

'Aculeates' – the aculeate Hymenoptera

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Distribution data are taken from BWARS atlases (Edwards, 1997, 1998, Edwards & Telfer, 2001, 2002, Edwards & Broad, 2005, 2006, Edwards & Roy, 2009, Collins & Roy, 2012), with some Irish records from O'Connor *et al.* (2009); additional references are given. Synonymies for known introductions have been kept to a minimum.

Superfamily **APOIDEA** Latreille, 1802¹

Family **Crabronidae** Latreille, 1802

Subfamily **ASTATINAE** Lepeletier, 1845

ASTATA Latreille, 1796

DIMORPHA Panzer, 1806

boops (Schrank, 1781, *Sphex*) E

abdominalis (Panzer, 1798, *Tiphia*)

pompiliformis (Panzer, 1804, *Larra*)

oculata (Jurine, 1807, *Dimorpha*)

victor Curtis, 1829

vanderlindenii Robert, 1833

agilis Smith, 1875

DRYUDELLA Spinola, 1843

pinguis (Dahlbom, 1832, *Larra*) E S W

stigma misident.

pinguis (Zetterstedt, 1838, *Larra*) preocc.

jaculator (Smith, 1845, *Astata*)

Subfamily **BEMBICINAE** Latreille, 1802

Tribe **ALYSSONTINI** Dalla Torre, 1897

DIDINEIS Wesmael, 1852

lunicornis (Fabricius, 1798, *Pompilus*) E

kenedii (Curtis, 1836, *Alyson*)

Tribe **BEMBICINI** Latreille, 1802

ARGOGORYTES Ashmead, 1899

fargeii (Shuckard, 1837, *Gorytes*) E W

campestris misident.

mongolensis Tsuneki, 1971

przewalskyi Kazenas, 1971

mystaceus (Linnaeus, 1761, *Sphex*) E S W I

campestris (Linnaeus, 1761, *Vespa*)

inimica (Harris, 1776, *Vespa*)

longicornis (Rossi, 1790, *Sphex*)

bicinctus (Fabricius, 1793, *Crabro*)

arpactus (Fabricius, 1804, *Mellinus*)

flavicincta (Donovan, 1808, *Vespa*)

croceipes (Eversmann, 1849, *Gorytes*)

tonsus (Bondroit, 1933, *Gorytes*)

GORYTES Latreille, 1805

ARPACTUS Panzer, 1805

EUZONIA Stephens, 1829

EUSPONGUS Lepeletier, 1832

HOPLISUS Lepeletier, 1832

LAEVIGORYTES Zavadil, 1948

¹ The higher-level classification of the Apoidea follows Pulawski (2013) and Engel (2005). The 'traditional' family Sphecidae is paraphyletic with respect to the bee families (here referred to as the Anthophila, an informal taxon, following Engel, 2005) and in Britain and Ireland comprises the families Crabronidae and Sphecidae. Species-level classification of Crabronidae and Sphecidae follows Pulawski (2013).

laticinctus (Lepeletier, 1832, *Euspongia*) E W
quadrifasciatus (Fabricius, 1804, *Mellinus*) E W
vicinus (Lepeletier, 1832, *Euspongia*)
montivagus (Mocsáry, 1878, *Hoplisis*)

HARPACTUS Shuckard, 1837
ARPACTUS Jurine, 1807 preocc.
HARPACTES Dahlbom, 1843
DIENOPLUS Fox, 1893

tumidus (Panzer, 1801, *Pompilus*) E S W I M
japonensis (Tsuneki, 1963, *Dienoplus*)
transiliensis Kazenas, 1989

LESTIPHORUS Lepeletier, 1832
HYPOMELLINUS Asmead, 1899
MELLINOASTRA Asmead, 1899
bicinctus (Rossi, 1794, *Crabro*) E

Tribe NYSSONINI Latreille, 1804

NYSSON Latreille, 1796
SYNNEVRUS Costa, 1859
dimidiatus Jurine, 1807 E W
wesmaeli Lepeletier, 1845
distinguendus Chevrier, 1867
interruptus (Fabricius, 1798, *Mellinus*) E
spinus (Fabricius, 1804, *Ceropales*)
panzeri Lepeletier, 1845
shukardi Wesmael, 1852
spinus (Forster, 1771, *Sphex*) E S W I
?bidens (Linnaeus, 1767, *Vespa*)
spinus (Fabricius, 1775, *Crabro*) preocc.
tricinctus (Fabricius, 1793, *Mellinus*)
trilineata (Turton, 1802, *Vespa*)
geniculatus Lepeletier, 1845
malasei Gussakovskij, 1932
trimaculatus (Rossi, 1790, *Crabro*) E W

Subfamily CRABRONINAE Latreille, 1802

Tribe CRABRONINI Latreille, 1802

CRABRO Fabricius, 1775
THYREOPUS Lepeletier & Brullé, 1835
ANOTHYREUS Dahlbom, 1845
THYREOCNEMUS Costa, 1871
PARANOTHYREUS Ashmead, 1899
SYNOTHYREOPUS Ashmead, 1899
AGNOSICRABRO Pate, 1944
DYSCOLOCRABRO Pate, 1944
HEMITHYREOPUS Pate, 1944
NORUMBEGA Pate, 1947
PARANOTHYREUS Pate, 1944
PARATHYREOPUS Pate, 1944
PEMPHILIS Pate, 1944
OTHYREUS Marshakov, 1977
cribrarius (Linnaeus, 1758, *Vespa*) E S W M
patellarius (Schreber, 1784, *Sphex*)
argus (Christ, 1791, *Sphex*)
longa (Christ, 1791, *Sphex*)
lunatus (Christ, 1791, *Sphex*)
palmaris Panzer, 1797
inornatus Mocsáry, 1901
hypotheticus Kokujev, 1927
peltarius (Schreber, 1784, *Sphex*) E S W I M
patellatus Panzer, 1797
dentipes Panzer, 1797

mediatus Fabricius, 1798

scutellatus (von Scheven, 1781, *Sphex*) E
scutularius (Schreber, 1784, *Sphex*)
pterotus Panzer, 1801
reticulatus (Lepeletier & Brullé, 1835, *Ceratocolus*)

CROSSOCERUS Lepeletier & Brullé, 1835
subgenus **ABLEPHARIPUS** Perkins, 1913
congener (Dahlbom, 1844, *Crabro*) E added by Archer (2007)²
podagricus (Vander Linden, 1829, *Crabro*) E W
vicinus Dahlbom, 1842
punctata Šnoflak, 1948
snoflaki Zavadil, 1948

subgenus **ACANTHOCRABRO** Perkins, 1913
CORENOCRABRO Tsuneki, 1974
vagabundus (Panzer, 1798, *Crabro*) E W
varus (Panzer, 1799, *Crabro*) preocc.
bojus (Schrank, 1802, *Crabro*)
quinquemaculatus (Lepeletier & Brullé, 1835, *Blepharipus*)
lefebvrei Lepeletier & Brullé, 1835
fasciatus (Costa, 1871, *Crabro*)
esakii (Yasumatsu, 1942, *Crabro*)
ectemiformis (Tsuneki, 1974, *Corenocrabro*)

subgenus **BLEPHARIPUS** Lepeletier & Brullé, 1835
COELOCRABRO Thomson, 1874
annulipes (Lepeletier & Brullé, 1835, *Blepharipus*) E S W
gonager (Lepeletier & Brullé, 1835, *Blepharipus*)
nigritus (Gimmerthal, 1836, *Crabro*)
ambiguus (Dahlbom, 1842, *Crabro*)
capito (Dahlbom, 1845, *Crabro*)
parkeri (Banks, 1921, *Blepharipus*)
davisoni (Sandhouse, 1938, *Crabro*)
capitosus (Shuckard, 1837, *Crabro*) E S W I
annulus (Dahlbom, 1838, *Crabro*)
yezo Tsuneki, 1960
cetratus (Shuckard, 1837, *Crabro*) E W I
vanderlinden (Dahlbom, 1838, *Crabro*)
dilatatus (Herrich-Schäffer, 1841, *Crabro*)
inornatus (Matsumura, 1912, *Crabro*)
dentsukanus Tsuneki, 1976
leucostomus (Linnaeus, 1758, *Sphex*) E S
carbonarius (Dahlbom, 1838, *Crabro*)
rugosus (Herrich-Schäffer, 1841, *Crabro*)
melanarius (Wesmael, 1852, *Crabro*)
cinctipes (Provancher, 1882, *Blepharipus*)
niger (Provancher, 1888, *Crabro*)
nigror (Fox, 1895, *Crabro*)
servus (Dalla Torre, 1897, *Crabro*)
cinctitarsis (Ashmead, 1901, *Stenocrabro*)
columbiae (Bradley, 1906, *Blepharipus*)
stygius (Mickel, 1916, *Thyreopus*)
utensis (Mickel, 1916, *Thyreopus*)
megacephalus (Rossi, 1790, *Crabro*) E S W I M
leucostoma misident.
bidens (Haliday, 1833, *Crabro*)
niger Lepeletier & Brullé, 1835
rufipes Lepeletier & Brullé, 1835
laeviceps (Smith, 1856, *Crabro*)
bison (Costa, 1884, *Crabro*)
?zaidamensis (Radoszkowski, 1887, *Crabro*)
leucostomoides (Richards, 1935, *Coelocrabro*)
nigritus (Lepeletier & Brullé, 1835, *Blepharipus*) E W
pubescens (Shuckard, 1837, *Crabro*)

² Based on pers. comm. from D. Baldock.

diversipes Herrich-Schäffer, 1841
inermis (Thomson, 1870, *Crabro*)
melanogaster Kohl, 1880
nigricornis (Provancher, 1888, *Blepharipus*)
sambucicola (Verhoeff, 1891, *Crabro*)
verhoeffi Tsuneki, 1967
sudai Tsuneki, 1976
babai Tsuneki, 1979

styrius (Kohl, 1892, *Crabro*) E
pauxillus (Gussakovskij, 1932, *Crabro*)
sugiharai (Iwata, 1938, *Crabro*)
pilicornis Tsuneki, 1977
walkeri (Shuckard, 1837, *Crabro*) E S W
aphidium misident.
geniculatus (Shuckard, 1837, *Crabro*)
clypearis (Schenck, 1857, *Crabro*)
cloevorax (Nielson, 1901, *Crabro*)

subgenus **CROSSOCERUS** Lepeletier & Brullé, 1835

STENOCRABRO Ashmead, 1899
ISCHNOLYNTHUS Holmberg, 1903

distinguendus (Morawitz, 1866, *Crabro*) E added by Packer (1981)
mucronatus (Thomson, 1870, *Crabro*)

elongatulus (Vander Linden, 1829, *Crabro*)³ E S W M

annulatus Lepeletier & Brullé, 1835
varipes Lepeletier & Brullé, 1835
affinis Lepeletier & Brullé, 1835
luteipalpis Lepeletier & Brullé, 1835
morio Lepeletier & Brullé, 1835
pallidipalpis Lepeletier & Brullé, 1835
proximus (Shuckard, 1837, *Crabro*)
hyalinus (Shuckard, 1837, *Crabro*)
transversalis (Shuckard, 1837, *Crabro*)
obliquus (Shuckard, 1837, *Crabro*)
propinquus (Shuckard, 1837, *Crabro*)
brevis (Eversmann, 1849, *Crabro*)
scutellaris (Smith, 1851, *Crabro*)
sulcus (Fox, 1895, *Crabro*)
plesius (Rohwer, 1912, *Stenocrabro*)
berlandi (Richards, 1928, *Crabro*)

exiguus (Vander Linden, 1829, *Crabro*) E
aphidium Lepeletier & Brullé, 1835

ovalis Lepeletier & Brullé, 1835 E S W
punctum (Zetterstedt, 1838, *Crabro*)
anxius (Wesmael, 1852, *Crabro*)
shuckardi (Smith, 1856, *Crabro*)
ovatus (Schulz, 1906, *Crabro*)

palmipes (Linnaeus, 1767, *Sphex*) E S M
palmarius (Schreber, 1784, *Sphex*)
scutatus (Fabricius, 1787, *Crabro*)
ornatus Lepeletier & Brullé, 1835
scutellaris (Gimmerthal, 1836, *Crabro*)
gracilis (Eversmann, 1849, *Crabro*)
decoratus (Smith, 1856, *Crabro*)

tarsatus (Shuckard, 1837, *Crabro*) E S W I M
palmipes misident.

palmatus De Stefani Perez, 1884 preocc,

varus Lepeletier & Brullé, 1835 *nomen protectum* E S W I M
varius misspelling
pusillus Lepeletier & Brullé, 1835
striatulus Lepeletier & Brullé, 1835
spinipectus (Shuckard, 1837, *Crabro*)
striatus Lepeletier, 1845
intricatus (Smith, 1856, *Crabro*)

³ The British population is considered to belong to the subspecies *annulatus* Lepeletier & Brullé (synonyms: *proximus*, *hyalinus*, *transversalis*, *obliquus*, *propinquus*, *berlandi*).

lepeletieri (Smith, 1856, *Crabro*)

wesmaeli (Vander Linden, 1829, *Crabro*) E S W I

maurus (Lepeletier & Brullé, 1835, *Ceratocolus*)

ziegleri (Lepeletier & Brullé, 1835, *Ceratocolus*)

subgenus **CUPHOPTERUS** Morawitz, 1866

binotatus Lepeletier & Brullé, 1835 E W

signatus (Panzer, 1798, *Crabro*) preocc.

monstrosus (Dahlbom, 1845, *Crabro*)

confusus (Schulz, 1906, *Crabro*)

dimidiatus (Fabricius, 1781, *Crabro*) E S W I

subpunctatus (Rossi, 1790, *Crabro*)

sexmaculatus (Olivier, 1792, *Crabro*)

signatus (Olivier, 1792, *Crabro*)

serripes (Panzer, 1797, *Crabro*)

notatus (Illiger, 1807, *Crabro*)

pauperatus (Lepeletier & Brullé, 1835, *Blepharipus*)

armipes (von Sebold, 1844, *Crabro*)

subgenus **HOPLOCRABRO** Thomson, 1874

quadrimaculatus (Fabricius, 1793, *Crabro*) E S W I

quadripunctatus (Fabricius, 1793, *Crabro*)

murorum (Latreille, 1805, *Crabro*)

levipes (Vander Linden, 1829, *Crabro*)

bimaculatus Lepeletier & Brullé, 1835

uniquemaculatus (Dahlbom, 1838, *Crabro*)

rotundarius (Dahlbom, 1838, *Crabro*)

ECTEMNIUS Dahlbom, 1845

subgenus **CLYTOCHRYSUS** Morawitz, 1864

cavifrons (Thomson, 1870, *Crabro*) E S W I M

cephalotes misident.

lapidarius (Panzer, 1804, *Crabro*) E S W I M

?*cinctus* (Spinola, 1806, *Crabro*)

chrystomus (Lepeletier & Brullé, 1835, *Crabro*)

comptus (Lepeletier & Brullé, 1835, *Crabro*)

xylurgus (Shuckard, 1837, *Crabro*)

interstinctus (Smith, 1856, *Crabro*)

obscurus (Smith, 1856, *Crabro*)

gracilissimus (Packard, 1866, *Crabro*)

denticulatus (Packard, 1866, *Crabro*)

effosus (Packard, 1866, *Crabro*)

papagorum (Viereck, 1908, *Crabro*)

ruficornis (Zetterstedt, 1838, *Crabro*) E W

aurilabris (Herrich-Schäffer, 1841, *Crabro*)

nigrifrons (Cresson, 1865, *Crabro*)

contiguus (Cresson, 1865, *Crabro*)

septentrionalis (Packard, 1866, *Crabro*)

planifrons (Thomson, 1870, *Crabro*)

longipalpis (Verhöff, 1892, *Crabro*)

lineatotarsis (Matsumura, 1911, *Crabro*)

chipsani (Matsumura, 1912, *Crabro*)

sexcinctus (Fabricius, 1775, *Crabro*) E W

planifrons misident.

quadricinctus (Fabricius, 1787, *Crabro*)

interruptefasciatus (Retzius, 1783, *Sphex*)

tibialis (Olivier, 1792, *Crabro*)

8 maculata (Preyssler, 1793, *Crabro*)

zonatus (Panzer, 1797, *Crabro*)

vespiformis (Panzer, 1798, *Crabro*)

octomaculatus (Schrank, 1802, *Crabro*)

cinctus (Spinola, 1806, *Crabro*)

flavipes (Lepeletier & Brullé, 1835, *Crabro*)

tetraedrus (Blanchard, 1940, *Crabro*)

saundersi (Perkins, 1899, *Crabro*)

yosemite Pate, 1946

subgenus **ECTEMNIUS** Dahlbom, 1845

borealis (Zetterstedt, 1838, *Crabro*) E

bipunctatus (Zetterstedt, 1838, *Crabro*)

nigrinus (Herrich-Schäffer, 1841, *Crabro*)

parvulus (Packard, 1866, *Crabro*)

gredleri (Kohl, 1878, *Lindenius*)

proletarius (Mickel, 1916, *Crabro*)

dives (Lepeletier & Brullé, 1835, *Solenius*) E W

octonotatus (Lepeletier & Brullé, 1835, *Solenius*)

octavonotatus (Lepeletier & Brullé, 1835, *Solenius*)

alatulus (Dahlbom, 1838, *Crabro*)

pictipes (Herrich-Schäffer, 1841, *Crabro*)

auratus (Smith, 1856, *Crabro*)

montanus (Cresson, 1865, *Crabro*) preocc.

cristatus (Packard, 1866, *Crabro*)

cubiceps (Packard, 1866, *Crabro*)

heraclei (Rohwer, 1908, *Crabro*)

montivagans (Strand, 1916, *Crabro*)

subgenus **HYPOCRABRO** Ashmead, 1899

XESTOCRABRO Ashmead, 1899

continuus (Fabricius, 1804, *Crabro*) E S W I

vagus misident.

sexmaculatus (Say, 1824 *Crabro*) preocc.

fuscitarsis (Herrich-Schäffer, 1841, *Crabro*)

vagatus (Smith, 1869, *Crabro*)

pumilus (Costa, 1871, *Crabro*)

granulatus (Walker, 1871, *Crabro*)

rugopunctatus (Taschenberg, 1875, *Crabro*)

validus (De Stefani Perez, 1884, *Crabro*)

bizexmaculatus (Viereck, 1910, *Crabro*)

sayi (Cockerell, 1910, *Crabro*)

giffardi (Rohwer, 1917, *Solenius*)

rubicola (Dufour & Perris, 1840, *Solenius*) E W

microstictus (Herrich-Schäffer, 1841, *Crabro*)

larvatus (Wesmael, 1852, *Crabro*)

pumilus (Costa, 1871, *Crabro*)

subgenus **METACRABRO** Ashmead, 1899

cephalotes (Olivier, 1792, *Crabro*) E S W I

quadricinctus misident.

floralis (Olivier, 1792, *Crabro*)

geniculatus (Olivier, 1792, *Crabro*)

tibialis (Olivier, 1792, *Crabro*)

?*cephalotes* (Panzer, 1799, *Crabro*)

striatus (Lepeletier & Brullé, 1835, *Crabro*)

ornatus (Lepeletier & Brullé, 1835, *Crabro*)

striatulus (Lepeletier & Brullé, 1835, *Blepharipus*)

lindenius (Shuckard, 1837, *Crabro*)

shuckardi (Dahlbom, 1838, *Crabro*)

interruptus (Dahlbom, 1845, *Crabro*) preocc.

fargeii (Smith, 1856, *Crabro*)

aciculatus (Provancher, 1882, *Crabro*)

ruthenicus (Morawitz, 1892, *Crabro*)

litoratus (Panzer, 1805, *Crabro*) E W

petiolatus (Lepeletier & Brullé, 1835, *Solenius*)

fasciatus (Lepeletier & Brullé, 1835, *Ceratocolus*)

reticulatus (Lepeletier & Brullé, 1835, *Ceratocolus* [*lapsus*])

kollari (Dahlbom, 1845, *Crabro*)

argenteus (Schenck, 1857, *Crabro*)

vestitus (Smith, 1858, *Crabro*)

intermedius (Morawitz, 1866, *Crabro*)

luxuriosus (Costa, 1871, *Crabro*)

ENTOMOGNATHUS Dahlbom, 1844

KOXINGA Pate, 1944

MASHONA Pate, 1944

TONCAHUA Pate, 1944

FLORKINUS Leclercq, 1956

BIHARGNATHUS Leclercq, 1977

brevis (Vander Linden, 1829, *Crabro*) E W

apicalis (Lepeletier & Brullé, 1835, *Lindenius*)

nasutus (Gribodo, 1884, *Lindenius*)

LESTICA Billberg, 1820

subgenus **CLYPEOCRABRO** Richards, 1935

THYREUS Lepeletier & Brullé, 1835 preocc.

clypeata (Schreber, 1759, *Apis*) E

ovata (Christ, 1791, *Sphex*)

vexillata (Panzer, 1797, *Crabro*)

lapidaria (Fabricius, 1804, *Crabro*) preocc.

clypeata (Thunberg, 1815, *Philanthus*)

nigridens (Herrich-Schäffer, 1841, *Crabro*)

quadrifer (Dufour, 1841, *Crabro*)

LINDENIUS Lepeletier & Brullé, 1835

CHALCOLAMPRUS Wesmael, 1852

TRACHELOSIMUS Morawitz, 1866

albilabris (Fabricius, 1793, *Crabro*) E S W

aenescens (Dahlbom, 1838, *Crabro*)

panzeri (Vander Linden, 1829, *Crabro*) E

venustus Lepeletier & Brullé, 1835

latebrosus (Kohl, 1905, *Crabro*)

harbinensis Tsuneki, 1967

mongolicus Tsuneki, 1972

pygmaeus (Rossi, 1794, *Crabro*)⁴ E

curtus Lepeletier & Brullé, 1835

kratochvili (Šnoflak, 1948, *Crabro*)

RHOPALUM Stephens, 1829

subgenus **RHOPALUM** Stephens, 1829

EUPLILIS Risso, 1826 nom. ob.

