

NEW NAMES FOR SOME PREOCCUPIED SPECIFIC AND SUBSPECIFIC EPITHETS IN THE FAMILY FORMICIDAE (HYMENOPTERA)

Hüseyin Özdikmen*

* Gazi Üniversitesi, Fen-Edebiyat Fakültesi, Biyoloji Bölümü, 06500 Ankara / TÜRKİYE. E-mail: ozdikmen@gazi.edu.tr

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ABSTRACT. According to the International Code of Zoological Nomenclature (ICZN, 1999), *Tapinoma luteum emeryi* (Forel, 1910) (Dolichoderinae: Tapinomini); *Neivamyrmex mexicanus* (Enzmann, 1952) (Ecitoninae: Ecitonini); †*Formica parvula* Dlussky, 1967 (Formicinae: Formicini); *Crematogaster longispina boliviana* Wheeler, 1925; *Crematogaster subnuda formosae* Wheeler, 1909; *Crematogaster longiceps* Forel, 1910 (Myrmicinae: Crematogastrini); *Monomorium creticum* (Emery, 1908); †*Solenopsis major* Théobald, 1937 (Myrmicinae: Solenopsidini); *Pachycondyla ambigua* (Weber, 1942); *Pachycondyla apicalis* (Smith, 1857); *Pachycondyla arcuata* (Karawaiew, 1925); *Pachycondyla crassa ilgii* Forel, 1910; *Pachycondyla rubra javana* (Forel, 1905); *Pachycondyla nimba* (Bernard, 1953); *Pachycondyla sculpturata* (Karawaiew, 1925) and *Pachycondyla tarsata striata* (Santschi, 1930) (Ponerinae: Ponerini) are not correct because the specific or subspecific epithets are illegitimate. The author request the replacement names of the specific and subspecific epithets *emeryi* (Forel, 1910); *mexicanus* (Enzmann, 1952); *parvula* Dlussky, 1967; *boliviana* Wheeler, 1925; *formosae* Wheeler, 1909; *longiceps* Forel, 1910; *creticum* (Emery, 1908); *major* Théobald, 1937; *ambigua* (Weber, 1942); *apicalis* (Smith, 1857); *arcuata* (Karawaiew, 1925); *ilgii* Forel, 1910; *javana* (Forel, 1905); *nimba* (Bernard, 1953); *sculpturata* (Karawaiew, 1925) and *striata* (Santschi, 1930) and he suggest *natalicum* nom. nov., *enzmanni* nom. nov., *egecomerta* nom. nov., *nura* nom. nov., *nigrosubnuda* nom. nov., *longicephala* nom. nov., *pseudoepixenus* nom. nov., *alena* nom. nov., *gulera* nom. nov., *terminalis* nom. nov., *karawaiewi* nom. nov., *gamzea* nom. nov., *minirubra* nom. nov., *neonimba* nom. nov., *sumatrana* nom. nov. and *kaya* nom. nov. respectively. Accordingly, new combinations are herein proposed for the species and subspecies: *Tapinoma luteum natalicum* nom. nov. pro *Tapinoma luteum emeryi* (Forel, 1910) syn. n., *Neivamyrmex enzmanni* nom. nov. pro *Neivamyrmex mexicanus* (Enzmann, 1952) syn. n., †*Formica egecomerta* nom. nov. pro †*Formica parvula* Dlussky, 1967 syn. n., *Crematogaster longispina nura* nom. nov. pro *Crematogaster longispina boliviana* Wheeler, 1925 syn. n., *Crematogaster subnuda nigrosubnuda* nom. nov. pro *Crematogaster subnuda formosae* Wheeler, 1909 syn. n., *Crematogaster longicephala* nom. nov. pro *Crematogaster longiceps* Forel, 1910 syn. n., *Monomorium pseudoepixenus* nom. nov. pro *Monomorium creticum* (Emery, 1908) syn. n., †*Solenopsis alena* nom. nov. pro †*Solenopsis major* Théobald, 1937 syn. n., *Pachycondyla gulera* nom. nov. pro *Pachycondyla ambigua* (Weber, 1942) syn. n., *Pachycondyla terminalis* nom. nov. pro *Pachycondyla apicalis* (Smith, 1857) syn. n., *Pachycondyla karawaiewi* nom. nov. pro *Pachycondyla arcuata* (Karawaiew, 1925) syn. n., *Pachycondyla crassa gamzea* nom. nov. pro *Pachycondyla crassa ilgii* Forel, 1910 syn. n., *Pachycondyla rubra minirubra* nom. nov. pro *Pachycondyla rubra javana* (Forel, 1905) syn. n., *Pachycondyla neonimba* nom. nov. pro *Pachycondyla nimba* (Bernard, 1953) syn. n., *Pachycondyla sumatrana* nom. nov. pro *Pachycondyla sculpturata* (Karawaiew, 1925) syn. n., *Pachycondyla tarsata kaya* nom. nov. pro *Pachycondyla tarsata striata* (Santschi, 1930) syn. n..

KEY WORDS. Nomenclatural changes, homonymy, replacement names, Hymenoptera, Formicidae.

Family FORMICIDAE

Subfamily DOLICHODERINAE

Tribe TAPINOMINI

Genus *TAPINOMA* Förster, 1850

Species *TAPINOMA LUTEUM* (Emery, 1895)

Subspecies *TAPINOMA LUTEUM NATALICUM* nom. nov.

