

Last updated: 3 February 2007

## AMPULEX

*Ampulex* Jurine, 1807:132. Type species: *Chlorion compressum* of Latreille and of Fabricius [= *Chlorion compressum* (Fabricius, 1804) = *Sphex compressus* Fabricius, 1781, designated by Audouin, 1822:301 (see Pate, 1946:101).

*Pronaeus* Latreille, 1809:56. Type species: *Dryinus aeneus* Fabricius, 1804, designated by Latreille, 1810:438. Synonymized with *Ampulex* Jurine by Pate, 1935:247.

*Lorrhoeum* Shuckard, 1837:18. Type species: *Chlorion compressum* (Fabricius, 1804) [= *Sphex compressus* Fabricius, 1781], by original designation and monotypy.

*Rhinopsis* Westwood, 1844:68. Type species: *Rhinopsis abbotti* Westwood, 1844 [= *Ampulex canaliculata* Say, 1823, by monotypy.

*Waagenia* Kriechbaumer, 1874:55. Type species: *Waagenia sikkimensis* Kriechbaumer, 1874, by monotypy.

*Chlorampulex* de Saussure, 1892:441. Type species: *Sphex compressus* Fabricius, 1781, designated by Pate, 1937c:18.

Revision: Yasumatsu, 1936b:165 (Eastern Asia).

Keys: Krombein, 1979a:4 (Sri Lanka), Gess, 1984a:20 (southern Africa).

Review of biology: F. Williams, 1929

### 1. *aborensis* Nurse

*Ampulex aborensis* Nurse, 1914:445, ♀. Holotype or syntypes: ♀, India: Assam: Kobo (BMNH or OXUM?). – Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:77 (listed).

### 2. *aenea* (Fabricius)

*Dryinus aeneus* Fabricius, 1804:200, sex not indicated. Holotype or syntypes: Guinea: no specific locality (LUND). – W. Schulz, 1912:80 (study of type material); van der Vecht, 1957a:27 (may be the older synonym for *Ampulex sibirica*). – **As *Pronaeus aeneus***: Dahlbom, 1843:24 (in revision of Sphecidae and Pompilidae), 1845:435 (in key); F. Smith, 1856:240 (listed). – **As *Ampulex aenea***: F. Smith, 1856:271 (listed for the second time in a different genus); van der Vecht, 1961a:11 (study of type); R. Bohart and Menke, 1976:77 (listed).

*Ampulex guerini* Dahlbom, 1843:29 (as *Guerini*, incorrect original capitalization), ♀, ♂ (♀ = *Ampulex compressiventris*). Syntypes: origin unknown (LUND). Synonymized (♂ only) with *Ampulex dahlbomii* by Kohl, 1893d:486. – Dahlbom, 1845:440 (in key); W. Schulz, 1912:92 (redescription of syntype ♂); Casolari and Casolari Moreno, 1980:110 (specimens in M. Spinola collection).

*Ampulex dahlbomii* Kohl, 1893d:486, 493, ♂ (as *Dahlbomii*, incorrect original capitalization). Holotype: ♂, Afrotropical Region?: no specific locality (ZMHU). Synonymized with *Ampulex aenea* by Schulz, 1912:80. – Kohl, 1893d:493 (listed, comments on synonymy); Dalla Torre, 1897:374 (in catalog of world Hymenoptera); Arnold, 1928a:220 (original description translated into English), 1930:15 (in checklist of Afrotropical Sphecidae).

### 3. *aenea* Spinola (preoccupied)

*Ampulex aenea* Spinola, 1841:110, ♀, junior secondary homonym of *Ampulex aenea* (Fabricius, 1804). Holotype or syntypes: ♀, India: Kerala: Malabar (Torino). – Kohl, 1893d:488 (original description copied); Dalla Torre, 1897:372 (in catalog of world Hymenoptera); W. Schulz, 1906:205 (omitted by Bingham, 1897), 1911b:152 (type neither in Torino nor in Berlin or Copenhagen).

#### 4. *aeneola* Bradley

*Ampulex aeneola* Bradley, 1934b:164, ♂. Holotype: ♂, Guyana: Bartica (Cornell Univ.). – R. Bohart and Menke, 1976:77 (listed); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae).

#### 5. *albobarbata* Tsuneki

*Ampulex albobarbata* Tsuneki, 1982e:18, ♂. Holotype: ♂, Taiwan: Pingtung Prefecture: Kenting Park (originally K. Tsuneki coll., now Hyogo Mus.). – Tano, 1995:43 (holotype in K. Tsuneki collection); Hashimoto and Nakaniishi, 1997:14 (holotype transferred to Hyogo Mus.).

#### 6. *alisana* Tsuneki

*Ampulex alisana* Tsuneki, 1967c:3, ♂ (as *alisanus*, incorrect original termination). Holotype: ♂, Taiwan: Chiayi Prefecture: Shitzulu (originally K. Tsuneki coll., now USNM). – Murota, 1973b:116 (Taiwan; as *alisanus*); R. Bohart and Menke, 1976:77 (listed); Nuhn and Menke, 1994:25 (holotype transferred to USNM); Porter, Stange, and Wang, 1999:4 (in checklist of Sphecidae of Taiwan).

#### 7. *angusticollis* Spinola

*Ampulex angusticollis* Spinola, 1841:108, ♀. Holotype: ♀, French Guiana: Cayenne (Torino). – F. Smith, 1856:270 (listed); Taschenberg, 1869:407 (represented in Halle University collection); Burmeister, 1872:239 (Argentina: Neu Freiburg, Paraná); Kohl, 1893d:489 (original description copied); Cameron, 1889:37 (Costa Rica, Panama); Dalla Torre, 1897:372 (in catalog of world Hymenoptera); Schrottky, 1903b:123 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay); W. Schulz, 1911b:154 (redescription, Colombia); Schrottky, 1913a:223 (Argentina: Entre Ríos); R. Bohart and Menke, 1976:77 (listed); Casolari and Casolari Moreno, 1980:110 (specimens in M. Spinola collection); Hanson and Menke, 1995:637 (known from Costa Rica); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae).

*Ampulex dubia* Kohl, 1893d:488, ♂. Holotype or syntypes: ♂, French Guiana: Cayenne (ZMHU). Synonymized with *Ampulex angusticollis* by W. Schulz, 1911b:158. – Kohl, 1893d:493 (listed); Dalla Torre, 1897:374 (in catalog of world Hymenoptera); W. Schulz, 1911b:156 (specimen in Spinola collection); Bradley, 1934a:33 (Trinidad).

#### 8. ? *annulipes* Motschulsky

*Ampulex ? annulipes* Motschulsky, 1863:24, sex not indicated. Holotype or syntypes: Sri Lanka: Nuwara Eliya District: (as Nura-Ellia): mountains, no specific locality (destroyed according to L. Zimina's letter of 27 Sept. 1976 to K.V. Krombein), possibly a bethyloid according to Bohart and Menke, 1976:77. – Cameron, 1889:117 (listed); Kohl, 1893d:486 (not an *Ampulex*); Bingham, 1896a:441 (references); Dalla Torre, 1897:373 (in catalog of world Hymenoptera).

#### 9. *apicalis* F. Smith

*Ampulex apicalis* F. Smith, 1873c:292, ♀. Holotype or syntypes: ♀, South Africa: Natal: Zululand: no specific locality (BMNH). – Kohl, 1893d:490 (original description copied); Dalla Torre, 1897:373 (in catalog of world Hymenoptera); Arnold, 1928a:202 (revision, South Africa), 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:77 (listed); Gess, 1984a:21 (in key).

#### 10. *approximata* R. Turner

*Ampulex approximata* R. Turner, 1912g:367, ♀. Holotype: India: Bombay Presidency, now Gujarat and Maharashtra: no specific locality (BMNH). – Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:77 (listed); Krombein, 1979a:8 (Sri Lanka, revision).

#### 11. *arnoldi* Brauns

*Ampulex arnoldi* Brauns in Arnold, 1928a:212, ♀, ♂ (as *Arnoldi*, incorrect original capitalization). Syntypes: South Africa: Cape Province: Windsorton; Zimbabwe: Bulawayo (TMP, SAM). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:77 (listed); Gess, 1984a:21 (in key).

**12. *assamensis* Cameron**

*Ampulex assamensis* Cameron, 1903c:236, ♂. Holotype or syntypes: ♂, India: Assam: Khasia Hills (OXUM). – Cameron, 1903c:238 (listed); Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:77 (listed).

**13. *assimilis* Kohl**

*Ampulex assimilis* Kohl, 1893d:464, ♀. Lectotype: ♀, Iraq: Baghdad (NHMW), designated by de Beaumont, 1970a:395. – Kohl, 1893d:490 (listed); Dalla Torre, 1897:373 (in catalog of world Hymenoptera); Morice, 1921:76 (Iraq: Amara; description of ♂); Arnold, 1928a:217 (original description translated into English); de Beaumont, 1961e:2 (Iraq); Al-Ali, 1977:92 (Iraq: Baghdad); R. Bohart and Menke, 1976:77 (listed); Guichard, 1980:224 (Oman); Dollfuss, 1989:7 (lectotype in NHMW).

**14. *atrohirta* R. Turner**

*Ampulex atrohirta* R. Turner, 1915c:183, ♀. Holotype or syntypes: ♀, East Malaysia: Sarawak: Limbang River (BMNH). – R. Bohart and Menke, 1976:77 (listed).

**15. *bantuae* Gess**

*Ampulex bantuae* Gess, 1984a:5, ♀, ♂. Holotype: ♀, South Africa: Hilton 18 km WNW Grahamstown (Albany Museum). – Gess, 1984a:21 (in key), 1984b:23 (life history).

As *Ampulex cyanura*: Callan, 1976:323 (Gess's prey record), corrected to *Ampulex bantuae* by Gess, 1984a:2.

As sp. near *cyanura* (corrected to *Ampulex bantuae* by Gess, 1984a:5): F. Gess and S. Gess, 1981:29 (South Africa: 18 km WNW Grahamstown; nesting in abandoned galleries of the cerambycid *Ceroplesis hottentota* (Fabricius) in *Acacia karroo*; prey: single large nymph or apterous female of *Bantua dispar* (Burmeister), a blattid), 68 (search for nesting sites; hunting precedes search for nesting place), 72, 77 (member of a food chain); Gess and Gess, 1981:27 (same information).

**16. *bidenticollis* Tsuneki**

*Ampulex denticollis* Tsuneki, 1967c:1, ♀, junior secondary homonym of *Ampulex denticollis* (Cameron, 1910). Holotype: ♀, Taiwan: Chiayi Prefecture: Fenchihu (originally K. Tsuneki coll., now USNM. – R. Bohart and Menke, 1976:77 (listed); Nuhn and Menke, 1994:25 (holotype transferred to USNM); Porter, Stange, and Wang, 1999:4 (in checklist of Sphecidae of Taiwan).

*Ampulex bidenticollis* Tsuneki, 1976e:434. Substitute name for *Ampulex denticollis* Tsuneki, 1967.