PHYSOSCELUS Lepeletier & Brullé, 1835

clavipes (Linnaeus, 1758, *Sphex*) E S W I M

rufiventris (Panzer, 1799, *Crabro*)

subgenus **CORYNOPUS** Lepeletier & Brullé, 1835

DRYPHUS Herrich-Schäffer, 1840

ALLIOGNATHUS Ashmead, 1899

coarctatum (Scopoli, 1763, *Sphex*) E S W I

crassipes (Fabricius, 1798, *Crabro*)

tibiale (Fabricius, 1798, *Crabro*) preocc.

modestum Rohwer, 1908

gracile Wesmael, 1852 E

nigrinum Kiesenwetter, 1849 preocc.

kiesenwetteri (Morawitz, 1866, *Crabro*)

simplicipes (Morawitz, 1888, *Corynopus*)

Tribe LARRINI Latreille, 1810

TACHYSPHEX Kohl, 1883

SCHISTOSPHEX Arnold, 1922

ATELOSPHEX Arnold, 1923

nitidus (Spinola, 1805, *Astata*) E W M added by Edwards (1998)⁵

unicolor misident.

ibericus (de Saussure, 1867, *Tachytes*)

obscuripennis (Schenck, 1857, *Tachytes*) E⁶

lativalvis (Thomson, 1870, *Tachytes*)

pompiliiformis (Panzer, 1805, *Larra*) E S W I M

pectinipes misident.

⁴ Represented by the subspecies *armatus* (Vander Linden, 1829, *Crabro*).

⁵ Earlier records of *unicolor* mostly refer to *nitidus*.

⁶ Only recorded as a vagrant in Deal, Kent; resident on the Channel Isles, which lie outside of the geographical coverage of this checklist.

nigripennis (Spinola, 1808, *Tachytes*)
dimidiata (Panzer, 1809, *Larra*)
jokischiana (Panzer, 1809, *Larra*)
parvula (Cresson, 1865, *Larrada*)
quebecensis (Provancher, 1882, *Larra*)
decorus Fox, 1894
tenuipunctus Fox, 1894
consimilis Fox, 1894
rufoniger Bingham, 1897
projectus Nurse, 1903
argyrotrichus Rohwer, 1911
granulosus Mickel, 1916
erythraeus Mickel, 1916
angularis Mickel, 1916
unicolor (Panzer, 1809, *Larra*) E
nitidus misident.
jurinii (Drapiez, 1819, *Larra*)

Tribe MISCOPHINI Fox, 1894

MISCOPHUS Jurine, 1807

NITELOPTERUS Ashmead, 1897
HYPOMISCOPHUS Cockerell, 1898
MISCOPHINUS Ashmead, 1898

ater Lepeletier, 1845 E

maritimus Smith, 1858

bicolor Jurine, 1807 E

dubius (Panzer, 1809, *Larra*)
metallicus Verhöf, 1890
tsunekii de Andrade, 1960

added by Knowles & Else (2006)

concolor Dahlbom, 1844 E

bicolor misident.
moravicus Balthazar, 1957

NITELA Latreille, 1809

TENILA Brèthes, 1913
RHINONITELA Williams, 1928

borealis Valkeila, 1974 E

added by Felton (1987)

lucens Gayubo & Felton, 2000 E

added by Felton (1987)

spinolae misident.⁷

Tribe OXYBELINI Leach, 1815

OXYBELUS Latreille, 1796

NOTOGLOSSA Dahlbom, 1845
ALEPIDASPIS Costa, 1882
ANOXYBELUS Kohl, 1924
GONIOXYBELUS Pate, 1937
ORTHOXYBELUS Pate, 1937
LATROXYBELUS Noskiewicz & Chudoba, 1950

argentatus Curtis, 1833 E W

mucronatus misident.
 ?*decimmaculata* (Donovan, 1806, *Vespa*)
ferox Shuckard, 1837
nigricornis Shuckard, 1837

mandibularis Dahlbom, 1845 E S W M

sericatus Gerstäcker, 1867

uniglumis (Linnaeus, 1758, *Vespa*) E S W I M

punctata (Fabricius, 1793, *Nomada*)
tridens (Fabricius, 1798, *Crabro*)
 ?*decimmaculata* (Donovan, 1806, *Vespa*)
pygmaeus Olivier, 1812
quadrinotatus Say, 1824
impatiens Smith, 1856

⁷ Recorded initially as *Nitela spinolae* Latreille, 1809 (Felton, 1987) but described later as a new species (Gayubo & Felton, 2000).

interruptus Cresson, 1865
fallax Gerstäcker, 1867
brodiei Provancher, 1883
hispanicus Giner Marí, 1943

Tribe TRYPOXYLINI Lepeletier, 1845

TRYPOXYLON Latreille, 1796

APIUS Panzer, 1806
APIUS Jurine, 1807 preocc.
TRYPARGILUM Richards, 1934
ASACONOTON Arnold, 1959

attenuatum Smith, 1851 E S W I

clavicerum Lepeletier & Serville, 1828 E W I

tibiale Zetterstedt, 1840
batumicum Antropov, 1985

figulus (Linnaeus, 1758, *Sphex*) E W

fuliginosa (Scopoli, 1763, *Sphex*)
apicale Fox, 1891
yezo Tsuneki, 1956
barbarum de Beaumont, 1957
fieuzeti Giner Marí, 1959

medium de Beaumont, 1945 E S W

added by Pulawski (1984)

minus de Beaumont, 1945 E

added by Felton (1988)

koma Tsuneki, 1956

Subfamily DINETINAE Fox, 1895

DINETUS Panzer, 1806

DINETUS Jurine, 1807 preocc.

pictus (Fabricius, 1793, *Crabro*) E

guttatus (Fabricius, 1793, *Sphex*) preocc.

Subfamily MELLININAE Latreille, 1802

MELLINUS Fabricius, 1790

arvensis (Linnaeus, 1758, *Vespa*) E S W I M

vagus (Linnaeus, 1758, *Sphex*)
superbus (Harris, 1776, *Vespa*)
tricinctus (Schrank, 1781, *Vespa*)
clavatus (Retzius, 1783, *Sphex*)
?infundibuliformis (Geoffroy, 1785, *Vespa*)
?petiolatus (Geoffroy, 1785, *Vespa*)
bipunctatus (Fabricius, 1787, *Crabro*)
?gibbus (Villers, 1789, *Sphex*) preocc.
melanostictus (Gmelin, 1790, *Vespa*)
?arthriticus (Rossi, 1790, *Crabro*)
?rachiticus (Rossi, 1790, *Crabro*)
annularis (Christ, 1791, *Sphex*)
succinctus (Olivier, 1792, *Vespa*)
diversus (Olivier, 1792, *Vespa*)
labiatus (Olivier, 1792, *Crabro*)
quinquemaculatus (Fabricius, 1793, *Philanthus*)
u-flavum (Panzer, 1794, *Crabro*)
capistratus (Schrank, 1796, *Crabro*)
pratensis Jurine, 1807
compactus Handlirsch, 1888

crabroneus (Thunberg, 1791, *Sphex*) E W

sabulosus (Fabricius, 1787, *Crabro*) preocc.
ruficornis (Villers, 1789, *Sphex*) preocc.
sabulosus (Olivier, 1792, *Crabro*) preocc.
ruficornis Fabricius, 1793 preocc.
frontalis (Panzer, 1797, *Crabro*)
petiolatus (Panzer, 1797, *Crabro*)
fulvicornis Fabricius, 1804

Subfamily PEMPHREDONINAE Dahlbom, 1835

Tribe PEMPHREDONINI Dahlbom, 1835

DIODONTUS Curtis, 1834

XYLOCELIA Rohwer, 1915

NEODIODONTUS Tsuneki, 1972

CORENIUS Tsuneki, 1974

insidiosus Spooner, 1938 E

friesei misident.

luperus Shuckard, 1837 E W

minutus (Fabricius, 1793, *Crabro*) E W M

franclemonti Krombein, 1939

tristis (Vander Linden, 1829, *Pemphredon*) E S W

PASSALOECUS Shuckard, 1837

XYLOECUS Shuckard, 1837

COELOECUS Verhöff, 1890

HEROECUS Verhöff, 1890

clypealis Faester, 1947 E

angustus Gussakovskij, 1952

corniger Shuckard, 1837 E W

eremita Kohl, 1893 E

added by Richards (1980)

gracilis (Curtis, 1834, *Diodontus*) E

insignis misident.

turionum misident.

brevicornis Morawitz, 1864

insignis (Vander Linden, 1829, *Pemphredon*) E W

roettgeni Verhöff, 1890

shuckardi Yasumatsu, 1934

monilicornis Dahlbom, 1842 E S W I

singularis Dahlbom, 1844 E W

gracilis misident.

tenuis Morawitz, 1864

gertrudis Krombein, 1938

turionum Dahlbom, 1844 E

added by Guichard (2002)

PEMPHREDON Latreille, 1796⁸

CEMONUS Panzer, 1806

DINEURUS Westwood, 1837

CERATOPHORUS Shuckard, 1837

DIPHLEBUS Westwood, 1840

CHEVRIERIA Kohl, 1883

SUSANOWO Tsuneki, 1972

austriaca (Kohl, 1888, *Diphlebus*) E

enslini misident.⁹

coracina Valkeila, 1972

tener Valkeila, 1972

nescia Merisuo, 1972

inornata Say, 1824 E S W I

shuckardi (Morawitz, 1864, *Cemonus*)

dentata (Puton, 1871, *Cemonus*)

tenax Fox, 1829

lethifer (Shuckard, 1837, *Cemonus*) E S W I M

lethifera misspelling

austriaca misident.

strigatus (Chevrier, 1870, *Cemonus*)

fabricii (Müller, 1911, *Cemonus*)

fuscatus (Wagner, 1918, *Diphlebus*)

littoralis (Wagner, 1918, *Diphlebus*)

neglectus (Wagner, 1918, *Diphlebus*)

minutus (Wagner, 1918, *Diphlebus*)

enslini Wagner, 1931

brevipetiolata Wagner, 1932

⁸ Taxonomy follows Dollfuss (1995).

⁹ Richards (1980) refers to this species as *Pemphredon enslini* (Wagner, 1932, *Dineurus*). There has been much confusion over the identities of these taxa (see Knowles in Collins & Roy, 2012) but Pulawski (2013) treats *austriaca* and *enslini* as separate species.

platyura Gussakovskij, 1952
minor Gussakovskij, 1952
levinota Merisuo, 1972
nannophyes Merisuo, 1972
dispar Valkeila, 1972
gemina Valkeila, 1972
trichogastor Valkeila, 1972
?sudaorum Tsuneki, 1977

lugubris (Fabricius, 1793, *Crabro*) E S W I M

concolor Say, 1824
ocellaris Gimmerthal, 1836
luctuosa Shuckard, 1837
morio Cresson, 1865 preocc.
cressoni Dalla Torre, 1897
provancheri Dalla Torre, 1897
tinctipennis Cameron, 1908
shawii Rohwer, 1917
pacifica Gussakovskij, 1932

morio Vander Linden, 1829 E W

anthracinus (Smith, 1851, *Ceratophorus*)
carinata Thomson, 1870
clypealis Thomson, 1870
intermedia Tsuneki, 1951

rugifer (Dahlbom, 1844, *Cemonus*) E S

rugifera misspelling
unicolor (Panzer, 1798, *Sphex*) preocc.
pilosa (Gimmerthal, 1836, *Cemonus*)
wesmaeli (Morawitz, 1864, *Cemonus*)
scotica Perkins, 1929
solivaga (Bondroit, 1931, *Cemonus*)
bucharicus Gussakovskij, 1952
mortifer Valkeila, 1972
punctifer Valkeila, 1972
scytica Valkeila, 1972

SPILOMENA Shuckard, 1838

CELIA Shuckard, 1837 preocc.
MICROGLOSSA Rayment, 1930 preocc.
MICROGLOSSSELLA Rayment, 1935
TAIALIA Tsuneki, 1971

beata Blüthgen, 1953 E

expectata Valkeila, 1957

differens Blüthgen, 1953¹⁰ E

curruca misident.

curruca (Dahlbom, 1844, *Celia*) E

pulawskii Dolfuss, 1983
nikkoensis Tsuneki, 1971

enslini Blüthgen, 1953 E I

trogldytes (Vander Linden, 1829, *Stigmus*) E S W

minutissimus (Radoszkowski, 1877, *Stigmus*)
vagans Blüthgen, 1953

STIGMUS Panzer, 1805

ANTRONIUS Zetterstedt, 1838
GONOSTIGMUS Rohwer, 1911
ATOPOSTIGMUS Krombein, 1973

pendulus Panzer, 1804 E

ater Jurine, 1807

added by Allen (1987)

solskyi Morawitz, 1864 E W

europaeus Tsuneki, 1954
verhoeffi Tsuneki, 1954

Tribe PSENINI Costa, 1858

¹⁰ Has been called *curruca* (Dahlbom, 1844, *Celia*) in several publications, following Dolfuss's (1986) synonymy, but was reinstated as a valid species by Vikberg (2000).

MIMESA Shuckard, 1837
APORIA Wesmael, 1852 preocc.
APORINA Gussakovskij, 1937 preocc.
bicolor (Jurine, 1807, *Psen*) E
equestris misident.
 ?*rufa* (Panzer, 1805, *Psen*)
bruxellensis Bondroit, 1934 E W
rossicus (Gussakovskij, 1937, *Psen*)
equestris (Fabricius, 1804, *Trypoxylon*) E S W
bicolor misident.
lutaria (Fabricius, 1787, *Sphex*) E W
shuckardi Wesmael, 1852
basirufa Packard, 1867
nebrascensis Smith, 1908
dispar (Gussakovskij, 1937, *Psen*)
mallochi Finnamore, 1980

MIMUMESA Malloch, 1933
atratina (Morawitz, 1891, *Mimesa*) E
carbonaria (Tournier, 1899, *Mimesa*)
belgica (Bondroit, 1932, *Mimesa*)
longula (Gussakovskij, 1932, *Mimesa*)
sameshimai (Yasumatsu, 1937, *Psen*)
dahlbomi (Wesmael, 1852, *Mimesa*) E S W
littoralis (Bondroit, 1934, *Mimesa*) E W I
unicolor misident.
fulvitarsis (Gussakovskij, 1934, *Psen*)
fulvitarsis (Gussakovskij, 1937, *Psen*) preocc.
celtica (Spooner, 1948, *Mimesa*)
spooneri (Richards, 1948, *Mimesa*) E
unicolor (Vander Linden, 1829, *Psen*) E added by Else & Felton (1994)
borealis (Dahlbom, 1842, *Mimesa*)
palliditarsis (Saunders, 1904, *Mimesa*)
oresterus (van Lith, 1976, *Psen*)

PSEN Latreille, 1796
PSENIUS Rafinesque, 1815
PSENIA Stephens, 1829
DAHLBOMIA Wissmann, 1849
MESOPORA Wesmael, 1852
CAENOPSEN Cameron, 1899
ater (Olivier, 1792, *Crabro*) E
ater (Fabricius, 1794, *Sphex*) preocc.
compressicornis (Fabricius, 1804, *Pelopoeus*)
atratus (Jurine, 1807, *Psen*)
serraticornis (Jurine, 1807, *Psen*)

PSENUCUS Kohl, 1897
DIODONTUS misident.¹¹
NEOFOXIA Viereck, 1901
STENOMELLINUS Schulz, 1911
EOPSENUCUS Gussakovskij, 1934
NIPPONOPSEN Yasumatsu, 1938
concolor (Dahlbom, 1843, *Psen*) E W
intermedius (Schenck, 1857, *Psen*)
ambiguus (Schenck, 1857, *Psen*)
pallipes (Panzer, 1798, *Sphex*) E W I
atratus (Fabricius, 1804, *Trypoxylon*)
montanus (Costa, 1861, *Psen*)
haemorrhoidalis (Costa, 1871, *Psen*)
minutus (Tournier, 1899, *Psen*)
chevrieri (Tournier, 1899, *Psen*)
nigricornis (Tournier, 1899, *Psen*)
pygmaeus (Tournier, 1899, *Psen*)
rubicola Harttig, 1931

¹¹ Misidentification of American authors in older literature.

brevitarsis Merisuo, 1937

schencki (Tournier, 1889, *Psen*) E

simplex (Tournier, 1899, *Psen*)

longulus (Tournier, 1899, *Psen*)

Subfamily PHILANTHINAE Latreille, 1802

Tribe CERCERINI Lepeletier, 1845

CERCERIS Latreille, 1802

NECTANEBUS Spinola, 1839

DIAMMA Dahlbom, 1844 preocc.