Tapinoma luteum emeryi (Forel, 1910). Note sur quelques fourmis d'Afrique. Annales de la Société Entomologique de Belgique, 54 (D): 447. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Tapinoma emeryi* (Ashmead, 1905). New Hymenoptera from the Philippines. Proceedings of the U.S. National Museum, 29: 111. (Hymenoptera: Vespoidea: Formicidae).

The names *Tapinoma emeryi* (Ashmead, 1905) and *Tapinoma luteum emeryi* (Forel, 1910) were included in the family Formicidae.

The specific epithet *emeryi* was initially introduced by Ashmead (1905) with the original combination *Aphomyrmex emeryi* Ashmead, 1905 from Manila, Philippines. It is still used as a valid species name. Fisher & Bolton (2007: 66) transferred it to the genus *Tapinoma* as a species.

Subsequently, Forel (1910a) also described a new subspecies from Natal, South Africa with the same species group epithet as *Technomyrmex luteus* ssp. *emeryi* Forel, 1910 by original combination. It is also still used as a valid subspecies name. Bolton (1995) transferred it to the genus *Pachycondyla* and cataloged it as a subspecies.

Tapinoma emeryi (Ashmead, 1905) has priority over *Tapinoma luteum emeryi* (Forel, 1910). Thus, *Tapinoma luteum emeryi* (Forel, 1910) is illegitimate and consequently can not be correct. The name *Tapinoma luteum emeryi* (Forel, 1910) is a secondary junior homonym of the name *Tapinoma emeryi* (Ashmead, 1905). According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the species group epithet *emeryi* (Forel, 1910) the replacement name *natalicum* nom. nov..

Etymology: The name is dedicated to Natal that is the type species of the preexisting subspecies *Tapinoma luteum emeryi* (Forel, 1910).

Summary of nomenclatural changes:

Species *Tapinoma luteum* (Emery, 1895)

[orig. comb.: *Technomyrmex luteus* Emery, 1895 from Makapan, South Africa]

Subspecies *Tapinoma luteum luteum* (Emery, 1895)

Subspecies *Tapinoma luteum natalicum* nom. nov.

pro *Tapinoma luteum emeryi* (Forel, 1910) **syn. n.**, [nec *Tapinoma emeryi* (Ashmead, 1905)]

[orig. comb.: *Technomyrmex luteus* ssp. *emeryi* Forel, 1910 from Natal, South Africa]

Subfamily ECITONINAE

Tribe ECITONINI

Genus *NEIVAMYRMEX* Borgmeier, 1894

Species *NEIVAMYRMEX ENZMANNI* nom. nov.

Neivamyrmex mexicanus (Enzmann, 1952). *Woitkowskia*, a new genus of army ants. Proceedings of the Iowa Academy of Science, 59: 445. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Neivamyrmex pilosus mexicanus* (Smith, 1859). Catalogue of

Hymenopterous insects in the collections of the British Museum. Part VII. Dorylidae and Thynnidae, London. P. 7. (Hymenoptera: Vespoidea: Formicidae).

The names *Neivamyrmex pilosus mexicanus* (Smith, 1859) and *Neivamyrmex mexicanus* (Enzmann, 1952) were included in the family Formicidae.

The subspecific epithet *mexicanus* was initially introduced by Smith (1859) with the original combination *Labidus mexicanus* Smith, 1859 from Mexico. It is still used as a valid species name. Bolton (1995) cataloged it as a subspecies.

Subsequently, Enzmann (1952) also described a new species from Mexico with the same species group epithet as *Woitkowskia mexicana* Enzmann, 1952 by original combination. It is also still used as a valid species name.

Neivamyrmex pilosus mexicanus (Smith, 1859) has priority over *Neivamyrmex mexicanus* (Enzmann, 1952). Thus, *Neivamyrmex mexicanus* (Enzmann, 1952) is illegitimate and consequently can not be correct. The name *Neivamyrmex mexicanus* (Enzmann, 1952) is a secondary junior homonym of the name *Neivamyrmex pilosus mexicanus* (Smith, 1859). According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the specific epithet *mexicanus* (Enzmann, 1952) the replacement name *enzmanni* nom. nov..

Etimology: The name is dedicated to E. V. Enzmann who is current author name of the preexisting species *Neivamyrmex mexicanus*.

Summary of nomenclatural changes:

Species *Neivamyrmex enzmanni* **nom. nov.**

pro *Neivamyrmex mexicanus* (Enzmann, 1952) **syn. n.**, [nec *Neivamyrmex pilosus mexicanus* (Smith, 1859)]

[orig. comb.: *Woitkowskia mexicana* Enzmann, 1952 from Mexico]

Subfamily FORMICINAE

Tribe FORMICINI

Genus *FORMICA* Linnaeus, 1758

Species †*FORMICA PARVULA* **nom. nov.**

†*Formica parvula* Dlussky, 1967. [Ants of the genus *Formica* from Baltic amber.] *Paleontologicheskii Zhurnal*, 1967 (2): 83. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by †*Formica parvula* Presl, 1822. *Additamenta ad faunam protogaeam, sistens descriptiones aliquot animalium in succino inclusorum*. Pages 191-210 in Anonymous. *Deliciae Pragenses, historiam naturalem spectantes*. 1., Pragae. p. 196. (Hymenoptera: Vespoidea: Formicidae).

The names †*Formica parvula* Presl, 1822 and †*Formica parvula* Dlussky, 1967 were included in the family Formicidae.