**17. ? *bispinosa* (Reich)**

*Sphex bispinosa* Reich, 1793:131, ... – As *Ampulex bispinosa* (tentatively): R. Bohart and Menke, 1976:77 (listed); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae).

**18. *breDOI* Arnold**

*Ampulex breDOI* Arnold, 1947:142, ♀, ♂. Syntypes: Zambia: Abercorn (SAM). – R. Bohart and Menke, 1976:77 (listed).

**19. *brunneofasciata* Giordani Soika**

*Ampulex brunneofasciata* Giordani Soika, 1939c:103, ♀. Holotype: ♀, Eritrea: Asmara: Adi Ugri (Univ. Firenze). – R. Bohart and Menke, 1976:77 (listed); Vanni, Bartolozzi, and Whitman-Mascherini, 1985:130 (holotype depository).

**20. *bryanti* Turner**

*Ampulex bryanti* Turner, 1914b:249, ♂. Holotype or syntypes: ♂, Malaysia (East): Sarawak: Matang (BMNH). – R. Bohart and Menke, 1976:77 (listed).

### 21. *canaliculata* Say

*Ampulex canaliculata* Say, 1823:76, sex not indicate. Holotype or syntypes: USA: Missouri (lost). – Le Conte, 1859a:165 (original description copied); Cresson, 1963:320 (in catalog of North American Hymenoptera); Kohl, 1893d:490 (original description copied); Dalla Torre, 1897:373 (in catalog of world Hymenoptera); W. Schulz, 1911b:150 (redescription); F. Williams, 1929:318 (hunting and nesting behavior); Bradley, 1934a:32 (locality records); Krombein, 1958a:51 (USA: West Virginia: Lost River State Park), 1958c:98 (North Carolina: Kill Devil Hills); Evans, 19959a:57 (description of larva); R. Bohart and Menke, 1976:77 (listed); Krombein, 1979b:1575 (in catalog of North American Hymenoptera); O'Brien, 1988:81 (Michigan); Ahlstrom, 1995:106 (in checklist of insects of North Carolina); Buck, 2004:24 (in checklist of Ampulicidae of Ontario, Canada). – **As *Chlorion canaliculatum***: Say, 1837:366 (new combination); Le Conte, 1859b:750 (reprint of Say, 1936:366). – **As *Rhinopsis canaliculata***: Rohwer, 1912:464 (synonymy confirmed, as *caniculatus*), 1916b:652 (in catalog of Hymenoptera of Connecticut, as *caniculata*); Nagy, 1971:105 (USA: New York: Ithaca).

*Rhinopsis abbotti* Westwood, 1844:68, ♀ (as *Abbotti*, incorrect original capitalization). Holotype or syntypes: ♀, ... Synonymized with *Ampulex canaliculata* by W. Schulz, 1911b:151. – F. Smith, 1856:273 (listed); Cresson, 1963:320 (in catalog of North American Hymenoptera); Kohl, 1893d:488 (original description copied, comments); Dalla Torre, 1897:372 (in catalog of world Hymenoptera), 373 (as tentative synonym of *Ampulex canaliculata*).

*Ampulex pensylvanica* Haldeman, 1848:203, sex not indicated (as *pensylvanicus*, incorrect original termination. Holotype or syntypes: USA: se. Pennsylvania: no specific locality (MHNG). Synonymized with *Ampulex canaliculata* by W. Schulz, 1911b:150. – Cresson, 1963:320 (in catalog of North American Hymenoptera); Kohl, 1893d:497 (original description copied); Dalla Torre, 1897:373 (as tentative synonym of *Ampulex sayi*), 376 (listed); W. Schulz, 1911b:149 (redescription of holotype).

*Ampulex pensylvanica* W. Schulz, 1911b:149. Unjustified emendation of *Ampulex pensylvanica* Haldeman, 1848.

*Rhinopsis melanognathus* Rohwer, 1912:464, ♀. Holotype: ♀, USA: Connecticut: Manchester (USNM). Synonymized with *Ampulex canaliculata* by F. Williams, 1929:318. – Rohwer, 1916b:652 (in catalog of Hymenoptera of Connecticut).

### 22. *carinifrons* Cameron

*Ampulex carinifrons* Cameron, 1903c:237, sex not indicated. Holotype or syntypes: India: Assam: Khasia Hills (OXUM). – Cameron, 1903c:238 (listed); Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:77 (listed).

### 23. *ceylonica* Krombein

*Ampulex ceylonica* Krombein, 1979a:9, ♀, ♂. Holotype: ♀, Sri Lanka: Kandy District: Kandy, Udawattakele Sanctuary (USNM).

### 24. *chalybea* F. Smith

*Ampulex chalybea* F. Smith, 1856:270, ♀. Holotype or syntypes: ♀, Africa: country unknown: Fantee (BMNH). – Kohl, 1893d:490 (original description copied); Dalla Torre, 1897:373 (in catalog of world Hymenoptera); Arnold, 1928a:227 (original description copied), 1930:16 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:77 (listed).

### 25. *collator* Bradley

*Ampulex collator* Bradley, 1934b:162, ♂. Holotype: ♂, Costa Rica: Mt. Redondo (Cornell Univ.). – R. Bohart and Menke, 1976:77 (listed); Hanson and Menke, 1995:637 (known from Costa Rica); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae), 2005:13 (correction to his 2002 catalog).

### 26. *compressa* (Fabricius)

*Sphex compressus* Fabricius, 1781:445, sex not indicated (as *compressa*, incorrect original termination). Holotype or syntypes: India: Kerala: Malabar (BMNH, Banks coll.). – Fabricius, 1787:275 (...), 1793:206 (...). – **As *Chlorion***

**compressum**: Fabricius, 1804:219 (new combination, redescription); Latreille, [1805]:294 (redescription); Dahlbom, 1845:XXII (specimens in collection Fabricius are *Ampulex*); Gistel, 1848:142 (Bourbon Island, description); Lucas, 1879:CLIX (prey: *Blatta americana*); Adlerz, 1904:138 (known prey: gryllids). – **As *Chlorampulex compressa***: de Saussure, 1892:443 (in key), 445 (new combination, redescription, Madagascar); Nagy, 1971:103 (s. India, Singapore). – **As *Ampulex compressa***: Jurine, 1807:134 (new combination, comparison with *Ampulex fasciata* on p. 133); Spinola, 1841:100 (diagnostic characters); Dahlbom, 1843:29 (redescription), 1845:439 (in key); F. Smith, 1856:268 (listed, wing venation variable), 1858a:99 (Moluccas, Borneo); de Motschoulsky, 1863:24 (Sri Lanka, listed); A. Costa, 1864b:112 (specimen from French islands in Museo Zoologico di Napoli); Taschenberg, 1869:407 (India); Gerstaecker, 1871:852 (Kenya: Mombasa, Tanzania: Wanga); Dours, 1874:147 (in catalog of Hymenoptera of France, clearly in error); Schurr, 1878:227 (prey carrying, as *compressum*); Girard, 1879:973 (morphology and habits); Radoszkowski, 1892:580 (male genitalia); Kohl, 1893d:474, 482 (redescribed in key), 491 (listed, synonymy), 1883e:183 (Zanzibar); Pérez, 1895b:210 (Seychelles Islands, as *compressus*); Bingham, 1896a:441 (Sri Lanka: Pundaluoya), 1897:254 (redescription; Oriental Region to Africa); Dalla Torre, 1897:373 (in catalog of world Hymenoptera); Bingham, 1902:217 (Pemba Island), 1903a:67 (Pemba Island); Cameron, 1903c:238 (listed); Rothney, 1903:105 (India: West Bengal: Barrackpore); Ashmead, 1904a:6 (Philippines), 1904d:151 (Philippines); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); W. Schulz, 1906:191 (additional bibliographic reference); Cameron, 1907e:76 (Seychelles Islands); Vachal, 1907:114 and 1908:23 (New Caledonia, as *compressus*); Kohl, 1909:369 (Kenya: Mombasa; Tanzania: Pemba Island); Turner, 1911b:368 (Seychelles Islands); Bordage, 1912:71 (Réunion Island: nesting habits); Dutt, 1912:227 (preying on *Periplaneta americana*, dragging paralyzed prey); W. Schulz, 1912:92 (Dahlbom's specimen agrees with Kohl's interpretation); Ramakrishna Aiyar, 1916:555 (reference to Lefroy, 1909); R. Turner, 1919b:238 (New Caledonia); Dover, 1926:234 (China: Hong Kong); Arnold, 1928a:221 (revision), 1930:16 (in checklist of Afrotropical Sphecidae); Williams, 1942a:221 (introduced to Hawaii from New Caledonia, life history), 1942b:43 (introduced to Hawaii from New Caledonia, life history); Giner Mari, 1945c:850 (India: Maharashtra: Bandra); Williams, 1945:437 (New Caledonia, imported to Hawaii by the author); Van Zwaluwenburg, 1950:14 (new to Molokai, Hawaii); Leclercq, 1954b:150 (Mauritius, Zanzibar, Ethiopia: Daghabor), 1961d:101 (Saussure's records from Madagascar are doubtful); van der Vecht, 1961a:11 (study of type); Guiglia, 1964:309 (southern Arabia); Baltazar, 1966:326 (occurrence in Philippines doubtful); Begum and Bose, 1976:26 (Bangladesh: Dakka); R. Bohart and Menke, 1976:77 (listed); Leclercq, 1976b:201 (St. Helena Island), 202 (Madagascar: Perinet); Krombein, 1979a:6 (Sri Lanka, revision); Casolari and Casolari Moreno, 1980:110 (specimens in M. Spinola collection); Sk. Yamane, 1983:84 (Indonesia: Krakatau Islands); Piek, Visser, and Veenendaal, 1984:195 (hunting and ovipositing, effects of sting on prey behavior); Cardale, 1985:220 (in catalog of Australian Sphecidae); Wu and Chou, 1985:154 (in key); Begum, Bose, and Howlander, 1989:127 (life history in Bangladesh); Leclercq, 1990b:114 (Madagascan records questionable); Fouad, Libersat, and Rathmayer, 1994:23 (wasp sting modifies prey's neural control of arousal); Begum, Khan, and Bose, 1995:174 (Bangladesh: Dhaka University Campus); Fouad, Libersat, and Rathmayer, 1996:91 (wind stimuli to prey cerci produce no escape reaction in paralyzed prey); Wu and Zhou, 1996:22 (revision in Economic Insect Fauna of China); Wcislo, 1998:181 (proportions of antennae in relations to parasitic/non-parasitic behavior); Libersat, Haspel, Casagrand, and Fouad, 1999:333 (the sting of prey's subesophageal ganglion blocks fast motoneurons); Weisel-Eichler, Haspel, and Libersat, 1999:957 (sting induces prolonged grooming in prey); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae); Weisel-Eichler and Libersat, 2002:315 (hypokinesia of prey may be induced by the block of the dopamine receptors); Haspel and Libersat, 2003:628 (venom blocks central cholinergic synapses to induce transient cockroach paralysis); Haspel, Rosenberg, and Libersat, 2003:287 (lethargic state of prey caused by direct injection of venom into its brain); Libersat, 2003:497 (first sting in prey's thorax causes temporary paralysis of front legs, second sting in prey's head, containing dopamine, causes intense grooming and subsequent hypokinesia); Menke and Yustiz, 2003:180 (Venezuela: several localities); Pulawski, 2003b:795 (in checklist of Malagasy Sphecidae); Gadallah and Assery, 2004a:216 (in key to Sphecidae of Jeddah

Region, Saudi Arabia), 225 (in catalog of Sphecidae of Saudi Arabia: Hadasham 120 km E Jeddah); Haspel and Liebersat, 2004:103 (manipulating prey behavior by injecting venom into central nervous system); Gal, Rosenberg, and Libersat, 2005:198 (venom cocktail injected into brain to manipulate behavior and metabolism of cockroach prey); Haspel, Gefen, Ar, Glusman, and Libersat, 2005:529 (venom injection causes decrease of oxygen consumption); Fox, Buys, Mallet, and Bressan-Nascimento, 2006:43 (preimaginal stages); Rosenberg, Pflüger, Wegener, and Libersat, 2006:155 (venom injected in prey's brain indirectly alters activity of monoaminergic neurons, changing levels of monoamines that tune central synapses of locomotory circuits); Moore, Haspel, Libersat, and Adams, 2006:811 (cocktail of GABA, taurine, and  $\beta$ -alanine opens chloride channels for central synaptic block and transient paralysis of cockroach host).