DIDESMUS Dahlbom, 1845

APIRAPTRIX Shestakov, 1923

PARACERCERIS Brèthes, 1913

BUCERCERIS Minkiewicz, 1934

STERCOBATA Gussakovskij, 1935

APICERCERIS Pate, 1937

arenaria (Linnaeus, 1758, *Sphex*) E W

xanthocephala (Forster, 1771, *Sphex*)

exulta (Harris, 1776, *Vespa*)

petulans (Harris, 1776, *Vespa*)

serripes (Fabricius, 1781, *Vespa*)

arenosa (Gmelin, 1790, *Vespa*)

aurita (Fabricius, 1794, *Philanthus*)

striolata Schletterer, 1887

quadricincta (Panzer, 1799, *Philanthus*) E

fasciata Spinola, 1806

quinquefasciata (Rossi, 1792, *Crabro*) E

interrupta misident.

nasuta Dahlbom, 1844 preocc.

subdepressa Lepeletier, 1845

ruficornis (Fabricius, 1793, *Philanthus*) E

labiata misident.

bidens (Schrank, 1802, *Crabro*)

cunicularia (Schrank, 1802, *Crabro*)

quadricincta (Fabricius, 1804, *Mellinus*)

trifidus (Fabricius, 1804, *Philanthus*)

?*nasuta* Latreille, 1809

laminifera Costa, 1867

rybyensis (Linnaeus, 1771, *Sphex*) E

ornata (Fabricius, 1790, *Philanthus*)

apifalco (Christ, 1791, *Sphex*)

semicincta (Panzer, 1797, *Philanthus*)

hortorum (Panzer, 1799, *Philanthus*)

variabilis (Schrank, 1802, *Crabro*)

biguttata (Thunberg, 1815, *Philanthus*)

colon (Thunberg, 1815, *Philanthus*)

kashmirensis Nurse, 1903

dittrichi Schulz, 1904

reginae Eck, 1979

sabulosa (Panzer, 1799, *Philanthus*) E

emarginata (Panzer, 1799, *Philanthus*)

tricincta (Spinola, 1805, *Philanthus*)

?*pygmaea* (Thunberg, 1815, *Philanthus*)

minuta Lepeletier, 1845

superba Shestakov, 1923

Tribe PHILANTHINI Latreille, 1802

PHILANTHUS Fabricius, 1790

SYMBLEPHILUS Panzer, 1806

SIMBLEPHILUS Jurine, 1807

CHEILOPOGONUS Westwood, 1835

ANTHOPHILUS Dahlbom, 1844

EPHIPHILANTHUS Ashmead, 1899

PSEUDOPHILANTHUS Ashmead, 1899

OCLOCLETES Banks, 1913

triangulum (Fabricius, 1775, *Vespa*) E W
ruspatrix (Linnaeus, 1767, *Vespa*) nom. ob.
fasciatus (Geoffroy, 1785, *Vespa*)
maculatus (Christ, 1791, *Sphex*)
limbatus (Olivier, 1792, *Vespa*)
androgynus (Rossi, 1792, *Crabro*)
pictus Panzer, 1797
discolor Panzer, 1799
apivorus Latreille, 1799
allionii Dahlbom, 1845

Family **Sphecidae** Latreille, 1802

Subfamily AMMOPHILINAE André, 1886

AMMOPHILA Kirby, 1798

SPHEX misident.

MISCUS Jurine, 1807

COLOPTERA Latreille, 1845

ARGYRAMMOPHILA Gussakovskij, 1928

APYCNEMIA Leclercq, 1961

pubescens Curtis, 1836 E W

campestris misident.

arvensis (Dahlbom, 1843, *Miscus*)

susterae Šnoflak, 1943

adriaansei Wilcke, 1945

sabulosa (Linnaeus, 1758, *Sphex*) E S W I

hortensis (Poda, 1761, *Sphex*)

frischii (Geoffroy, 1785, *Ichneumon*)

dimidiata (Christ, 1791, *Sphex*) preocc.

vulgaris Kirby, 1798

pulvillata Sowerby, 1805

mucronata (Jurine, 1807, *Sphex*)

cyanescens Dahlbom, 1845

? *vischu* Cameron, 1889

kamtschatica Gussakovskij, 1932

PODALONIA Fernald, 1927

PSAMMOPHILA Dahlbom, 1842 preocc.

PODALONIA Spinola, 1853 suppressed

affinis (Kirby, 1798, *Ammophila*) E W

lutaria misident.

ariasi (Mercet, 1906, *Ammophila*)

hirsuta (Scopoli, 1763, *Sphex*) E W

viatica misident.

arenaria (Fabricius, 1787, *Sphex*) preocc.

arenosa (Gmelin, 1790, *Sphex*)

argentea (Kirby, 1798, *Ammophila*)

Anthophila Latreille, 1804¹²

Family **Andrenidae** Latreille, 1802

Subfamily ANDRENINAE Latreille, 1802

ANDRENA Fabricius, 1775¹³

subgenus **ANDRENA** Fabricius, 1775

ANTHRENA Illiger, 1801

ANTHOCHARESSA Gistel, 1850

apicata Smith, 1847 E W I

clarkella (Kirby, 1802, *Melitta*) E S W I M

¹² Engel (2005) proposed that the name *Anthophila*, without formal rank, be used for the bees. Note that 'apiformes' (and the corresponding 'spheciformes') is an equivalent term proposed by Brothers (1975).

¹³ Taxonomy mostly follows Gusenleitner & Schwarz (2002).

fucata Smith, 1847 E S W I M
fulva (Müller, 1766, *Apis*) E S W I
 armata (Gmelin, 1790, *Apis*)
helvola (Linnaeus, 1758, *Apis*) E S W
 subdentata (Kirby, 1802, *Melitta*)
lapponica Zetterstedt, 1838 E S W I M
praecox (Scopoli, 1763, *Apis*) E W I
 smithella (Kirby, 1802, *Melitta*)
 clypeata Smith, 1855 preocc.
synadelpha Perkins, 1914 E S W
 ambigua Perkins, 1895, preocc.
varians (Kirby, 1802, *Melitta*) E W
 varians (Rossius, 1792, *Apis*): misident.
 angulosa (Kirby, 1802, *Melitta*)

subgenus **CHARITANDRENA** Hedicke, 1933
hattorfiana (Fabricius, 1775, *Nomada*) E W
 lathamana (Kirby, 1802, *Melitta*)

subgenus **CHLORANDRENA** Pérez, 1890
humilis Imhoff, 1832 E W M
 fulvescens Smith, 1847

subgenus **CHRYSANDRENA** Hedicke, 1933
fulvago (Christ, 1791, *Apis*) E W
 constricta Smith, 1849

subgenus **CNEMIDANDRENA** Hedicke, 1933
denticulata (Kirby, 1802, *Melitta*) E S W I M
 listerella (Kirby, 1802, *Melitta*)
fuscipes (Kirby, 1802, *Melitta*) E S W I M
nigriceps (Kirby, 1802, *Melitta*) E SW
 lanifrons (Kirby, 1802, *Melitta*)
simillima Smith, 1851 E
tridentata (Kirby, 1802, *Melitta*) E¹⁴
 rufitarsis (Kirby, 1802, *Melitta*)

subgenus **EUANDRENA** Hedicke, 1933
 XANTHANDRENA Lanham, 1949
 GEANDRENA LaBerge, 1964
bicolor Fabricius, 1775 E S W I M
 picicornis (Kirby, 1802, *Melitta*)
 pilosula (Kirby, 1802, *Melitta*)
 gwynana (Kirby, 1802, *Melitta*)
 proxima Smith, 1847 preocc.
 aestiva Smith, 1849
 consimilis Smith, 1849 preocc.
ruficrus Nylander, 1848 E S

subgenus **HOLANDRENA** Pérez, 1890
labialis (Kirby, 1802, *Melitta*) E W M
 separata Smith, 1847

subgenus **HOPLANDRENA** Pérez, 1890
bucephala Stephens, 1846 E W
 eximia Smith, 1847
 longipes Smith, 1847
ferox Smith, 1847 E
 distincta Smith, 1847
rosae Panzer, 1801 E W I
 eximia misident.
 zonalis (Kirby, 1802, *Melitta*)
 stragulata Illiger, 1806¹⁵
 strangulata misspelling

¹⁴ Probably extinct in Britain.

¹⁵ The summer brood of *rosae*.

scotica Perkins, 1916¹⁶ E S W I M
carantonica misident.
jacobi Perkins, 1921
johnsoni Perkins, 1921
trimmerana (Kirby, 1802, *Melitta*) E W
spinigera (Kirby, 1802, *Melitta*)
carantonica Pérez, 1916

subgenus **LEUCANDRENA** Hedicke, 1933
argentata Smith, 1844 E
barbilabris (Kirby, 1802, *Melitta*) E S W I M
sericea (Christ, 1791, *Apis*) preocc.
albicrus (Kirby, 1802, *Melitta*)

subgenus **MARGANDRENA** Warncke, 1968
marginata Fabricius, 1776 E S W I
cetii (Schrank, 1781, *Apis*)
schrangkella (Kirby, 1802, *Melitta*)
frontalis Smith, 1849

subgenus **MELANDRENA** Pérez, 1890
GYMNANDRENA Hedicke, 1933
CRYPTANDRENA Lanham, 1949 preocc.
BYTHANDRENA Lanham, 1950
cineraria (Linnaeus, 1758, *Apis*) E S W I M
nigroaenea (Kirby, 1802, *Melitta*)¹⁷ E S W I M
aprilina Smith, 1848
nitida (Müller, 1776, *Apis*) E W I
pubescens Olivier, 1789
consimilis Smith, 1847
thoracica (Fabricius, 1775, *Apis*) E W
melanocephala (Kirby, 1802, *Melitta*)
vaga Panzer, 1799 E¹⁸

subgenus **MICRANDRENA** Ashmead, 1899
ANDRENELLA Hedicke, 1933
alfkenella Perkins, 1914 E
moricea Perkins, 1914
falsifica Perkins, 1915 E
floricola Eversmann, 1852¹⁹
minutula (Kirby, 1802, *Melitta*) E W I
parvula (Kirby, 1802, *Melitta*)
nigrifrons Smith, 1855 preocc.
minutuloides Perkins, 1914 E
parvuloides Perkins, 1914
nana (Kirby, 1802, *Melitta*) E²⁰
nanula Nylander, 1848²¹
niveata Friese, 1887 E W
spretta misident.
semilaevis Pérez, 1903 E S W I M
nana misident.
saundersella Perkins, 1914
subopaca Nylander, 1848 E S W I

subgenus **NOTANDRENA** Pérez, 1890
chrysoceles (Kirby, 1802, *Melitta*) E S W
connectens (Kirby, 1802, *Melitta*)
nitidiuscula Schenck, 1853 E
lucens Imhoff, 1868

¹⁶ Although usually referred to as *scotica* in Britain (e.g. Else *et al.*, 2004), Schwarz *et al.* (1996) and Gusenleitner & Schwarz (2002) have treated *scotica* as a synonym of *carantonica* Pérez, 1916; however, Else (in prep.), following P. Westrich's (in lit.) interpretation of the type of *carantonica*, regards this as a separate species, with *carantonica* a junior synonym of *trimmerana*.

¹⁷ The population on the Isles of Scilly and Channel Islands has been described as the subspecies *sarnia* Richards, 1979.

¹⁸ Probably extinct in Britain.

¹⁹ Probably extinct in Britain.

²⁰ Probably extinct in Britain.

²¹ Probably extinct in Britain.

subgenus **OREOMELISSA** Hirashima & Tadauchi, 1975

coitana (Kirby, 1802, *Melitta*) E S W I M

shawella (Kirby, 1802, *Melitta*)

subgenus **PLASTANDRENA** Hedicke, 1933

SCHIZANDRENA Hedicke, 1933

GLYPHANDRENA Hedicke, 1933

MITSUKURIELLA Hirashima & LaBerge, 1965

MITSUKURIAPIS Hirashima, LaBerge & Ikudome 1994

bimaculata (Kirby, 1802, *Melitta*) E W

articulata Smith, 1847

conjuncta Smith, 1847

decorata Smith, 1847

vitrea Smith, 1847

nigrospina Thomson, 1872²² E

pilipes Fabricius, 1781 E

carbonaria misident.

spectabilis Smith, 1853

praetexta Smith, 1872

tibialis (Kirby, 1802, *Melitta*) E

mouffetella (Kirby, 1802, *Melitta*)

atriceps (Kirby, 1802, *Melitta*)

subgenus **POECILANDRENA** Hedicke, 1933

labiata Fabricius, 1781 E W I

cingulata misident.

subgenus **POLIANDRENA** Warncke, 1968

florea Fabricius, 1793 E

rubricata Smith, 1847

polita Smith, 1847 E²³

subgenus **PROXIANDRENA** Schmid-Egger, 2005

proxima (Kirby, 1802, *Melitta*) E W

digitalis (Kirby, 1802, *Melitta*)

subgenus **PTILANDRENA** Robertson, 1902

EREMANDRENA LaBerge, 1964

angustior (Kirby, 1802, *Melitta*) E S W I M

lacinia Smith, 1847

subgenus **SIMANDRENA** Pérez, 1890

PLATANDRENA Viereck, 1924

STENANDRENA Timberlake, 1949

congruens Schmiedeknecht, 1884 E W

confinis Stöckhert, 1930

dorsata (Kirby, 1802, *Melitta*) E W

collinsonana (Kirby, 1802, *Melitta*)

lewinella (Kirby, 1802, *Melitta*)

nudiuscula (Kirby, 1802, *Melitta*)

subincana (Kirby, 1802, *Melitta*)

lepida Schenck, 1861 E²⁴

subgenus **TAENIANDRENA** Hedicke, 1933

lathyri Alfken, 1899 E

ovatula (Kirby, 1802, *Melitta*) E W

afzeliella (Kirby, 1802, *Melitta*)

barbata (Kirby, 1802, *Melitta*)

fuscata (Kirby, 1802, *Melitta*)

picipes (Kirby, 1802, *Melitta*)

albofasciata Thomson, 1870

similis Smith, 1849 E S W

²² Although treated as a synonym of *pilipes* by Gusenleitner & Schwarz (2002a) here *nigrospina* is treated as a valid species, following Baker (1994).

²³ Probably extinct in Britain.

²⁴ Probably extinct in Britain.

? *ocreata* Christ, 1791 nom. dub.

wilkella (Kirby, 1802, *Melitta*) E S W I M
barbatula (Kirby, 1802, *Melitta*)
convexiuscula (Kirby, 1802, *Melitta*)
xanthura (Kirby, 1802, *Melitta*)

subgenus **TARSANDRENA** Osytshnjuk, 1984

tarsata Nylander, 1848 E S W I M
analis misident.

subgenus **TRACHANDRENA** Robertson, 1902

haemorrhoea (Fabricius, 1781, *Apis*) E S W I M
albicans misident.

subgenus **ZONANDRENA** Hedicke, 1933

flavipes Panzer, 1799 E W I

contigua (Kirby, 1802, *Melitta*)

fulvicrus (Kirby, 1802, *Melitta*)

extricata Smith, 1849

gravida Imhoff, 1832 E

fasciata Nylander, 1852 preocc.

picicrus Schenck, 1853

Subfamily PANURGINAE Leach, 1815

Tribe PANURGINI Leach, 1815

PANURGUS Panzer, 1806

banksianus (Kirby, 1802, *Apis*) E W

ursinus misident.

calcaratus (Scopoli, 1763, *Apis*) E W

linnaeella (Kirby, 1802, *Apis*)

Family **Apidae** Latreille, 1802

Subfamily APINAE Latreille, 1802

Tribe ANTHOPHORINI Dahlbom, 1835

ANTHOPHORA Latreille, 1803

subgenus **ANTHOPHORA** Latreille, 1803

plumipes (Pallas, 1772, *Apis*) E W

acervorum misident.

pilipes (Fabricius, 1775, *Apis*)

subgenus **CLISODON** Patton, 1879

furcata (Panzer, 1798, *Apis*) E S W

subgenus **DASYMEGILLA** Brooks, 1988

quadrimaculata (Panzer, 1798, *Apis*) E W

subglobosa (Kirby, 1802, *Apis*)

subgenus **HELIOPHILA** Klug, 1807

SAROPODA Latreille, 1809

bimaculata (Panzer, 1798, *Apis*) E I

subgenus **PYGANTHOPHORA** Brooks, 1988

retusa (Linnaeus, 1758, *Apis*) E

haworthana (Kirby, 1802, *Apis*)

pennipes (Kirby, 1802, *Apis*)

Tribe APINI Latreille, 1802

APIS Linnaeus, 1758

mellifera Linnaeus, 1758²⁵ E S W I M
mellifica Linnaeus, 1761

Tribe BOMBINI Latreille, 1802

BOMBUS Latreille, 1802²⁶

subgenus **BOMBUS** Latreille, 1802²⁷

TERRESTRIBOMBUS Vogt, 1911

cryptarum (Fabricius, 1775, *Apis*) S I added by Bertsch *et al.* (2005)

lucorum (Linnaeus, 1761, *Apis*) E S W I M

magnus Vogt, 1911 S I

terrestris (Linnaeus, 1758, *Apis*) E S W I M

audax (Harris, 1776, *Apis*)

subgenus **CULLUMANOBOMBUS** Vogt, 1911

cullumanus (Kirby, 1802, *Apis*) E²⁸

subgenus **KALLOBOMBUS** Dalla Torre, 1880

soroensis (Fabricius, 1777, *Apis*) E S W

subgenus **MEGABOMBUS** Dalla Torre, 1880

HORTOBOMBUS Vogt, 1911

hortorum (Linnaeus, 1761, *Apis*) E S W I M

?*flavonigrescens* Smith, 1846

ivernicus Sladen, 1912²⁹

splendida Stelfox, 1938

runderatus (Fabricius, 1775, *Apis*) E

perniger (Harris, 1776, *Apis*)³⁰

harrisellus (Kirby, 1802, *Apis*)

tunstallanus (Kirby, 1802, *Apis*)

subgenus **MELANOBOMBUS** Dalla Torre, 1880

LAPIDARIOBOMBUS Vogt, 1911

lapidarius (Linnaeus, 1758, *Apis*) E S W I M

subgenus **PSITHYRUS** Lepeletier, 1832

ALLOPSITHYRUS Popov, 1931

ASHTONIPSITHYRUS Frison, 1927

FERNALDAEPSITHYRUS Frison, 1927

METAPSITHYRUS Popov, 1931

barbutellus (Kirby, 1802, *Apis*) E S W I

bohemicus (Seidl, 1837, *Apis*) E S W I M

distinctus (Pérez, 1884, *Psithyrus*)

campestris (Panzer, 1801, *Apis*) E S W I M

rossiellus (Kirby, 1802, *Apis*)

leeanus (Kirby, 1802, *Apis*)

francisanus (Kirby, 1802, *Apis*)

swynnertoni (Richards, 1936, *Psithyrus*)³¹

rupestris (Fabricius, 1793, *Apis*) E W I

albinellus (Kirby, 1802, *Apis*)

sylvestris (Lepeletier, 1832, *Psithyrus*) E S W I

quadricolor misident.

vestalis (Geoffroy, 1785, *Apis*) E S W I

subgenus **PYROBOMBUS** Dalla Torre, 1880

PRATOBOMBUS Vogt, 1911

hypnorum (Linnaeus, 1758, *Apis*) E S W added by Goulson & Williams (2001)

jonellus (Kirby, 1802, *Apis*) E S W I M

²⁵ There have been various subspecies names proposed for honey bees, with the supposedly native north west European population being *A. mellifera mellifera*. See Engel (1999) for a full taxonomy of *Apis mellifera*.

²⁶ Various subspecific names have been used for British *Bombus* but these are generally poorly justified and we have treated these as synonymous here. Subgeneric classification follows Williams *et al.* (2008).

²⁷ Full synonymy for this subgenus is given by Williams *et al.* (2012), who shed some light on the confusing classification of *cryptarum* and *magnus* relative to *lucorum*.

²⁸ Extinct in Britain since the 1940s.

²⁹ Populations in Ireland have been referred to the subspecies *B. hortorum ivernicus*.

³⁰ English populations have been referred to the subspecies *B. ruderatus perniger*.

