

Last updated: 24 May 2025

CHLORION

Chlorion Latreille, 1802b:333. Type species: *Spheg lobatus* Fabricius, 1775, by monotypy.

Chlorium Billberg, 1820:105. Emendation of *Chlorion* Latreille, 1802.

Chlorium W. Schulz, 1906:193. Emendation of *Chlorion* Latreille, 1802.

Keys: de Beaumont, 1962a (Palearctic species), Menke, 1961 (Nearctic species).

Review of biology: Kazenas, 2001b:62; Hook, 2004.

1. *aerarium* Patton

Chlorion aerarium Patton, 1879a:133, ♀. Holotype: ♀: USA: Connecticut: Plainville (depository unknown). – Cresson, 1887:275 (in catalog of North American Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae); Fernald, 1904:119 (as synonym of *Chlorion cyaneum*); Krombein, 1953a:283 (prey), 295 (visiting foliage of *Pinus serotina* Michx.), 298 (visiting flowers of Virginia creeper), 1958f:191 (in supplement to catalog of North American Hymenoptera: prey: *Anurogryllus muticus* (De Geer), Gryllidae, *Acheta assimilis* Fabricius, Gryllidae), 1959e:195 (cricket prey); Krombein, 1958c:104 (nest); Kurczewski and Kurczewski, 1963:147 (Pennsylvania: Presque Isle State Park); Menke, 1961:667 (in revision of Nearctic *Chlorion*); Pilon and Steiner, 1966:486 (Massachusetts: Longmeadow); Evans, 1975a:263 (slow colonizer of new habitats); R. Bohart and Menke, 1963:102 (in revision of Nearctic Sceliphirini); Evans, 1964b:242 (description of larva); R. Bohart and Menke, 1976:89 (in checklist of world Sphecidae); L. Davis, 1978:216 (North Carolina: Kill Devil Hills, data from Krombein, 1953a); D. Peckham and F. Kurczewski, 1978:758 (nesting behavior); Krombein, 1979b:1576 (in catalog of North American Hymenoptera); Radović, 1985:64 (sting apparatus analyzed); Steiner, 1986:94 (references to papers on nesting habits); O'Brien, 1989b:202 (distribution in Michigan); Kurczewski and Acciavatti, 1990:59 (New York: Cayuga County); Ahlstrom, 1995:106 (in checklist of insects of North Carolina); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae); Ohl and Linde, 2003:149 (number of ovarioles); Buck, 2004:24 (Canada: in checklist of Sphecidae of Ontario); Lechner, 2006a:242 (Iowa: Sioux City, prey carrying), 2008:531 (prey carried in dorsum up position); Field, Ohl, and Kennedy, 2011:734 (in molecular cladistic analysis of Ammophilini); Dollfuss, 2016:1150 (locality records from USA); Ratzlaff, 2016:29 (Canada: first record from British Columbia: Southern Interior), 39 (British Columbia: Oliver); Field, Gonzalez-Voyer, and Boulton, 2020:7 (evolution of parental care); Buys, 2020b:80 (in cladistic analysis of larvae of Sphecidae s.s.); Buck and Bennett, 2025:224 (in checklist of Sphecidae sensu lato of Canada, Alaska, and Greenland: Canada: British Columbia, Ontario, first record from Alberta: no specific locality). – **As *Chlorion cyaneum* var. *aerarium***: Patton, 1894:46 (new status); Rohwer, 1916b:679 (in catalog of Hymenoptera of Connecticut); Rohwer in Viereck, 1925:679 (in key to Sphecidae of Connecticut; type locality: Plainville). – **As *Chlorion cyaneum aerarium***: Fernald, 1906:317 (new status, in revision of Sphecini of North America and West Indies); Mickel, 1918b:397 (in catalog of Nebraskan Sphecidae); Britton, 1920:340 (in checklist of insects of Connecticut); J.Ch. Bradley, 1928:1011 (in catalog of New York Sphecidae); Fernald, 1943a:286 (Florida); Dreisbach, 1944:267 (in key to Sphecinae of Michigan), 272 (Michigan: locality records). – **As *Spheg aerarius***: Kohl, 1890b:192 (new generic assignment, original description copied); Dalla Torre, 1897:413 (in catalog of world Hymenoptera); Murray in Muesebeck, Krombein, and Townes, 1951:974 (in catalog of North American Hymenoptera).

Spheg nearcticus Kohl, 1890b:186, ♀, ♂. Syntypes: Mexico, Philadelphia, Texas (NHMW). Synonymized with *Chlorion cyaneum* by Fernald, 1904:119 and with *Spheg aerarius* by Murray in Muesebeck, Krombein, and Townes, 1951:974. – W. Fox, 1894c:102 (Mexico: Baja California); Dalla Torre, 1897:433 (in catalog of world Hymenoptera); J. Smith, 1900:523 (in list of insects of New Jersey); Strand, 1916b:99 (specimen without locality label);

discussion of potential synonymy). – **As *Chlorion nearcticum***: Ashmead, 1899d:353 (new generic assignment, in checklist of North American Sphecidae); J. Smith, 1900:523 (in list of insects of New Jersey); Dollfuss, 1989:8 (type material in NHMW).

As *Sphex caeruleum*: Peckham and Peckham, 1900:85 (nesting habits) and Hungerford and Williams, 1912:246 (Kansas, preying on *Ceutophilus* near *brunneri*, a gryllacridid), corrected to *Chlorion aerarium* by R. Bohart and Menke, 1976:89.

2. *boharti* Menke

Chlorion boharti Menke, 1961:667, ♀, ♂. Holotype: ♂, Mexico: Baja California Sur: La Paz (CAS). – R. Bohart and Menke, 1963:103 (in revision of Nearctic Sceliphriini); R. Bohart and Menke, 1976:89 (in checklist of world Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae).