The specific epithet *parvula* was initially introduced by Presl (1822) with the original combination †*Formica parvula* Presl, 1822. It is still used as a valid species name. Bolton (1995) cataloged it as a species.

Subsequently, Dlussky (1967) also described a new fossil species from Baltic Amber with the same specific epithet as *Formica parvula* Dlussky, 1967 by original combination. It is also still used as a valid species name. Bolton (1995) cataloged it as a species and placed in *fusca* species group.

†*Formica parvula* Presl, 1822 has priority over †*Formica parvula* Dlussky, 1967. Thus, †*Formica parvula* Dlussky, 1967 is illegitimate and consequently can not be correct. The name †*Formica parvula* Dlussky, 1967 is a primary junior

homonym of the name †*Formica parvula* Presl, 1822. According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the specific epithet *parvula* Dlussky, 1967 the replacement name *egecomerta* nom. nov..

Etimology: The name is dedicated to the memory of Ege Cömert (Turkey).

Summary of nomenclatural changes:

Species †*Formica egecomerta* **nom. nov.**

pro †*Formica parvula* Dlussky, 1967 **syn. n.**, [nec †*Formica parvula* Presl, 1822]
[orig. comb.: †*Formica parvula* Dlussky, 1967 from Baltic Amber]

Subfamily MYRMICINAE
Tribe CREMATOGASTRINI

Genus CREMATOGASTER Lund, 1831

Species CREMATOGASTER LONGISPINA Emery, 1890

Subsp. CREMATOGASTER LONGISPINA NURA nom. nov.

Crematogaster longispina boliviana Wheeler, 1925. Neotropical ants in the collections of the Royal Museum of Stockholm. Part I. Arkiv för Zoologi, 17 (A8): 25. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Crematogaster boliviana* (Wheeler, 1922). Neotropical ants of the genera *Carebara*, *Tranopelta* and *Tranopeltoidea*, new genus. American Museum Novitates, 48: 13. (Hymenoptera: Vespoidea: Formicidae).

The names *Crematogaster boliviana* (Wheeler, 1922) and *Crematogaster longispina boliviana* Wheeler, 1925 were included in the family Formicidae.

The specific epithet *boliviana* was initially introduced by Wheeler (1922) with the original combination *Tranopeltoidea bolivianus* Wheeler, 1922 from San Firmin, Bolivia. It is still used as a valid species name. Bolton (1995) cataloged and placed in subgenus *Crematogaster* (*Orthocrema*).

Subsequently, Wheeler (1925) described a new variety of the species *Crematogaster longispina* from Mojós, Bolivia with the same subspecific epithet as *Crematogaster* (*Orthocrema*) *longispina* var. *boliviana* Wheeler, 1925 by original combination. It is also still used as a valid subspecies name.

Crematogaster boliviana (Wheeler, 1922) has priority over *Crematogaster longispina boliviana* Wheeler, 1925. Thus, *Crematogaster longispina boliviana* Wheeler, 1925 is illegitimate and consequently can not be correct. The name *Crematogaster longispina boliviana* Wheeler, 1925 is a junior homonym of the name *Crematogaster boliviana* (Wheeler, 1922). According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the subspecific epithet *boliviana* Wheeler, 1925 the replacement name *nura* nom. nov..

Etimology: The name is dedicated to Naciye Nur Topcu (Turkey).

Summary of nomenclatural changes:

Species *Crematogaster longispina* Emery, 1890

[orig. comb.: *Crematogaster longispina* Emery, 1890 from Neotropical region]

Subspecies *Crematogaster longispina longispina* Emery, 1890

Subspecies *Crematogaster longispina naumannae* Forel, 1921

[orig. comb.: *Crematogaster longispina* r. *naumannae* Forel, 1921 from Quito, Ecuador]

Subspecies *Crematogaster longispina nura* nom. nov.

pro *Crematogaster longispina boliviana* Wheeler, 1925 **syn. n.**, [nec *Crematogaster boliviana* (Wheeler, 1922)]
 [orig. comb.: *Crematogaster longispina* var. *boliviana* Wheeler, 1925 from Mojos, Bolivia]

Species *CREMATOGASTER SUBNUDA* Mayr, 1879**Subsp. *CREMATOGASTER SUBNUDA NIGROSUBNUDA* nom. nov.**

Crematogaster subnuda formosae Wheeler, 1909. Ants of Formosa and the Philippines. Bulletin of the American Museum of Natural History, 26: 336. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Crematogaster formosa* Mayr, 1870. Neue Formiciden. Verhandlungen der Zoologisch-Botanischen Gesellschaft in Wien, 20: 991, 994. (Hymenoptera: Vespoidea: Formicidae)

The names *Crematogaster formosa* Mayr, 1870 and *Crematogaster subnuda formosae* Wheeler, 1909 were included in the family Formicidae.

The specific epithet *formosa* was initially introduced by Mayr (1870) with the original combination *Crematogaster formosa* Mayr, 1870 from Mexico. It is still used as a valid species name.

Subsequently, Wheeler (1909) also described a new variety of the species *Crematogaster subnuda* from Formosa with the same subspecific epithet as *Crematogaster subnuda* var. *formosae* Wheeler, 1909 by original combination. It is also still used as a valid subspecies name.

Crematogaster formosa Mayr, 1870 has priority over *Crematogaster subnuda formosae* Wheeler, 1909. Thus, *Crematogaster subnuda formosae* Wheeler, 1909 is illegitimate and consequently can not be correct. The name *Crematogaster subnuda formosae* Wheeler, 1909 is a primary junior homonym of the name *Crematogaster formosa* Mayr, 1870. According to Articles 58.1 and 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the subspecific epithet *formosae* Wheeler, 1909 the replacement name *nigrosubnuda* nom. nov..

