEUDOMYRMECINAE ANTS TYPE SPECIMENS (HYMENOPTERA, FORMICIDAE) DEPOSITED IN THE MUSEU DE ZOOLOGIA DA UNIVERSIDADE DE SÃO PAULO, BRAZIL

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### ABSTRACT

*This catalogue lists the type specimens of 37 species of Pseudomyrmecinae ants deposited in the Hymenoptera Formicidae collection of the Museu de Zoologia da Universidade de São Paulo, which holds types of the only two genera that occur in the Neotropics, Pseudomyrmex Lund and Myrcidris Ward. We record the label information, condition of the specimens, nomenclatural changes, type status, and provide an index of the listed taxa.*

**KEYWORDS:** Hymenoptera; Formicidae; Ants; Types; MZUSP; Pseudomyrmecinae; *Myrcidris*; *Pseudomyrmex*.

### INTRODUCTION

The Museu de Zoologia da Universidade de São Paulo (MZUSP) holds one of the most important collections of Neotropical ants (Brandão, 2000), due to the acquisition of the Kempf-Borgmeier collection in 1977 with support from CNPq (Conselho Nacional de Desenvolvimento Científico e Tecnológico) and FAPESP (Fundação de Amparo à Pesquisa do Estado de São Paulo). Before the transfer of the collection, most of it was handled in collaboration (curatorial, collection or deposit of material) among Carlos Alberto Campos Seabra, Thomas Borgmeier, Walter Kempf, Hermann Lüderwaldt and Karol Lenko (*see* Brandão, 1991). Since 1981, C.R.F. Brandão and his

students and associates have been adding material to the collection, in special from localities not represented before, incorporating also material forwarded to the Museu de Zoologia by several colleagues, to whom we acknowledge here. The present catalogue is the third of a series which aims to list all ant types hereby deposited. We have published thus far a catalogue of the Attini ants (Myrmicinae), including a history of the MZUSP Formicidae collection (Klingenberg & Brandão, 2005), and a catalogue of "Poneromorph" ant types (Scott-Santos *et al.* 2008).

The objective of this catalogue is to provide label information, conservation status of type specimens, and the current taxonomic status of the species, including nomenclatural changes according to

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the International Code of Zoological Nomenclature (1999). We treat in the present paper type specimens of *Pseudomyrmex* Lund and *Myrcidris* Ward, deposited in the MZUSP collection. Our aim is to boost further studies and also avoid unnecessary movement of precious, sometimes unique, specimens.

The Pseudomyrmecinae comprises about 300 nominal species worldwide, currently recognized in three genera: *Myrcidris* Ward (one species), *Pseudomyrmex* Lund (~ 200 species) and the Old World tropics *Tetraponera* Smith (~ 100 species) (Ward & Downie, 2005).

The taxonomy of Pseudomyrmecinae is one of the most studied among the Neotropical ant subfamilies, in particular because of a series of revisions of *Pseudomyrmex* species groups by Kempf (1958, 1960, 1961, 1967), because of a series of reviews using molecular methods and morphological characters by Ward (1985, 1989, 1990, 1991, 1992, 1993, 1996, 1999, 2003, 2006, 2009, and Ward & Downie, 2005), and also for cytogenetic studies (Sposito *et al.*, 2006 and Moya *et al.*, 2007).

## MATERIAL AND METHODS

For the elaboration of this catalogue, information from all labels associated with Pseudomyrmecinae types were compared with the appropriate original descriptions, that can be found in Agosti & Johnson (2005). The nomenclature of Pseudomyrmecinae type specimens was updated following the International Code of Zoological Nomenclature (1999).

The combination of type names within genera and species are quoted in alphabetical order. The following abbreviations are used: col. = collector, coll. = collection, g = gyne, m = male, w = worker; to indicate conservation status of the specimens, the following abbreviations are used: W = wing, W1 and W2 representing the anterior and posterior left wings, respectively, and W3 and W4 representing the right wings, L = leg, L1, L2 and L3 representing the left legs and L4, L5 and L6 the right legs, and A = antenna, A1 representing the left antenna; A2 representing the right antenna. Furthermore, we also indicate broken body parts glued to the paper triangle that holds the type specimen, or that are missing. To record information related to the MZUSP Pseudomyrmecinae types, the following order is adopted in the present catalogue: species name, author, publication year, page numbers, type category, number of type specimens of each sex or caste, locality, date, collector,

original collection name, collection number or collection code, and the name of the specialist who identified the species taken from labels or publications (in original language). We also present conservation and taxonomic status for each entry. Additional information, present in publications but not recorded in labels, is presented in brackets. We also present an index of all valid names listed in the current catalogue and, when necessary, their respective synonyms. Taxonomic information about the species listed here can be found in Bolton (1995, 2003).