3. *consanguineum* (Kohl)

Sphex consanguineus Kohl, 1898b:93, ♀. Holotype: ♀, Northeast Africa, probably Ethiopia: no specific locality (NHMW). – **As *Chlorion consanguineum***: R. Bohart and Menke, 1976:89 (new generic assignment, in checklist of world Sphecidae).

4. *cyaneum* Dahlbom

Chlorion cyaneum Dahlbom, 1843:24, ♂. Syntypes: Mexico and North America: no specific locality (Lund). – Dahlbom, 1845:435 (in key to world *Chlorion*); Cresson, 1863:319 (in catalog of North American Hymenoptera); Taschenberg, 1869:421 (synonymized with *Chlorion coeruleum* Drury); Fernald, 1904:117 (nomenclatural history), 1906:313 (in revision of North American and West Indian Sphecinae); H. Smith, 1908b:330 (in revision of Nebraskan Sphecidae); J. Smith, 1910:677 (in new list of insects of New Jersey); W. Schulz, 1912:93 (study of syntype ♂); Rau and Rau, 1918:200 (preying on gryllids); Washburn, 1919:222 (in list of Hymenoptera of Minnesota); Rau, 1922:22 (USA: Missouri: Saint Louis, cricket prey); Fernald, 1931a:439 (taxonomic history, specimens in Fabricius collection); Brimley, 1938:444 (North Carolina: Fayetteville); Fernald, 1943a:286 (Florida); Dreisbach, 1944:267 (in key to Sphecinae of Michigan), 272 (Michigan: locality records); Menke, 1961:669 (in revision of Nearctic *Chlorion*); R. Bohart and Menke, 1963:103 (in revision of Nearctic Sceliphriini); R. Bohart and Menke, 1976:89 (in checklist of world Sphecidae); Krombein, 1979b:1576 (in catalog of North American Hymenoptera); Casolari and Casolari Moreno, 1980:110 (specimens in M. Spinola collection, Torino); Hua, 1989:116 (China, obviously in error); Ahlstrom, 1995:106 (in checklist of insects of North Carolina); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae); Ohl and Linde, 2003:149 (number of ovarioles); Hook, 2004:558 (nesting habits, preying on cockroaches); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 47 (Mexico: Tamaulipas); Pagliano, 2008:539 (specimens in M. Spinola collection, Torino); Dollfuss, 2016:1150 (locality records from USA). – **As *Sphex cyaneus***: Berland, 1926b:165 (new generic assignment, Mexico: Baja California; USA: Illinois and Rocky Mountains).

Sphex occultus Kohl, 1890b:111, ♀, ♂. Syntypes: North America: no specific locality (NHMW). Synonymized with *Chlorion cyaneum* by Fernald, 1904:119 and W. Schulz, 1912:93. – Dalla Torre, 1897:435 (in catalog of world Hymenoptera). – **As *Chlorion occultum***: Ashmead, 1899d:353 (new generic assignment, in checklist of North American Sphecidae); Dollfuss, 1989:8 (type material in NHMW).

As *Chlorion caeruleum* Drury: F. Smith, 1856:238 (in catalog of Hymenoptera in British Museum); Cresson, 1865b:463 (specimen in ANSP collection); Taschenberg, 1869:421 (Georgia, Illinois); Walsh, 1869:164 (redescription); Cresson, 1873:211 (Texas), present correction based on his use of *Chlorion cyaneum* as junior synonym; Cresson, 1887:275 (in catalog of North American Hymenoptera); Ashmead, 1890:33 (in checklist of Hymenoptera of Colorado); C. Robertson, 1896:72 (visiting flowers of *Polygonum pennsylvanicum* Linnaeus, Polygonaceae);

G. Peckham and E. Peckham, 1898:173 (nesting habits); Ashmead, 1899d:353 (in checklist of North American Sphecidae); G. Peckham and E. Peckham, 1900:85 (prey stinging, prey carrying, nest structure); J. Smith, 1900:523 (in list of insects of New Jersey); Adlerz, 1904:138 (known prey: gryllids); Snow, 1906:133 (Arizona); Steiner, 1986:94 (references to papers on nesting habits). – **As *Pelopoeus caeruleus***: Cresson, 1876:208 (new generic assignment, Colorado: Boulder; Iowa: Davenport; Utah: Spring Lake).

5. *funereum* Gribodo

Chlorion funereum Gribodo, 1879:343, ♀, proposed conditionally (“n. sp. ?”). Holotype: ♀, Ethiopia: kingdom of Scioa = Schoa: Mahal-Uonz (MSNG). – Gribodo, 1881b:241 (redescription); Leclercq, 1955h:39 (bibliographic references); R. Bohart and Menke, 1976:89 (in checklist of world Sphecidae); Guichard, 1988a:116 (Arabian Peninsula), 1991a:338 (Jordan); Gadallah and Assery, 2004a:217 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 220 (in catalog of Sphecidae of Saudi Arabia); Roche, 2007a:33 (in checklist of Egyptian Sphecidae, redescription), 2007b:2 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Schmid-Egger, 2011b:599 (recorded from United Arab Emirates by Guichard, 1988a); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:361 (in new catalog of Sphecidae of Saudi Arabia); Schmid-Egger, 2014:621 (United Arab Emirates: Jebel Hafit south of al-Ain), 623 (color photograph of female), 624 (color photographs of male); Pennati and Mariotti, 2015:57 (in list of Hymenoptera described by G. Gribodo); Dollfuss, 2016:1150 (locality records from Oman and United Arab Emirates); Augul, 2019:495 (recorded from Iraq by Roche, 2007a); Gadallah, 2020d:82 (in list of aculeate wasps of Arabian Peninsula); Gadallah and Abu El-Ghiet, 2024:92 (Saudi Arabia: Jazan Province: Abu Arish). – **As *Sphex funereus***: Kohl, 1885b:43 (new generic assignment, bibliographic references and synonymy), 1895:43 (synonymy); Dalla Torre, 1897:423 (in catalog of world Hymenoptera); Kohl, 1906a:198 (Yemen: Aden, Socotra); Honoré, 1944a:57 (in revision of Egyptian Sphecini); de Beaumont, 1962a:34 (in revision of Palearctic *Chlorion*), 1965b:772 (Chad: Ennedi).