³¹ Populations in Western Scotland have been referred to the subspecies *B. campestris swynnertoni*.

nivalis misident.
scrimshirani (Kirby, 1802, *Apis*)
atrocorbiculosus Vogt, 1911
hebridensis Wild, 1931³²
vogtii Richards, 1933 preocc.
monapiae Kruseman, 1953³³
vogtianus Rasmont, 1983³⁴

monticola Smith, 1849 E S W I M
lapponicus misident.
scoticus Pittioni, 1942

pratorum (Linnaeus, 1761, *Apis*) E S W I M
subinterruptus (Kirby, 1802, *Apis*)
donovanella (Kirby, 1802, *Apis*)
burrellana (Kirby, 1802, *Apis*)

subgenus **SUBTERRANEOBOMBUS** Vogt, 1911
distinguendus Morawitz, 1869 E S W I M
subterraneus (Linnaeus, 1758, *Apis*) E W³⁵
collinus Smith, 1844
latreillellus (Kirby, 1802, *Apis*)³⁶

subgenus **THORACOBOMBUS** Dalla Torre, 1880
RHODOBOMBUS Dalla Torre, 1880
POMOBOMBUS Krüger, 1917

humilis Illiger, 1806 E S W M
solstitialis Panzer, 1806
helferanus Seidl, 1837
venustus Smith, 1876 preocc.
anglicus Yarrow, 1978

muscorum (Linnaeus, 1758, *Apis*) E S W I M
arcticus misident.
smithianus misident.
pallidus Evans, 1901 preocc.
laevis Vogt, 1909
sladeni Vogt, 1911³⁷
allenellus Stelfox, 1933³⁸
orcadensis Richards, 1935³⁹
scyllonius Richards, 1935⁴⁰
celticus Yarrow, 1978⁴¹
agricolae Baker, 1996⁴²

pascuorum (Scopoli, 1763, *Apis*) E S W I M
vulgo (Harris, 1776, *Apis*)⁴³
agrorum (Fabricius, 1787, *Apis*) preocc.
floralis (Gmelin, 1790, *Apis*)⁴⁴
francillonellus (Kirby, 1802, *Apis*)
sowerbianus (Kirby, 1802, *Apis*)
beckwithella (Kirby, 1802, *Apis*)
curtisellus (Kirby, 1802, *Apis*)
forsterellus (Kirby, 1802, *Apis*)
cognatus Stevens, 1846
smithianus White, 1851
septentrionalis Vogt, 1909⁴⁵

?**pomorum** (Panzer, 1805, *Bremus*) E⁴⁶

³² The population on the Hebrides has been referred to the subspecies *B. jonellus hebridensis*.

³³ The population on the Isle of Man has been referred to the subspecies *B. jonellus monapiae*.

³⁴ A replacement name for the preoccupied *vogtii*; populations on the Shetlands have been referred to the subspecies *B. jonellus vogtianus*.

³⁵ Extinct in Britain since the 1980s but an attempt is being made to reintroduce the species to southern England.

³⁶ British populations have been referred to the subspecies *B. subterraneus latreillellus* whereas the introduced individuals from Sweden have been ascribed to the nominate subspecies.

³⁷ Populations on the Irish mainland and southern England have been referred to the subspecies *B. muscorum sladeni*.

³⁸ The population on the Aran islands has been referred to the subspecies *B. muscorum allenellus*.

³⁹ The population on Orkney has been referred to the subspecies *B. muscorum orcadensis*.

⁴⁰ Populations on the Isles of Scilly have been referred to the subspecies *B. muscorum scyllonius*.

⁴¹ Populations in mainland Scotland and Northern England have been referred to the subspecies *B. muscorum celticus*.

⁴² Populations on the Shetland islands have been referred to the subspecies *B. muscorum agricolae*.

⁴³ Populations in southern England and Wales have been referred to the subspecies *B. pascuorum vulgo*.

⁴⁴ Populations in Ireland have been referred to the subspecies *B. pascuorum floralis*.

⁴⁵ Populations in Scotland and Northern England have been referred to the subspecies *B. pascuorum septentrionalis*.

runderarius (Müller, 1776, *Apis*) E S W I
 derhamellus (Kirby, 1802, *Apis*)
 raiellus (Kirby, 1802, *Apis*)
sylvarum (Linnaeus, 1761, *Apis*) E S W I
 nigrescens Pérez, 1879
 distinctus Vogt, 1909

Tribe EUCERINI Latreille, 1802

EUCERA Scopoli, 1770
subgenus **EUCERA** Scopoli, 1770
longicornis (Linnaeus, 1758, *Apis*) E W
 linguaria (Fabricius, 1775, *Apis*)
nigrescens Pérez, 1879 E⁴⁷
 tuberculata misident. [?]

Tribe MELECTINI Westwood, 1840

MELECTA Latreille, 1802
albifrons (Forster, 1771, *Apis*) E W
 punctata (Fabricius, 1775, *Apis*)
 armata (Panzer, 1799, *Andrena*) preocc.
luctuosa (Scopoli, 1770, *Apis*) E⁴⁸

Subfamily NOMADINAE Latreille, 1802

Tribe EPEOLINI Roberston, 1903

EPEOLUS Latreille, 1802
cruciger (Panzer, 1799, *Nomada*) E W
 rufipes Thomson, 1870
variegatus (Linnaeus, 1758, *Apis*) E W S M
 notatus misident.
 productus Thomson, 1870

Tribe NOMADINI Latreille, 1802

NOMADA Scopoli, 1763
argentata Herrich-Schäffer, 1839 E I
 atrata Smith, 1846
armata Herrich-Schäffer, 1839 E W
 kirbyella Stephens, 1846
baccata Smith, 1844 E
 alboguttata misident.
conjungens Herrich-Schäffer, 1839 E
errans Lepeletier, 1841 E
fabriciana (Linnaeus, 1767, *Apis*) E S W I M
 fabriciella (Kirby, 1802, *Apis*)
 quadrinotata (Kirby, 1802, *Apis*)
ferruginata (Linnaeus, 1767, *Apis*) E S W
 lateralis misident.
 xanthosticta (Kirby, 1802, *Apis*)
 bridgmaniana Smith, 1876
flava Panzer, 1798 E W I
flavoguttata (Kirby, 1802, *Apis*) E S W I M
 rufocincta (Kirby, 1802, *Apis*)
flavopicta (Kirby, 1802, *Apis*) E W
 jacobaeae misident. [?]
fucata Panzer, 1798 E W
fulvicornis Fabricius, 1793 E W
 lineola Panzer, 1798
 sexcincta (Kirby, 1802, *Apis*)
 capreae (Kirby, 1802, *Apis*)

⁴⁶ There is confusion surrounding the dates of capture of the supposedly British specimens of *pomorum*, collected near Deal in Kent (summarised by Alford, 1975).

⁴⁷ Probably extinct in Britain.

⁴⁸ Probably extinct in Britain.

cornigera (Kirby, 1802, *Apis*)
goodeniana (Kirby, 1802, *Apis*) E S W I M
succincta misident.
alternata (Kirby, 1802, *Apis*)
guttulata Schenck, 1861 E
hirtipes Pérez, 1884 E W
bucephalae Perkins, 1917
integra Brullé, 1832 E W
ferruginata misident.
germanica misident.
pleurosticta misident.
stigma misident.
cinctiventris Friese, 1921
lathburiana (Kirby, 1802, *Apis*) E W
rufiventris (Kirby, 1802, *Apis*)
leucophthalma (Kirby, 1802, *Apis*) E S W I M
borealis Zetterstedt, 1838
inquilina Smith, 1844
marshamella (Kirby, 1802, *Apis*) E S W I M
alternata misident.
obtusifrons Nylander, 1848 E S W I M
mistura Smith, 1851
panzeri Lepeletier, 1841 E S W I
ruficornis misident.
roberjeotiana Panzer, 1799 E S W M
tormentillae Alfken, 1901
ruficornis (Linnaeus, 1758, *Apis*) E S W I M
bifida Thomson, 1872
rufipes Fabricius, 1793 E S W I M
solidaginis misident.
picta (Kirby, 1802, *Apis*)
rufopicta (Kirby, 1802, *Apis*)
sexfasciata Panzer, 1799 E
connexa (Kirby, 1802, *Apis*)
schaefferella (Kirby, 1802, *Apis*)
sheppardana (Kirby, 1802, *Apis*) E W
furva misident.
dalii Curtis, 1832
signata Jurine, 1807 E W
striata Fabricius, 1793 E S W I
hillana (Kirby, 1802, *Apis*)
ochrostoma (Kirby, 1802, *Apis*)
vidua Smith, 1844
subcornuta (Kirby, 1802, *Apis*) E

Subfamily XYLOCOPINAE Latreille, 1802

Tribe Ceratinini Latreille, 1802

CERATINA Latreille, 1802
 subgenus **EUCERATINA** Hirashima, Moure & Daly, 1971
cyanea (Kirby, 1802, *Apis*) E

Tribe XYLOCOPINI Latreille, 1802

XYLOCOPA Latreille, 1809
 subgenus **XYLOCOPA** Latreille, 1809
violacea (Linnaeus, 1758, *Apis*) E

Family **Colletidae** Lepeletier, 1841

Subfamily COLLETINAE Lepeletier, 1841

COLLETES Latreille, 1802

cunicularius (Linnaeus, 1761, *Apis*)⁴⁹ E W
daviesanus Smith, 1846 E S W I
floralis Eversmann, 1852 E S I
 montanus Morawitz, 1876
fodiens (Geoffroy, 1785, *Apis*) E S W
halophilus Verhoeff, 1944 E
hederae Schmidt & Westrich, 1993 E added by Cross (2002)
marginatus Smith, 1846 E W
similis Schenck, 1853 E W I M
 picistigma Thomson, 1872
succinctus (Linnaeus, 1758, *Apis*) E S W I M

Subfamily HYLAEINAE Viereck, 1916

HYLAEUS Fabricius, 1793
subgenus **ABRUPTA** Popov, 1939
cornutus Curtis, 1831 E
 plantarius Smith, 1842

subgenus **HYLAEUS** Fabricius, 1793
communis Nylander, 1852 E S W I
 rupestris (Smith, 1872, *Prosopis*)

subgenus **KOPTOGASTER** Alfken, 1912
punctulatissimus Smith, 1842 E⁵⁰

subgenus **LAMDOPSIS** Popov, 1939
annularis (Kirby, 1802, *Mellita*)⁵¹ E
 euryscapus misident.
 spilotus Förster, 1871
 masoni (Saunders, 1894, *Prosopis*)
dilatatus (Kirby, 1802, *Mellita*) E W
 annularis misident.

subgenus **PARAPROSOPIS** Popov, 1939
pictipes Nylander, 1852 E
 varipes (Smith, 1853, *Prosopis*)

subgenus **PROSOPIS** Fabricius, 1804
brevicornis Nylander, 1852 E S W I M
 rubicola (Smith, 1869, *Prosopis*) preocc.
confusus Nylander, 1852 E S W I
incongruus Förster, 1871 E W
 gibbus misident.
 genalis Thomson, 1872
pectoralis Förster, 1871 E
 kriechbaumeri Förster, 1871
 palustris (Perkins, 1900, *Prosopis*)
signatus (Panzer, 1798, *Sphex*) E W

subgenus **SPATULARIELLA** Popov, 1939
hyalinatus Smith, 1842 E S W I M

Family **Halictidae** Thomson, 1869

Subfamily HALICTINAE Thomson, 1869

HALICTUS Latreille, 1804
subgenus **HALICTUS** Latreille, 1804
eurynathus Blüthgen, 1931 E
 quadrinotus misident.
 tetrazonius misident.

⁴⁹ The British population has been described as a separate subspecies, *celticus* O'Toole, 1974, and Else, Field & O'Toole (in Edwards, 1997) suggest that the British population may be specifically distinct.

⁵⁰ Probably extinct in Britain

⁵¹ Notton & Dathe (2008) designated as lectotype a female specimen that corresponds to the species here called *annularis*, with the species generally called *annularis* taking the name *dilatatus*.

maculatus Smith, 1848 E⁵²
rubicundus (Christ, 1791, *Apis*) E S W I M
quadrifasciatus Smith, 1870
nesiotis Perkins, 1922

subgenus **SELADONIA** Robertson, 1918
confusus Smith, 1853⁵³ E
alpinus Alfken, 1907
flavipes misident.
subauratus (Rossi, 1792, *Apis*)⁵⁴
gramineus Smith, 1849
tumulorum (Linnaeus, 1758, *Apis*) E S W I

LASIOGLOSSUM Curtis, 1833⁵⁵
subgenus **DIALICTUS** Robertson, 1902
CHLORALICTUS Robertson, 1902
cupromicans (Pérez, 1903, *Halictus*)⁵⁶ E S W I M
leucopus (Kirby, 1802, *Melitta*) E S W I M
aeratum (Kirby, 1802, *Melitta*)
semiaeneum (Brullé, 1832, *Halictus*)
viridaeneum (Blüthgen, 1918, *Halictus*)
morio (Fabricius, 1793, *Hylaeus*) E S W M
smeathmanellum (Kirby, 1802, *Melitta*) E S W M

subgenus **HEMIHALICTUS** Cockerell, 1897
angusticeps (Perkins, 1895, *Halictus*) E
brevicorne (Schenck, 1869, *Halictus*) E
minutissimum (Kirby, 1802, *Melitta*) E W I
arnoldi (Saunders, 1910, *Halictus*)
nitidiusculum (Kirby, 1802, *Melitta*) E S W I M
parvulum (Schenck, 1853, *Hylaeus*) E W
minutum misident.
pauperatum (Brullé, 1832, *Halictus*) E
breviceps (Saunders, 1879, *Halictus*)
punctatissimum (Schenck, 1853, *Hylaeus*) E S W I M
longiceps (Saunders, 1879, *Halictus*)
puncticolle (Morawitz, 1872, *Halictus*) E
rufitarse (Zetterstedt, 1838, *Halictus*) E S W I
atricorne (Smith, 1870, *Halictus*)
semilucens (Alfken, 1914, *Halictus*) E
sexstrigatum (Schenck, 1870, *Halictus*) E added by Hawkins (2011)
sabulosum (Warncke, 1986, *Halictus*)
villosulum (Kirby, 1802, *Melitta*) E S W I M
punctulatum (Kirby, 1802, *Melitta*)

subgenus **LASIOGLOSSUM** Curtis, 1833
laevigatum (Kirby, 1802, *Melitta*) E W
lugubris (Kirby, 1802, *Melitta*)
lativentre (Schenck, 1853, *Hylaeus*) E W
decipiens (Perkins, 1913, *Halictus*)
prasinum (Smith, 1848, *Halictus*) E W
quadrinotatum (Kirby, 1802, *Melitta*) E
sexnotatum (Kirby, 1802, *Melitta*) E
nitidum misident.
xanthopus (Kirby, 1802, *Melitta*) E W
tringulum Curtis, 1833

subgenus **LEUCHALICTUS** Warncke, 1975
leucozonium (Schrank, 1781, *Apis*) E S W I
similis (Smith, 1853, *Halictus*)

⁵² Probably extinct in Britain.

⁵³ The subspecies *perkinsi* Blüthgen, 1926, is recognised from Britain.

⁵⁴ Probably extinct in Britain.

⁵⁵ Nomenclature updated from Pesenko (2007) but, as Pesenko's study was limited to the Palaearctic region, we do not follow his elevation of *Evylaeus* to a valid genus, nor have we adopted his numerous subgenera.

⁵⁶ The Irish population has been described as the subspecies *hibernicum* Ebmer, 1970, with other populations referred to the subspecies *scoticum* Ebmer, 1970.

zonulum (Smith, 1848, *Halictus*) E W

subgenus **SPHECODOGASTRA** Ashmead, 1899

albipes (Fabricius, 1781, *Apis*) E S W I M

calceatum (Scopoli, 1763, *Apis*) E S W I M

cylindricum (Fabricius, 1793, *Hylaeus*)

fulvocinctum (Kirby, 1802, *Melitta*)

obovatum (Kirby, 1802, *Melitta*)

fratellum (Pérez, 1903, *Halictus*) E S W I

nigrum misident.

subfasciatum (Nylander, 1848, *Halictus*)

freygessneri (Alfken, 1905, *Halictus*)

fulvicorne (Kirby, 1802, *Melitta*) E S W

subfasciatum misident.

laeve (Kirby, 1802, *Melitta*) E⁵⁷

laticeps (Schenck, 1869, *Halictus*) E

semipunctulatum misident.

malachurum (Kirby, 1802, *Melitta*) E

longulum (Smith, 1848, *Halictus*)

pauxillum (Schenck, 1853, *Hylaeus*) E W

immarginatum (Schenck, 1853, *Hylaeus*)

SPHECODES Latreille, 1804

crassus Thomson, 1870 E S W

variegatus von Hagens, 1874

ephippius (Linnaeus, 1767, *Sphex*) E W M

divisus (Kirby, 1802, *Melitta*)

similis Wesmael, 1835

ferruginatus von Hagens, 1882 E W

geoffrellus (Kirby, 1802, *Melitta*) E S W I M

affinis von Hagens, 1882

fasciatus von Hagens, 1882

gibbus (Linnaeus, 1758, *Sphex*) E S W

picea (Kirby, 1802, *Melitta*)

sphecoides (Kirby, 1802, *Melitta*)

hyalinatus von Hagens, 1882 E S W I

longulus von Hagens, 1882 E W

miniatus von Hagens, 1882 E

dimidiatus von Hagens, 1882

monilicornis (Kirby, 1802, *Melitta*) E S W I M

subquadratus Smith, 1845

niger von Hagens, 1874 E

pellucidus Smith, 1845 E S W I

pilifrons Thomson, 1870

puncticeps Thomson, 1870 E W

reticulatus Thomson, 1870 E W

rubicundus von Hagens, 1875 E W

ruficrus misident.

rufiventris misident.

scabricollis Wesmael, 1835 E W

spinulosus von Hagens, 1875 E W

Subfamily ROPHITINAE Schenck, 1866

DUFOUREA Lepeletier, 1841

halictula (Nylander, 1852, *Rhophites*) E⁵⁸

minuta Lepeletier, 1841 E⁵⁹

vulgaris Schenck, 1861

ROPHITES Spinola, 1808

quinquespinosus Spinola, 1808 E⁶⁰

⁵⁷ Probably extinct in Britain.

⁵⁸ Probably extinct in Britain.

⁵⁹ Probably extinct in Britain.

⁶⁰ Probably extinct in Britain.

Family **Megachilidae** Latreille, 1802

Subfamily MEGACHILINAE Latreille, 1802

Tribe ANTHIDIINI Ashmead, 1899

ANTHIDIUM Fabricius, 1804

manicatum (Linnaeus, 1758, *Apis*)⁶¹ E S W

STELIS Panzer, 1806

breviuscula Nylander, 1848 E

added by Else & Spooner (1987)

ornatula (Klug, 1807, *Gyrodroma*) E W

octomaculata Smith, 1843

phaeoptera (Kirby, 1802, *Apis*) E W

punctulatissima (Kirby, 1802, *Apis*) E S W

aterrima (Panzer, 1798, *Apis*) preocc.