*Ampulex sinensis* de Saussure, 1867:43,  $\sigma$ . Holotype or syntypes:  $\sigma$ , China: Hong Kong (NHMW). Synonymized with *Ampulex compressa* by Gerstaecker, 1871:852

*Chlorampulex striolata* de Saussure, 1892:446,  $\varphi$ . Holotype or syntypes:  $\varphi$ , Tanzania: Zanzibar: no specific locality (MHNG). Synonymized with *Ampulex compressa* by W. Schulz, 1911b:152. – de Saussure, 1892:443 (in key); Amarante 2005:13 (correction to his 2002 catalog). – **As *Ampulex striolata***: Kohl, 1893d:502 (new combination, original description copied); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); Arnold, 1928a:227 (original description translated into English), 1930:16 (in checklist of Afrotropical Sphecidae).

### 27. *compressiventris* Guérin-Méneville

*Sphex sibiricus* Fabricius, 1793:207, sex not indicated (as *sibirica*, incorrect original termination), junior primary homonym of *Sphex sibiricus* Christ, 1791. Holotype or syntypes:  $\sigma$ , Siberia: no specific locality (BMNH, Banks coll.), type locality clearly in error. – van der Vecht, 1961a:11 (study of type). – **As *Chlorion sibiricum***: Fabricius, 1804:218 (new combination, redescription). – **As *Chlorampulex sibirica***: de Saussure, 1892:443 (in key), 444 (new combination, Madagascar, redescription). – **As *Ampulex sibirica***: Dahlbom, 1843:29 (redescription); F. Smith, 1856:269 (listed); Radoszkowski, 1892:580 (male genitalia); Kohl, 1893d:473, 483 (redescribed in key), 500 (interpretation of the species), 1883e:183 (Tanzania: Mbusini); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); Bordage, 1912:71 (Réunion Island: life history); R. Turner, 1912g:369 (study of holotype); Arnold, 1928a:223 (revision), 1930:16 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:94 (Zaire); Guiglia, 1943c:75 (Ethiopia: Gamo Gofa: Sagan–Omo region), 1950:244 (Ethiopia: Gamo Gofa: Elolo); Leclercq, 1954b:151 (Zaire); van der Vecht, 1961a:11 (study of the type); Diniz, 1964b:236 (Cabo Verde Islands and São Tomé, redescription); Groh, 1982:260 (Cape Verde Islands).

*Ampulex compressiventris* Guérin-Méneville, 1835:pl. 70, Fig. 4,  $\varphi$  Holotype or syntypes:  $\varphi$ , Senegal: no specific locality (depository?). Synonymized with *Ampulex sibirica* by F. Smith, 1856:269. – Dahlbom, 1843:29 (in revision of Sphecidae and Pompilidae); Guérin-Méneville, 1844:436 (description), 1849:358 (Ethiopia); Girard, 1879:973 (color and distribution); Kohl, 1893d:473 (in key), 491 (listed); van der Vecht, 1957a:27 (type material in RMNH); R. Bohart and Menke, 1976:77 (listed); Rodgers and Homewood, 1982:233 (Tanzania: Usambara Mountains); Simon Thomas and Wiering, 1993:403 (Cape Verde Islands: Santiago Island). – **As *Chlorampulex compressiventris***: Nagy, 1971:104 (Africa: Boroma; new combination).

*Ampulex guerini* Dahlbom, 1843:29,  $\varphi$ ,  $\sigma$  ( $\sigma$  = *Ampulex aenea*), as *Guerini*, incorrect original capitalization. Syntypes: origin unknown (LUND). Synonymized ( $\varphi$  only) with *Ampulex compressiventris* by Kohl, 1893d:493. – Dahlbom, 1845:440 (in key); A. Costa, 1864b:112 (two specimens from Guinea in Museo Zoologico di Napoli); W. Schulz, 1912:92 (redescription of syntype  $\sigma$ ).

### 28. *conigera* Kohl

*Ampulex conigera* Kohl, 1893d:474,  $\varphi$ . Holotype or syntypes:  $\varphi$ , Africa: "Massaua" (NHMW). – Kohl, 1893d:491 (listed); Dalla Torre, 1897:374 (in catalog of world Hymenoptera); Arnold, 1928a:220 (original description translated into English), 1930:16 (in checklist of Afrotropical Sphecidae); Guiglia, 1932:125 (Ethiopia: Harer),

1940e:292 (Ethiopia: Harer); Leclercq, 1954b:151 (Northern Rhodesia: Abercorn, now Zambia: Mbala; diagnostic characters); I. Robertson, 1969:480 (Tanzania: Ukiriguru); R. Bohart and Menke, 1976:77 (listed).

### 29. *constanceae* (Cameron)

*Rhinopsis constanceae* Cameron, 1891:192, [♂] (as *Constanceae*, incorrect original capitalization). Holotype or syntypes: ♂, India: Maharashtra: Poona, now Pune (BMNH). – As *Ampulex constanceae*: Kohl, 1893d:491 (original description copied); nec Bingham, 1897:255 (= *Ampulex ruficornis*); Dalla Torre, 1897:374 (in catalog of world Hymenoptera); Cameron, 1899b:57 (comparison with *Ampulex nigricans*); Rothney, 1903:113 (mimicking ant *Pseudomyrma bicolor*); R. Bohart and Menke, 1976:77 (listed).

### 30. *crassicornis* Kohl

*Ampulex crassicornis* Kohl, 1898a:329, ♂. Holotype: ♂, French Tropical Africa: Kuilu (TMB). – Arnold, 1928a:223 (original description translated into English), 1930:16 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:77 (listed).

### 31. *crawshayi* R. Turner

*Ampulex crawshayi* R. Turner, 1917g:80, ♀. Holotype or syntypes: ♀, Malawi: Kondowi on Lower Nyika (BMNH). – Arnold, 1928a:230 (revision) 1930:16 (in checklist of Afrotropical Sphecidae); Leclercq, 1954b:152 (Zaire, Malawi; additional description); I. Robertson, 1969:480 (Tanzania: Ukiriguru); R. Bohart and Menke, 1976:77 (listed).

### 32. *crudelis* Bingham

*Ampulex crudelis* Bingham, 1897:258, ♀. Syntypes: ♀, India: Sikkim: Rangit Valley (BMNH). – Ramakrishna Aiyar, 1916:555 (synonymy recorded); R. Bohart and Menke, 1976:77 (listed).

*Ampulex trigona* Cameron, 1902f:264, ♀. Holotype or syntypes: ♀, India: Assam: Khasia (OXUM). Synonymized with *Ampulex crudelis* by R. Turner, 1912g:368. – Cameron, 1903a:319 (comparison with *Ampulex montana*), 1903c:238 (listed).

### 33. *cuprea* F. Smith

*Ampulex cuprea* F. Smith, 1856:269, ♂. Syntypes: ♂, China: Hong Kong (BMNH). – Kohl, 1893d:492 (original description copied); Dalla Torre, 1897:374 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:77 (listed).

### 34. *cyanator* (Thunberg)

*Ichneumon cyanator* Thunberg, 1822:272, sex not indicated (as *Cyanator*, incorrect original capitalization). Holotype or syntypes (Thunberg, 1824:341): South Africa: Cape of the Good Hope: no specific locality (Uppsala). – Thunberg, 1824:341 (South Africa: Cape of the Good Hope, redescription). – As *Ampulex cyanator*: Roman, 1912:249 (new combination); Bohart and Menke, 1976:77 (listed).

*Ampulex gratiosa* Kohl, 1893d:485, ♂. Holotype or syntypes: ♂, Guinea: no specific locality (ZMHU). Synonymized with *Ampulex cyanator* by Roman, 1912:249. – Kohl, 1893d:494 (listed); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); Arnold, 1928a:218 (original description translated into English), 1930:15 (in checklist of Afrotropical Sphecidae).

### 35. *cyanipes* (Westwood)

*Chlorion cyanipes* Westwood, 1841a:152, ♂. Holotype or syntypes: ♂, South Africa: Cape Province: Cape of Good Hope (depository?). – As *Chlorampulex cyanipes*: de Saussure, 1892:443 (in key). – As *Ampulex cyanipes*: Guérin-Méneville, 1844:436 (new combination, citation); F. Smith, 1856:269 (listed); Kohl, 1893d:492 (original description copied); Dalla Torre, 1897:374 (in catalog of world Hymenoptera, as *cyaneipennis*); R. Bohart and Menke, 1976:77 (listed).

*Chlorion cyanipes* Westwood, 1841b:16, ♂. Objective synonym of *Chlorion cyanipes* Westwood, 1841a.

*Chlorion cyanipes* Westwood, 1842:230, ♂. Objective synonym of *Chlorion cyanipes* Westwood, 1841a.

**36. cyanura Kohl**

*Ampulex cyanura* Kohl, 1893d:471, ♀. Holotype or syntypes: ♀, South Africa: Cape Province: Cape Town area (ZMHU). – Kohl, 1893d:493 (listed); Dalla Torre, 1897:374 (in catalog of world Hymenoptera); R. Turner, 1919d:47 (synonymy); Arnold, 1928a:206 (revision), 1930:15 (in checklist of Afrotropical Sphecidae); Callan, 1976:232 (Callan's prey record only; Gess's prey record = *Ampulex bantucae*); R. Bohart and Menke, 1976:77 (listed).

*Ampulex capensis* Cameron, 1905g:254, sex not indicated. Holotype or syntypes: South Africa: Cape Province: Dunbrody (BMNH). Synonymized with *Ampulex cyanura* by Arnold, 1928a:206.