## RESULTS

This catalogue includes information on types of 37 Pseudomyrmecinae nominal species, including 128 individuals (95 of *Pseudomyrmex* Lund and 33 of *Myrcidris* Ward), of which 25 are considered valid today and 12 have been already synonymized. The MZUSP collection holds species represented by only three holotypes (two lost), two by holotypes and paratypes, 21 only by paratypes, 10 by syntypes, and one by a lectotype. The types were described or synonymized by Auguste Forel, Carlo Emery, Felix Santschi, Frederick Smith, Gustav Mayr, Philip S. Ward (mostly), Thomas Borgmeier, Walter W. Kempf, William Morton Wheeler and William S. Creighton. Before being transferred to the MZUSP these ant specimens belonged to the collections of Campos Seabra, Gustav Mayr, Thomas Borgmeier, Walter W. Kempf and William Morton Wheeler. All specimens are currently housed in the laboratory of Hymenoptera MZUSP, curated by Carlos Roberto F. Brandão.

### Subfamily Pseudomyrmecinae

#### Tribe Pseudomyrmecini

#### Genus *Myrcidris* Ward, 1990

*Myrcidris epicharis* Ward, 1990: 467. Paratypes: 4 w. BRAZIL, Am[azonas], n[ea]r Manaus, Res[erva Biológica de] Campina, km 44, BR-174, ex "*Siparuna*" (= *Myrcia* sp.), 27.viii.1979, W.W. Benson [col.], #50F. Paratypes: 5 w. BRAZIL, Am[azonas], n[ea]r Manaus, Res[erva Biológica de] Campina, [km 44, BR-174], ex "*Siparuna*" (= *Myrcia* sp.), 29.vii.1979, W.W. Benson [col.], #26F. Paratypes: 6 w. BRAZIL, Am[azonas], NNE [north-northeast] Manaus, 80 m, Faz[enda] Esteio, 80 km, 02°25'S, 59°46'W,

15.ix.1987, P.S. Ward [col.], #9146, 9147; 1 w, missing L2 tibia; 1 w, missing petiole, postpetiole and gaster. Paratype: 1 w. BRAZIL, Am[azonas], Manaus, km 27, ZF-3, around Res[erva] 1101 [Biológica de] Camp[ina], Gavião Day, 10.viii. [19]81, [W.W. Benson col.]. Paratypes: 2 g, 15 w. BRAZIL, Am[azonas], n[ear] Manaus, km 44.5, BR-174, E.E.S.T., INPA, ex 7 m in "Siparuna" internodes (= *Myrcia* sp.), 30.vii.1981, W.W. Benson [col.], #370F; 1 g, missing head, L1 and L4 tibia, L2 tarsal claws, L5 and L6 trochanter and wings; 1 g, missing L1 and wings.