Tribe MEGACHILINI Latreille, 1802

COELIOXYS Latreille, 1809

subgenus **ALLOCOELIOXYS** Tkalcu, 1974

afra Lepeletier, 1841⁶²

subgenus **BOREOCOELIOXYS** Mitchell, 1973

inermis (Kirby, 1802, *Apis*) E W I

acuminata Nylander, 1852 preocc.

mandibularis Nylander, 1848 E W

rufescens Lepeletier & Serville, 1825 E W

umbrina Smith, 1843

subgenus **COELIOXYS** Latreille, 1809

conoidea (Illiger, 1806, *Anthophora*) E W I

vectis Curtis, 1831

elongata Lepeletier, 1841 E S W I

sponsa Smith, 1855

quadridentata (Linnaeus, 1758, *Apis*) E W

MEGACHILE Latreille, 1802

subgenus **EUTRICHARAEA** Thomson, 1872

leachella Curtis, 1828 E W

dorsalis Pérez, 1879

Gusenleitner & Schwarz (2012b)

argentata misident.

subgenus **MEGACHILE** Latreille, 1802

centuncularis (Linnaeus, 1758, *Apis*) E S W I M

lapponica Thomson, 1872 E⁶³

ligniseca (Kirby, 1802, *Apis*) E W I

versicolor Smith, 1844⁶⁴ E S W I M

subgenus **PSEUDOMEGACHILE** Friese, 1899

ericetorum (Lepeletier, 1841, *Megachile*) E⁶⁵

fasciata (Smith, 1844, *Megachile*)

rufitarsis (Smith, 1844, *Megachile*)

subgenus **XANTHOSARUS** Robertson, 1903

circumcincta (Kirby, 1802, *Apis*) E S W

maritima (Kirby, 1802, *Apis*) E W I M

willughbiella (Kirby, 1802, *Apis*)⁶⁶ E SW I M

Tribe OSMIINI Newman, 1834

⁶¹ Represented by the subspecies *nigrithorax* Dalla Torre, 1877

⁶² Probably extinct in Britain.

⁶³ Probably extinct in Britain.

⁶⁴ Includes the subspecies *hiberniae* Perkins, 1925.

⁶⁵ Probably extinct in Britain.

⁶⁶ Includes the nominate subspecies and *hibernica* Perkins, 1925

CHELOSTOMA Latreille, 1809
campanularum (Kirby, 1802, *Apis*) E
florisomne (Linnaeus, 1758, *Apis*) E W
maxillosum (Linnaeus, 1767, *Apis*)

HERIADES Spinola, 1808
rubicola Pérez, 1890 E added by Else (in prep.)
truncorum (Linnaeus, 1758, *Apis*) E

HOPLITIS Klug, 1807
subgenus **ALCIDAMEA**
claviventris (Thomson, 1872, *Osmia*) E W
leucomelana misident.
leucomelana (Kirby, 1802, *Apis*) E⁶⁷
parvula (Dufour & Perris, 1840, *Osmia*)

subgenus **ANTHOCOPA** Lepeletier & Serville, 1825
spinulosa (Kirby, 1802, *Apis*) E W

OSMIA Panzer, 1806
subgenus **HELICOSMIA** Thomson, 1872
aurulenta Panzer, 1799 E S W I
caerulescens (Linnaeus, 1758, *Apis*) E S W
aenea (Linnaeus, 1761, *Apis*)
niveata (Fabricius, 1804, *Apis*) E
fulviventris (Panzer, 1798, *Apis*)
leaiana (Kirby, 1802, *Apis*) E W
fulviventris misident.

subgenus **MELANOSMIA** Schmiedeknecht, 1884
inermis (Zetterstedt, 1838, *Anthophora*) S
parietina misident.
parietina Curtis, 1828 E S W
pilicornis Smith, 1846 E W
uncinata Gerstäcker, 1869 S added by Else in Else & Spooner (1987)
xanthomelana (Kirby, 1802, *Apis*) E W
atricapilla Curtis, 1828

subgenus **NEOSMIA** Tkalc , 1974
bicolor (Schrank, 1781, *Apis*) E W

subgenus **OSMIA** Panzer, 1806
bicornis (Linnaeus, 1758, *Apis*) E S W I
rufa (Linnaeus, 1758, *Apis*) E S W
hedera Smith, 1844

Family **Melittidae** Schenck, 1860

Subfamily **DASYPODAINAE** Börner, 1919⁶⁸

DASYPODA Latreille, 1802
hirtipes (Fabricius, 1793, *Andrena*) E W
?altercator (Harris, 1776, *Apis*) nom. dub.
plumipes (Panzer, 1797, *Andrena*)
swammerdamella (Kirby, 1802, *Melitta*)

Subfamily **MACROPIDINAE** Robertson, 1904

MACROPIS Panzer, 1809
europaea Warncke, 1973 E
labiata misident.

Subfamily **MELITTINAE** Schenck, 1860

⁶⁷ Probably extinct in Britain.

⁶⁸ According to Danforth *et al.* (2006), Dasypodainae may be better treated as a separate family, but this requires further corroboration.

MELITTA Kirby, 1802
PSEUDOCILISSA Radoszkowski, 1891
dimidiata Morawitz, 1876 E
haemorrhoidalis (Fabricius, 1775, *Andrena*) E S W M
chrysur Kirby, 1802
leporina (Panzer, 1799, *Apis*) E W
tricincta Kirby, 1802 E W
melanura (Nylander, 1852, *Kirbya*)

Superfamily **CHRYSIDOIDEA**⁶⁹

Family **Bethylidae** Haliday, 1833⁷⁰

Subfamily BETHYLINAE Haliday, 1833

BETHYLUS Latreille, 1802
PERISEMUS Förster, 1856
ANOXUS Thomson, 1862 Polaszek & Krombein (1994)
EPISEMUS Thomson, 1862
DIGONIOZUS Kieffer, 1905
boops (Thomson, 1862, *Anoxus*) E added by Burn (1997)
cephalotes (Förster, 1860, *Perisemus*) E S W M
fuscicornis var. *tibialis* Kieffer, 1905
dendrophilus Richards, 1939 E
fuscicornis (Jurine, 1807, *Omalus*) E S W
sygenesiae Haliday, 1834
fulvicornis Curtis, 1838
triareolatus Förster, 1851
variabilis (Thomson, 1862, *Episemus*)
hyalinus (Marshall, 1874, *Perisemus*) de Rond (1994)
fuscicornis var. *maurus* Kieffer, 1905
brevipennis Hellén, 1920
berlandi Arle, 1929

GONIOZUS Förster, 1856
PARASIEROLA Cameron, 1883
PROGONIOZUS Kieffer, 1905
PERISIEROLA Kieffer, 1914
claripennis (Förster, 1851, *Bethylus*) E
fuscipennis (Förster, 1851, *Bethylus*)
distigmus Thomson, 1862
audouinii Westwood, 1874
claripennis var. *fuscipennis* Kieffer, 1905 preocc.
claripennis var. *tibialis* Kieffer, 1905

Subfamily EPYRINAE Kieffer, 1914

CEPHALONOMIA Westwood, 1833
HOLOPEDINA Förster, 1850
CEPHALOMIA Kirchner, 1867
formiciformis Westwood, 1833 E I
polypori (Förster, 1850, *Holopedina*)
brevipennis Kieffer, 1906⁷¹
formiciformis var. *sulcata* Kieffer, 1906
gallicola (Ashmead, 1887, *Sclerochroa*)
nubilipennis (Ashmead, 1887, *Holopedina*)
xambeui Girad, 1898
quadridentata Duchaussoy, 1920
strandii Hoffer, 1936
hammi Richards, 1939 E
tarsalis (Ashmead, 1893, *Ateleopterus*)

⁶⁹ Some distribution records taken from Archer & Burn (2012).

⁷⁰ Taxonomy mostly follows Gordh & Móczár (1990). Distribution data from Perkins (1976).

⁷¹ Listed as a separate species (described from English specimens, now missing) by Gordh & Móczár (1990) but we follow Richards (1939) who believed this not to be a separate species from *formiciformis*.

carinata Kieffer, 1907
meridionalis Brethes, 1913
kiefferi Fouts, 1920
waterstoni Gahan, 1931

EPYRIS Westwood, 1832
DOLUS Motshultsky, 1863
MUELLERELLA Saussure, 1892
HOMOGLONUS Kieffer, 1904 Terayama (2003)
PAREPYRIS Kieffer, 1913
PSILEPYRIS Kieffer, 1913
ARTIEPYRIS Kieffer, 1913

bilineatus Thomson, 1862 E
fraternus Westwood, 1874
saeva Westwood, 1874
multidentatus Kieffer, 1906
multidentatus var. *angustipennis* Kieffer, 1906

niger Westwood, 1832 E
[?*tricolor* Cameron, 1888⁷²]

HOLEPYRIS Kieffer, 1905
MISEPYRIS Kieffer, 1913
PAREPYRIS Brethes, 1913
glabratus (Fabricius, 1798, *Tiphia*)
hawaiiensis (Ashmead, 1901, *Holepyris*)
sylvanidis (Brethes, 1913, *Parepyris*)
zeae (Turner & Waterston, 1921, *Rhabdepyris*)

LAELIUS Ashmead, 1893⁷³
femoralis (Förster, 1860, *Bethylus*) E
microneurus Kieffer, 1906 Notton *et al.* (2014)
nigricrus Kieffer, 1906
pedatus (Say, 1836, *Bethylus*) E added by Notton *et al.* (2014)

PLASTANOXUS Kieffer, 1905
SNAPPANIA Hedqvist, 1975
chittendenii (Ashmead, 1893, *Anoxus*) E
munroi Richards, 1939
westwoodi (Kieffer, 1914, *Cephalonomia*)
kiefferi Gahan, 1931

Subfamily PRISTOCERINAE Kieffer, 1914

PRISTOCERA Klug, 1808
ACREPYRIS Kieffer, 1905
MANGESIA Kieffer, 1911
TRICHELOBRACHIUM Kieffer, 1914
depressa (Fabricius, 1805, *Bethylus*) E
roubali (Menozzi, 1925, *Pseudisobrachium*)

PSEUDISOBRACHIUM Kieffer, 1904
MONEPYRIS Kieffer, 1905
XESTOBETHYLUS Cameron, 1909
PLUTOBETHYLUS Kieffer, 1910
LYSSEPYRIS Kieffer, 1913
XANTEPYRIS Kieffer, 1913
PARISOBRACHIUM Kieffer, 1914
AFRISOBRACHIUM Benoit, 1957
EDAPHOLIGON Oglobin, 1963
subcyaneum (Haliday, 1838, *Epyris*) E
halidaii (Westwood, 1874, *Epyris*)
carpentieri Kieffer, 1906
carpentieri var. *septemfasciatum* Kieffer, 1906
cantianum Chitty, 1906

⁷² Supposedly described from the New Forest, the type is lost and the species has not been satisfactorily interpreted since.

⁷³ Synonymy and distribution data from Notton *et al.* (2014).

concolor Kieffer, 1906

Family **Chrysididae** Latreille, 1802

Subfamily CLEPTINAE Morice, 1900

CLEPTES Latreille, 1802

subgenus **CLEPTES** Latreille, 1802

semiauratus (Linnaeus, 1761, *Sphex*)⁷⁴ E W

auratus (Panzer, 1798, *Ichneumon*)

pallipes Lepeletier, 1805

diana Mocsáry, 1889

subgenus **LEIOCLEPTES** Móczár, 1962

nitidulus (Fabricius, 1793, *Ichneumon*) E

Subfamily CHRYSIDINAE Latreille, 1802⁷⁵

Tribe CHRYSIDINI Latreille, 1802

CHRYSIS Linnaeus, 1761⁷⁶

angustula Schenck, 1856 E S W

brevicens Tournier, 1879

corusca Valkeila, 1971 E

added by Soon *et al.* (2014)

fulgida Linnaeus, 1761 E

gracillima Förster, 1853 E

added by Morgan (1984)

saussurei Chevrier, 1862

ignita (Linnaeus, 1758, *Sphex*) E S W I M

illigeri Wesmael, 1839 E

chrysoprasina Hellén, 1919 preocc.

helleni Linsenmaier, 1959

succincta misident.

impressa Schenck, 1856 E S W I M

longula Abeille de Perrin, 1879 E S

mediata Linsenmaier, 1951 E W I

pseudobrevitarsis Linsenmaier, 1951 E

ruddii Shuckard, 1836 E S W M

auripes Wesmael, 1839

schencki Linsenmaier, 1968 E

schenckiana Linsenmaier, 1959 preocc.

terminata Dahlbom, 1854 E

added by Soon *et al.* (2014)

vanlithi Linsenmaier, 1959 E S W I M

rutiliventris misident.

viridula Linnaeus, 1761 E W

bidentata Linnaeus, 1767

CHRYSURA Dahlbom, 1845

hirsuta (Gerstäcker, 1869, *Chrysis*) S

osmia (Thomson, 1870, *Chrysis*)

radians (Harris, 1776, *Chrysis*) E W

pustulosa (Abeille de Perrin, 1878, *Chrysis*)

PSEUDOSPINOLIA Linsenmaier, 1951

neglecta (Shuckard, 1836, *Chrysis*) E W

TRICHRYSIS Lichtenstein, 1876

cyanea (Linnaeus, 1758, *Sphex*) E S W

Tribe ELAMPINI Dahlbom, 1854

ELAMPUS Spinola, 1806

NOTOZUS Förster, 1853

⁷⁴ Synonymy follows Rosa *et al.* (2015).

⁷⁵ Some distribution data from Morgan (1984).

⁷⁶ The number of species recognised in the *Chrysis ignita* group has varied from author to author. Soon *et al.*'s (2014) analysis of species limits found there to be 15 described European species plus cryptic species, a results more in line with Morgan's (1984) recognition of multiple species than, for example, Kunz's (1994) much more conservative treatment.

panzeri (Fabricius, 1804, *Chrysis*) E
scutellaris (Panzer, 1798, *Chrysis*) preocc.
constrictus misident.

HEDYCHRIDIUM Abeille de Perrin, 1878
ardens (Latreille, 1801, *Chrysis*) E S W I M
coriaceum (Dahlbom, 1854, *Hedychrum*) E
cupreum (Dahlbom, 1845, *Hedychrum*) E W
integrum (Dahlbom, 1854, *Hedychrum*) Morgan (1984)
roseum (Rossi, 1790, *Chrysis*) E

HEDYCHRUM Latreille, 1802
niemelai Linsenmaier, 1959 E
nobile misident.
nobile (Scopoli, 1763, *Sphex*) E added by Baldock & Hawkins (2013)⁷⁷
lucidula (Fabricius, 1775, *Chrysis*)
regia (Fabricius, 1793, *Chrysis*)
rutilans Dahlbom, 1854 E
intermedium misident.

OMALUS Panzer, 1801
aeneus (Fabricius, 1787, *Chrysis*) E W
puncticollis (Mocsáry, 1887, *Ellampus*)⁷⁸ E S W

PHILOCTETES Abeille de Perrin, 1879
truncatus (Dahlbom, 1831, *Chrysis*) E

PSEUDOMALUS Ashmead, 1902
auratus (Linnaeus, 1758, *Sphex*) E S W I
violaceus (Scopoli, 1763, *Sphex*) E W

Family **Dryinidae** Haliday, 1833⁷⁹

Subfamily ANTEONINAE Perkins, 1912

ANTEON Jurine, 1807
CHELOGYNUS Haliday, 1838
NEOCHELOGYNUS Perkins, 1905
arcuatum Kieffer, 1905 E S W I
imberbis Kieffer, 1905
bensoni Richards, 1939
jurineanum in part, Perkins, 1976
brachycerum (Dalman, 1823, *Dryinus*) E S W I
lyde (Walker, 1837, *Dryinus*)
nigricornis Kieffer, 1905
triareolatus Kieffer, 1905
brevicollis Kieffer, 1905
flavitarsis Kieffer, 1905
indivisus Kieffer, 1905
nigroclavatus Kieffer, 1905
curvatus Kieffer, 1906
obscuricornis Kieffer, 1906
suffolciensis (Chitty, 1908, *Antaeon*)
curvus Kieffer, 1914
ephippiger (Dalman, 1818, *Gonatopus*) E S W I
collaris (Dalman, 1818, *Gonatopus*)
facialis (Thomson, 1860, *Dryinus*)
albidicollis Kieffer, 1905
rubrifrons Kieffer, 1905
rufovariegatus (Berland, 1928, *Chelogynus*)
albidocolle Richards, 1939
pyonganensis Moczar, 1983
exiguum (Haupt, 1941, *Chelogynus*) E W added by Burn (1995)

⁷⁷ Tentative identification by Baldock & Hawkins (2013) but subsequently confirmed (e.g. Earwaker & Sutton, 2015).

⁷⁸ Treated as a subspecies of *aeneus* in Fauna Europaea.

⁷⁹ Some distributional data and synonymy from Olmi (1984), supplemented by Perkins (1976) and Olmi (1989).

subarcticus Hellén, 1935 nom. nud.
flaviscapus Jansson, 1950
subarcticus Hellén, 1953
faciale (Thomson, 1860, *Dryinus*) E
pseudohilare Burn, 1990
flavicornis (Dalman, 1818, *Gonatopus*) E S W I
sericeus Kieffer, 1905
subflavicornis Haupt, 1941
fulviventre (Haliday, 1828, *Dryinus*) E S W I M
fuscipes (Thomson, 1860, *Dryinus*)
similis Kieffer, 1905
gracilicollis Kieffer, 1905
flavinervis Kieffer, 1905
parvulus Kieffer, 1905
xanthostigma Kieffer, 1905
flaviscapus Kieffer, 1905
parvus Kieffer, 1906
alutaceus (Richards, 1935, *Chelogynus*)
gaullei Kieffer, 1905 E S W I
cameroni Kieffer, 1905
trivialis Kieffer, 1905
rufulocollis (Chitty, 1908, *Antaeon*)
infectum (Haliday, 1837, *Dryinus*) E S I
luteicornis misident.⁸⁰
inclytus (Haliday, 1837, *Dryinus*)
lateralis (Thomson, 1860, *Dryinus*)
fusiformis Kieffer, 1905
punctatus Kieffer, 1905
ellimani (Chitty, 1908, *Antaeon*)
jurineanum Latreille, 1809 E S W I
brevicornis (Dalman, 1818, *Gonatopus*)
cursor (Haliday, 1828, *Dryinus*)
otiartes (Walker, 1837, *Dryinus*)
sisithrus (Walker, 1837, *Dryinus*)
nanus (Haliday, 1837, *Dryinus*)
crenulatus Kieffer, 1905
thomsoni Kieffer, 1905
vicinus Kieffer, 1905
marginatus Kieffer, 1905
rectus Kieffer, 1905
scoticus Kieffer, 1905
barbatus (Chitty, 1908, *Antaeon*)
brunneipes (Berland, 1928, *Xenanteon*)
nec jurineanum Richards, 1939
nec jurineanum Perkins, 1976
pubicornis (Dalman, 1818, *Gonatopus*)⁸¹ E S W I
tenuicornis (Dalman, 1823, *Dryinus*)
cephalotes (Ljungh, 1824, *Gonatopus*)
lucidus (Haliday, 1828, *Dryinus*)
penidas (Walker, 1837, *Dryinus*)
alorus (Walker, 1837, *Dryinus*)
fuscoclavatus Kieffer, 1905
triangularis Kieffer, 1905
divisus Kieffer, 1905
vulgaris Kieffer, 1905
breviventralis (Chitty, 1908, *Antaeon*)
delicatulus (Chitty, 1908, *Antaeon*)
serratus (Maneval, 1935, *Chelogynus*)
exiguus (Haupt, 1941, *Chelogynus*)
mongolicum Moczar, 1983
reticulatum Kieffer, 1905 E added by Olmi (1989)
scapulare (Haliday, 1837, *Dryinus*) E
longiforceps Kieffer, 1905
carinatus Kieffer, 1905

⁸⁰ *Sensu* Richards (1939) and Perkins (1976).