*Ampulex africana* Cameron, 1905g:256, ♂. Holotype or syntypes: ♂, South Africa: Cape Province: Dunbrody (BMNH). Synonymized with *Ampulex cyanura* by R. Turner, 1919d:47.

**ssp. monticola Arnold**

*Ampulex cyanura* race *monticola* Arnold, 1928a:208, ♀. Holotype: ♀, Zimbabwe: Umtali in Vumbu Mts. (SAM). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae). – **As *Ampulex cyanura monticola***: R. Bohart and Menke, 1976:77 (listed); Gess, 1984a:23 (in key).

**ssp. rhodesiana Arnold**

*Ampulex cyanura* race *rhodesiana* Arnold, 1928a:207, ♀, ♂. Syntypes: Zimbabwe: Bulawayo, Matobo, Hope Fountain (SAM). – Arnold, 1930:15 (in checklist of Afrotropical Sphecidae), – **As *Ampulex cyanura rhodesiana***: R. Bohart and Menke, 1976:77 (listed); Gess, 1984a:23 (in key); Hancock, Chahwanda, and Mhlanga, 1995:37 (one syntype in Bulawayo Museum).

**37. cyclostoma Gribodo**

*Ampulex cyclostoma* Gribodo, 1894c:139, ♂. Holotype: ♂, Mozambique: Magnarra River (Mus. Zool. Univ. Bologna). – Arnold, 1928a:225 (original description translated into English), 1930:16 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:77 (listed); Tommasini and Marini, 1984:42 (type depository).

**38. dentata Matsumura and Uchida**

*Ampulex dentata* Matsumura and Uchida, 1926:38, ♀ (as *dentatus*, incorrect original termination). Syntypes: ♀, Japan: Okinawa: Okinawa-honto (Hokkaido Univ., Sapporo). – nec Yasumatsu, 1935b:34, 1936d:187, nec Tsuneki, 1968b:110, 1968d:58 (= *Ampulex tridentata*); R. Bohart and Menke, 1976:77 (listed); Tsuneki, 1982e:15 (interpretation of the species), 1982g:53 (known from the Ryukyu archipelago); Wu and Chou, 1985:154 (in key); Sk. Yamane and Ikudome, 1990:96 (distribution in Ryukyu Islands, Japan).

**39. denticollis (Cameron)**

*Dolichurus denticollis* Cameron, 1910b:141, ♀, actually ♂ (Brauns, 1917:240). Holotype or syntypes: ♀, South Africa: Transvaal: no specific locality (TMP). – **As *Ampulex denticollis***: Meade-Waldo in Meade-Waldo, Morley, and Turner, 1915:336 (new combination); Brauns, 1917:240 (new combination); Arnold, 1928a:208 (revision), 1930:15 (in checklist of Afrotropical Sphecidae); nec Schouteden, 1930:94 (= *Ampulex lugubris*); I. Robertson, 1969:480 (Tanzania: Ukiriguru, also as *Ampulex denticulata* Cameron); R. Bohart and Menke, 1976:77 (listed); Gess, 1981:29 (South Africa: 18 km WNW Grahamstown; nesting in trap-nest tied to *Acacia karroo*, single cell; prey: single blattid), 68 (hunting precedes search for nest); Gess, 1984a:20 (in key).

**ssp. rufithorax Arnold**

*Ampulex denticollis* race *rufithorax* Arnold, 1931:205, ♂. Holotype: ♂, Namibia: Aus (BMNH). – **As *Ampulex denticollis rufithorax***: R. Bohart and Menke, 1976:77 (new status, listed).



#### 40. *difficilis* Strand

*Ampulex difficilis* Strand, 1913b:152, ♀. Syntypes: ♀, ♂, Taiwan: Chiai Prefecture: Hoozan (DEI). – Oehlke and Wudowenz, 1974:422 (syntypes in DEI); R. Bohart and Menke, 1976:77 (listed); Yasumatsu, 1936b:175 (in revision of *Ampulex* of Eastern Asia); Porter, Stange, and Wang, 1999:4 (in checklist of Sphecidae of Taiwan).

#### 41. *dissector* (Thunberg)

*Ichneumon dissector* Thunberg, 1822:272, sex not indicated. Holotype or syntypes (Thunberg, 1824:341): Japan: no specific locality (Uppsala). – Thunberg, 1824:341 (Japan, redescription). – **As *Ampulex dissector***: Roman, 1912:251 (new combination); R. Bohart and Menke, 1976:77 (listed); Krombein, 1979a:8 (Sri Lanka, revision); Tsuneki, 1982b:14 (known from Korea), 1982g:54 (known from the Ryukyu archipelago); Wu and Chou, 1985:154 (in key); Sk. Yamane and Ikudome, 1990:96 (distribution in Ryukyu Islands, Japan); Wu and Zhou, 1996:22 (revision in Economic Insect Fauna of China); Porter, Stange, and Wang, 1999:4 (in checklist of Sphecidae of Taiwan); Yamane, Ikudome, and Terayama, 1999:471 (in Identification Guide to Ampulicidae of Nansei = Ryukyu Islands, Japan); Ohl and Linde, 2003:149 (number of ovarioles); Li and He, 2004:1073 (in hymenopterous fauna of Zhejiang Province, China).

*Ampulex amoena* Stål, 1857:63, sex not indicated. Holotype or syntypes: China: no specific locality (NRS). Synonymized with *Ampulex dissector* by ... – Kohl, 1893d:489 (original description copied); Dalla Torre, 1897:372 (in catalog of world Hymenoptera); Strand, 1913b:152 (Taiwan); Sonan, 1927:136 (Taiwan); Yasumatsu, 1936b:170 (in revision of *Ampulex* of Eastern Asia); Kamo, 1957:94 (prey capture); Tsuneki, 1967c:1 (Taiwan), 1969e:24 (Japan); Yamada, 1971:35 (Japan: Aichi Prefecture); Tsuneki, 1972c:8 (Taiwan); Murota, 1973b:116 (Taiwan); Nambu, 1975b:78 (Japan: Saitama Prefecture)

*Ampulex novarae* de Saussure, 1867:44, ♂. Holotype or syntypes: ♂, Hong Kong (NHMW). Synonymized with *Ampulex dissector* by Roman, 1912:251. – F. Smith, 1873a:191 (Japan, Hong Kong, description of ♀); Kohl, 1893d:468, 481 (redescribed in key), 497 (listed); Bingham, 1897:256 (Kohl's description translated into English); Dalla Torre, 1897:372 (as tentative synonym of *Ampulex amoena*), 376 (listed); W. Schulz, 1911b:152 (type depository, specimens from Japan); Dollfuss, 1989:7 (type material in NHMW). – **As *Chlorampulex novarae***: Nagy, 1971:104 (Taiwan; new combination).

*Ampulex consimilis* Kohl, 1893d:468, ♀. Holotype or syntypes: ♀, China: Hong Kong (NHMW). Synonymized with *Ampulex amoena* by W. Schulz, 1912:96. – Kohl, 1893d:491 (listed); Dalla Torre, 1897:374 (listed); Dover, 1926:234 (China: Hong Kong); Dollfuss, 1989:7 (type material in NHMW); Hua, 1989:117 (China).

*Ampulex japonica* Kohl, 1893d:467, ♀. Holotype or syntypes: ♀, Japan: no specific locality (TMB). Synonymized with *Ampulex dissector* by Roman, 1912:251. – Kohl, 1893d:495 (listed); Dalla Torre, 1897:375 (in catalog of world Hymenoptera).

#### 42. *distinguenda* Kohl

*Ampulex distinguenda* Kohl, 1893d:482, ♂. Holotype or syntypes: ♂, Indonesia: Sulawesi: no specific locality (NHMW). – Kohl, 1893d:493 (listed); Dalla Torre, 1897:374 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:77 (listed); Dollfuss, 1989:7 (type material in NHMW).

#### 43. *dives* Kohl

*Ampulex dives* Kohl, 1893d:464, ♀. Holotype or syntypes: ♀, Gabon: no specific locality (TMB). – Kohl, 1893d:493 (listed); Dalla Torre, 1897:374 (in catalog of world Hymenoptera); Tullgren, 1904:442 (Gabon); W. Schulz, 1906:308 (Fernando Po, now Bioko), 1911b:152 (Zaire); Arnold, 1928a:218 (original description translated into English), 1930:15 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:94 (Zaire); Leclercq, 1954b:154 (Zaire, diagnostic characters); R. Bohart and Menke, 1976:77 (listed).

**44. *elegantula* Kohl**

*Ampulex elegantula* Kohl, 1893d:487, ♀. Holotype or syntypes: ♀, Colombia: Las Pavas in Cauca Valley (ZMHU). – Kohl, 1893d:493 (listed); Dalla Torre, 1897:374 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:77 (listed); Morato and O. Campos, 2000:434 (Brazil: Amazonas: 90 km N Manaus; effects of habitat fragmentation); Morato, 2001:740 (Brazil: Amazonas: 90 km N Manaus; effects of habitat fragmentation); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae).

**45. *erythropus* Kohl**

*Ampulex erythropus* Kohl, 1893d:467, ♀. Syntypes: ♀, Indonesia: Java: no specific locality (Dresden, destroyed?). – Kohl, 1893d:493 (listed); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); Bradley, 1934a:33 (Sarawak); von Schulthess, 1935:304 (Indonesia: Java: Tjibodas-Gedeh); R. Bohart and Menke, 1976:77 (listed).

**46. *esakii* Yasumatsu**

*Ampulex esakii* Yasumatsu, 1936b:179, ♀. Holotype: ♀, Taiwan: Urai-Pistan-Saramato, Taikôkei, Taichû-shû (Kyushu Univ.). – R. Bohart and Menke, 1976:77 (listed); Porter, Stange, and Wang, 1999:4 (in checklist of Sphecidae of Taiwan).