Etymology: after differing from the typical *subnuda* in its darker color.

Summary of nomenclatural changes:

Species *Crematogaster subnuda* Mayr, 1879

[orig. comb.: *Crematogaster subnuda* Mayr, 1879 from Calcutta, India]

Subspecies *Crematogaster subnuda subnuda* Mayr, 1879

[orig. comb.: *Crematogaster subnuda discinodis* Emery, 1893

[orig. comb.: *Crematogaster discinodis* Emery, 1893 from Singapore]

Subspecies *Crematogaster subnuda nigrosubnuda* nom. nov.

pro *Crematogaster subnuda formosae* Wheeler, 1909 **syn. n.**, [nec *Crematogaster formosa* Mayr, 1870]

[orig. comb.: *Crematogaster subnuda* var. *formosae* Wheeler, 1909 from Formosa]

Species *CREMATOGASTER LONGICEPHALA* nom. nov.

Crematogaster longiceps Forel, 1910. Formicides australiens reçus de MM. Froggatt et Rowland Turner. Revue Suisse de Zoologie, 18: 32. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Crematogaster longiceps* Santschi, 1909. Formicides nouveaux ou peu connus du Congo Français. Annales de la Société Entomologique de France, 78: 376. (Hymenoptera: Vespoidea: Formicidae)

The names *Crematogaster longiceps* Santschi, 1909 and *Crematogaster longiceps* Forel, 1910 were included in the family Formicidae.

The specific epithet *longiceps* was initially introduced by Santschi (1909) with the original combination *Crematogaster longiceps* Santschi, 1909 from Sudan. It is still used as a valid species name.

Subsequently, Forel (1910b) also described a new species from Tennants Creek, C Australia with the same specific epithet as *Crematogaster longiceps* Forel, 1910 by original combination. It is also still used as a valid species name.

Crematogaster longiceps Santschi, 1909 has priority over *Crematogaster longiceps* Forel, 1910. Thus, *Crematogaster longiceps* Forel, 1910 is illegitimate and consequently can not be correct. The name *Crematogaster longiceps* Forel, 1910 is a primary junior homonym of the name *Crematogaster longiceps* Santschi, 1909. According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the specific epithet *longiceps* Forel, 1910 the replacement name *longicephala* nom. nov..

Etymology: after its long head.

Summary of nomenclatural changes:

Species *Crematogaster longicephala* nom. nov.

pro *Crematogaster longiceps* Forel, 1910 **syn. n.**, [nec *Crematogaster longiceps* Santschi, 1909]

[orig. comb.: *Crematogaster longiceps* Forel, 1910 from Australia]

Tribe SOLENOPSISINI

Genus *MONOMORIUM* Mayr, 1855

Species *MONOMORIUM PSEUDOEPIXENUS* nom. nov.

Monomorium creticum (Emery, 1908). Beiträge zur Monographie der Formiciden des paläarktischen Faunengebietes. (Hym.). 4. Parasitische und Gast-Myrmicinen mit Ausnahme von Strongylognathus. Deutsche Entomologische Zeitschrift, 1908: 558. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Monomorium creticum* Emery, 1895. Sopra alcune formiche della fauna Mediterranea. Memorie della R. Accademia delle Scienze dell'Istituto di Bologna, (5) 5: 59-75. (Hymenoptera: Vespoidea: Formicidae)

The names *Monomorium creticum* Emery, 1895 and *Monomorium creticum* (Emery, 1908) were included in the family Formicidae.

The specific epithet *creticum* was initially introduced by Emery (1895) with the original combination *Monomorium abeillei* var. *creticum* Emery, 1895 from Catovotri, Crete. It is still used as a valid species name. Bolton (1995) cataloged it as a species.

Subsequently, Emery (1908) also described a new species from Retimo, Crete with the same specific epithet as *Epixenus creticus* Emery, 1908 by original combination. It is also still used as a valid species name. Bolton (1995) cataloged it as a species.

Monomorium creticum Emery, 1895 has priority over *Monomorium creticum* (Emery, 1908). Thus, *Monomorium creticum* (Emery, 1908) is illegitimate and consequently can not be correct. The name *Monomorium creticum* (Emery, 1908) is a primary junior homonym of the name *Monomorium creticum* Emery, 1895. According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the specific epithet *creticum* (Emery, 1908) the replacement name *pseudoepixenus* nom. nov..

Etymology: after its original description “*Epixenus? creticus n. sp.*”.

Summary of nomenclatural changes:

Species *Monomorium pseudoepixenus* **nom. nov.**

pro *Monomorium creticum* (Emery, 1908) **syn. n.**, [nec *Monomorium creticum* Emery, 1895]
[orig. comb.: *Epixenus creticus* Emery, 1908 from Crete]

Genus SOLENOPSIS Westwood, 1840

Species †SOLENOPSIS ALENA nom. nov.

†*Solenopsis major* Théobald, 1937. Les insectes fossiles des terrains oligocenes de France. p. 201. Preoccupied by *Solenopsis basalis major* Forel, 1913. Fourmis d'Argentine, du Brésil, du Guatémala & de Cuba. Reçues de MM. Bruch, Prof. v. Ihering, Mlle Baez, M. Peper et M. Rovereto. Bulletin de la Société Vaudoise des Sciences Naturelles, 49: 220. (Hymenoptera: Vespoidea: Formicidae: Myrmicinae: Solenopsidini).