⁸¹ Included as a synonym of *brachycerum* by Richards (1978).

lanionis (Haupt, 1941, *Chelogynus*)
tripartitum Kieffer, 1905 E S I
tricarinatus Kieffer, 1905
kiefferi (Chitty, 1908, *Antaeon*)
angusticollis (Berland, 1928, *Chelogynus*)
prehensor (Maneval, 1935, *Chelogynus*)
berlandi (Richards, 1936, *Chelogynus*)
silvaticus (Ponomarenko, 1970, *Chelogynus*)

LONCHODRYINUS Kieffer, 1905

PRENANTEON Kieffer, 1913

PSILANTEON Kieffer, 1913

ruficornis (Dalman, 1818, *Gonatopus*) E S W I M

basalis (Dalman, 1818, *Gonatopus*)
frontalis (Dalman, 1818, *Gonatopus*)
fuscicornis (Dalman, 1818, *Gonatopus*)
longicornis (Dalman, 1823, *Dryinus*)
crassimanus (Haliday, 1828, *Dryinus*)
daos (Walker, 1837, *Dryinus*)
ilus (Walker, 1837, *Dryinus*)
misor (Walker, 1837, *Dryinus*)
lapponicus (Thomson, 1860, *Dryinus*)
retusus (Thomson, 1860, *Dryinus*)
lepidus (Förster, 1861, *Chelogynus*)
subapterus (Kieffer, 1905, *Anteon*)
aequalis (Kieffer, 1905, *Anteon*)
melanocera (Kieffer, 1905, *Anteon*)
vitellinipes (Kieffer, 1905, *Anteon*)
procericornis (Kieffer, 1905, *Anteon*)
declivis (Kieffer, 1905, *Anteon*)
pallidinervis (Kieffer, 1905, *Anteon*)
integer (Kieffer, 1905, *Anteon*)
curvinervis (Kieffer, 1905, *Anteon*)
fractinervis (Kieffer, 1905, *Anteon*)
hyalinipennis (Kieffer, 1905, *Anteon*)
longifilis (Kieffer, 1906, *Anteon*)
halidayi (Kieffer, 1906, *Anteon*)
morleyi (Chitty, 1908, *Antaeon*)
luffnessensis (Chitty, 1908, *Antaeon*)
beaumonti (Chitty, 1908, *Antaeon*)
walkeri (Kieffer, 1914, *Chelogynus*)
parcepunctatus (Kieffer, 1914, *Prenanteon*)
palustris (Oglobin, 1924, *Prenanteon*)
filicornis (Oglobin, 1924, *Prenanteon*)
euscelisi (Haupt, 1941, *Prenanteon*)
semenovi (Ponomarenko, 1970, *Prenanteon*)
foveatus (Richards, 1971, *Prenanteon*)
pektusanense (Moczar, 1983, *Prenanteon*)
clavatum (Moczar, 1983, *Prenanteon*)

Subfamily APHELOPINAE Perkins, 1912

APHELOPUS Dalman, 1823⁸²

ANTAPHELOPUS Benoit, 1951

GYMNAPHELOPUS Benoit, 1951

atratus (Dalman, 1823, *Dryinus*) E S W I

holomelas Richards, 1939

camus Richards, 1939 E W

heidelbergensis Richards, 1939

melaleucus (Dalman, 1818, *Gonatopus*) E S W I

albipes (Ratzeburg, 1848, *Ceraphron*)

nigriceps Kieffer, 1905 E S W I

querceus Olmi, 1984 E

added by Burn (1995)

serratus Richards, 1939 E S W I

⁸² Data on five species reared in Wales from Jervis (1977).

Subfamily BOCCHINAE Richards, 1939

MYSTROPHORUS Förster, 1856

formicaeformis Ruthe, 1859 E

Subfamily DRYININAE Kieffer, 1906

DRYINUS Latreille, 1804

CAMPYLONYX Westwood, 1835

PARADRYINUS Perkins, 1905

CHLORODRYINUS Perkins, 1905

PLASTODRYINUS Kieffer, 1906

MESODRYINUS Kieffer, 1906

HESPERODRYINUS Perkins, 1907

collaris (Linnaeus, 1767, *Sphex*) E

formicarius Latreille, 1805

ampuliciformis (Westwood, 1835, *Campylonyx*)

corsicae (Kieffer, 1914, *Lestodryinus*)

niger Kieffer, 1904 E

britannicus (Richards, 1939, *Mesodryinus*)

Subfamily GONATOPODINAE Kieffer, 1906

GONATOPUS Ljungh, 1810

DICONDYLLUS Haliday, 1829-30

LABEO Haliday, 1833

PSEUDOGONATOPUS Perkins, 1905

NEOGONATOPUS Perkins, 1905

PACHYGONATOPUS Perkins, 1905

CHALCOGONATOPUS Perkins, 1905

EUGONATOPUS Perkins, 1905

PLATYGONATOPUS Kieffer, 1906

AGONATOPUS Perkins, 1907

AGONATOPOIDES Perkins, 1907

EUCAMPTONYX Perkins, 1907

CYRTOGONATOPUS Kieffer, 1907

DIGONATOPUS Kieffer, 1913

LABERIUS Kieffer, 1914

TRICHOGONATOPUS Hellén, 1930

METAGONATOPUS Oglobin, 1932

ALLOGONATOPUS Haupt, 1938

DONISTHORPINA Richards, 1939

PLECTROGONATOPUS Richards, 1939

TETRODONTOCHELYS Richards, 1939

EPIGONATOPOIDES Richards, 1939

RHYNCHOGONATOPUS Benoit, 1953

MADECAGONATOPUS Benoit, 1953

CYRTOGONATOPOIDES Ponomarenko, 1966

MEGAGONATOPUS Olmi & Currado, 1976

TETRADONTOCHELYS Perkins, 1976

albosignatus Kieffer, 1905 E W

separatus (Richards, 1939, *Pseudogonatopus*)

Burn & Olmi (2011)

bicolor (Haliday, 1828, *Dryinus*) E S W I

vitripennis (Haliday, 1833, *Labeo*)

excisus (Westwood, 1833, *Antaeon*)

conjunctus Kieffer, 1905

bifarius Kieffer, 1906

decretorius Haupt, 1916

lindbergi (Heikinheimo, 1957, *Dicondylus*)

clavipes (Thunberg, 1827, *Gelis*) E S W I

sepsoides Westwood, 1833

pilosus Thomson, 1860

nigerrimus (Förster, 1861, *Labeo*)

pusillus Szépligeti, 1901, *Labeo*)

hispanicus Kieffer, 1905

sociabilis Kieffer, 1907

borealis Sahlberg, 1910
wagneri Strand, 1919
barbatellus Richards, 1939
campestris Ponomarenko, 1965
rhaensis Ponomarenko, 1970
distinctus Kieffer, 1905 E W
septemdentatus Sahlberg, 1910
robustus (Ceballos, 1927, *Dicondylus*)
distinguendus Kieffer, 1905 E W I
flavicornis Thomson, 1860 preocc.
luteicornis Kieffer, 1905
excavatus Sahlberg, 1910
liechtensteini Picard, 1932
procerus (Haupt, 1938, *Allogonatopus*)
thomsoni Hellén, 1953
rossicus Ponomarenko, 1965
formicicolus (Richards, 1939, *Donisthorpina*) E W
helleni Raatikainen, 1961 E added by Burn (1997)
dichromus Kieffer, 1906
rufescens Hellén, 1935
lunatus Klug, 1810 E W
bifasciatus Kieffer, 1904
gracilicornis Kieffer, 1904
filicornis Kieffer, 1905
gracilis Kieffer, 1905
marshalli Kieffer, 1905
myrmecophilus Kieffer, 1905
gracilipes Kieffer, 1906
raptoripes Strand, 1919
pedestris Dalman, 1818 E
ljunghii Westwood, 1833
leucostomus Sahlberg, 1910
arnoldii (Ponomarenko, 1966, *Pachygonatopus*)
striatus Kieffer, 1905 E S W I
richardsi (Moczar, 1965, *Plectrogonatopus*)
tauricus (Ponomarenko, 1965, *Agonatopoides*)

HAPLOGONATOPUS Perkins, 1905
MONOGONATOPUS Richards, 1939
oratorius (Westwood, 1833, *Gonatopus*) E

Family **Embolemidae** Förster, 1856

EMBOLEMUS Westwood, 1833
MYRMECOMORPHUS Westwood, 1833
POLYPLANUS Nees, 1834
EMBOLIMUS Agassiz, 1846
FORMILA De Romand, 1846
PEDINOMMA Förster, 1856
AMPULICOMORPHA Ashmead, 1893
AMPULICIMORPHA Brues, 1933
ruddii (Westwood, 1833, *Myrmecomorphus*) E S W
rufescens (Westwood, 1833, *Myrmecomorphus*)
sickershusanus (Nees, 1834, *Polyplanus*)
antennalis (Kieffer, 1906, *Pedinomma*) Hilpert (1989)
holochlora (Kieffer, 1906, *Pedinomma*)
hypochlora (Kieffer, 1906, *Pedinomma*)
rufus Kieffer, 1906

Superfamily **VESPOIDEA**⁸³

Family **Formicidae** Latreille, 1809⁸⁴

⁸³ Some distribution data for Mutillidae, Sapygidae, Tiphidae and Vespidae from Archer (2014).

⁸⁴ Nomenclature, synonymy and higher classification based on Bolton (1995, 2003) and AntWeb (<http://www.antweb.org/>), with additional references given.

Subfamily DOLICHODERINAE Forel, 1878

[**LINEPITHEMA** Mayr, 1866

humile (Mayr, 1868, *Hypoclinea*)⁸⁵]

TAPINOMA Förster, 1850

MICROMYRMA Dufour, 1857

SEMONIUS Forel, 1910

TAPINOPTERA Santschi, 1925

ZATAPINOMA Wheeler, 1928

NEOCLYSTOPSENELLA Kurian, 1955

erraticum (Latreille, 1798, *Formica*) E

caerulescens (Losana, 1834, *Formica*)

glabrella (Nylander, 1849, *Formica*)

collina Förster, 1850

bononiensis Emery, 1925

breve Emery, 1925

tauridis Emery, 1925

transcaucasica Karavaiev, 1927

subboreale Seifert, 2012 E

ambiguum misident.⁸⁶

madeirense misident.

melanocephalum (Fabricius, 1793, *Formica*)

nana (Jerdon, 1851, *Formica*) preocc.

pellucida (Smith, 1857, *Myrmica*)

familiaris (Smith, 1860, *Formica*) preocc.

australe Santschi, 1928

australis Santschi, 1928

Subfamily FORMICINAE Latreille, 1802

FORMICA Linnaeus, 1758

FORMICINA Schuckard, 1840

NEOFORMICA Wheeler, 1913

RAPTIFORMICA Forel, 1913

SERVIFORMICA Forel, 1913

COPTOFORMICA Müller, 1923

ADFORMICA Lomnicki, 1925

aquilonia Yarrow, 1955 S I

schmidti Ruzsky, 1920 preocc.

cunicularia Latreille, 1798 E W

fuscorufibarbis Forel, 1874

glauca Ruzsky, 1896

rubescens Forel, 1904

caucasica Wheeler, 1913

volgensis Ruzsky, 1914

katuniensis Ruzsky, 1915

montivaga Santschi, 1928

montaniformis Kuznetsov-Ugamsky, 1929

fuscooides Dlussky, 1967

exsecta Nylander, 1846 E S

exsectopressilabris Forel, 1874

rubens Forel, 1874

etrusca Emery, 1909

dalcqi Bondroit, 1918

sudetica Scholz, 1924

wheeleri Creighton, 1935

kontunemii Betrem, 1954

nemoralis Dlussky, 1964

fusca Linnaeus, 1758 E S W I M

libera Scopoli, 1763

flavipes Geoffroy, 1785

barbata Razoumowski, 1789

⁸⁵ Although this highly invasive species has the potential to establish itself in hothouses, given the correct climate, I am unaware of any established colonies being found in Britain. Any introductions have been of isolated workers.

⁸⁶ Seifert (2012) clarified the identity of the north European *Tapinoma*.

tristis Christ, 1791
glebaria Nylander, 1846
marcida Wheeler, 1913
pallipes Kuznetsov-Ugamsky, 1926
rufipes Stitz, 1930
lemani Bondroit, 1917 E S W I M
borealis Vashkevich, 1924
lugubris Zetterstedt, 1838 E S W I
congerens Nylander, 1846
santschii Wheeler, 1913
nylanderi Bondroit, 1920
unicolor Ruzsky, 1926
montana Sadil, 1953
picea Nylander, 1846⁸⁷ E W
candida misident.
glabra White, 1884 preocc.
transcaucasica Nasonov, 1889
orientalis Ruzsky, 1915
piceoinplana Emery, 1925
inplana Emery, 1925
lochmatteri Stärcke, 1935
pratensis Retzius, 1783 E⁸⁸
nigricans Bondroit, 1912
cordieri Bondroit, 1917
grouvellei Bondroit, 1918
ciliata Ruzsky, 1926
thyssei Stärcke, 1942
pratensoides Gösswald, 1951
rufa Linnaeus, 1761 E W
ferruginea Christ, 1791
dorsata Panzer, 1798
major Nylander, 1849
piniphila Schenck, 1852
apicalis Smith, 1858
rufopratensis Forel, 1874
meridionalis Nasonov, 1889
gaullei Bondroit, 1917
rufibarbis Fabricius, 1793 E
nicaeensis Leach, 1825
stenoptera Förster, 1850
cinereorufibarbis Forel, 1874
defensor Smith, 1878
fraterna Smith, 1878
piligera Lomnicki, 1925
sanguinea Latreille, 1798 E S W
dominula Nylander, 1846
fusciceps Emery, 1895
mollesonae Ruzsky, 1903
clarior Ruzsky, 1905
flavorubra Forel, 1909
borea Santschi, 1925
strennua Santschi, 1925
griseopubescens Kuznetsov-Ugamsky, 1926
monticola Kuznetsov-Ugamsky, 1926
rotundata Kuznetsov-Ugamsky, 1926
arenicola Kuznetsov-Ugamsky, 1928
leninei Santschi, 1928
tristis Karavaiev, 1929

LASIUS Fabricius, 1804
CHTHONOLASIUS Ruzsky, 1912
DENDROLASIUS Ruzsky, 1912
CAUTOLASIUS Wilson, 1955
AUSTROLASIUS Faber, 1967

⁸⁷ Not a homonym under article 23.9.5 of the Code (Seifert, 2004).

⁸⁸ Probably extinct in Britain (Edwards & Broad, 2005).

alienus (Foerster, 1850, *Formica*) E S W I
americanus Emery, 1893
annonica Rösler, 1942

brunneus (Latreille, 1798, *Formica*) E W
pallida (Latreille, 1798, *Formica*)
timida (Förster, 1850, *Formica*)
alienobrunneus Forel, 1874
nigrobrunneus (Donisthorpe, 1926, *Acanthomyops*)

emarginatus (Olivier, 1792, *Formica*) E added by Pontin (2008)⁸⁹
brunneoemarginatus Forel, 1874
brunneooides Forel, 1874
nigroemarginatus Forel, 1874
illyricus Zimmermann, 1935
pontica Stärcke, 1944

flavus (Fabricius, 1781, *Formica*) E S W I M
ruficornis (Fabricius, 1804, *Formica*)
brevicornis Emery, 1893
fuscoides Ruzsky, 1902
odoratus Ruzsky, 1905
claripennis Wheeler, 1917
microps Wheeler, 1917
morbosa (Bondroit, 1918, *Formicina*)
ibericus Santschi, 1925
apennina Menozzi, 1925
olivacea Karavaiev, 1926
helvus Cook, 1953

fuliginosus (Latreille, 1798, *Formica*) E S W I M

meridionalis (Bondroit, 1920, *Formicina*) E W

mixtus (Nylander, 1846, *Formica*) E S W I

neglectus Van Loon, Boomsma & Andrasfalvy, 1990 E
added by Fox (2009)

niger (Linnaeus, 1758, *Formica*) E S W I M
nigerrima (Christ, 1791, *Formica*)
pallescens (Schenck, 1852, *Formica*)
alienoniger Forel, 1874
emeryi Ruzsky, 1905
nitidus (Kuznetsov-Ugamsky, 1927, *Acanthomyops*)
minimus (Kuznetsov-Ugamsky, 1928, *Acanthomyops*)
transylvanica Rösler, 1943

platythorax Seifert, 1991 E S W I added by Seifert (1992)

psammophilus Seifert, 1992 E W added by Seifert (1992)

sabularum (Bondroit, 1918, *Formicina*) E W M

umbratus (Nylander, 1846, *Formica*) E S W I M
aphidicola (Walsh, 1863, *Formica*)
exacutus Ruzsky, 1902
affinoumbratus Donisthorpe, 1914
belgarum (Bondroit, 1918, *Formicina*)
silvestrii Wheeler, 1928
hirtiscapus Stärcke, 1937
osakana Santschi, 1941
nyaradi (Rösler, 1943, *Chthonolasius*)
epinotalis Buren, 1944

PARATRECHINA Motschulsky, 1863

longicornis (Latreille, 1802, *Formica*)
vagans (Jerdon, 1851, *Formica*)
gracilescens (Nylander, 1856, *Formica*)
currens Motschoulsky, 1863

PLAGIOLEPIS Mayr, 1861
APOROMYRMEX Faber, 1969
PARAPLAGIOLEPIS Faber, 1969

schmitzii Forel, 1895 E⁹⁰

⁸⁹ Further records are given by Smith & Williams (2008).

⁹⁰ Two nests persisted on the Isle of Wight from 2007-2008 (BB, pers. obs., specimens in NHM, BB coll. and B. Seifert coll.) but appear to have died out since. A native of the Azores and Madeira.

barbara Santschi, 1911
croci Santschi, 1920
madeirensis Emery, 1921

Subfamily MYRMICINAE Lepeletier, 1835⁹¹

Tribe Attini Smith, 1858

PHEIDOLE Westwood, 1841

megacephala (Fabricius, 1793, *Formica*)⁹²
edax (Forskål, 1775, *Formica*)
trinodis (Losana, 1834, *Myrmica*)
pusilla (Heer, 1852, *Oecophthora*)
laevigata (Smith, 1855, *Myrmica*)
agilis (Smith, 1857, *Myrmica*)
testacea (Smith, 1858, *Atta*)
janus Smith, 1858
suspiciosa (Smith, 1859, *Myrmica*)
laevigata Mayr, 1862
perniciosa (Gerstäcker, 1862, *Oecophthora*)
picata Forel, 1891
scabrior Forel, 1891
gietleni Forel, 1905
bernhardae Emery, 1915

Tribe Crematogastrini Forel, 1893

[**CARDIOCONDYLA** Emery, 1869
britteni Crawley, 1920⁹³]

[**CREMATOGASTER** Lund, 1831

scutellaris (Olivier, 1792, *Formica*)⁹⁴
haematocephala (Leach, 1825, *Formica*)
rediana (Gené, 1841, *Myrmica*)
rubriceps (Nylander, 1849, *Myrmica*)
ruficeps (Mayr, 1853, *Acrocoelia*)
grouvellei Bondroit, 1918
lichtensteini Bondroit, 1918
corsica Santschi, 1921
degener Santschi, 1937]

FORMICOXENUS Mayr, 1855

SYMMYRMICA Wheeler, 1904

nitidulus (Nylander, 1846, *Myrmica*) E S
laeviuscula (Förster, 1850, *Myrmica*)
picea (Wasmann, 1906, *Leptothorax*)

LEPTOTHORAX Mayr, 1855⁹⁵

DORONOMYRMEX Kutter, 1945

MYCHOTHORAX Ruzsky, 1904

acervorum (Fabricius, 1793, *Formica*) E S W I M
lacteipennis (Zetterstedt, 1838, *Myrmica*)
nigrescens Ruzsky, 1905
superus Ruzsky, 1905
kamtschaticum Ruzsky, 1920
orientalis (Kuznetsov-Ugamsky, 1928, *Mychothorax*)

MYRMECINA Curtis, 1829

ARCHAEOMYRMEX Mann, 1921

⁹¹ The tribal classification follows Ward *et al.* (2015).

⁹² A tramp species, in the past regarded as a proper introduction in Britain but no established colonies have been reported in the period 1970–present. On a world-wide scale its importance as a tramp species seems to be diminishing. The origin of *megacephala* is certainly Afrotropical as it is a member of a large and successful species group that is otherwise confined to that region.