Sphex eximius Kohl, 1885b:174, ♀, ♂, junior primary homonym of *Sphex eximius* Lepeletier de Saint Fargeau, 1845. Syntypes: Egypt: Qena (as Kenneh) and Sudan: no specific locality (NHMW). Synonymized with *Chlorion funereum* by Kohl, 1885b:43, synonymy confirmed by Kohl, 1895:43, and W. Schulz, 1911b:163.

Sphex kohli Ed. André, 1888:124. Substitute name for *Sphex eximius* Kohl (as Kohli, incorrect original capitalization). – Ed. André, 1888:7* (bibliographic references); Kohl, 1890b:104 (*Sphex regalis* var. *Kohli*, new status), 1895:42 (relationship to *Chlorion regale*).

6. *gratiosum* (F. Smith)

Sphex gratiosus F. Smith, 1856:244, ♂ (as *gratiosa*, incorrect original termination). Holotype or syntypes: ♂, Libya: Tripoli (BMNH). – Kohl, 1885b:204 (original description copied); Ed. André, 1888:135 (in revision of Sphecidae of Europe and Algeria), 7* (bibliographic references); Kohl, 1890b:444 (original description copied); Dalla Torre, 1897:424 (in catalog of world Hymenoptera); Leclercq, 1955h:38 (listed as species incertae sedis); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae). – **As *Chlorion gratiosum***: Vardy in Menke, 1993, Sphecos 25:21 (new generic assignment).

7. *hemiprasinum* (Sichel)

Sphex hemiprasinus Sichel, 1863:23, ♀ (as *hemiprasina*, incorrect original termination). Syntypes: ♀, Uruguay: Montevideo (MNHN). – A. Costa, 1864b:112 (two specimens from Río la Plata in Museo Zoologico di Napoli); Kohl, 1890b:189 (in revision of world Sphecini); Dalla Torre, 1897:425 (in catalog of world Hymenoptera); W. Fox, 1897b:375 (Brazil: Chapada), 1899:200 (Brazil: Rio Grande do Sul); Schrottky, 1903b:123 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay); W. Schulz, 1906:193 (Argentina: Tucumán: La Criolla and Tapia, variation); Strand, 1910a:132 (Paraguay); Cameron, 1912a:426 (Guyana); Schrottky, 1913a:224 (Argentina, Uruguay); Strand, 1916b:99 (Brazil); Berland, 1926b:165 (Argentina); Liebermann, 1931:17 (in revision of Argentinean Sphecini); Bischoff and von Schulthess, 1937:168 (Bolivia). – **As *Chlorion hemiprasinum***: Fernald,

1907:263 (new generic assignment, Argentina, color variation); Jörgensen, 1912:285 (Argentina: Mendoza Province); Willink, 1951:107 (in revision of Argentinean Sphecini); Menke and Willink, 1964:551 (in revision of Neotropical *Chlorion*); Menke, 1965a:215 (study of holotype); R. Bohart and Menke, 1976:89 (in checklist of world Sphecidae); Nascimento and Overal, 1980:4 (Brazil); Amarante, 2002:68 (in catalog of Neotropical Sphecidae); Buys, 2011a:411 (Brazil: Bahia: Barreiras).

Chlorion bicolor de Saussure, 1869:56, ♀. Holotype or syntypes: ♀: Uruguay: Montevideo (MHNG). Synonymized with *Sphex hemiprasinus* by Kohl, 1890b:189.

Chlorion pretiosum Taschenberg, 1869:421, ♂. Holotype or syntypes: ♂: Argentina: Banda oriental = Uruguay (Halle). Synonymized with *Sphex hemiprasinus* by Kohl, 1890b:189. – Burmeister, 1872:240 (Argentina: Buenos Aires, Mendoza). – **As *Chlorion hemiprasinum* var. *preciosum*** [sic]: Jörgensen, 1912:285 (new status, Argentina: Mendoza Province).

8. *hemipyrrhum* (Sichel)

Sphex hemiprasinum var. *hemipyrrhum* Sichel, 1863:22, ♀ (as *hemipyrrha*, incorrect original termination). Holotype: ♀, Uruguay: Montevideo (MNH). – Kohl, 1890b:189 (as synonym of *Sphex hemiprasinus*); Dalla Torre, 1897:425 (in catalog of world Hymenoptera). – **As *Chlorion hemipyrrhum***: Willink, 1951:110 (new generic assignment, full species status, in revision of Argentinean Sphecini); Menke and Willink, 1964:551 (in revision of Neotropical Chalybion); Menke, 1965a:215 (study of type); R. Bohart and Menke, 1976:89 (in checklist of world Sphecidae); Amarante, 2002:68 (in catalog of Neotropical Sphecidae), 2005a:14 (correction to his 2002 catalog); Dollfuss, 2016:1150 (locality records from Argentina and Brazil).

Chlorion metallicum Taschenberg, 1869:421, ♀. Holotype or syntypes: ♀, Argentina: La Plata (Halle). Synonymized with *Sphex hemiprasinus* by Kohl, 1890b:189, and with *Chlorion hemipyrrhum* by Willink, 1951:110. – Burmeister, 1872:240 (Argentina: Banda oriental, now Uruguay); Kohl, 1890b:189 (as synonym of *Sphex hemiprasinus*). – **As *Sphex hemiprasinum* var. *metallicus***: Dalla Torre, 1897:425 (new generic assignment, new status, in catalog of world Hymenoptera); Schrottky, 1903b:123 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay); Jörgensen, 1912:285 (Argentina: Mendoza Province); Schrottky, 1913a:224 (Argentina: Buenos Aires, as forma *metallica*).