### Genus *Pseudomyrmex* Lund, 1831

- Pseudomyrmex alustratus* Ward, 1989: 409. Holotype: 1 w lost in transit. [PERU, Chanchamayo, Anashirone River, 16.vii.1963, C.A. Portocarrero col., #A47, Kempf n°4060] Paratypes: 2 w. PERU, Chanchamayo, Anashirone River, 22.viii.1963, C.A. Portocarrero col., Coll. Kempf 4072, #73.
- Pseudomyrmex alvarengai* Kempf, 1961a: 372. Holotype: 1 w. BRASIL, Pará, Jacareacanga, x.1959, M. Alvarenga leg. [col.], Coleção Campos Seabra; missing L1 tarsal claws.
- Pseudomyrmex apache* Creighton, 1953b: 134. Paratypes: 3 w. U[NITED] S[TATES OF] A[MERICA], Ariz[ona], Baboquivari m[ountain], Brown Canyon 4400', in *Quercus oblongifolia*, 02.ix.[19]51, W.S. Creighton [col.], Creighton det.
- Pseudomyrmex browni* Kempf, 1967c: 3. Holotype: 1 w. P[ANAMA], C[anal] Z[one], Frijoles, 10.vii.[19]24, G.C. Wheeler [col.], Kempf det.; missing A1 funiculus. Paratype: 1 w. [BRASIL], Amapá, [Rio] Anicoí, Braço Sul, 17.vi.1959, Lane and Bicelli [col.], Kempf det; missing A1 funiculus and L1 trochanter.
- Pseudomyrmex cretus* Ward, 1989: 412. Paratypes: 3 w. C[OSTA] R[ICA], Prov[ince] Guanacaste, Santa Rosa, Nat[ional]P[ark], 10°51'N, 85°37'W, 300 m, ex dead twig of *Schoepfia* tropic dry forest, 14.xii.1983, P.S. Ward [col.], #6434.
- Pseudomyrmex crudelis* Ward, 1999: 516. Paratypes: 1 g, 1 m, 2 w. PERU, San Martín, 24 km, NNE [north-northeast] Tarapoto, 06°18'S, 76°16'W, 220 m, ex *Tachigalia*, edge of second-growth rainfor[est], 23.viii.1986, P.S. Ward [col.], #8705.
- Pseudomyrma damnosa* Wheeler, 1921f: 139. Syntypes: 1 g, 3 w. B[RITISH] G[UIANA], Kartabo, vii/viii.1920, [no col.], W.M. Wheeler Collection, #22869, Det. W.L. Brown; 1 g, missing A1, A2, L2 tarsal claws, L3 tarsus, L4 and L6 trochanter, postpetiole and gaster; 1 w, missing head. Junior synonym of *Pseudomyrmex latinoda* (Mayr, 1978: 877) (see Kempf, 1961a: 406).
- Pseudomyrmex deminutus* Ward, 1999: 517. Paratype: 1 g. BRA[ZIL], Am[azonas], Rio Juma, near Apuí, 400 km E[ast] Humaita, Transamazonica Hwy [highway] [7°08'S, 59°57'W], ex *Tachigali*, 30.iv.1985, F. Rickson [col.], B-41-85; missing W3.
- Pseudomyrma dendroica* Forel, 1904c: 40. Syntype: 1 w. [BRASIL], AM[azonas], Rio Purus, [no date], A[ndré] Göldi [col.], #84; missing L3 and L5 tarsal claws. Combination in *Pseudomyrmex dendroicus* by Kempf (1961a: 408) (see Forel, 1904c: 40).
- Pseudomyrma denticollis* var. *infusca* Forel, 1908c: 382. Syntypes: 5 w. [BRASIL], S[ão] P[aulo], Ipiranga, [no date], H. Luederwaldt [col.], Coll. Borgm[eier], #2631, 2681, Forel det.; 1 w, missing L6 tarsus; 1 w, missing A1, A2, head, mesosoma, L1, L2, L3, L4, L5, L6 and petiole. Junior synonym of *Pseudomyrmex termitarius* (Smith, F., 1855c: 158) (see Kempf, 1960a: 8).
- Pseudomyrmex eculeus* Ward, 1999: 518. Paratype: 1 w. ECU[ADOR], Prov[ince] Napo, Jatun Sacha, 01°04'S, 77°36'W, 450 m, ex *Tachigali*, rainfor[est], 13.ix.1992, B.L. Fisher [col.], #458.
- Pseudomyrmex ferox* Ward, 1999: 519. Paratypes: 1 g, 1 m, 2 w. PERU, San Martín, 8 km, ENE [east-northeast] Tarapoto, 06°27'S, 76°18'W, 700 m, ex *Tachigali*, rainforest edge, 19.viii.1986, P.S. Ward [col.], #8604; 1 w, L3 is glued on a paper triangle.
- Pseudomyrmex hesperius* Ward, 1993: 157. Paratype: 1 w. MEX[ICO], Sin[aloa], 15.9 mi[les], NE [northeast] Concordia, Hwy [highway] 40, 600 m, ex *Acacia hindsi*, 09.vi.1967, D.H. Janzen [col.]; XVIII.
- Pseudomyrmex hospitalis* Ward, 1999: 522. Paratype: 1 w. PERU, San Martín, 8 km ENE [east-northeast] Tarapoto, 06°27'S, 76°18'W, 700 m, 19.viii.1986, P.S. Ward [col.], #8612; A1 is glued on a paper triangle and missing L1.
- Pseudomyrmex inquilinus* Ward, 1996: 255. Paratype: 1 g. ARG[ENTINA], Catamarca, Santa Maria, 26°42'S, 66°03'W, 2000 m, ex dead twig of *Baccharis* old field/pasture in #12844 nest, 02.ii.1995, P.S. Ward [col.], #12845, Det. P.S. Ward; head and L4 trochanter are glued on a paper triangle.