⁹³ Described from a worker casually introduced in Britain; included here only because the type-locality is Britain.

⁹⁴ An occasional accidental import with cork from southern Europe. It has never established in Britain and, with the decrease in the cork trade, imports of this species will probably become even rarer.

⁹⁵ Many species previously placed in *Leptothorax* have been transferred to *Temnothorax* by Bolton (2003).

graminicola (Latreille, 1802, *Formica*) E W

latreillei Curtis, 1829
striatula (Nylander, 1849, *Myrmica*)
bidens (Förster, 1850, *Myrmica*)
kutteri Forel, 1914
grouvellei Bondroit, 1918
gotlandica Karavaiev, 1930
oelandica Karavaiev, 1930
dentata Santschi, 1939

STRONGYLOGNATHUS Mayr, 1853

MYRMUS Schenck, 1853 preocc.

testaceus (Schenck, 1852, *Eciton*) E

emarginatus (Schenck, 1852, *Myrmus*)
diveri Donisthorpe, 1936

TEMNOTHORAX Mayr, 1861

MACROMISCHA Roger, 1863
DICHOTHORAX Emery, 1895
MYRMOXENUS Ruzsky, 1902
PROTOMOGNATHUS Wheeler, 1905
ANTILLAEMYRMEX Mann, 1920
CROESOMYRMEX Mann, 1920
CHALEPOXENUS Menozzi, 1923
MYRMAMMOPHILUS Menozzi, 1925
MYRAFANT Smith, 1950
ICOTHORAX Hamann & Klemm, 1967

albipennis (Curtis, 1854, *Stenammas*) E W

tuberum misident. Orledge (1998)
tuberointerruptus (Bondroit, 1918, *Leptothorax*)

interruptus (Schenck, 1852, *Myrmica*) E

simpliciuscula (Nylander, 1856, *Myrmica*)
tuberoaffinis (Bondroit, 1918, *Leptothorax*)

nylanderi (Foerster, 1850, *Myrmica*) E W

cingulata (Schenck, 1852, *Myrmica*)
nylanderocorticalis (Forel, 1874, *Leptothorax*)
nylanderotuberum (Ruzsky, 1902, *Leptothorax*)

unifasciatus (Latreille, 1798, *Formica*)⁹⁶

anoplogynus (Emery, 1869, *Leptothorax*)
unifasciatointerruptus (Forel, 1874, *Leptothorax*)
kirillovi (Ruzsky, 1905, *Leptothorax*)
brauneri (Karavaiev, 1937, *Leptothorax*)
salina (Karavaiev, 1937, *Leptothorax*)
ucrainicus (Arnol'di, 1977, *Leptothorax*)

TETRAMORIUM Mayr, 1855

TETROGMUS Roger, 1857
ANERGATES Forel, 1874
XIPHOMYRMEX Forel, 1887
TRIGLYPHOTHRIX Forel, 1890
RHOPTROMYRMEX Mayr, 1901
ATOPULA Emery, 1912
MACROMISCHOIDES Wheeler, 1920
LOBOMYRMEX Kratochvil, 1941
TELEUTOMYRMEX Kutter, 1950

atratulus (Schenck, 1852, *Myrmica*) E

friedlandi (Creighton, 1934, *Anergates*)

bicarinatum (Nylander, 1846, *Myrmica*)

guineense misident.
cariniceps (Guérin-Méneville, 1852, *Myrmica*)
kollari (Mayr, 1853, *Myrmica*)
modesta (Smith, 1860, *Myrmica*)
reticulata (Smith, 1862, *Myrmica*)

caespitum (Linnaeus, 1758, *Formica*)⁹⁷ E S W I M

⁹⁶ Recorded from England as an accidental introduction by Fox (2011).

fusca (Leach, 1825, *Formica*)
fuscula (Nylander, 1846, *Myrmica*)
modesta (Foerster, 1850, *Myrmica*)
himalayanum Viehmeyer, 1914
hammi Donisthorpe, 1915
immigrans Santschi, 1927
indocile Santschi, 1927
transbaicalense Ruzsky, 1936
transversinodis (Enzmann, 1946, *Myrmica*)
fusciclavum Consani & Zngheri, 1952
jiangxiense Wang & Xiao, 1988
simillimum (Smith, 1851, *Myrmica*)
parallela (Smith, 1859, *Myrmica*)
pygmaeum Emery, 1877
denticulatum Forel, 1902
bantouana Santschi, 1910
opacior Forel, 1913
exoleta Santschi, 1914
brevispinosa (Borgmeier, 1928, *Wasmannia*)
insulare Santschi, 1928

Tribe Myrmicini Lepeletier, 1835

MYRMICA Latreille, 1804

SIFOLINIA Emery, 1907
SOMMIMYRMA Menozzi, 1925
SYMBIOMYRMA Arnol'di, 1930
PARAMYRMICA Cole, 1957
DODECAMYRMICA Arnol'di, 1968

hirsuta Elmes, 1978 E W

karavajevi (Arnol'di, 1930, *Symbiomyrma*) E W

laurae misident.
pechei (Samsinak, 1957, *Sifolinia*)
faniensis van Boven, 1970
winterae (Kutter, 1973, *Sifolinia*)

lobicornis Nylander, 1846 E S W

denticornis Curtis, 1854
arduennae Bondroit, 1911
angustifrons Stärcke, 1927
brunescens Karavaiev, 1929
burtshakabramovitshi Karavaiev, 1929
starki Karavaiev, 1929
foreli Santschi, 1931
alpestris Arnol'di, 1934
kievensis Karavaiev, 1934
lissahorensis Stitz, 1939

lonae Finzi, 1926 S

added by Seifert (2000)

rubra (Linnaeus, 1758, *Formica*) E

laevinodis Nylander, 1846
longiscapus Curtis, 1854
champlaini Forel, 1901
europaea Finzi, 1926
bruesi Weber, 1947
microrubra Seifert, 1993

ruginodis Nylander, 1846 E S W I M

dimidiata Say, 1836
diluta Nylander, 1849
ruginodolaevinodis Forel, 1874
silvestrii Wheeler, 1928
sontica Santschi, 1937
yoshiokai Weber, 1947
macrogya Brian & Brian, 1949
microgya Brian & Brian, 1949
mutata Sadil, 1952

⁹⁷ *Tetramorium caespitum* agg. is now recognised as comprising several species but the species present in Britain is apparently the true *caespitum*, at least on the basis of specimens from southern England (Schlick-Steiner *et al.*, 2006).

sabuleti Meinert, 1861 E S W I M
scabrinodolobicornis Forel, 1874
scabrinodis Nylander, 1846 E S W I M
rugulosoides Forel, 1915
pilosiscapus Bondroit, 1920
ahngeri Karavaiev, 1926
scabrinodosabuleti Sadil, 1952
schencki Viereck, 1903 E W I
kutteri Finzi, 1926
subopaca Arnol'di, 1934
betuliana Ruzsky, 1946
schenckioides Boer & Noordijk, 2005
specioides Bondroit, 1918 E
silvestrianum Emery, 1924
striata Finzi, 1926
sancta Karavaiev, 1926
nevodovskii (Karavaiev, 1926, *Leptothorax*)
turcica Santschi, 1931
puerilis Stärcke, 1942
dolens Stärcke, 1942
balcanica Sadil, 1952
scabrinodoides Sadil, 1952
tshuliensis Arnol'di, 1976
kozakorum Radchenko & Elmes, 2010
sulcinodis Nylander, 1846 E S W
perelegans Curtis, 1854
nigripes Ruzsky, 1895
myrmecophila Wasmann, 1910
sulcinodoruginodis Donisthorpe, 1915
sulcinodoscabrinodis Forel, 1915
derzhavini Ruzsky, 1920
vicaria Kuznetsov-Ugamsky, 1928
eximia Kupyanskaya, 1990
vandeli Bondroit, 1920 E W

added by Elmes *et al.* (2003)

Tribe Solenopsidini Forel, 1893

MONOMORIUM Mayr, 1855
floricola (Jerdon, 1851, *Atta*)
cinnabari Roger, 1863
poecilum Roger, 1863
specularis Mayr, 1866
impressum Smith, 1876
philippinensis Forel, 1910
furina Forel, 1911
floreanum Stitz, 1932
angusticlava Donisthorpe, 1947
pharaonis (Linnaeus, 1758, *Formica*)
antiguensis (Fabricius, 1793, *Formica*)
domestica (Shuckard, 1838, *Myrmica*)
minuta (Jerdon, 1851, *Atta*)
vastator (Smith, 1857, *Myrmica*)
contigua (Smith, 1858, *Myrmica*)
fragilis (Smith, 1858, *Myrmica*)

SOLENOPSIS Westwood, 1840
DIPLORHOPTRUM Mayr, 1855
OCTELLA Forel, 1915
SYNSOLENOPSIS Forel, 1918
DIAGYNE Santschi, 1923
EUOPHTHALMA Creighton, 1930
LABAUCHENA Santschi, 1930
OEDALEOCERUS Creighton, 1930
BISOLENOPSIS Kusnezov, 1953
PARANAMYRMA Kusnezov, 1953
GRANISOLENOPSIS Kusnezov, 1957
LILIDRIS Kusnezov, 1957

fugax (Latreille, 1798, *Formica*) E
flavidula (Nylander, 1849, *Myrmica*)
latroides Ruzsky, 1905
orientalis Ruzsky, 1905
kasalinensis Emery, 1909
pontica Santschi, 1934
scythica Santschi, 1934
furtiva Santschi, 1934
balachowskyi Bernard, 1950
banyulensis Bernard, 1950
duboscqui Bernard, 1950
laevithorax Bernard, 1950
monticola Bernard, 1950
nicaeensis Bernard, 1950
provincialis Bernard, 1950
pygmaea Bernard, 1950
richardi Bernard, 1950
robusta Bernard, 1950
rugosa Bernard, 1950
tertialis Ettershank, 1966
avium (Bernard, 1978, *Diplorhoptrum*)
delta (Bernard, 1978, *Diplorhoptrum*)
insulare (Bernard, 1978, *Diplorhoptrum*)
pilosum (Bernard, 1978, *Diplorhoptrum*)

Tribe Stenammini Ashmead, 1905

STENAMMA Westwood, 1839

ASEMORHOPTRUM Mayr, 1861

THERYELLA Santschi, 1921

debile (Förster, 1850, *Myrmica*) E W I added by DuBois (1993)

minkii (Förster, 1850, *Myrmica*)

golosejevi Karavaiev, 1926

ucrainicum Arnol'di, 1928

polonicum Begdon, 1932

orousseti Casevitz-Weulerrse, 1990

westwoodii Westwood, 1839 E⁹⁸

Subfamily PONERINAE Lepeletier, 1835

HYPOPONERA Santschi, 1938

[# **gibbinota** (Forel, 1912, *Ponera*)⁹⁹]

punctatissima (Roger, 1859, *Ponera*) E S W I

androgyna (Roger, 1859, *Ponera*)

tarda (Charsley, 1877, *Ponera*)

jugata (Forel, 1892, *Ponera*)

brevis (Santschi, 1911, *Ponera*)

cognata (Santschi, 1912, *Ponera*)

durbanensis (Forel, 1914, *Ponera*)

incisa (Santschi, 1914, *Ponera*)

sordida (Santschi, 1914, *Ponera*)

petri (Forel, 1916, *Ponera*)

exacta (Santschi, 1923, *Ponera*)

mina (Wheeler, 1927, *Ponera*)

mumfordi (Wheeler, 1931, *Ponera*)

argonautorum (Arnol'di, 1932, *Ponera*)

mesoepinotalis (Weber, 1942, *Ponera*)

breviceps (Bernard, 1953, *Ponera*)

ursoidea (Bernard, 1953, *Ponera*)

sulcitana (Stefani, 1970, *Ponera*)

ergatandria (Forel, 1893, *Ponera*) E

Ponera ergatandria Forel, 1893

schauinslandi (Emery, 1899, *Ponera*) Seifert (2013)

kalakauae (Forel, 1899, *Ponera*)

⁹⁸ Records from Ireland may relate to *debile* (Fox in Collins & Roy, 2012).

⁹⁹ Described from a worker casually introduced to Britain.

aemula (Santschi, 1911, *Ponera*)
bondroiti (Forel, 1911, *Ponera*)

PONERA Latreille, 1804
PSEUDOCRYPTOPONE Wheeler, 1933
SELENOPONE Wheeler, 1933
PTEROPONERA Bernard, 1950

coarctata (Latreille, 1802, *Formica*) E W
contracta (Latreille, 1802, *Formica*)
lucida Emery, 1898
atlantis Santschi, 1921

testacea Emery, 1895 E added by Attewell *et al.* (2010)
crassisquama Emery, 1916

Family **Mutillidae** Latreille, 1802¹⁰⁰

Subfamily MUTILLINAE Latreille, 1802

MUTILLA Linnaeus, 1758
europaea Linnaeus, 1758 E S

SMICROMYRME Thomson, 1870
rufipes (Fabricius, 1787, *Mutilla*) E

Subfamily MYRMOSINAE Fox, 1894

MYRMOSA Latreille, 1796
atra Panzer, 1801¹⁰¹ E W I M
melanocephala (Fabricius, 1793, *Mutilla*) preocc.

Family **Pompilidae** Latreille, 1805¹⁰²
Psammocharidae Banks, 1910

Subfamily PEPSINAE Lepeletier, 1845

Tribe PEPSINI Lepeletier, 1845

AUPLONUS Spinola 1841
PILPOMUS Costa, 1859
PSEUDAGENIA Kohl, 1844
carbonarius (Scopoli, 1763, *Sphex*) E W
punctum (Fabricius, 1804, *Ceropales*)
canaliculatus (Schenck, 1857, *Agenia*)
submarginatus Lepeletier, 1845
albigena Lepeletier, 1845
collinus Haupt, 1962
silvalis Haupt, 1962

CALIADURGUS Pate, 1946
CALICURGUS Lepeletier, 1845 preocc.
fasciatellus (Spinola, 1808, *Pompilus*) E W
calcaratus (Dahlbom, 1829, *Pompilus*)
maculipennis (Dahlbom, 1829, *Pompilus*)
albispinus (Herrich-Schäffer, 1830, *Pompilus*)
curtus (Zetterstedt, 1838, *Pompilus*)
gyllenhali (Dahlbom, 1843, *Priocnemis*)
labiatus (Lepeletier, 1845, *Anoplius*)
unimacula (Lepeletier, 1845, *Anoplius*)
odontellus (Lepeletier, 1845, *Calicurgus*)
bivirgulatus (Costa, 1881, *Pompilus*)
fuscopennis (Verhoeff, 1892, *Priocnemis*)

¹⁰⁰ Nomenclature follows Lelej (2002), who includes full synonymy. Only names that have been used in the British literature are included here.

¹⁰¹ The nominate subspecies occurs in England and Wales, *atra erythrocephala* Yarrow, 1954 in Ireland and the Isle Man.

¹⁰² Classification follows Wahis (1986, 2006). Some distribution data from Day (1988).

CRYPTOCHEILUS Panzer, 1806

CALICURGUS Brullé, 1833

CHLOROCHAILUS Wolf, 1965 nom. nud.

subgenus **ADONTA** Bilberg, 1820

SALIUS Fabricius, 1804 preocc.

HOMONOTUS Dahlbom, 1845 preocc.

notatus (Rossi, 1792, *Sphex*) E W

?*guttus* (Spinola, 1808, *Pompilus*)

affinis (Vander Linden, 1827, *Pompilus*)

iracundus (Dufour, 1841, *Pompilus*)

apricus (Lepeletier, 1845, *Calicurgus*)

melanius (Lepeletier, 1845, *Calicurgus*)

?*binotatus* (Marquet, 1879, *Priocnemis*) preocc.

marquetii (Dalla Torre, 1897, *Salius*)

orientalis Haupt, 1927

DIPOGON Fox, 1897

subgenus **DEUTERAGENIA** Susterer, 1912

bifasciatus (Geoffroy, 1785, *Ichneumon*) E

hircanus (Fabricius, 1798, *Pompilus*)

intermedius (Dahlbom, 1843, *Agenia*)

subintermedius (Magretti, 1886, *Pogonius*) E S W

nitidus (Haupt, 1927, *Deuteragenia*)

variegatus (Linnaeus, 1758, *Sphex*) E S W I

erythropus (Kohl, 1888, *Agenia*)

structor (Ferton, 1897, *Agenia*)

faggiolii (Haupt, 1927, *Deuteragenia*)

PRIOCNEMIS Schiødte, 1837

subgenus **PRIOCNEMIS** Schiødte, 1837

MACULIPENNIS Junco, 1946

agilis (Shuckard, 1837, *Pompilus*) E S W

obtusiventris Schiødte, 1837

fraterculus Junco, 1946

confusor Wahis, 2006 E I

gracilis Haupt, 1927 preocc.

gussakowskiji Wolf, 2004 preocc.

cordivalvata Haupt, 1927 E

exaltata (Fabricius, 1775, *Sphex*) E S W I M

gibba (Scopoli, 1763, *Sphex*)

revo (Harris, 1780, *Sphex*)

nudipes Dahlbom, 1845

longicornis Haupt, 1927

valkeilai Wolf, 1959

fennica Haupt, 1927 E W I

hyalinata (Fabricius, 1793, *Sphex*) E W

femoralis (Dahlbom, 1829, *Pompilus*)

discrepans (Costa, 1887, *Pseudagenia*)

trifurcus Radoszkowski, 1888

vitripennis Verhoeff, 1892

notatulus (Saunders, 1896, *Salius*)

pseudofemoralis Susterer, 1938

taigaica Wolf, 1967

parvula Dahlbom, 1845 E S W

minor (Zetterstedt, 1879, *Pompilus*)

mocsaryi Gussakovskij, 1930

klosei Haupt, 1937

haupti Susterer, 1938

vinetorum Blüthgen, 1944

minutalis Wahis, 1979 nec auct.

propinqua (Lepeletier, 1845, *Calicurgus*) E

agenoides Dubois, 1920

pusilla (Schiødte, 1837, *Pompilus*) E W

schioedtei Haupt, 1927 E S W

subgenus **UMBRIPENNIS** Junco, 1946

PRIOCNEMISSUS Haupt, 1949

coriacea Dahlbom, 1843 E
capciosus Junco, 1946
perturbator (Harris, 1780, *Sphex*) E S W I
fusca misident.
ambustor (Panzer, 1804, *Ichneumon*)
serripes (Dahlbom, 1829, *Pompilus*)
ambulator (Lepeletier, 1845, *Calicurgus*)
sepicola (Smith, 1851, *Pompilus*)
ater Wolf, 1960
susterai Haupt, 1927 E W
clementi Haupt, 1927
gasconia Wolf, 1975

Subfamily POMPILINAE Latreille, 1805

AGENIOIDEUS Ashmead, 1902
APOROIDEUS Ashmead, 1902
GYMNOCHARES Banks, 1917
cinctellus (Spinola, 1808, *Pompilus*) E W
clypeatus (Dahlbom, 1829, *Pompilus*)
punctipes (Dahlbom, 1832, *Pompilus*)
tibialis (Lepeletier, 1845, *Anoplius*)
sericeus (Vander Linden, 1827, *Pompilus*) E added by Baldock (2006)
vicinus (Lepeletier, 1845, *Pompilus*)
subserricornis (Kohl, 1879, *Pompilus*)
declivus (Tournier, 1889, *Pompilus*)
gaullei (Tournier, 1889, *Pompilus*)
hungaricus (Moczar, 1944, *Anospilus*)

ANOPLIUS Dufour, 1834
subgenus **ANOPLIUS** Dufour, 1834
caviventris (Aurivillius, 1907, *Pompilus*) E W
cardui (Perkins, 1917, *Pompilus*)
carbonarius Haupt, 1937
atricolor Moczar, 1944
concinnus (Dahlbom, 1845, *Pompilus*) E S W I
vacillans (Wesmael, 1851, *Pompilus*)
approximatus (Smith, 1877, *Pompilus*)
bifidus (Morawitz, 1891, *Pompilus*)
distinguendus (Morawitz, 1891, *Pompilus*)
haereticus (Tournier, 1889, *Pompilus*)
nigerrimus (Scopoli, 1763, *Sphex*) E S W I M
nigrus (Fabricius, 1775, *Sphex*)
incisus (Tischbein, 1850, *Pompilus*)
melanarius (Schenck, 1857, *Pompilus*) preocc.
excerptus (Tournier, 1889, *Pompilus*)
difficilis (Tournier, 1889, *Pompilus*)
wheeleri Banks, 1939
banksi Dreisbach, 1950

subgenus **ARACHNOPHROCTONUS** Howard, 1901
POMPILINUS Ashmead, 1902
infuscatus (Vander Linden, 1827, *Pompilus*) E W
minor (Herrich-Schäffer, 1830, *Pompilus*)
sericatus (Shuckard, 1835, *Pompilus*)
chalybeatus (Schjødte, 1837, *Pompilus*)
difformis (Schjødte, 1837, *Pompilus*)
dispar (Dahlbom, 1843, *Pompilus*)
sabulicola (Thomson, 1874, *Pompilus*)
meticulosa (Costa, 1882, *Pompilus*)
aeruginosus (Tournier, 1890, *Pompilus*)
aerarius (Tournier, 1890, *Pompilus*)
argentatus (Tournier, 1890, *Pompilus*)
calcatus (Tournier, 1890, *Pompilus*)
onus (Tournier, 1890, *Pompilus*)
stellatus (Tournier, 1890, *Pompilus*)
utendus (Tournier, 1890, *Pompilus*)

vivus (Tournier, 1890, *Pompilus*)
xysticus (Tournier, 1890, *Pompilus*)
petulans Haupt, 1962
cinctellus (Haupt, 1962, *Paracyphonyx*)
lusitanicus Wolf & Diniz, 1970
fortunatus Wolf, 1975
simii Wolf, 1978

viaticus (Linnaeus, 1758, *Sphex*) E W I
fuscus (Linnaeus, 1761, *Sphex*)
paganus (Dahlbom, 1843, *Pompilus*)
propinquus (Smith, 1879, *Pompilus*)
tibialis (Tournier, 1890, *Pompilus*) preocc.
delatorius (Tournier, 1890, *Pompilus*)
immixtus (Tournier, 1890, *Pompilus*)
pleropicus (Tournier, 1890, *Pompilus*)
valesicus (Tournier, 1890, *Pompilus*)
macrurus (Dalla Torre, 1897, *Pompilus*)
holomelas (Mantero, 1905, *Pompilus*) preocc.