**47. *fasciata* Jurine**

*Ampulex fasciata* Jurine, 1807:133, 134, and pl. 14, ♀. Holotype or syntypes: ♀, Europe: no specific locality (depository?). – Chevrier, 1867a:232 (redescription, Switzerland); Kirchner, 1867:218 (in catalog of European Hymenoptera); Kriechbaumer, 1874:52 (redescription, discussion of taxonomic position); Girard, 1879:974 (morphology and habits); Kohl, 1880:184 (Italy: Trentino–Alto Adige: Kollern), 1883e:675 (Switzerland); von Heyden, 1884:115 (Germany: Frankfurt am Main); Ed. André, 1888:164 (in revision of Sphecidae of Europe and Algeria), 10\* (bibliographic references); Kohl, 1889a:26 (critique of André's description), 1893:36 (Austria: Niederösterreich), 1893d:461, 481 (redescribed in key), 493 (listed, synonymy); Morice, 1896:255 (Switzerland: Sierre); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); Mocsáry, 1897:79 (Kingdom of Hungary: Mehádia, now in Romania); Schmiedeknecht, 1907:247 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:103 (in catalog of French Hymenoptera, as *fasciatus*); Picard, 1911:113 (first record from France: Hérault: Montpellier; prey and cocoon); W. Schulz, 1911b:148 (locality records from Germany, Italy, and Switzerland); Honoré, 1919:268 (France: Seine-et-Oise: Lardy); Stöckhert, 1919:41 (Germany: Franken); Berland, 1925d:63 (in Sphecid Fauna of France); Schmiedeknecht, 1930:708 (in keys to Hymenoptera of North and Central Europe); Zavadil, Šusterka, and Baťa, 1937:216 (in catalog of Sphecidae of Czechoslovakia); Giner Mari, 1943a:59 (in Sphecid Fauna of Spain); Šnoflak in Zavadil and Šnoflak, 1948:53 (in key to Sphecidae of Czechoslovakia); Nouvel and Ribaut, 1953:177 (France: Haute-Garonne: Saint-Béat); Vogrin, 1955:34 (Yugoslavia); Bajári, 1957a:18 (in key to Hungarian Sphecidae); Noskiewicz and Puławski, 1960:80 (in key to Polish Sphecidae, not yet found in Poland); de Beaumont, 1964c:31 (in Sphecid Fauna of Switzerland); Niedl and Deneš, 1967:79 (Czech Republic: Třeboň area: Majdalena); Babiý, 1970:19 (Austria: Land Salzburg); Oehlke, 1970:678 (Democratic Germany); Nagy, 1971:105 (Bulgaria: Sofia; France: Saint Béat); Torossian, 1971:147 (France: Toulouse area; nesting in oak galls at various heights); Balthasar, 1972:440 (in Sphecid Fauna of Czechoslovakia); Niedl and Deneš, 1972:152 (Czechoslovakia); Puławski, 1978:187 (in key to Sphecidae of European part of former USSR); Benedek, 1979:227 (Hungary: Bakony Mountains: Sarvaly); Dollfuss and Ressler, 1981:314, 321 (Austria: Niederösterreich: Scheibbs District); Janvier, 1982:230 (France: Drôme, Pyrénées-Orientales, and Tarn-et-Garonne; life history); Dollfuss, 1983b:2 (Austria); Mingo and Gayubo, 1983:138 (Spain); Westrich and Schmidt, 1985b:110 (Federal Germany: endangered in Baden-Württemberg); Brechtel, 1986:57 (Germany: Südpfalz: Sandbuckel); Dollfuss, 1987:18 (Austria); Pagliano, 1987:255 (redescription; Italy); Pádr in Šedivý, 1989a:166 (in checklist of Czechoslovakian Sphecidae); Jacobs and Oehlke, 1990:122 and 132 (not collected in Democratic Germany after 1960); Pagliano, 1990:57 (in catalog of Italian Sphecidae); Schwammberger and Priesner, 1990:532 (Austria: Kärnten); Wickl, 1990:87 (Germany: Bayern); Day, 1991:xiii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:25 (in key to Sphecidae of

North and Central Europe); Gusenleitner, 1991:644 (Austria: Steiermark: Mureck); Negrisolo, 1991:315 (Italy: Udine Province: Lusevera); Mochi and Luchetti, 1993:103 (Italy: Lazio: Capena); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:2 (in catalog of Italian fauna); Schmid-Egger, Risch, and Niehuis, 1995:164 (summary of records from Germany: Rheinland-Pfalz Province); Arens, 1996:440 (Germany: Bayern: Bayreuth area); Schmid-Egger, Schmidt, and D. Doczkal, 1996:375, 376 (endangered in Baden-Württemberg); Schmid and Schmid-Egger, 1997:5 (in checklist of German Sphecidae); Gayubo, Asís, and Tormos, 1998a:113 (comparison with *Ampulex ruficollis*); Blösch, 2000:114 (in Sphecidae Fauna of Germany); Dollfuss, Gusenleitner, and Bregant, 1998:508 (Austria: summary of collecting records from Burgenland); Canovai et al., 2000:77 (first record from Corsica); Ohl et al., 2001:137 (distribution in Germany by provinces); Merz and Krebs, 2001:149 (Switzerland); Kraus and Floren, 2002:100 (Germany: Bayern: Steigerwald); Shorenko, 2003:96 (Ukraine: Zakarpat'ye Region); Tischendorf and Frommer, 2004:669 (Germany: Hessen: near Lorch).

*Ampulex europaea* Giraud, 1858:411, ♀. Syntypes: ♀, Austria: Wien area: between Mauer and Baden (depository ?). Synonymized with *Ampulex fasciata* by Kriechbaumer, 1874:53, by Frei-Gessner, Kohl, and Kriechbaumer, 1882:395, and by Morice, 1896:225. – Schenck, 1861:168 (redescription: Austria: Wien); Giraud, 1863:1306 (description of ♂, from Prater, Wien, Austria); Kirchner, 1867:218 (in catalog of European Hymenoptera); Schenck, 1867b:156 (Germany: Frankfurt am Main); Gribodo, 1873:85 (Italy: Alpi Cozie); Dours, 1874:147 (in catalog of Hymenoptera of France); Ed. André, 1888:160 (in revision of Sphecidae of Europe and Algeria), 10\* (bibliographic references); Friese, 1920:163 (Austria: Tirol: Innsbruck; Germany: Hessen: Königstein im Taunus).

#### 48. *ferruginea* Bradley

*Ampulex ferruginea* Bradley, 1934c:274, ♂. Holotype: ♂, USA: Texas: Liberty County: Liberty (USNM). – Strandtmann, 1943:46 (description of ♀, Texas: Hunt County: Commerce); R. Bohart and Menke, 1976:77 (listed); Krombein, 1979b:1575 (in catalog of North American Hymenoptera); .

#### 49. *formicoides* R. Turner

*Ampulex formicoides* R. Turner, 1926b:199, ♂. Syntypes: ♂, Malaysia: Selangor: Sungei Buloh 13 mi from Kuala Lumpur (BMNH). – R. Bohart and Menke, 1976:77 (listed).

#### 50. *formosa* Kohl

*Ampulex formosa* Kohl, 1893d:485, ♂. Holotype or syntypes: ♂, Senegal: no specific locality (ZMHU). – Kohl, 1893d:494 (listed); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); Arnold, 1928a:219 (original description translated into English), 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:77 (listed).

#### 51. *fulgens* de Beaumont

*Ampulex fulgens* de Beaumont, 1970a:394, ♀, ♂. Holotype: ♀, Afghanistan: Kabul (Brno). – R. Bohart and Menke, 1976:77 (listed).

#### 52. *hellmayri* W. Schulz

*Ampulex hellmayri* W. Schulz, 1904c:760, ♀ (as *Hellmayri*, incorrect original capitalization). Syntypes: Brazil: Amazonas: Tefê and ? São Paulo d'Oliveira (ZSBS). – W. Schulz, 1904c:767 (in key to Neotropical *Ampulex*); R. Bohart and Menke, 1976:77 (listed); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae).

#### 53. *himalayensis* Cameron

*Ampulex himalayensis* Cameron, 1903a:320, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Cameron, 1903c:238 (listed); Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:77 (listed).

**54. *honesta* Kohl**

*Ampulex honesta* Kohl, 1893d:466, ♀. Holotype or syntypes: ♀, Gabon: no specific locality (TMB). – Kohl, 1893d:494 (listed); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); Arnold, 1928a:210 (original description translated into English), 1930:15 (in checklist of Afrotropical Sphecidae); Leclercq, 1954b:155 (Zaire); R. Bohart and Menke, 1976:77 (listed); Rodgers and Homewood, 1982:233 (Tanzania: Usambara Mountains).

**55. *hospes* F. Smith**

*Ampulex hospes* F. Smith, 1856:272, ♀. Holotype or syntypes: Malaysia: Sarawak: no specific locality (BMNH). – F. Smith, 1858a:98 (taxonomic position discussed); Kohl, 1893d:494 (original description copied); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); Ramakrishna Aiyar, 1916:555 (reference to Turner, 1912); R. Bohart and Menke, 1976:77 (listed).

*Ampulex foveifrons* Cameron, 1903d:159, ♀. Holotype: ♀, Malaysia: Borneo (Sarawak): Kuching (BMNH). Synonymized with *Ampulex hospes* by R. Turner, 1912g:368. Not listed by Ramakrishna Aiyar, 1916:556.

**ssp. *cognata* Kohl**

*Ampulex cognata* Kohl, 1893d:462, ♀. Holotype or syntypes: ♀: Indonesia: Java: no specific locality (depository?). – Kohl, 1893d:491 (listed); Bingham, 1897:257 (redescription, India: Khasia Hills); Dalla Torre, 1897:373 (in catalog of world Hymenoptera). – **As *Ampulex hospes cognata***: R. Bohart and Menke, 1976:77 (new status, listed).

**56. *insularis* F. Smith**

*Ampulex insularis* F. Smith, 1858a:99, ♀. Holotype or syntypes: ♀, Malaysia: Sarawak: no specific locality (OXUM). – Kohl, 1893d:495 (original description copied); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:78 (listed)

**57. *interstitialis* Cameron**

*Ampulex interstitialis* Cameron, 1903a:321, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Cameron, 1903c:238 (listed); Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:78 (listed).

**58. *javana* Cameron**

*Ampulex javana* Cameron, 1905k:60, ♀. Holotype or syntypes: ♀, Indonesia: Java: Tjibodas (Amsterdam). – R. Bohart and Menke, 1976:78 (listed).

**59. *khasiana* Cameron**

*Ampulex khasiana* Cameron, 1903c:234, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Cameron, 1903c:238 (listed); Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:78 (listed).

**60. *kristenseni* R. Turner**

*Ampulex kristenseni* R. Turner, 1917g:81, ♀. Holotype or syntypes: ♀, Ethiopia: Harar (BMNH). – Arnold, 1928a:231 (original description copied, description of ♂), 1930:16 (in checklist of Afrotropical Sphecidae); Scott *in* Arnold, 1934a:370 (Ethiopia: Harar District); Guiglia, 1943c:75 (Ethiopia: Gamo Gofa: Sagan–Omo region), 1950:243 (Ethiopia: Gamo Gofa: Mega, determination tentative); Leclercq, 1954b:151 (Kenya-Uganda boundary: Elgon); R. Bohart and Menke, 1976:78 (listed).

**61. *kurarensis* Yasumatsu**

*Ampulex kurarensis* Yasumatsu, 1936b:208, ♀, ♂. Holotype: ♂, Taiwan: Pingtung Prefecture: Kuraru = Kenting Park (Kyushu Univ.). – Tsuneki, 1982e:17 (Taiwan); Wu and Chou, 1985:154 (in key); Wu and Zhou, 1996:21 (revision in Economic Insect Fauna of China); Porter, Stange, and Wang, 1999:4 (in checklist of Sphecidae of Taiwan); Li and He, 2004:1073 (in hymenopterous fauna of Zhejiang Province, China).