- Pseudomyrmex insuavis* Ward, 1999: 492. Paratype: 1 w. COL[OMBIA], Amazonas, Araracurara, 00°38'S, 72°15'W, ex *Tachigali hypoleuca*, iv.1994, G. Gangi [col.], #224.
- Pseudomyrmex janzeni* Ward, 1993: 143. Paratypes: 1 g, 1 m, 1 w. MEX[ICO], Nay[arit], 60 mi. SE [Southeast] Acaponeta, Hwy [highway] 15, *Acacia hindsii* 15.ix.1963, D.H. Janzen [col.]; 1 g, missing wings.
- Pseudomyrma kuenckeli* var. *dichroa* Forel, 1904c: 41. Lectotype: 1 w. COLOMBIA, Dibulla, branche sèche, [no date], A. Forel [col.], #3177, Forel det.; missing A2 funiculus, L1 trochanter, L2 and L5 tarsus. Junior synonym of *Pseudomyrmex kuenckeli* (Emery, 1890b: 62) (see Kempf, 1961a: 402).
- Pseudomyrmex leptosus* Ward, 1985b: 233. Paratypes: 1 g, 1 m. U[NITED] S[TATES OF] A[MERICA], Fl[orida], Alachua Co[unty], S[outh] Gainesville, Paynes Prairie, 8 mi, (ex lab [colony established from] mixed nest of [*P.*] *leptosus* and [*P.*] *ejectus*, orig[inally] coll[ected], 05.viii.1982.), 16.v.1982, R.[W.] Klein [col.]; 1 g, missing W1.
- Pseudomyrma maligna* Wheeler, 1921f: 143. Syntypes: 3 w. B[RITISH] G[UIANA], Kartabo, vii/viii.1920, [no col.], W.M. Wheeler collection, #22866, Det., W.L. Brown; 1 w, missing L1 tarsus. Combination in *Pseudomyrmex malignus* by Kempf (1961a: 400) (see Wheeler, 1921f: 143).
- Pseudomyrma maligna* var. *cholericus* Wheeler, 1921f: 146. Syntypes: 3 w. B[RITISH] G[UIANA], Kartabo, vii/viii.1920, W.M. Wheeler [col.], #22867, Det. W.L. Brown. Junior synonym of *Pseudomyrmex malignus* by Wheeler, (1921f: 143) (see Ward, 1989: 440).
- Pseudomyrma maligna* var. *crucians* Wheeler, 1921f: 147. Syntypes: 3 w. B[RITISH] G[UIANA], Kartabo, vii/viii.1920, [no col.], W.M. Wheeler collection #22868, Det. W.L. Brown; 1 w, missing L5 trochanter. Junior synonym of *Pseudomyrmex malignus* by Wheeler, (1921f: 143) (see Ward, 1989: 440).
- Pseudomyrmex mixtecus* Ward, 1993: 144. Paratype: 1 w. MEXICO, Guerrero, 25.4 mi, S[outh], km 314, Chilpancingo, 10.viii.1966, [D.H.] Janzen [col.]; M008810966.
- Pseudomyrma ogloblini* Santschi, 1936d: 402. Syntype: 1 w. REP[UBLICA] ARGENTINA, Misiones, Loreto, [no date], A.A. Ogloblin [col.], n° 2088, det. Borgmeier. Junior synonym of *Pseudomyrmex urbanus* by Smith, (1877b: 65) (see Ward, 1989: 427).
- Pseudomyrmex opaciceps* Ward, 1993: 159. Paratype: 1 w. GUATEMALA, Retalhuleu State, Puente Samala, 3.8 mi, NE [Northeast] San Felipe, on Quezal. – Retal. R[oa]d, 24.vii.1966, [D.H.] Janzen [col.], code W006724966; L2 and L6 tibia are glued on a paper triangle.
- Pseudomyrma pallens* var. *adusta* Borgmeier, 1929: 198. Syntypes: 18 w. [BRASIL], M[inas] G[er]ais, Varginha, 10.iv.1927, T. Borgmeier [col.], #1478, 1479; 1 w, head, pronotum, L1 and L4 trochanter are glued on a paper triangle; 1 w, head is glued on a paper triangle; 1 w, missing L6; 1 w, missing A1 funiculus; 1 w, missing A1, A2, head, mesosoma, L1, L2, L3, L4, L5, L6 and petiole; 1 w, head is glued on a paper triangle, missing A1, A2, postpetiole and gaster; 1 w, missing A1 and L1. Combination in *Pseudomyrmex adustus* by Kempf (1960: 7) (see Borgmeier, 1929: 198).
- Pseudomyrma pallens* var. *gibbinota* Forel 1908c: 384. Syntypes: 3 w. [BRASIL], S[ão] P[aulo], Bauru, [no date, no col.], MP 5971, CTB 2686, W.W. Kempf det., For[el] det.; 1 w, postpetiole and gaster are glued on a paper triangle; 1 w, missing A2 funiculus, L2, L4 and L5, L6, postpetiole and gaster are glued on a paper triangle. Combination in *Pseudomyrmex gibbinotus* (Kempf, 1960a: 7) (see Forel, 1908c: 384).
- Pseudomyrmex particeps* Ward, 1993: 146. Paratype: 1 w. C[OSTA] R[ICA], Puntarenas, Rincon, Pen[insula] Osa, ex *Acacia*, 03.iii.1965, D.H. Janzen [col.], [#]III; missing L2 tarsal claws and L5 tarsus.
- Pseudomyrmex pisinnus* Ward, 1989: 425. Holotype: 1 w lost in transit. [BRAZIL, São Paulo, Monte Aprazível, Fazenda Bacuri, 20°45'S, 49°42'W, in *Eupatorium* stem, 19.vii.1974, M. Dimiz col., #644]. Paratypes: 2 w. BRAZIL, S[ão] P[aulo], Monte Aprazível, Faz[enda] Bacuri, em caule seco, *Eupatorium*, M. Dimiz [col.]; 1 w, only one leg is glued on a paper triangle; 1 w, only mandibles are glued on a paper triangle.
- Pseudomyrma schuppi* Forel, 1901d: 298. Syntype: 1 w. [BRASIL], Rio Grande d[o] Sul, S[ão] Leopoldo, [no date, no col.], 3972. Combination in *Pseudomyrmex schuppi* (Kempf, 1961a: 380) (see Forel, 1901d: 298).
- Pseudomyrmex seminole* Ward, 1985b: 237. Paratype: 1 g. [UNITED STATES OF AMERICA], Fl[orida], Monroe Co[unty], 5 m, John Pennekamp St[ate] P[ar]k, dead *Andropogon* culm, roadside n[ear] mangrove, 14.ix.1982, P.S. Ward [col.], #5722. Paratype: 1 w. [UNITED STATES