Chlorion pallidipenne Taschenberg, 1869:422, ♀, ♂. Syntypes: Argentina: Paraná (Halle). Synonymized with *Sphex hemiprasinus* by Kohl, 1890b:189, and with *Chlorion hemipyrrhum* by Willink, 1951:110. – Burmeister, 1872:240 (Argentina: Paraná). – **As *Sphex hemiprasinus* var. *pallidipennis***: Dalla Torre, 1897:425 (new generic assignment, new status, in catalog of world Hymenoptera); Schrottky, 1903b:123 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay). – **As *Chlorion hemiprasinum* forma *pallidipenne***: Schrottky, 1913a:224 (new status, Argentina).

Chlorion nobilitatum Taschenberg, 1869:422, ♀. Syntypes: Argentina: Parana (Halle). Synonymized with *Sphex hemiprasinus* by Kohl, 1890b:189, and with *Chlorion hemipyrrhum* by Willink, 1951:110. – Burmeister, 1872:240 (Argentina: Paraná). – **As *Sphex hemiprasinus* var. *nobilitatus***: Dalla Torre, 1897:425 (new generic assignment, new status, in catalog of world Hymenoptera); Schrottky, 1903b:123 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay); Jörgensen, 1912:285 (Argentina: Mendoza Province, as *nobilitatum*). – **As *Sphex hemiprasinus* forma *nobilitata***: Strand, 1910a:132 (new status, Paraguay); Schrottky, 1913a:224 (Argentina).

Sphex hemiprasinus forma *eximia* Strand, 1910a:132, ♂, junior primary homonym of *Sphex eximius* Lepeletier de Saint Fargeau, 1845, and of *Sphex eximius* Kohl, 1885. Holotype: ♂, Brazil: Santos (ZMHU). Synonymized with *Sphex hemiprasinus* by Willink, 1951:107 and with *Chlorion hemipyrrhum* by Menke and Willink, 1964:548 (in Abstract). – Strand, 1927:254 (in list of species described by the author).

Sphex hemiprasinus forma *lepidus* Strand, 1910a:132, ♂ (as *lepida*, incorrect original termination). Holotype: ♂, Brazil: Minas Gerais: São João del Rey (ZMHU). Synonymized with *Chlorion hemipyrrhum* by Menke and Willink,

1964:548 (in Abstract). – Strand, 1927:254 (in list of species described by author); nec *Chlorion lepidum* of Willink, 1951:115 = *Chlorion viridocoeruleum*.

Sphex hemiprasinus forma *principalis* Strand, 1910a:132, sex not stated. Holotype or syntypes: Brazil: São Paulo (ZMHU). Synonymized with *Chlorion hemipyrrhum* by Menke and Willink, 1964:548 (in Abstract).

9. *hirtum* (Kohl)

Sphex hirtus Kohl, 1885b:176, ♂. Syntypes: ♂, Egypt: Sinai Peninsula and Cairo (NHMW). – André, 1888:7* (as new synonym of *Sphex melanosoma*); Kohl, 1889a:23 (synonymy with *Sphex melanosoma* incorrect, comparison of two species), 24 (description of ♀), 1890b:182 (in revision of world Sphecini); Dalla Torre, 1897:425 (in catalog of world Hymenoptera); Kohl, 1906a:197 (Arabian Peninsula: Ras Fartak); Berland, 1926b:164 (Sinai Peninsula, Arabia, Djibouti: Obock); Roth, 1934b:184 (Algeria: Tamanrasset); Giordani Soika, 1939c:105 (Eritrea: Adi Caie, Halai); Honoré, 1944a:58 (in revision of Egyptian Sphecini); Balthasar, 1954b:281 (Palestine: Jericho); de Beaumont and Bytinski-Salz, 1955:40 (Israel); Berland, 1956:1165 (in revision of African Sphecini; mainly Red Sea coast, but also Algeria: Tamanrasset); Shalaby, 1961:226 (Saudi Arabia: Jeddah); Guiglia, 1964:309 (southern Arabia); de Beaumont, 1962a:33 (in revision of Palearctic *Chlorion*). – **As *Chlorion hirtum***: Leclercq, 1955h:39 (new generic assignment, bibliographic references); R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae); Guichard, 1980:224 (Oman), 1988a:116 (Arabian Peninsula); Dollfuss, 1989:8 (type material in NHMW); Guichard, 1991a:338 (Jordan); Roche and Zalut, 1994:113 (Egypt: Sinai Peninsula); Gadallah and Assery, 2004a:217 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 220 (in catalog of Sphecidae of Saudi Arabia); Roche, 2007a:33 (in checklist of Egyptian Sphecidae, redescription), 2007b:2 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Ohl and Spahn, 2010:52 (in cladistic analysis of Ampulicidae); Sakenin, Samin, Bagriacik and Rastegar, 2011:2 (Iran: West Azerbaijan: Maco); Schmid-Egger, 2011b:599 (recorded from United Arab Emirates by Guichard, 1988a); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:361 (in new catalog of Sphecidae of Saudi Arabia); Schmid-Egger, 2014:617 (color photographs of female), 618 (color photograph of male); Dollfuss, 2016:1150 (locality records from Egypt and Oman); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:20 (Iran: known from West Azerbaijan Province); Madl, 2018:943 (in catalog of Hymenoptera of Djibouti); Gadallah, 2020d:83 (in list of aculeate wasps of Arabian Peninsula).