APORUS Spinola, 1808

unicolor Spinola, 1808 E W
femoralis Vander Linden, 1827
castor (Kohl, 1838, *Pompilus*)

ARACHNOSPILA Kincaid, 1900

subgenus **AMMOSPHEX** Wilcke, 1942
ANOPOMPILINUS Dreisbach, 1949
ARIDOPOMPILUS Wolf, 1965
BOREOPOMPILUS Wolf, 1965
HOLARCTOPOMPILUS Wolf, 1965
SAXATILIPOMPILUS Wolf, 1965

anceps (Wesmael, 1851, *Pompilus*) E S W I M

?*vaga* (Harris, 1870, *Sphex*) preocc.
unguicularis (Thomson, 1870, *Pompilus*)
crobaci (Tournier, 1890, *Pompilus*)
expleta (Tournier, 1890, *Pompilus*)
lustrica (Tournier, 1890, *Pompilus*)
nava (Tournier, 1890, *Pompilus*)
radiosa (Tournier, 1890, *Pompilus*)
saxea (Tournier, 1890, *Pompilus*)
peninsulana (Wolf, 1966, *Pompilus*)
serica Wolf & Moczar, 1972

consobrina (Dahlbom, 1843, *Pompilus*) E W

ater (Brullé, 1840, *Pompilus*) preocc.
excisa (Pérez, 1895, *Pompilus*) preocc.
nivariae (Dalla Torre, 1897, *Pompilus*)
guimarensis (Saunders, 1904, *Pompilus*)
lanuginosa (Haupt, 1927, *Psammochares*)
heringi (Haupt, 1928, *Psammochares*)
emissa (Haupt, 1930, *Psammochares*)
laufferi (Junco, 1960, *Pompilus*)
alpina (Wolf, 1965, *Pompilus*)
pyrenaica (Wolf, 1965, *Pompilus*)
continentalis (Wolf, 1966, *Pompilus*)
sicula (Wolf, 1966, *Pompilus*)

trivialis (Dahlbom, 1843, *Pompilus*) E W

gibba misident.
aerumnata (Tournier, 1889, *Pompilus*)
corruptor (Haupt, 1927, *Psammochares*)
michalki (Blüthgen, 1961, *Ammosphex*)
insubrica (Wolf, 1965, *Pompilus*)

wesmaeli (Thomson, 1870, *Pompilus*) E W

subgenus **ANOPLOCHARES** Banks, 1939

minutula (Dahlbom, 1842, *Pompilus*) E W
cellularis (Dahlbom, 1843, *Pompilus*)
neglecta (Dahlbom, 1843, *Pompilus*)

inermis (Lepeletier, 1845, *Anoplius*)
anoplius (Dalla Torre, 1897, *Pompilus*)
simplicicra (Priesner, 1960, *Pompilus*)
apenninusurata Wolf, 1970

spissa (Schjødte, 1837, *Pompilus*) E S W
apennina Wolf, 1970

subgenus **ARACHNOSPILA** Kincaid, 1900
PYCNOPOMPILUS Ashmead, 1902

rufa (Haupt, 1927, *Psammochares*) E
adulterina (Haupt, 1937, *Psammochares*)
melanota Wolf, 1975

EPISYRON Schjødte, 1837

SPILOPOMPILUS Ashmead, 1902

gallicum (Tournier, 1889, *Pompilus*) E added by Baldock (2006)
intermedius Haupt, 1930
tertius Blüthgen, 1944

rufipes (Linnaeus, 1758, *Sphex*) E W I

laevigata (Rossius, 1794, *Sphex*)
gracilis (Lepeletier, 1845, *Pompilus*) preocc.
septemmaculatus (Wesmael, 1851, *Pompilus*)
argyrolepis (Costa, 1887, *Pompilus*)
compressus (Tournier, 1889, *Pompilus*) preocc.
aequatus (Tournier, 1889, *Pompilus*)
pygidialis (Tournier, 1889, *Pompilus*)
deuterus (Dalla Torre, 1897, *Pompilus*)
ephialtes (Dalla Torre, 1897, *Pompilus*)
sardous Wolf, 1961

EVAGETES Lepeletier, 1845

SOPHROPOMPILUS Ashmead, 1902
ASTHENOCTENUS Arnold, 1937 preocc.
ASTHENOCTENIDIA Pate, 1946
LEUCHIMON Haupt, 1930
TRICHOSYRON Haupt, 1930
PSAMMOCHAROIDES Moczar, 1946
STREPTOSELLA Dreisbach, 1950
CARINEVAGETES Wolf, 1970
CONTEMPTEVAGETES Wolf, 1970

crassicornis (Shuckard, 1835, *Pompilus*) E S W I M
dahlbomi (Thomson, 1870, *Pompilus*)
subarcticus Wolf, 1964

dubius (Vander Linden, 1827, *Aporus*) E

bicolor Lepeletier, 1845
servillei Costa, 1882
rattus (Dalla Torre, 1897, *Pompilus*)
obscurodubius Wolf, 1970
theodori Wolf, 1970

pectinipes (Linnaeus, 1758, *Sphex*) E

quadrispinosus (Kohl, 1886, *Pompilus*)
aculeatus (Thomson, 1870, *Pompilus*)
minotaurus Wolf, 1970

HOMONOTUS Dahlbom, 1843

ISONOTUS Dahlbom, 1842 preocc.
WESMAELINIUS Costa, 1886

sanguinolentus (Fabricius, 1793, *Sphex*) E

dispar (Latreille, 1809, *Pompilus*)
bidens (Lepeletier, 1845, *Anoplius*)
affinis (Eversmann, 1849, *Pompilus*) preocc.
nigrus (Marquet, 1879, *Ferrola*)
nasutus Morawitz, 1888
doctor (Dalla Torre, 1897, *Pompilus*)

POMPILUS Fabricius, 1798

CHIONOPOMPILUS Priesner, 1955

cinereus (Fabricius, 1775, *Sphex*) E S W I M
plumbeus (Fabricius, 1787, *Sphex*)
pulcher Fabricius, 1798
pruinus Smith, 1879 preocc.
chevrieri Tournier, 1889
leprosus Dalla Torre, 1897
lusitanicus Wolf & Diniz, 1970
gotlandicus Wolf, 1972

Subfamily CEROPALINAE Radoszkowski, 1888

CEROPALES Latreille, 1796
CERATOPALES Schulz, 1906
HYPsicERAEUS Morice & Durrant, 1915
maculata (Fabricius, 1775, *Evania*) E S W I M
rustica (Müller, 1776, *Sphex*)
multicolor (Fourcroy, 1785, *Ichneumon*)
frontalis (Panzer, 1799, *Pompilus*)
perligerus (Costa, 1882, *Priocnemis*)
balearica Costa, 1893
variegata (Fabricius, 1798, *Evania*) E
destefanii Costa, 1887

Family **Sapygidae** Latreille, 1810

MONOSAPYGA Pic, 1920
clavicornis (Linnaeus, 1758, *Apis*) E W

SAPYGA Latreille, 1796
quinquepunctata (Fabricius, 1781, *Scolia*) E W

Family **Tiphiidae** Leach, 1915

Subfamily METHOCHINAE

METHOCHA Latreille, 1804¹⁰³
METHOCA misspelling
articulata Latreille, 1792 E W
?formicaria (Latreille, 1792, *Mutilla*) nom. dub.
ichneumonides Latreille, 1805
mutillaria Latreille, 1806
sanvitali (Latreille, 1809, *Tengyra*)
italica (Costa, 1858, *Spinolia*)

Subfamily TIPHIINAE

TIPHIA Fabricius, 1775
femorata Fabricius, 1775 E W
minuta Vander Linden, 1827 E S W I M

Family **Vespidae** Laicharting, 1781

Subfamily EUMENINAE¹⁰⁴

ANCISTROCERUS Wesmael, 1836
antilope (Panzer, 1798, *Vespa*) E S W
pictus (Curtis, 1826, *Odynerus*)
claripennis Thomson, 1874 E
?quadratus (Panzer, 1799, *Vespa*) nom. dub.¹⁰⁵
gazella (Panzer, 1798, *Vespa*) E S W I

¹⁰³ Taxonomy follows Agnoli (2005).

¹⁰⁴ Taxonomy mostly follows van der Vecht & Fischer (1972) and Fauna Europaea (Mitroiu *et al.*, 2004).

¹⁰⁵ Although this species has been referred to as *Ancistrocerus quadratus* in British faunistic works (e.g. Richards, 1980, Archer, 2003, 2014), the type of *Vespa quadrata* Panzer is lost and its identification as this species, whilst probable, is not certain (Blüthgen, 1959, van der Vecht & Fischer, 1972), therefore *claripennis* is the name most usually used for this species (e.g. in Fauna Europaea: Mitroiu *et al.*, 2004, accessed 2015).

emarginata (Fabricius, 1793, *Vespa*) preocc.
nigricornis (Curtis, 1826, *Odynerus*) E S W I M
callosus (Thomson, 1870, *Odynerus*)
excisus (Thomson, 1870, *Odynerus*)
sexpunctata (Christ, 1791, *Vespa*)
oviventris (Wesmael, 1836, *Odynerus*)¹⁰⁶ E S W I M
constans (Herrich-Schäffer, 1839, *Odynerus*)
viduus (Herrich-Schäffer, 1839, *Odynerus*)
parietinus (Linnaeus, 1758, *Vespa*) E S W I M
domesticus (Christ, 1791, *Sphex*)
affinis (Herrich-Schäffer, 1839, *Odynerus*)
parietum (Linnaeus, 1758, *Vespa*) E S W I M
scoticus (Curtis, 1826, *Odynerus*) E S W I M
trimarginatus misident.
albotricinctus (Zetterstedt, 1838, *Odynerus*)
trifasciatus (Müller, 1776, *Vespa*) E S W I M
trimarginatus (Zetterstedt, 1838, *Odynerus*)
tricinctus (Herrich-Schäffer, 1839, *Odynerus*)

EUMENES Latreille, 1802
coarctatus (Linnaeus, 1758, *Vespa*) E W
?papillarius (Christ, 1791, *Sphex*)

EUODYNERUS Dalla Torre, 1904
subgenus **PAREUODYNERUS** Blüthgen, 1938
quadrifasciatus (Fabricius, 1793, *Vespa*) E
tomentosus (Thomson, 1870, *Odynerus*)

GYMNOMERUS Blüthgen, 1938
laevipes (Shuckard, 1837, *Odynerus*) E W

MICRODYNERUS Thomson, 1874
exilis (Herrich-Schäffer, 1839, *Odynerus*) E
bivittatus (Lepeletier, 1841, *Odynerus*)

ODYNERUS Latreille, 1802
subgenus **ODYNERUS** Latreille, 1802
melanocephalus (Gmelin, 1790, *Vespa*) E W
spinipes (Linnaeus, 1758, *Vespa*) E S W I M
quinquefasciata (Fabricius, 1793, *Vespa*) preocc.
muticus (Zetterstedt, 1838, *Odynerus*)

subgenus **SPINICOXA** Blüthgen, 1938
reniformis (Gmelin, 1790, *Vespa*) E
simillimus Morawitz, 1867 E

PSEUDEPIPONA Saussure, 1856
herrichii (Saussure, 1855, *Odynerus*) E
variegata misident.
basalis (Smith, 1857, *Odynerus*)

SYMMORPHUS Wesmael, 1836
bifasciatus (Linnaeus, 1761, *Vespa*) E S W I M
sinuatus (Fabricius, 1793, *Vespa*) preocc.
mutinensis (Baldeni, 1894, *Odynerus*)
sinuatissimus Richards, 1935
connexus (Curtis, 1826, *Odynerus*) E
bifasciatus misident.
crassicornis (Panzer, 1798, *Vespa*) E W
gracilis (Brullé, 1832, *Odynerus*) E W

Subfamily POLISTINAE¹⁰⁷

POLISTES Latreille, 1802

¹⁰⁶ The subspecies *hibernicus* Blüthgen, 1937 occurs in Ireland and the Outer Hebrides.

¹⁰⁷ Taxonomy follows Carpenter (1996).

dominula (Christ, 1791, *Vespa*) E
gallicus misident.
italica Herrich-Schäffer, 1840 *nom. nud.*
pectoralis Herrich-Schäffer, 1841
lefebvrei Guérin, 1844
bucharensis Erichson, 1849
maculatus Rudow, 1889
merceti Dusmet, 1903
rufescens Buysson, 1912
ornata Weyrauch, 1938
pacifica Weyrauch, 1939 preocc.
pseudopacificus Giordani Soika, 1970
muchei Gusenleitner, 1976
gallicus (Linnaeus, 1767, *Vespa*) I¹⁰⁸
pictior Radoszkowski, 1872
foederata Kohl, 1898
omissa (Weyrauch, 1938, *Polistula*)

added by McClenaghan (1979)

Subfamily VESPINAE¹⁰⁹

DOLICHOVESPULA Rohwer, 1916
PSEUDOVESPULA Bischoff, 1931
BOREOVESPULA Blüthgen, 1943
METAVESPULA Blüthgen, 1943
media (Retzius, 1783, *Vespa*) E S W M
geerii (Lepelletier, 1836, *Vespa*)
crassa (Herrich-Schäffer, 1841, *Vespa*)
similis (Schenck, 1853, *Vespa*)
rufoscutellata (Schenck, 1853, *Vespa*)
flavicincta (Schenck, 1853, *Vespa*)
lineolata (Pérez, 1910, *Vespa*)
conjugens Paul, 1943
sugare Ishikawa, 1969
borealis Lee, 1986 preocc.
norwegica (Fabricius, 1781, *Vespa*) E S W I M
britannica (Leach, 1814, *Vespa*)
marginata (Kirby, 1837, *Vespa*) preocc.
borealis (Zetterstedt, 1838, *Vespa*) preocc.
albida (Sladen, 1918, *Vespa*)
arctica (Friese, 1919, *Vespa*) preocc.
zetterstedti Blüthgen, 1937

added by Falk (1982)

saxonica (Fabricius, 1793, *Vespa*) E W
bavarica (von Schrank, 1802, *Vespa*)
tridens (Schenck, 1853, *Vespa*)
nipponica Yamane, 1975
kamtschatkensis Eck, 1983
nigrescens Eck, 1983

added by Allen & Archer (1989)

sylvestris (Scopoli, 1763, *Vespa*) E S W I M
parietum (Harris, 1776, *Vespa*)
holsatica (Fabricius, 1793, *Vespa*)
frontalis (Latreille, 1802, *Vespa*)
campanaria (Fowler, 1833, *Vespa*)
anglica (Smith, 1843, *Vespa*)
pilosella (Costa, 1858, *Vespa*)
sumptuosa (De Buysson, 1905, *Vespa*)
xinjiangensis Lee, 1986

VESPA Linnaeus, 1758
MACROVESPULA Dalla Torre, 1904
NYCTOVESPULA van der Vecht, 1959

crabro Linnaeus, 1758¹¹⁰ E W
vexator Harris, 1776
major Retzius, 1783

¹⁰⁸ Recorded as *Polistes omissa* by McClenaghan (1979), who collected a single male in Co. Down; it is unknown whether a nest had been established but this southern European species is an unlikely colonist.

¹⁰⁹ Nomenclature follows Carpenter & Kojima (1997) and Kimsey & Carpenter (2012).

¹¹⁰ British populations are considered to belong to the subspecies *gribodoi*.

?pratensis Geoffroy, 1785
germana Christ, 1791
crabroniformis Smith, 1852
borealis Radoszkowski, 1863
anglica Gribodo, 1892 preocc.
oberthuri du Buysson, 1902
flavo-fasciata Cameron, 1903
tartarea du Buysson, 1905
altaica Pérez, 1910
caspica Pérez, 1910
vulgata Birula, 1925
meridionalis Birula, 1925
chinensis Birula, 1925 preocc.
birulai Bequaert, 1931
gribodoi Bequaert, 1931

VESPULA Thomson, 1869
PSEUDOVESPA Schmiedeknecht, 1881
PARAVESPULA Blüthgen, 1938
ALLOVESPULA Blüthgen, 1943
RUGOVESPULA Archer, 1982
austrica (Panzer, 1799, *Vespa*) E S W I
borealis (Smith, 1843, *Vespa*) preocc.
arborea (Smith, 1849, *Vespa*)
biloba (Schilling, 1850, *Vespa*)
germanica (Fabricius, 1793, *Vespa*) E S W I
?maculata (Scopoli, 1763, *Vespa*) preocc.
?macularis (Olivier, 1792, *Vespa*)
rufa (Linnaeus, 1758, *Vespa*) E S W I M
schrenckii (Radoszkowski, 1861, *Vespa*)
sibiria (André, 1884, *Vespa*)
grahami Archer, 1981
obscura Lee, 1986
?yichunensis Lee, 1986
vulgaris (Linnaeus, 1758, *Vespa*) E S W I M
sexcincta (Panzer, 1799, *Vespa*)
pseudogermanica (Stolfa, 1932, *Vespa*)

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