OF AMERICA], Flo[rida], 12 mi, N[orth] Key Largo, 25°13'N, 80°20'W, open, grassy ground, 10.i.1979, P.S. Ward [col.], #3203.

*Pseudomyrmex semotus* Kempf, 1960a: 392. Holotype: 1 w. [BRASIL], Amapá, [Rio] Anicoí, Braço Sul, 24.vi.1959, [J.] Lane e [R.] Bicelli col., Kempf det. Junior synonym of *godmani* (Kempf, 1967c: 6).

*Pseudomyrmex sericeus* Mayr, 1870a: 412. Paratype: 1 w. COSTA RICA, [no date, no col.], coll. G. Mayr; missing L1 and L2 tarsus, postpetiole and gaster are glued on a paper triangle.

*Pseudomyrmex simulans* Kempf, 1958f: 459. Paratypes: 3 g, 9 w. PAN[AMÁ], Tumba Muerta r[oa]ld, *Acacia spadicigera*, 02 and 05.iv.1923, W.M. Wheeler [col.], #270, 271, 295, Kempf det.; 1 g, missing head; 1 w, missing L1 and L2; 1 w, missing head, promesonotum and L1 trochanter; 1 w, missing L1 tarsal claws, postpetiole and gaster; 1 w, missing L5 tarsus.