10. *lobatum* (Fabricius)

Sphex lobatus Fabricius, 1775:348, sex not stated (as *lobata*, incorrect original termination). Lectotype: ♀, Africa, actually India or China: no specific locality, designated by van der Vecht, 1961a:37 (BMNH, coll. Banks). – Fabricius, 1781:445 (redescription), 1787:275 (redescription); Gmelin, 1790:2727 (redescription); Thunberg, 1791:126 (specimens donated to Academia Upsaliensis); Fabricius, 1793:206 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:487 (redescription); Jurine, 1807:129 (in list of known Spheges); Audouin, 1823b:43 (in Dictionnaire classique d'histoire naturelle); Lepeletier de Saint Fargeau and Audinet-Serville, 1828:451 (is a member of *Chlorion*); Patton, 1880a:379 (*Sphex lobatus* is the type of the genus); Kohl, 1890b:177 (in revision of world Sphecini); de Saussure, 1892:422 (Madagascar, record questioned by Arnold, 1945:188); Bingham, 1896a:438 (Sri Lanka: Pundaluoya), 1897:242 (redescription); Dalla Torre, 1897:429 (in catalog of world Hymenoptera); Cameron, 1901a:24 (Malaysia); Rothney, 1903:105 (India: West Bengal: Barrackpore), 112 (common in India, females look for prey removed from nest entrance); Bingham, 1905:45 (Malaysia: Biserat, Bukit Besar, Patani); Cameron, 1905k:65 (Sumatra); Beadnell, 1906:546 (preying on cricket *Brachytrypes achatinus* Stoll, Gryllidae); Maxwell-Lefroy, 1909:207 (India: preying on cricket *Brachytrypes achatinus* Stoll); Dutt, 1912:226 (preying on cricket *Brachytrypes achatinus* Stoll; use as decoration by Bengali ladies); Strand, 1915:90 (Sri Lanka: Weligama); Ramakrishna Aiyar, 1916:554 (in catalog of Indian aculeates described after Bingham, 1897); Hingston, 1925:735 (nesting habits, prey: *Brachytrypes achatinus* Stoll); Berland, 1926b:164 (India, Vietnam); Hingston, 1926:147 (mechanism of prey finding, effect of venom on prey); G. Carpenter, 1930b:290 (nest closure); Honoré, 1944a:59 (in revision of Egyptian Sphecini); Giner Marí, 1945c:850

- (India: Maharashtra: Bandra); Begum and Bose, 1976:26 (Bangladesh: Dakka); Piek and Spanjer, 1986:189 (in list of Sphecidae with known prey); Begum, Khan, and Bose, 1995:176 (Bangladesh: Dhaka University Campus); van Vondel, 1995:29 (specimens from India and Sikkim in Natuurmuseum Rotterdam); Hua, 2006:276 (in list of Chinese insects, geographic distribution). – **As *Chlorion lobatum***: Fabricius, 1804:217 (new generic assignment, redescription); Latreille, [1805]:294 (redescription); Dahlbom, 1843:24 (in revision of Sphecidae and Pompilidae), 1845:XXII (specimens in collection Fabricius in Kiel), 435 (in key to world *Chlorion*); Lepeletier de Saint Fargeau, 1845:330 (in revision of world Hymenoptera); F. Smith, 1856:237 (in catalog of Hymenoptera in British Museum); A. Costa, 1862a:17 (specimen from China in Museo Zoologico di Napoli), 1864b:102 and 112 (specimen from China in Museo Zoologico di Napoli), 1866:24 (four specimens from India in Museo Zoologico di Napoli); Taschenberg, 1869:421 (India); F. Smith, 1871a:360 (in catalog of Oriental Aculeata), 1878b:167 (Burma: Tenasserim Province); Gribodo, 1884d:358 (Burma: Minhla); Radoszkowski, 1892:575 (male genitalia, as *lobatus*); Ashmead, 1904a:6 (Philippines: Manila), 1904d:150 (Philippines, as *lobotum*); Lefroy, 1904:531 (India: Calcutta; nest construction and prey; as *lobatus*); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); Rohwer, 1922:666 (occurrence in Philippines questionable); Iwata, 1965:107 (number of oocytes); R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae); Casolari and Casolari Moreno, 1980:110 (specimens in M. Spinola collection, Torino); Radović, 1985:64 (sting apparatus analyzed); Steiner, 1986:94 (references to papers on nesting habits); Tano, Nozaka, Kurokawa, and Murota, 1994:59 (Philippines); S. Gupta, 1995:85 (India: Uttar Pradesh); Q. Li, 1995:87 (in key to Chinese Sceliphriini); Wu and Zhou, 1996a:30 (in revision in Economic Insect Fauna of China); Jha and Farooqi, 1994:9 (description and illustration of male genitalia); Jonathan, Ray, and Kundu, 2000:178 (India: Meghalaya: East Garo Hills: Dainabudi and Darugiri); Ohl and Linde, 2003:149 (number of ovarioles); Hua, 2006:275 (in list of Chinese insects, geographic distribution); Roche, 2007a:139 (recorded from Egypt from Port Said, but not occurring there); Pagliano, 2008:539 (specimens in M. Spinola collection, Torino); Ohl and Spahn, 2010:52 (in cladistic analysis of Ampulicidae); Girish Kumar, Mazumdar, and Sharma, 2014:371 (in review of *Chlorion* of India); Pham, Kumar and Danilov, 2015:15824 (in list of Sphecidae s.l. of Vietnam); Dollfuss, 2016:1150 (locality records from Laos, Nepal, and Thailand); Pham, Truong, Th.T. Nguyen, Th.H. Nguyen, Q. Nguyen, and Th.M. Nguyen, 2019:73 (Vietnam: Hanoi and vicinity); Danilov, 2020:318 (specimens from Thailand in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Gadallah, 2020d:83 (in list of aculeate wasps of Arabian Peninsula); Barthélémy and Guénard, 2025:40 (China: Hong Kong).
- Sphex semiauratus viridis* Barbut, 1781:255, sex not stated (as *semiaurata viridis*, incorrect original termination). Holotype or syntypes: origin unknown, not British (destroyed?). Not available, binominal nomenclature not applied (Article 11.4). Tentatively synonymized with *Sphex lobatus* by Kohl, 1890b:177.
- ? *Sphex ferus* Drury, 1782:57, ♀. Holotype or syntypes: ♀, China: no specific locality (lost?). Synonymized with ... (may be a senior synonym of *Chalybion bengalense* (Dahlbom, 1845)).
- Sphex chrysis* Christ, 1791:308, ♀. Holotype or syntypes: West Indies: no specific locality (lost). Synonymized with *Sphex lobatus* by Kohl, 1885c:164. – Kohl, 1885b:173 (in revision of Palearctic *Sphex*); Ed. André, 1888:124 (in revision of Sphecidae of Europe and Algeria), 6* (bibliographic references); Radoszkowski, 1888a:329 (genitalia); Cameron, 1889c:105 (in list of Sphecidae of Oriental Region).
- Sphex chrysis nitidus* Christ, 1791:310, sex not stated (as *nitida*, incorrect original termination). Not available, binominal nomenclature not applied (Article 11.4). Holotype or syntypes: origin unknown (lost).
- ? *Sphex smaragdinus* Christ, 1791:310, sex not stated. Holotype or syntypes: China: no specific locality (lost). Tentatively synonymized with *Chlorion lobatum* by Kohl, 1890b:177.
- Chlorion azureum* Lepeletier de Saint Fargeau and Audinet-Serville, 1828:451, ♀. Lectotype: ♂, "Patrie inconnue" = origin unknown (M. Spinola collection, Torino), designated by Menke in R. Bohart and Menke, 1976:90. Synonymized with *Sphex lobatus* by Kohl, 1890b:177. – Blanchard, 1840:.. (as *azuzium*); Lepeletier de Saint Fargeau, 1845:329 (in revision of world Hymenoptera, China); F. Smith, 1856:238 (in catalog of Hymenoptera in British Museum); A. Costa, 1862a:17 (specimen from China in Museo Zoologico di Napoli); Casolari and Casolari