**62. *laevigata* Kohl**

*Ampulex laevigata* Kohl, 1893d:470, ♀. Holotype or syntypes: ♀, Philippines: no specific locality (NHMW). – Kohl, 1893d:495 (listed); Dalla Torre, 1897:375 (in catalog of world Hymenoptera, as *levigata*); Ashmead, 1904d:151 (Philippines); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); Bradley, 1934a:33 (Philippines: Saman); Baltazar, 1966:326 (in catalog of Hymenoptera of Philippines); R. Bohart and Menke, 1976:78 (listed); Dollfuss, 1989:7 (type material in NHMW).

**63. *latifrons* Kohl**

*Ampulex latifrons*, 1893d:461, ♀. Holotype or syntypes: ♀, Sikkim: no specific locality (NHMW). – Kohl, 1893d:495 (listed); Bingham, 1897:256 (redescription); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); Cameron, 1903c:238 (listed); Ramakrishna Aiyar, 1916:555 (synonymies reported); R. Bohart and Menke, 1976:78 (listed); Dollfuss, 1989:7 (type material in NHMW).

*Ampulex pulchriceps* Cameron, 1900a:38, ♀. Holotype or syntypes: ♀, India: Assam: Khasia (OXUM). Synonymized with *Ampulex latifrons* by R. Turner, 1912g:368. – Cameron, 1903c:238 (listed).

*Ampulex brevicornis* Cameron, 1902f:312, ♀. Holotype or syntypes: ♀, India: Assam: Khasia (OXUM). Synonymized with *Ampulex latifrons* by R. Turner, 1912g:368. – Cameron, 1903c:238 (listed).

**64. *lazulina* Kohl**

*Ampulex lazulina* Kohl, 1893d:475, ♀. Syntypes: ♀, Guinea: no specific locality (ZMHU). – Kohl, 1893d:495 (listed); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); W. Schulz, 1906:191 (Senegal); Arnold, 1928a:222 (original description translated into English), 1930:16 (in checklist of Afrotropical Sphecidae), 1943:75 (Zaire); R. Bohart and Menke, 1976:78 (listed); Dollfuss, 1989:7 (type material in NHMW). – **As *Chlorampulex lazulina***: Nagy, 1971:104 (Guinea; new combination).

**65. *lesothoensis* Gess**

*Ampulex lesothoensis* Gess, 1984a:9, ♀. Holotype: ♀, South Africa: Lesotho: Mahlatsa at 29°11'S 27°58'E (Albany Museum). – Gess, 1984a:21 (in key).

**66. *longiabdominalis* Wu and Chou**

*Ampulex longiabdominalis* Wu and Chou, 1985:158, ♀. Holotype: ♀, China: Zhejiang: Tianmu Mts. (Zool. Inst. Beijing). – Wu and Chou, 1985:154 (in key); Wu and Zhou, 1996:19 (revision in Economic Insect Fauna of China); Li and He, 2004:1074 (in hymenopterous fauna of Zhejiang Province, China).

**67. *longiclypeus* Wu and Chou**

*Ampulex longiclypeus* Wu and Chou, 1985:160, ♀, ♂. Holotype: China: Szechuan: Mt. Emei (Zool. Inst. Beijing). – Wu and Chou, 1985:154 (in key); Wu and Zhou, 1996:20 (revision in Economic Insect Fauna of China).

**68. *longicollis* Cameron**

*Ampulex longicollis* Cameron, 1902f:263, ♀. Holotype or syntypes: ♀, India: Assam: Khasia (OXUM). – Cameron, 1903c:238 (listed); Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:78 (listed).

*Ampulex trichiosoma* Cameron, 1902d:55, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). Synonymized with *Ampulex longicollis* by R. Turner, 1912g:368 – Cameron, 1903c:238 (listed); Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897).

**69. *lugubris* Arnold**

As *Ampulex denticollis*: Schouteden, 1930:94 (Zaire: Boma), corrected to *Ampulex lugubris* by Leclercq, 1954b:150. *Ampulex lugubris* Arnold, 1947:137, ♂, ♀. Syntypes: Malawi: Zomba; Mozambique: Penhalonga (SAM). – Leclercq, 1954b:150 (Burundi); R. Bohart and Menke, 1976:78 (listed); Gess, 1984a:20 (in key).

**70. *luluana* Leclercq**

*Ampulex luluana* 1954b:154, ♀. Holotype: ♀, Zaire: Lulua: Kapanga (MRAC). – R. Bohart and Menke, 1976:78 (listed).

**71. *maculicornis* (Cameron)**

*Rhinopsis maculicornis* Cameron, 1889:38, ♀. Syntypes: ♀, Mexico: Jalapa; Panama: Bugaba (BMNH). – **As *Ampulex maculicornis***: Kohl, 1893d:495 (new combination, original description copied); Dalla Torre, 1897:375 (in catalog of world Hymenoptera, as *maculicollis*); R. Bohart and Menke, 1976:78 (listed); Hanson and Menke, 1995:637 (known from Costa Rica); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae); Ruiz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:663 (in checklist of Mexican Sphecidae).

**72. *major* Kohl**

*Ampulex major* Kohl, 1893d:467, ♀. Holotype or syntypes: ♀, Indonesia: Moluccas: no specific locality (TMB). – Kohl, 1893d:496 (listed); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:78 (listed). – **As *Chlorampulex major***: Nagy, 1971:103 (s. India; new combination).

**73. *melanocera* Cameron**

*Ampulex melanocera* Cameron, 1908a:282, ♂. Holotype or syntypes: ♂, Kenya: Usambara Mts.: Mombo (NRS). – Arnold, 1928a:226 (original description copied), 1930:16 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:78 (listed).

**74. *metallica* Kohl**

*Ampulex metallica* Kohl, 1893d:465, ♀. Syntypes: Indonesia: Moluccas: no specific locality (NHMW, TMB). – Kohl, 1893d:496 (listed); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:78 (listed).

**75. *micado* Cameron**

*Ampulex micado* Cameron, 1905k:61, ♀. Holotype or syntypes: ♀, Japan: no specific locality (RMNH). – Yasumatsu, 1936b:214 (original description copied); R. Bohart and Menke, 1976:78 (listed).

**76. *micans* Kohl**

*Ampulex micans* Kohl, 1893d:478, 480, ♀. Syntypes: Australia: no specific locality (Inst. Roy. Sci. Nat. Bruxelles) or Mexico (NHMW). – Kohl, 1893d:496 (listed); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); W. Schulz, 1904c:767 (in key to Neotropical *Ampulex*); R. Bohart and Menke, 1976:78 (listed); Dollfuss, 1989:7 (type material in NHMW); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae); Ruiz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:663 (in checklist of Mexican Sphecidae).

**77. *minor* Kohl**

*Ampulex minor* Kohl, 1893d:480, ♀. Syntypes: Brazil: no specific locality (NHMW, TMB). – Kohl, 1893d:496 (listed); Dalla Torre, 1897:375 (in catalog of world Hymenoptera); W. Schulz, 1904c:767 (in key to Neotropical *Ampulex*); Fernald, 1942:29 (Guyana: Kartabo); R. Bohart and Menke, 1976:78 (listed); Dollfuss, 1989:7 (type material in NHMW); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae).

**78. *mirabilis* Berland**

*Ampulex mirabilis* Berland, 1935a:267, ♀, ♂. Holotype: ♀, China: Kwei Chou Province: "Gan-Chouen, Nin y Fou et Lotano" (MNHN). – R. Bohart and Menke, 1976:78 (listed).

**79. *mocsaryi* Kohl**

80. *Ampulex mocsaryi* Kohl, 1898a:327, ♀ (as *Mocsáryi*, incorrect original capitalization and diacritic mark). Holotype: ♀, Indonesia: Java: no specific locality (TMB). – R. Bohart and Menke, 1976:78 (listed).

**81. *moebii* Kohl**

*Ampulex moebii* Kohl, 1893d:475, ♀ (as *Moebii*, incorrect original capitalization). Holotype or syntypes: ♀, South Africa: Cape Province: Cape of Good Hope (ZMHU). – Kohl, 1893d:496 (listed), 1898a:331 (description of ♂); Dalla Torre, 1897:376 (in catalog of world Hymenoptera); Arnold, 1928a:216 (revision), 1930:15 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:94 (Zaire, as *Möbii*); Leclercq, 1954b:154 (Zaire, diagnostic characters); R. Bohart and Menke, 1976:78 (listed).

**82. *montana* Cameron**

*Ampulex montana* Cameron, 1903a:319, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Cameron, 1903c:238 (listed); Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:78 (listed).

**83. *montivaga* Gess**

*Ampulex montivaga* Gess, 1984a:11, ♀. Holotype: ♀, South Africa: Lesotho: Haha-la-Sekhonyana, 29°22'S, 28°19'E (Albany Museum). – Gess, 1984a:22 (in key).

**84. *moultoni* R. Turner**

85. *Ampulex moultoni* R. Turner, 1915c:184, ♀. Holotype or syntypes: ♀, East Malaysia: Sabah: Mt. Kinabalu (BMNH) – R. Bohart and Menke, 1976:78 (listed).

**86. *murotai* Tsuneki**

*Ampulex murotai* Tsuneki, 1973f:39, ♂. Holotype: ♂, Taiwan, Nantou Prefecture: Puli (originally K. Tsuneki coll., now USNM). – Murota, 1973b:116 (Taiwan); Nuhn and Menke, 1994:26 (holotype transferred to USNM); Porter, Stange, and Wang, 1999:4 (in checklist of Sphecidae of Taiwan).

**87. *mutilloides* Kohl**

*Ampulex mutilloides* Kohl, 1893d:469, ♀. Holotype or syntypes: ♀, South Africa: no specific locality (ZMHU). – Kohl, 1893d:496 (listed); Dalla Torre, 1897:376 (in catalog of world Hymenoptera); Arnold, 1928a:205 (♂ only; ♀ = *Ampulex timulloides*), 1930:15 (in checklist of Afrotropical Sphecidae); Jacot-Guillarmod, 1951:236 (attracted to leguminose plant *Calpurnia sericea* Harv. = *intrusa* E. Mey.); R. Bohart and Menke, 1976:78 (listed); Gess, 1981:17 (South Africa: 18 km WNW Grahamstown; nesting in modified preexisting cavity), 53-54 (hunting precedes nest establishing); Gess, 1984a:16 (redescription), 20 (in key).

*Ampulex sanguinicollis* Brauns, 1899:394, ♂. Holotype: ♂, South Africa: Cape Province: Uitenhage near Port Elizabeth (TMP). Synonymized with *Ampulex mutilloides* by Arnold, 1928a:205.

As *Ampulex ruficollis* (lapsus for *sanguinicollis*): Brauns, 1911a:119 (is a synonym of *Ampulex mutilloides*).

**88. *nasuta* Er. André**

*Ampulex nasuta* Er. André, 1895:CCLVII, ♀. Holotype: ♀, Tanzania: Zanzibar: no specific locality (MNHN?). – Dalla Torre, 1897:376 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:78 (listed).