The names *Solenopsis basalis major* Forel, 1913 and *Solenopsis major* Théobald, 1937 were included in the family Formicidae.

The species group epithet *major* was initially introduced by Forel (1913) with the original combination *Solenopsis basalis* var. *major* Forel, 1913. It is still used as a valid subspecies name. Bolton (1995) cataloged it as a subspecies.

Subsequently, Théobald (1937) described a new fossil species of the genus *Solenopsis* with the same specific epithet as †*Solenopsis major* Théobald, 1937 by original combination. It is also still used as a valid species name. Bolton (1995) cataloged it as a species.

Solenopsis basalis major Forel, 1913 has priority over †*Solenopsis major* Théobald, 1937. Thus, †*Solenopsis major* Théobald, 1937 is illegitimate and consequently can not be correct. The name †*Solenopsis major* Théobald, 1937 is a primary junior homonym of the name *Solenopsis basalis major* Forel, 1913. According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the subspecific epithet *major* Théobald, 1937 the replacement name *alena* nom. nov..

Etymology: The name is dedicated to beautiful Russian girl Alena (?Gumerova) (Russia).

Summary of nomenclatural changes:

Species †*Solenopsis alena* **nom. nov.**

pro †*Solenopsis major* Théobald, 1937 **syn. n.**, [nec *Solenopsis basalis major* Forel, 1913]

Subfamily PONERINAE

Tribe PONERINI

Genus PACHYCONDYLA Smith, 1858

Species PACHYCONDYLA GULERA nom. nov.

Pachycondyla ambigua (Weber, 1942). New doryline, cerapachyine and ponerine ants from the Imatong Mountains, Anglo-Egyptian Sudan. Proceedings of the Entomological Society of Washington, 44: 46. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Pachycondyla ambigua* André, 1890. Matériaux pour servir a la faune myrmécologique de Sierra-Leone (Afrique occidentale). Revue d'Entomologie. Caen., 9: 316. (Hymenoptera: Vespoidea: Formicidae).

The names *Pachycondyla ambigua* André, 1890 and *Pachycondyla ambigua* (Weber, 1942) were included in the family Formicidae.

The specific epithet *ambigua* was initially introduced by André (1890) with the original combination *Pachycondyla ambigua* André, 1890 from Sierra-Leone, W Africa. It is still used as a valid species name. Bolton (1995) cataloged it as a species.

Subsequently, Weber (1942) also described a new species from Imatong Mountains, Sudan with the same specific epithet as *Ponera ambigua* Weber, 1942 by original combination. It is also still used as a valid species name. Bolton (1995) transferred it to the genus *Pachycondyla* and cataloged it as a species.

Pachycondyla ambigua André, 1890 has priority over *Pachycondyla ambigua* (Weber, 1942). Thus, *Pachycondyla ambigua* (Weber, 1942) is illegitimate and consequently can not be correct. The name *Pachycondyla ambigua* (Weber, 1942) is a secondary junior homonym of the name *Pachycondyla ambigua* André, 1890. According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the specific epithet *ambigua* (Weber, 1942) the replacement name *gulera* nom. nov..

Etymology: The name is dedicated to Güler Ortaç (Turkey).

Summary of nomenclatural changes:

Species *Pachycondyla gulera* nom. nov.

pro *Pachycondyla ambigua* (Weber, 1942) **syn. n.**, [nec *Pachycondyla ambigua* André, 1890]

[orig. comb.: *Ponera ambigua* Weber, 1942 from Sudan]

Species *PACHYCONDYLA TERMINALIS* nom. nov.

Pachycondyla apicalis (Smith, 1857). Catalogue of the hymenopterous insects collected at Sarawak, Borneo; Mount Ophir, Malacca; and at Singapore, by A. R. Wallace. Journal of the Proceedings of the Linnean Society of London, Zoology, 2: 42-88. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Pachycondyla apicalis* (Latreille, 1802). Histoire naturelle des fourmis, et recueil de memoires et d'observations sur les abeilles, les araignees, les faucheurs, et autres insectes. Paris. p. 204. (Hymenoptera: Vespoidea: Formicidae).

The names *Pachycondyla apicalis* (Latreille, 1802) and *Pachycondyla apicalis* (Smith, 1857) were included in the family Formicidae.

The specific epithet *apicalis* was initially introduced by Latreille (1802) with the original combination *Formica apicalis* Latreille, 1802. It is still used as a valid species name. Bolton (1995) transferred it to the genus *Pachycondyla* and cataloged it as a species.

Subsequently, Smith (1857) also described a new species from Borneo (Sarawak) with the same specific epithet as *Ponera apicalis* Smith, 1857 by original combination. It is also still used as a valid species name. Bolton (1995) transferred it to the genus *Pachycondyla* and cataloged it as a species.

Pachycondyla apicalis (Latreille, 1802) has priority over *Pachycondyla apicalis* (Smith, 1857). Thus, *Pachycondyla apicalis* (Smith, 1857) is illegitimate and consequently can not be correct. The name *Pachycondyla apicalis* (Smith, 1857) is a secondary junior homonym of the name *Pachycondyla apicalis* (Latreille, 1802). According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has only one synonym name as *terminalis* Smith, 1871 that is an unavailable name. So I propose for the

specific epithet *apicalis* (Smith, 1857) the replacement name *terminalis* nom. nov..