*Pseudomyrmex ultrix* Ward, 1999: 509. Paratype: 1 w. ECUADOR, Napo, 13 km, NNE [north-north-east] Archidona, 00°48'S, 77°47'W, 960 m, ex. *Triplaris* roadside edge, 07.viii.1991, P.S. Ward [col.], #11393.

*Pseudomyrmex villosus* Ward, 1989: 434. Holotype: 1 w lost in transit. [BRAZIL, Mato Grosso, Utia-riti, Rio Papagaio (= Rio Sauêruiná), 13°02'S, 58°17'W, 325 m, viii.1961, K. Lenko col.]

## RESUMO

*Este catálogo lista espécimes tipos de 37 espécies de formigas Pseudomyrmecinae depositadas na coleção de Formicidae da seção de Hymenoptera do Museu de Zoologia da Universidade de São Paulo, e que pertencem aos dois gêneros que ocorrem na Região Neotropical, Pseudomyrmex Lund e Myrcidris Ward. São apresentados os dados dos rótulos, estado de conservação dos exemplares, mudanças nomenclaturais, status taxonômicos e um índice para os táxons catalogados.*

PALAVRAS-CHAVE: Hymenoptera; Formicidae; Formigas; Tipos; MZUSP; Pseudomyrmecinae; *Myrcidris*; *Pseudomyrmex*.

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## APPENDIX

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

*Myrcidris epicharis*  
*Pseudomyrmex adustus* – *Pseudomyrma pallens* var. *adusta*  
*Pseudomyrmex alustratus*  
*Pseudomyrmex alvarengai*  
*Pseudomyrmex apache*  
*Pseudomyrmex browni*  
*Pseudomyrmex concolor* – *Pseudomyrma damnosa*  
*Pseudomyrmex cretus*  
*Pseudomyrmex crudelis*  
*Pseudomyrmex deminutus*  
*Pseudomyrmex dendroicicus* – *Pseudomyrma dendroica*  
*Pseudomyrmex eculeus*  
*Pseudomyrmex ferox*  
*Pseudomyrmex gibbinotus* – *Pseudomyrma pallens* var. *gibbinota*  
*Pseudomyrmex godmani* – *Pseudomyrmex semotus*  
*Pseudomyrmex hesperius*  
*Pseudomyrmex hospitalis*  
*Pseudomyrmex inquilinus*  
*Pseudomyrmex insuavis*  
*Pseudomyrmex janzeni*  
*Pseudomyrmex kuенckeli* – *Pseudomyrma kuенckeli* var. *dichroa*  
*Pseudomyrmex leptosus*  
*Pseudomyrmex malignus* – *Pseudomyrma maligna*  
*Pseudomyrmex malignus* – *Pseudomyrma maligna* var. *cholericus*  
*Pseudomyrmex malignus* – *Pseudomyrma maligna* var. *crucians*  
*Pseudomyrmex mixtecus*  
*Pseudomyrmex opaciceps*  
*Pseudomyrmex particeps*  
*Pseudomyrmex pisinnus*  
*Pseudomyrmex schuppi* – *Pseudomyrma schuppi*  
*Pseudomyrmex seminole*  
*Pseudomyrmex sericeus*  
*Pseudomyrmex simulans*  
*Pseudomyrmex termitarius* – *Pseudomyrma denticollis* var. *infusca*  
*Pseudomyrmex ultrix*  
*Pseudomyrmex urbanus* – *Pseudomyrma ogloblini*  
*Pseudomyrmex villosus*

**Index II: List of cited synonyms, followed by respective valid names**

*Pseudomyrma damnosa* – *Pseudomyrmex concolor*  
*Pseudomyrma denticollis* var. *infusca* – *Pseudomyrmex termitarius*  
*Pseudomyrma kuенckeli* var. *dichroa* – *Pseudomyrmex kuенckeli*  
*Pseudomyrma maligna* var. *cholericus* – *Pseudomyrmex malignus*  
*Pseudomyrma maligna* var. *crucians* – *Pseudomyrmex malignus*  
*Pseudomyrma ogloblini* – *Pseudomyrmex urbanus*  
*Pseudomyrmex semotus* – *Pseudomyrmex godmani*