**89. *nebulosa* F. Smith**

*Ampulex nebulosa* F. Smith, 1856:270, ♀. Holotype or syntypes: ♀, South Africa: Kwazulu Natal: Port Natal, now Durban (BMNH). – Kohl, 1893d:496 (original description copied); Dalla Torre, 1897:376 (in catalog of world Hymenoptera); Brauns, 1899:395 (redescription); Arnold, 1928a:203 (revision), 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:78 (listed); Gess, 1984a:21 (in key).

*Ampulex cribrata* Kohl, 1893d:484, ♂. Holotype or syntypes: ♂, South Africa: no specific locality (ZMHU). Synonymized with *Ampulex venusta* by W. Schulz, 1912:96 and with *Ampulex nebulosa* by Brauns, 1911a:119 and Arnold, 1928a:203. – Kohl, 1893d:492 (listed); Dalla Torre, 1897:374 (in catalog of world Hymenoptera).

**90. *neotropica* Kohl**

*Ampulex neotropica* Kohl, 1893d:479, 487, ♀, ♂. Syntypes: Panama: Chiriquí (NHMW, ZMHU). – Kohl, 1893d:496 (listed); Dalla Torre, 1897:376 (in catalog of world Hymenoptera); W. Schulz, 1904c:766 (in key to Neotropical *Ampulex*); Bradley, 1934a:33 (Costa Rica); R. Bohart and Menke, 1976:78 (listed); Dollfuss, 1989:7 (type material in NHMW); Hanson and Menke, 1995:637 (known from Costa Rica); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae).

**91. *nigricans* Cameron**

*Ampulex nigricans* Cameron, 1899:57, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Cameron, 1903c:238 (listed); Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:78 (listed).

**92. *nigrocoerulea* de Saussure**

*Ampulex nigrocoerulea* de Saussure in Distant, 1892:212, ♀. Holotype: ♀, South Africa: Transvaal: Pretoria (...). – de Saussure, 1892:444 (in key); Kohl, 1893d:497 (original description copied); Dalla Torre, 1897:376 (in catalog of world Hymenoptera); Bingham, 1902:217 (South Africa: Pretoria); Arnold, 1928a:213 (revision), 1930:15 (in checklist of Afrotropical Sphecidae), 1947:141 (taxonomy, synonymy); Jacot-Guillarmod, 1951:236 (attracted to leguminose plant *Calpurnia sericea* Harv. = *intrusa* E. Mey.); R. Bohart and Menke, 1976:78 (listed, as *nigrocoerulea*).

*Ampulex spiloptera* Cameron, 1905g:255, ♂. Holotype or syntypes: ♂, South Africa: Cape Province: Dunbrody (BMNH). Synonymized with *Ampulex nigrocoerulea* by Arnold, 1947:141. – Arnold, 1928:215 (revision), 1930:15 (in checklist of Afrotropical Sphecidae); Jacot-Guillarmod, 1961:12 (presumed type in Albany Museum, Grahamstown).

*Ampulex jansei* Cameron, 1910b:140, ♀. Holotype or syntypes: ♀, South Africa: Transvaal: Pietersburg (TMP). Synonymized with *Ampulex nigrocoerulea* by Meade-Waldo in Meade-Waldo, Morley, and Turner, 1915:336, and by Brauns, 1917:240.

**93. *nigrosetosa* Gess**

*Ampulex nigrosetosa* Gess, 1984a:14, ♀. Holotype: ♀, South Africa: Grahamstown (Albany Museum). – Gess, 1984a:21 (in key).

**94. *nitidicollis* R. Turner**

*Ampulex nitidicollis* R. Turner, 1919d:47, ♀. Holotype: ♀, Tanzania: Victoria Nyanza (= Lake): Damba Island (BMNH). – Arnold, 1928a:227 (original description copied), 1930:16 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:78 (listed).

**95. *occipitalis* Arnold**

*Ampulex occipitalis* Arnold, 1947:140, ♂. Syntypes: Malawi: Zomba (SAM). – R. Bohart and Menke, 1976:78 (listed); Rodgers and Homewood, 1982:233 (Tanzania: Usambara Mountains).

**96. *overlaeti* Leclercq**

*Ampulex overlaeti* Leclercq, 1954b:156, ♂. Holotype: ♂, Zaire: Lulua: Kapanga (MRAC). – R. Bohart and Menke, 1976:78 (listed).

**97. *pilosa* Cameron**

*Ampulex pilosa* Cameron, 1900a:37, ♀. Holotype or syntypes: ♀, India: Assam: Khasia (OXUM). – Cameron, 1903a:322 (common in Assam), 1903c:238 (listed); R. Turner, 1914b:250 (Malaysia: Sarawak: Matang); Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:78 (listed).



**98. *psilopus* Kohl**

*Ampulex psilopus* Kohl, 1893d:477, ♀. Holotype or syntypes: ♀, Guinea: no specific locality (ZMHU). – Kohl, 1893d:498 (listed); Dalla Torre, 1897:376 (in catalog of world Hymenoptera); Arnold, 1928a:223 (original description translated into English), 1930:16 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:78 (listed, as *psilopa*).

**99. *purpurea* (Westwood)**

*Chlorion purpureum* Westwood, 1844:65, ♀. Holotype or syntypes: ♀, South Africa: no specific locality (...). – **As *Ampulex purpurea***: F. Smith, 1856:270 (new combination, listed); Radoszkowski, 1881:210 (Angola); Kohl, 1893d:498 (original description copied); Dalla Torre, 1897:376 (in catalog of world Hymenoptera); Arnold, 1928a:216 (revision), 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:78 (listed).

**100. *quadraticollar* Wu and Chou**

*Ampulex quadraticollar* Wu and Chou, 1985:159, ♀, ♂. Holotype: China: Yunnan: Xishuangbanna, Mengla (Zool. Inst. Beijing). – Wu and Chou, 1985:154 (in key); Wu and Zhou, 1996:20 (revision in Economic Insect Fauna of China).

**101. *raptor* F. Smith**

*Ampulex raptor* F. Smith, 1856:271, ♂. Holotype or syntypes: ♂, Venezuela: no specific locality (BMNH). – Kohl, 1893d:498 (original description copied); Dalla Torre, 1897:376 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:78 (listed); Callan, 1990b:19 (in checklist of Trinidad Sphecidae); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae); Starr and Hook, 2003:17 (in catalog of Aculeata of Trinidad, West Indies).

**102. *regalis* F. Smith**

*Ampulex regalis* F. Smith, 1860a:83, ♀. Holotype or syntypes: ♀, Indonesia: Sulawesi: Makassar: no specific locality (OXUM). – Kohl, 1893d:498 (original description copied); Dalla Torre, 1897:376 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:78 (listed).

**103. *rothneyi* Cameron**

*Ampulex rothneyi* Cameron, 1902d:54, ♀ (as *Rothneyi*, incorrect original capitalization). Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Cameron, 1903c:238 (listed); Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:78 (listed).

**104. *rotundioculus* Wu and Chou**

*Ampulex rotundioculus* Wu and Chou, 1985:155, ♀, ♂. Holotype: ♀, China: Yunnan: Pu'er (Zool. Inst. Beijing). – Wu and Chou, 1985:154 (in key); Wu and Zhou, 1996:17 (revision in Economic Insect Fauna of China).

**105. *ruficollis* Cameron**

*Ampulex ruficollis* Cameron, 1888b:178, sex not indicated. Holotype or syntypes: Spain: Gibraltar (BMNH). – Kohl, 1893d:499 (original description copied); Dalla Torre, 1897:376 (in catalog of world Hymenoptera); W. Schulz, 1911b:148 (redescription; Morocco: Tanger); Giner Marí, 1943a:60 (in Sphecidae Fauna of Spain); Ceballos, 1959:228 (in supplement to catalog of Spanish Sphecidae), 1964:86 (in supplement to catalog of Spanish Sphecidae); R. Bohart and Menke, 1976:78 (listed); Mingo and Gayubo, 1983:139 (Spain); Gayubo, Asís, and Tormos, 1998a:108 (revision, larva); Gayubo, González, de la Nuez, Asís, and Tormos, 2006:205 (Spain: Ávila: Barco de Ávila, Cáceres: Malpartida de Plasencia).

**106. *ruficornis* (Cameron)**

*Rhinopsis ruficornis* Cameron, 1889:115, ♀. Holotype: ♀, India: Barrackpore (OXUM), type identity established by Krombein, 1979a:11. – Rothney, 1889:354 (mimicking ant *Pseudomyrma bicolor*); Cameron, 1891:193 (...); Kohl, 1893d:500 (original description copied); Bingham, 1897:255 (redescription); Rothney, 1903:105 (India: West Ben-

gal: Barrackpore), 113 (mimicking ant *Pseudomyrma bicolor*). – **As *Ampulex ruficornis***: Kohl, 1893d:500 (original description copied); Dalla Torre, 1897:376 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:78 (listed); Krombein, 1979a:11 (Sri Lanka, revision).

As *Ampulex constanceae*: Bingham, 1897:255 (India, revision), corrected to *Ampulex ruficornis* by Krombein, 1979a:11.

#### 107. *ruficoxis* Cameron

*Ampulex ruficoxis* Cameron, 1902d:56, ♀. Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). – Cameron, 1903c:238 (listed); Ramakrishna Aiyar, 1916:555 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:78 (listed).

#### 108. *rufofemorata* Cameron

*Ampulex rufofemorata* Cameron, 1903d:161, ♀ (as *rufo-femorata*, incorrect original hyphenation). Holotype or syntypes: ♀, Borneo: Mount Sibou (Sarawak Museum? BMNH, OXUM?) – R. Bohart and Menke, 1976:78 (listed).

#### 109. *sagax* Kohl

*Ampulex sagax* Kohl, 1893d:477, 480. Syntypes: origin unknown (Halle). – Kohl, 1893d:500 (listed); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); W. Schulz, 1904c:767 (in key to Neotropical *Ampulex*); Bradley, 1934a:33 (British Guiana); Fernald, 1942:29 (Guyana: Kartabo); R. Bohart and Menke, 1976:78 (listed); Amaranter, 2002:65 (in catalog of Neotropical Ampulicidae).

#### 110. *satoi* Yasumatsu

*Ampulex satoi* Yasumatsu, 1936b:204, ♀, ♂. Holotype: ♂, Korea: Suigen, now Suwon (depository?). – R. Bohart and Menke, 1976:78 (listed); Tsuneki, 1982b:14 (known from Korea).

#### 111. *sciophanes* (Nagy)

*Chlorampulex sciophanes* Nagy, 1971:104, ♂. Holotype: ♂, Taiwan: Takao (Q. Argaman coll., Yavne, Israel). – **As *Ampulex sciophanes***: R. Bohart and Menke, 1976:78 (new combination, listed); Porter, Stange, and Wang, 1999:4 (in checklist of Sphecidae of Taiwan).

#### 112. *seitzii* Kohl

*Ampulex seitzii* Kohl, 1893d:464, ♀ (as *Seitzii*, incorrect original capitalization). Holotype or syntypes: ♀, China: Hongkong (NHMW). – Kohl, 1893d:500 (listed); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); W. Schulz, 1906:191 (Java); Yasumatsu, 1936b:200 (in revision of *Ampulex* of Eastern Asia); R. Bohart and Menke, 1976:78 (listed); Dollfuss, 1989:7 (type material in NHMW); Porter, Stange, and Wang, 1999:4 (in checklist of Sphecidae of Taiwan).