Etimology: After the unavailable name “*terminalis*” of Smith.

Summary of nomenclatural changes:

Species *Pachycondyla terminalis* nom. nov.

pro *Pachycondyla apicalis* (Smith, 1857) **syn. n.**, [nec *Pachycondyla apicalis* (Latreille, 1802)]

[orig. comb.: *Ponera apicalis* Smith, 1857 from Borneo]

Species *PACHYCONDYLA KARAWAIEWI* nom. nov.

Pachycondyla arcuata (Karawaiew, 1925). Ponerinen (Fam. Formicidae) aus dem Indo-Australischen Gebiet (Fortsetzung). Konowia, 4: 125. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Pachycondyla annamita arcuata* (Forel, 1900). Les formicides de l'Empire des Indes et de Ceylan. Part VII. Journal of the Bombay Natural History Society, 13: 322. (Hymenoptera: Vespoidea: Formicidae).

The names *Pachycondyla annamita arcuata* (Forel, 1900) and *Pachycondyla arcuata* (Karawaiew, 1925) were included in the family Formicidae.

The species group epithet *arcuata* was initially introduced by Forel (1900) with the original combination *Ectomomyrmex annamitus* var. *arcuatus* Forel, 1900 from India. It is still used as a valid subspecies name. Bolton (1995) cataloged it as a subspecies.

Subsequently, Karawaiew (1925) also described a new variety of *Euponera luteipes* from Tjibodas, Indonesia with the same species group epithet as *Euponera (Brachyponera) luteipes* var. *arcuata* Karawaiew, 1925 by original combination. It is also still used as a valid species name. Bolton (1995) transferred it to the genus *Pachycondyla* and cataloged it as a species.

Pachycondyla annamita arcuata (Forel, 1900) has priority over *Pachycondyla arcuata* (Karawaiew, 1925). Thus, *Pachycondyla arcuata* (Karawaiew, 1925) is illegitimate and consequently can not be correct. The name *Pachycondyla arcuata* (Karawaiew, 1925) is a secondary junior homonym of the name *Pachycondyla annamita arcuata* (Forel, 1900). According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the specific epithet *arcuata* (Karawaiew, 1925) the replacement name *karawaiewi* nom. nov..

Etimology: The name is dedicated to W. Karawaiew who is current author name of the preexisting species *Pachycondyla arcuata*.

Summary of nomenclatural changes:

Species *Pachycondyla karawaiewi* nom. nov.

pro *Pachycondyla arcuata* (Karawaiew, 1925) **syn. n.**, [nec *Pachycondyla annamita arcuata* (Forel, 1900)]

[orig. comb.: *Euponera (Brachyponera) luteipes* var. *arcuata* Karawaiew, 1925 from Indonesia]

Species *PACHYCONDYLA CRASSA* Emery, 1877

Subspecies *PACHYCONDYLA CRASSA GAMZEA* nom. nov.

Pachycondyla crassa ilgii Forel, 1910. Ameisen aus der Kolonie Erythraä. Gesammelt von Prof. Dr. K. Escherich (nebst einigen in West-Abessinien von Herrn A. Ilg gesammelten Ameisen). Zoologische Jahrbücher Abteilung für Systematik Ökologie und Geographie der Tiere, 29: 244. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Pachycondyla ilgii*

(Forel, 1894). Abessinische und andere afrikanische Ameisen, gesammelt von Herrn Ingenieur Alfred Ilg, von Herrn Dr. Liengme, von Herrn Pfarrer Missionar P. Berthoud, Herrn Dr. Arth. Müller, etc. Mitteilungen der Schweizerischen Entomologischen Gesellschaft, 9: 76. (Hymenoptera: Vespoidea: Formicidae).

The names *Pachycondyla ilgii* (Forel, 1894) and *Pachycondyla crassa ilgii* Forel, 1910 were included in the family Formicidae.

The specific epithet *ilgii* was initially introduced by Forel (1894) with the original combination *Ophthalmopone ilgii* Forel, 1894 from Ethiopia. It is still used as a valid species name. Bolton (1995) transferred it to the genus *Pachycondyla* and cataloged it as a species.

Subsequently, Forel (1910c) also described a new variety from W Ethiopia with the same species group epithet as *Pachycondyla (Bothroponera) crassa* var. *ilgii* Forel, 1910 by original combination. It is also still used as a valid subspecies name. Bolton (1995) cataloged it as a subspecies.

Pachycondyla ilgii (Forel, 1894) has priority over *Pachycondyla crassa ilgii* Forel, 1910. Thus, *Pachycondyla crassa ilgii* Forel, 1910 is illegitimate and consequently can not be correct. The name *Pachycondyla crassa ilgii* Forel, 1910 is a secondary junior homonym of the name *Pachycondyla ilgii* (Forel, 1894). According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the species group epithet *ilgii* Forel, 1910 the replacement name *gamzea* nom. nov..

Etimology: The name is dedicated to Gamze Köse (Turkey).