Moreno, 1980:110 (specimens in M. Spinola collection, Torino); Pagliano, 2008:538 (specimens in M. Spinola collection, Torino).

? *Chlorion ferox* Westwood, 1837:.

ssp. rugosum F. Smith

Chlorion rugosum F. Smith, 1856:239, ♂. Syntypes: ♂, Indonesia: Sumatra: no specific locality (BMNH). – F. Smith, 1871a:361 (in catalog of Oriental Aculeata). – **As *Sphex rugosus***: Cameron, 1889c:105 (new generic assignment, in list of Sphecidae of Oriental Region); Kohl, 1890b:193 (original description copied); Dalla Torre, 1897:440 (in catalog of world Hymenoptera). – **As *Chlorion lobatum rugosum***: R. Bohart and Menke, 1976:90 (new status, in checklist of world Sphecidae).

11. magnificum F. Morawitz

Chlorion magnificum F. Morawitz, 1887:350, ♀, ♂. Syntypes: Turkmenistan: Ashgabat (ZIN). – de Beaumont, 1970a:390 (Afghanistan); R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae); Józán, 1985b:55 (citation of Bajári's, 1957 record from Mecsek, Hungary), 83 (ecological and zoogeographic characteristics); Dollfuss, 1989:8 (type material in NHMW); Józán, 2002:53 (Hungary: Mecsek Mountains), 2011:178 (in checklist of Sphecidae s.l. of Hungary); Dunford, Turbyville, and Leavengood, 2014:10 (listed as medically important in Afghanistan); Ebrahimi, 2014:14 (Iran: Markazi: Khomein); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:20 (Iran: known from Markazi, Khorasan-e Razavi, and Sistan-o Baluchestan provinces); Danilov, 2020:318 (specimens from Thailand and Turkmenistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia). – **As *Sphex magnificus***: Kohl, 1890b:181 (new generic assignment, as synonym of *Sphex splendidus*), 1895:45 (good species, redescription); Dalla Torre, 1897:430 (in catalog of world Hymenoptera); Kokujev, 1902:10, footnote (northeastern Iran: Kyariz); Gussakovskij, 1933b:271 (Iran); de Beaumont, 1962a:36 (in revision of Palearctic *Chlorion*); Myartseva, 1972a:85 (Turkmenistan); Kazenas, 2001b:12 (in checklist of Sphecidae of Kazakhstan and Central Asia); Danilov, 2016:338 (syntypes preserved in Zoological Institute, Sankt Petersburg, Russia).

12. maxillosum (Poiret)

Sphex maxillosus Poiret, 1787:244, [♀], as *maxillosa*, incorrect original termination. Holotype: ♀, Numidia, now Algeria: no specific locality (depository unknown). – **As *Pronaeus maxillosus***: Rudow, 1912:43 (new generic assignment, description of nest). – **As *Chlorion maxillosum***: van der Vecht, 1959c:214 (new generic assignment); R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae); Radović, 1985:64 (sting apparatus analyzed); Steiner, 1986:95 (references to papers on nesting habits); Guichard, 1988a:115 (North Yemen); Pulawski, 2003b:795 (in checklist of Malagasy Sphecidae); Dollfuss, 2016:1150 (locality records from Benin, Ethiopia, Kenya, Malawi, Mozambique, South Africa, Tanzania, Tunisia, Zambia, and Zimbabwe); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:312 (in list of Tunisian Sphecidae *sensu stricto*; additional record: Tunisia: Gabes); Danilov, 2020:319 (specimen from South Africa in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Gadallah, 2020d:83 (in list of aculeate wasps of Arabian Peninsula).