#### 113. *senex* Bischoff

*Ampulex senex* Bischoff, 1915a:474, ♀. Holotype: ♀, Rwanda: Mt. Karissimbi (ZMHU). – Arnold, 1928a:228 (original description translated into English), 1930:16 (in checklist of Afrotropical Sphecidae), 1943:75 (Zaire); R. Bohart and Menke, 1976:78 (listed).

#### 114. *sikkimensis* (Kriechbaumer)

*Waagenia sikkimensis* Kriechbaumer, 1874:55, ♀ (as *Sikkimensis*, incorrect original capitalization). Holotype: ♀, Sikkim: no specific locality (ZSBS). – Nagy, 1971:104 (redescription). – **As *Ampulex sikkimensis***: Kohl, 1893d:462 (redescribed in key), 500 (new combination); Bingham, 1897:257 (redescription); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:78 (listed).

**115. smaragdina F. Smith**

*Ampulex smaragdina* F. Smith, 1858a:99, ♀. Holotype or syntypes: ♀, Singapore (OXUM). – F. Smith, 1865:84 (Sumatra); Kohl, 1893d:501 (original description copied); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:78 (listed).

**116. sodalicia Kohl**

*Ampulex sodalicia* Kohl, 1893d:470, ♀. Holotype or syntypes: ♀, Indonesia: Moluccas: no specific locality (TMB). – Kohl, 1893d:501 (listed); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); R. Turner, 1912g:368 (color variation); Ramakrishna Aiyar, 1916:555 (reference to Turner, 1912); R. Bohart and Menke, 1976:78 (listed).

*Ampulex striatifrons* Cameron, 1902a:95, ♂. Holotype or syntypes: ♂, East Malaysia: Sarawak: Kuching (BMNH). Synonymized with *Ampulex sodalicia* by R. Turner, 1912g:368.

*Ampulex tricarinata* Cameron, 1902:245, ♀ (as *tri-carinata*, incorrect original hyphenation). Syntypes: ♀, Borneo: no specific locality (OXUM). Synonymized with *Ampulex sodalicia* by R. Turner, 1912g:368.

**117. sonani Yasumatsu**

*Ampulex sonani* Yasumatsu, 1936b:183, ♀, ♂. Holotype: Taiwan: Yoyorin (Entomol. Mus. Government Res. Institute, Taihoku, Taiwan). – R. Bohart and Menke, 1976:78 (listed); Porter, Stange, and Wang, 1999:4 (in checklist of Sphecidae of Taiwan).

**118. sonnerati Kohl**

*Ampulex sonnerati* Kohl, 1893d:501, ♀ (as *Sonnerati*, incorrect original capitalization). Syntypes: ♀, Philippines: Luzon: Kavite (Sonnerat coll., lost?). – Dalla Torre, 1897:377 (in catalog of world Hymenoptera); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); Baltazar, 1966:326 (in catalog of Hymenoptera of Philippines); R. Bohart and Menke, 1976:78 (listed).

**119. spectabilis Kohl**

*Ampulex spectabilis* Kohl, 1893d:475, ♀. Syntypes: ♀, Guinea: no specific locality (ZMHU). – Kohl, 1893d:502 (listed); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); Arnold, 1928a:222 (original description translated into English), 1930:16 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:78 (listed).

**120. splendidula Kohl**

*Ampulex splendidula* Kohl, 1893d:471, ♀. Holotype or syntypes: ♀, Afrotropical Region: no specific locality (Inst. Roy. Sci. Nat. Bruxelles). – Kohl, 1893d:502 (listed); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); Arnold, 1928a:210 (original description translated into English), 1930:15 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:78 (listed).

**121. surinamensis de Saussure**

*Ampulex surinamensis* de Saussure, 1867:44, ♀. Holotype or syntypes: ♀, Surinam: no specific locality (NHMW). – Kohl, 1893d:480 (redescribed in key), 503 (listed); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); W. Schulz, 1904c:766 (in key to Neotropical *Ampulex*), 1911b:153 (discussion of identity); Bradley, 1934a:33 (British Guiana); R. Bohart and Menke, 1976:78 (listed); Nascimento and Overal, 1980:3 (Brazil, French Guiana); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae).

**122. sybarita Kohl**

*Ampulex sybarita* Kohl, 1893d:471, ♀. Holotype or syntypes: ♀, Indonesia: Java: no specific locality (Inst. Roy. Sci. Nat. Bruxelles). – Kohl, 1893d:503 (listed); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:78 (listed).

**123. takeuchii Yasumatsu**

*Ampulex takeuchii* Yasumatsu, 1936b:195, ♀, ♂. Holotype: ♀, Taiwan: Nantou Prefecture: Horisha, now Puli (Takeuchi Entomological Laboratory, Yamashina). – Tsuneki, 1982e:16 (Taiwan); Wu and Chou, 1985:154 (in key); Wu and Zhou, 1996:22 (revision in Economic Insect Fauna of China); Porter, Stange, and Wang, 1999:4 (in checklist of Sphecidae of Taiwan); Li and He, 2004:1074y (in hymenopterous fauna of Zhejiang Province, China).

**124. thoracica F. Smith**

*Ampulex thoracica* F. Smith, 1856:271, ♂. Holotype or syntypes: ♂, Brazil: Villa Nova, now Parintins (BMNH). – Kohl, 1893d:503 (original description copied); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); W. Schulz, 1911b:159 (is not a synonym of *Ampulex angusticollis*); R. Bohart and Menke, 1976:78 (listed); Callan, 1990b:19 (in checklist of Trinidad Sphecidae); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae); Starr and Hook, 2003:17 (in catalog of Aculeata of Trinidad, West Indies).

**125. timuloides Gess**

*Ampulex timuloides* Gess, 1984a:18, ♀. Holotype: ♀, South Africa: Transvaal: Carolina (South African Museum ex Bulawayo Museum). – Gess, 1984a:20 (in key).

As *Ampulex mutilloides*: Arnold, 1928:205 (♀ only), corrected to *Ampulex timuloides* by Gess, 1984a:18.

**126. toroensis R. Turner**

*Ampulex toroensis* R. Turner, 1919d:45, ♀, ♂. Holotype: Uganda: Fort Portal Road, Mbarara, Southern Toro; and Tigger (BMNH). – Arnold, 1928a:229 (revision), 1930:16 (in checklist of Afrotropical Sphecidae), 1951:139 (Ethiopia: Addis Ababa); Leclercq, 1954b:152 (Zaire: Bambesa); R. Bohart and Menke, 1976:78 (listed).

**127. tridentata Tsuneki**

As *Ampulex dentata* (corrected to *Ampulex tridentata* by Tsuneki, 1982e:16): Yasumatsu, 1935b:34 (Japan: Ryukyu Archipelago: Ishigaki Island), 1936b:187 (in revision of *Ampulex* of Eastern Asia); Tsuneki, 1968b:110 (Ryukyu Islands), 1968d:58 (Ryukyu Islands, 1982g:54 (known from the Ryukyu archipelago).

*Ampulex tridentata* Tsuneki, 1982e:16, ♀, ♂. Holotype: ♀, Ryukyu Islands: Yayeyama Islands (Ent. Inst. Hokkaido Univ., Sapporo). – Yamane and Ikudome, 1990:96 (distribution in Ryukyu Islands, Japan); Tano, 1994a:3 (paratype in K. Tsuneki collection); Hashimoto and Nakanishi, 1997:14 (paratype transferred to Hyogo Mus.); Yamane, Ikudome, and Terayama, 1999:471 (in Identification Guide to Ampulicidae of Nansei = Ryukyu Islands, Japan).

**128. trigonopsis F. Smith**

*Ampulex trigonopsis* F. Smith, 1873b:55, ♀. Holotype or syntypes: ♀, Brazil: Amazonas: Ega, now Tefé (BMNH). – Kohl, 1893d:503 (original description copied); W. Fox, 1897b:373 (Brazil: Chapada); Kohl, 1893d:503 (original description copied); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); Bradley, 1934b:165 (description of ♂; Brazil: Mato Grosso: Chapada); R. Bohart and Menke, 1976:78 (listed); Amarante, 2002:65 (in catalog of Neotropical Ampulicidae).

**129. varicolor R. Turner**

*Ampulex varicolor* R. Turner, 1919f:392, ♀. Holotype: ♀, Vietnam: Xieng Khouang, Ban Sai (BMNH). – R. Bohart and Menke, 1976:78 (listed).

**130. venusta Stål**

*Ampulex venusta* Stål, 1857:64, sex not indicated. Holotype or syntypes: Caffraria, now South Africa: no specific locality (NRS). – Kohl, 1893d:503 (original description copied); Dalla Torre, 1897:377 (in catalog of world Hymenoptera); W. Schulz, 1912:96 (study of type material); R. Bohart and Menke, 1976:78 (listed, possibly a synonym of *Ampulex nebulosa*).

*Ampulex pilipes* Kohl, 1893d:484, ♂. Holotype or syntypes: ♂, Guinea: no specific locality (ZMHU). Synonymized with *Ampulex venusta* by W. Schulz, 1912:96. – Kohl, 1893d:498 (listed); Dalla Torre, 1897:376 (in catalog of

world Hymenoptera); Arnold, 1928a:211 (original description translated into English), 1930:15 (in checklist of Afrotropical Sphecidae); Bradley, 1934a:33 (Mozambique); R. Bohart and Menke, 1976:78 (listed).

**131. *viridescens* Arnold**

*Ampulex viridescens* Arnold, 1947:142, ♀. Holotype: ♀, Zambia: Abercorn, now Mbala (SAM). – Leclercq, 1954b:153 (Zaire, Rwanda, Malawi); R. Bohart and Menke, 1976:78 (listed).

**132. *yunnanensis* Wu and Chou**

*Ampulex yunnanensis* Wu and Chou, 1985:156, ♀, ♂. Holotype: ♀, China: Yunnan, Xishuangbanna, Menghai (Zool. Inst. Beijing). – Wu and Chou, 1985:154 (in key); Wu and Zhou, 1996:18 (revision in Economic Insect Fauna of China).

**sp.**

von Schulthess, 1914:286 (Cameroon); Arnold, 1951:139 (Ghana: Accra); de Beaumont, 1960c:171 (Afghanistan), 1961b:272 (Afghanistan); Rodgers and Homewood, 1982:233 (Tanzania: Usambara Mountains); Hua, 1989:117 (China); Cambra, 1993:16 (Peru: Pakitza, 11°57'S, 71°17'W); Kronauer, 2004 (stealing liquid food from ants *Ecatomma ruidum* (Roger, 1860) in Costa Rica).

**NOMINA NUDA IN AMPULEX**

*Ampulex chelonoides*: Casolari and Casolari Moreno, 1980:110 (specimens in M. Spinola collection).