Summary of nomenclatural changes:

Species *Pachycondyla crassa* (Emery, 1877)

[orig. comb.: *Ponera crassa* Emery 1877 from Sciotel, Eritrea, Africa]

Subspecies *Pachycondyla crassa crassa* (Emery, 1877)

Subspecies *Pachycondyla crassa crassior* (Santschi, 1930)

[orig. comb.: *Bothroponera crassa* var. *crassior* Santschi, 1930 from E Africa]

Subspecies *Pachycondyla crassa gamzea* **nom. nov.**

pro *Pachycondyla crassa ilgii* Forel, 1910 **syn. n.**, [nec *Pachycondyla ilgii* (Forel, 1894)]

[orig. comb.: *Pachycondyla (Bothroponera) crassa* var. *ilgii* Forel, 1910 from W Ethiopia]

Species PACHYCONDYLA RUBRA (Smith, 1857)

Subspecies PACHYCONDYLA RUBRA MINIRUBRA nom. nov.

Pachycondyla rubra javana (Forel, 1905). Ameisen aus Java. Gesammelt von Prof. Karl Kraepelin, 1904. Jahrbuch der Hamburgischen Wissenschaftlichen Anstalten, 22: 6. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Pachycondyla javana* (Mayr, 1867). Adnotationes in monographiam formicidarum Indo-Neerlandicarum. Tijdschrift voor Entomologie, (2) 2 (10): 85. (Hymenoptera: Vespoidea: Formicidae).

The names *Pachycondyla javana* (Mayr, 1867) and *Pachycondyla rubra javana* (Forel, 1905) were included in the family Formicidae.

The specific epithet *javana* was initially introduced by Mayr (1867) with the original combination *Ectomomyrmex javanus* Mayr, 1867 from Java. It is still used as a valid species name. Bolton (1995) cataloged it as a species.

Subsequently, Forel (1905) also described a new variety from Buitenzorg, Java with the same species group epithet as *Euponera (Mesoponera) rubra* var. *javana* Forel, 1905 by original combination. It is also still used as a valid subspecies name. Bolton (1995) cataloged it as a subspecies.

Pachycondyla javana (Mayr, 1867) has priority over *Pachycondyla rubra javana* (Forel, 1905). Thus, *Pachycondyla rubra javana* (Forel, 1905) is illegitimate and consequently can not be correct. The name *Pachycondyla rubra javana* (Forel, 1905) is a secondary junior homonym of the name *Pachycondyla javana* (Mayr, 1867). According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the species group epithet *javana* (Forel, 1905) the replacement name *minirubra* nom. nov..

Etimology: After its body length shorter than the typical form.

Summary of nomenclatural changes:

Species *Pachycondyla rubra* (Smith, 1857)

[orig. comb.: *Ponera rubra* Smith, 1857 from Singapore]

Subspecies *Pachycondyla rubra rubra* (Smith, 1857)

Subspecies *Pachycondyla rubra minirubra* **nom. nov.**

pro *Pachycondyla rubra javana* (Forel, 1905) **syn. n.**, [nec *Pachycondyla javana* (Mayr, 1867)]

[orig. comb.: *Euponera* (*Mesoponera*) *rubra* var. *javana* Forel, 1905 from Java]

Species PACHYCONDYLA NEONIMBA nom. nov.

Pachycondyla nimba (Bernard, 1953). La reserve naturelle integrale du Mt Nimba. XI. Hymenopteres Formicidae. Memoires de l'Institut Français d'Afrique Noire, 19: 188. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Pachycondyla silvestrii nimba* (Bernard, 1953). La reserve naturelle integrale du Mt Nimba. XI. Hymenopteres Formicidae. Memoires de l'Institut Français d'Afrique Noire, 19: 190. (Hymenoptera: Vespoidea: Formicidae).

The names *Pachycondyla silvestrii nimba* (Bernard, 1953) and *Pachycondyla nimba* (Bernard, 1953) were included in the family Formicidae.

The species group epithet *nimba* was initially introduced by Bernard (1953: 188) with the original combination *Bothroponera silvestrii* r. *nimba* Bernard, 1953 from Nimba Mountains, W Africa. It is still used as a valid subspecies name. Bolton (1995) cataloged it as a species.

In the same work, Bernard (1953: 190) also described a new species from Nimba Mountains, W Africa with the same species group epithet as *Euponera* (*Mesoponera*) *nimba* Bernard, 1953 by original combination. It is also still used as a valid species name. Bolton (1995) transferred it to the genus *Pachycondyla* and cataloged it as a species.

Pachycondyla silvestrii nimba (Bernard, 1953: 188) has priority over *Pachycondyla nimba* (Bernard, 1953: 190). Thus, *Pachycondyla nimba* (Bernard, 1953) is illegitimate and consequently can not be correct. The name *Pachycondyla nimba* (Bernard, 1953) is a secondary junior homonym of the name *Pachycondyla silvestrii nimba* (Bernard, 1953). According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the specific epithet *nimba* (Bernard, 1953) the replacement name *neonimba* nom. nov..

Etimology: after the Latin prefix –neo (meaning “new” in English).

Summary of nomenclatural changes:

Species *Pachycondyla neonimba* **nom. nov.**

pro *Pachycondyla nimba* (Bernard, 1953) **syn. n.**, [nec *Pachycondyla silvestrii nimba* (Bernard, 1953)]

[orig. comb.: *Euponera (Mesoponera) nimba* Bernard, 1953 from W Africa]

Species *PACHYCONDYLA SUMATRANA* nom. nov.

Pachycondyla sculpturata (Karawaiew, 1925). Ponerinen (Fam. Formicidae) aus dem Indo-Australischen Gebiet (Fortsetzung). Konowia, 4: 122. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Pachycondyla pumicosa sculpturata* Santschi, 1912. Fourmis d'Afrique et de Madagascar. Annales de la Société Entomologique de Belgique, 56: 151. (Hymenoptera: Vespoidea: Formicidae).