Pronaeus apicalis Guérin-Ménéville in Lefebvre, 1849:357, ♀. Holotype Ethiopia: no specific locality (MSNG). Synonymized with *Chlorion maxillosum* by Menke in R. Bohart and Menke, 1976:90. – Guiglia, 1948b:180 (type in Genova Mus.); Guiglia and Pasteels, 1961:19 (type material in Genoa Mus.). – **As *Sphex xanthocerus* var. *apicalis***: Kohl, 1890b:185 (new generic assignment, new status, diagnostic characters); Dalla Torre, 1897:448 (in catalog of world Hymenoptera); Honoré, 1944a:60 (in revision of Egyptian Sphecini); Berland, 1956:1164 (in revision of African Sphecini). – **As *Sphex xanthocerus apicalis***: Mantero, 1915:324 (new status, Libya; as var. *apicalis*); Guiglia, 1934b:293 (Libya: bibliography and summary of locality records); Grandi, 1957:387 (Libya: Tripolitania: Wadi Kaam); de Beaumont, 1962a:31 (in revision of Palearctic *Chlorion*). – **As *Chlorion xanthocerus* var. *apicalis***: von Schulthess, 1909:441 (new generic assignment, Libya: Tripoli); Roth, 1925:376 (in revision of North African Sphecini); Arnold, 1928c:349 (in revision of southern African *Chlorion*), 1930:17 (in checklist

of Afrotropical Sphecidae); Scott in Arnold, 1933a:370 (Algeria, Ethiopia, as apicale); Guiglia, 1939a:200 (Ethiopia or Somalia: Enda Teclimanot, as apicale). – **As *Chlorion xanthoceros apicale***: Leclercq, 1955h:42 (Guinea: no specific locality; Senegal: Konakry), 1961b:49 (Zaire).

Pronaeus apicalis var. *rufipes* Guérin-Méneville in Lefebvre, 1849:357, ♀. Holotype: one of the two syntypes of *Pronaeus apicalis*. Synonymized with *Chlorion maxillosum* by ..

Pronaeus apicalis var. *nigripes* Guérin-Méneville in Lefebvre, 1849:357, ♀. Holotype: one of two syntypes of *Pronaeus apicalis*. Synonymized with *Sphex xanthocerus* by Kohl, 1890b:183 and with ... *maxillosum* by ...

ssp. *ciliatum* (Fabricius)

Sphex ciliatus Fabricius, 1787:275, sex not stated (as *ciliata*, incorrect original termination). Holotype: ♀, India (in error): no specific locality (ZMK). – Gmelin, 1790:2727 (redescription); Fabricius, 1793:206 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:487 (redescription); Dalla Torre, 1897:418 (in catalog of world Hymenoptera). – **As *Pronoeus ciliatum***: Dahlbom, 1845:XXII (new generic assignment, specimens in coll. Fabricius in Kiel). – **As *Chlorion ciliatum***: Fabricius, 1804:218 (new generic assignment, redescription); Dahlbom, 1845:XXI (specimens in collection Fabricius are *Pronoeus*, i.e., *Ampulex*); van der Vecht, 1961a:35 (redescription of holotype); Leclercq, 1969:1047 (Congo Brazzaville). – **As *Chlorion maxillosum ciliatum***: R. Bohart and Menke, 1976:90 (new status, in checklist of world Sphecidae); Dollfuss, 1990:122 (Central African Republic), 2016:1151 (locality records from Senegal).

Sphex xanthoceros Illiger, 1802:193, sex not stated. Holotype or syntypes: Sierra Leone: no specific locality (ZMHU). Synonymized with *Chlorion ciliatum* by van der Vecht, 1961a:36. – Dalla Torre, 1897:447 (in catalog of world Hymenoptera); Strand, 1916b:102 (Angola: Benguela; original description copied and discussed). – **As *Sphex xanthocerus***: Kohl, 1890b:183 (in revision of world Sphecini), 1883e:183 (Tanzania: Bagamoyo); Bingham, 1902:215 (Malawi); Brauns, 1911a:118 (South Africa: Orange Free State, now Free State); Morice, 1911:74 (Algeria: Bône); Bischoff, 1912:221 (Zaire: Kivu: northern shore of Lake Kivu); Mantero, 1915:324 (Libya); Gernerich, 1922:41 (cleaning apparatus); Berland, 1925c:154 (Angola), 1926b:164 (miscellaneous locality records from Africa); Guiglia, 1934b:293 (Libya: bibliography and summary of locality records); G. Bouvier, 1936:330 (Zaire: prey consisting of Diptera, including tsetse fly, certainly in error); Valdeyron-Fabre, 1952:107 (prey: *Brachytrypes megacephalus* Lepeletier de Saint Fargeau, Gryllidae), 1955:152 (preying behavior); Berland, 1956:1162 (in revision of African Sphecini); Diniz, 1964c:103 (Angola: Lunda: Dundo, Muíta-Luembe); van Vondel, 1995:25 (specimens from Malawi in Natuurmuseum Rotterdam). – **As *Chlorion xanthocerus***: Arnold, 1928c:347 (new generic assignment, in revision of southern African *Chlorion*), 1930:17 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:95 (in list of Sphecidae of Zaire, as *xanthocerus*); Arnold, 1943:77 (Zaire). – **As *Chlorion xanthoceros***: Leclercq, 1955h:40 (bibliographic references, variation), 43 (Portuguese Guinea, now Guinea Bissau: Bambaya; Zaire: several localities), 1955i:405 (Rwanda), 1961b:47 (Zaire, as *xanthoceros xanthoceros*).