The names *Pachycondyla pumicosa sculpturata* Santschi, 1912 and *Pachycondyla sculpturata* (Karawaiew, 1925) were included in the family Formicidae.

The species group epithet *sculpturata* was initially introduced by Santschi (1912) with the original combination *Pachycondyla (Bothroponera) sculpturata* Santschi, 1912 from Zambezia, Mozambique. It is still used as a valid subspecies name. Bolton (1995) cataloged it as a subspecies.

Subsequently, Karawaiew (1925) also described a new species from Sumatra with the same species group epithet as *Pachycondyla (Ectomomyrmex) sculpturata* Karawaiew, 1925 by original combination. It is also still used as a valid species name. Bolton (1995) cataloged it as a species.

Pachycondyla pumicosa sculpturata Santschi, 1912 has priority over *Pachycondyla sculpturata* (Karawaiew, 1925). Thus, *Pachycondyla sculpturata* (Karawaiew, 1925) is illegitimate and consequently can not be correct. The name *Pachycondyla sculpturata* (Karawaiew, 1925) is a secondary junior homonym of the name *Pachycondyla pumicosa sculpturata* Santschi, 1912. According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the specific epithet *sculpturata* (Karawaiew, 1925) the replacement name *sumatrana* nom. nov..

Etymology: The name is dedicated to the type locality of the preexisting species *Pachycondyla sculpturata*.

Summary of nomenclatural changes:

Species *Pachycondyla sumatrana* nom. nov.

pro *Pachycondyla sculpturata* (Karawaiew, 1925) **syn. n.**, [nec *Pachycondyla pumicosa sculpturata* Santschi, 1912]

[orig. comb.: *Pachycondyla (Ectomomyrmex) sculpturata* Karawaiew, 1925 from Sumatra]

Species *PACHYCONDYLA TARSATA* (Fabricius, 1798)

Subspecies *PACHYCONDYLA TARSATA KAYA* nom. nov.

Pachycondyla tarsata striata (Santschi, 1930). Description de formicides éthiopiens nouveaux ou peu connus. V. Bulletin et Annales de la Société Entomologique de Belge, 70: 53. (Hymenoptera: Vespoidea: Formicidae). Preoccupied by *Pachycondyla striata* Smith, 1858. Catalogue of the hymenopterous insects in the collection of the British Museum. Part VI. Formicidae. London. p. 106. (Hymenoptera: Vespoidea: Formicidae).

The names *Pachycondyla striata* Smith, 1858 and *Pachycondyla tarsata striata* (Santschi, 1930) were included in the family Formicidae.

The specific epithet *striata* was initially introduced by Smith (1858) with the original combination *Pachycondyla striata* Smith, 1858 from Rio. It is still used as a valid species name. Bolton (1995) cataloged it as a species.

Subsequently, Santschi (1930) also described a new variety from Dahomey, Ethiopia with the same species group epithet as *Paltothyreus tarsatus* var.

striatus Santschi, 1930 by original combination. It is also still used as a valid subspecies name. Bolton (1995) cataloged it as a subspecies.

Pachycondyla striata Smith, 1858 has priority over *Pachycondyla tarsata striata* (Santschi, 1930). Thus, *Pachycondyla tarsata striata* (Santschi, 1930) is illegitimate and consequently can not be correct. The name *Pachycondyla tarsata striata* (Santschi, 1930) is a secondary junior homonym of the name *Pachycondyla striata* Smith, 1858. According to Article 60 of the International Code of Zoological Nomenclature (1999), it must be rejected and replaced. It has no synonym. So I propose for the species group epithet *striata* (Santschi, 1930) the replacement name *kaya* nom. nov..

Etimology: The name is dedicated to Gamze Kaya (Turkey).

Summary of nomenclatural changes:

Species *Pachycondyla tarsata* (Fabricius, 1798)

[orig. comb.: *Formica tarsata* Fabricius, 1798 from Africa]

Subspecies *Pachycondyla tarsata delagoensis* (Emery, 1899)

[orig. comb.: *Paltothyreus tarsatus* var. *delagoensis* Emery, 1899 from Delagoa Bay, (Africa)]

Subspecies *Pachycondyla tarsata kaya* **nom. nov.**

pro *Pachycondyla tarsata striata* (Santschi, 1930) **syn. n.**, [nec *Pachycondyla striata* Smith, 1858]

[orig. comb.: *Paltothyreus tarsatus* var. *striatus* Santschi, 1930 from Dahomey, Ethiopia (Africa)]

Subspecies *Pachycondyla tarsata mediana* (Santschi, 1919)

[orig. comb.: *Paltothyreus tarsatus* var. *mediana* Santschi, 1919 from Congo, Cameroon (Africa)]

Subspecies *Pachycondyla tarsata robusta* (Santschi, 1919)

[orig. comb.: *Paltothyreus tarsatus* var. *robusta* Santschi, 1919 from Somalia (Africa)]

Subspecies *Pachycondyla tarsata striatidens* (Santschi, 1919)

[orig. comb.: *Paltothyreus tarsatus* var. *striatidens* Santschi, 1919 from Kibwey (E Africa)]

Subspecies *Pachycondyla tarsata subopaca* (Santschi, 1919)

[orig. comb.: *Paltothyreus tarsatus* var. *subopaca* Santschi, 1919 from Gabon (Africa)]

Subspecies *Pachycondyla tarsata tarsata* (Fabricius, 1798)

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