Chlorion mandibulare Fabricius, 1804:218, ♀. Syntypes: Guinea: no specific locality (ZMK). Synonymized with *Sphex xanthocerus* by Kohl, 1890b:183. – de Saussure, 1867:37 (review of variation). – **As *Pronaeus mandibularis***: F. Smith, 1856:239 (new generic assignment, in catalog of Hymenoptera in British Museum); Magretti, 1884c:578 (Sudan: Bahr el Salaam); Casolari and Casolari Moreno, 1980:110 (specimens in M. Spinola collection, Torino). – **As *Sphex mandibularis***: Jurine, 1807:129 (new generic assignment, in list of known *Sphex*); Kohl, 1885b:175 (in revision of Palearctic *Sphex*); Ed. André, 1888:122 (in revision of Sphecidae of Europe and Algeria), 6* (bibliographic references). – **As *Chlorion ciliatum mandibulare***: van der Vecht, 1961a:37 (new status, redescription of syntypes).

Pepsis maxillaris Palisot de Beauvois, 1805:38, sex not stated. Holotype or syntypes: Kingdom of Owara, now Nigeria: Warri (destroyed?). – **As *Pronaeus maxillaris***: Guérin-Méneville, 1828b:294 (new generic assignment, in Dic-

- tionnaire classique d'histoire naturelle); Lepeletier de Saint Fargeau, 1845:331 (in revision of world Hymenoptera); F. Smith, 1856:239 (in catalog of Hymenoptera in British Museum); A. Costa, 1864b:112 (specimen from Senegal in Museo Zoologico di Napoli); Radoszkowski, 1881:211 (Angola); Magretti, 1884c:579 (Sudan: Bahr el Salaam); Bradley, 1957:43 (Lepeletier de Saint Fargeau's specimen in M. Spinola collection, Turin); Casolari and Casolari Moreno, 1980:110 (specimen in M. Spinola collection, Torino); Pagliano, 2008:536, 357 (specimen in M. Spinola collection, Chlorion 9 Torino). – **As *Sphex xanthocerus* var. *maxillaris***: Kohl, 1883e:183 (new status, Mozambique), 1890b:185 (diagnostic characters); W. Fox, 1896e:551 (Ethiopia: the Haud tribal area); Dalla Torre, 1897:448 (in catalog of world Hymenoptera); Bischoff, 1912:221 (border of Zaire and Uganda); Berland, 1952b:275 (boundary of Ivory Coast, Guinea, and Liberia: Mount Nimba), 1956:1163 (in revision of African Sphecini). – **As *Chlorion maxillaris***: Gribodo, 1894c:137 (new generic assignment, Mozambique: Magnarra River). – **As *Chlorion xanthocerus* var. *maxillaris***: Arnold, 1928c:348 (in revision of southern African *Chlorion*), 1930:17 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:95 (in list of Sphecidae of Zaire); Guiglia, 1932:125 (Ethiopia: Harer); Scott in Arnold, 1933a:370 (Ethiopia: Harar District and Buno, as *maxillare*); Guiglia, 1939a:200 (Ethiopia: Tembien: Abbi Addi), 1940b:287 (Somalia). – **As *Chlorion xanthocerus maxillaris***: Arnold, 1943:78 (new status, Zaire). – **As *Chlorion xanthoceros maxillare***: Leclercq, 1955h:43 (locality records from Ethiopia, Sierra Leone, Tanzania (including Zanzibar), Uganda, Zaire, Zambia), 1961b:48 (Zaire).
- Chlorion varipenne* Reiche and Fairmaire in Reiche, 1847:451, sex not stated. Holotype or syntypes: Ethiopia: no specific locality (MNHN?). Synonymized with *Sphex xanthocerus* by Kohl, 1890b:183. – F. Smith, 1856:246 (in catalog of Hymenoptera in British Museum).
- Pronaues instabilis* F. Smith, 1856:240, ♂, ♀. Syntypes: Guinea, Congo: no specific locality (BMNH). Synonymized with *Sphex xanthocerus* by Kohl, 1890b:183, and with *Chlorion ciliatum* by van der Vecht, 1961a:36. – Magretti, 1884c:580 (Sudan: Bahr el Salaam). – **As *Sphex xanthocerus* var. *instabilis***: Dalla Torre, 1897:448 (new status, in catalog of world Hymenoptera); Berland, 1956:1164 (in revision of African Sphecini). – **As *Chlorion xanthocerus* var. *instabilis***: Arnold, 1928c:349 (new generic assignment, original description copied), 1930:17 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:95 (in list of Sphecidae of Zaire). – **As *Chlorion xanthoceros instabile***: Leclercq, 1955h:44 (new status, locality records from Portuguese Guinea, now Guinea Bissau: Bambaya; and Zaire), 1961b:48 (Zaire).
- Pronaues affinis* F. Smith, 1856:240, ♀, ♂. Syntypes: South Africa: KwaZulu-Natal: Port Natal, now Durban (BMNH). Synonymized with *Sphex xanthocerus* by Kohl, 1890b:183.
- Chlorion fulvipes* Gerstaecker in Peters, 1858:510, ♂. Holotype or syntypes: ♂, Mozambique: no specific locality (ZMHU). Tentatively synonymized with *Sphex xanthocerus* by Kohl, 1890b:183. – Taschenberg, 1880:776 (description of ♀); Kohl, 1890b:184 (original description copied).
- Chlorion subcyaneum* Gerstaecker in Peters, 1858:511, ♀. Holotype or syntypes: ♀, Mozambique: no specific locality (ZMHU). Synonymized with *Sphex xanthocerus* by Kohl, 1890b:183. – **As *Sphex xanthoceros* var. *subcyaneus***: Strand, 1916b:102 (new generic assignment, Tanzania: Bagamoyo, as *subcyanbeum*); Berland, 1952b:275 (boundary of Ivory Coast, Guinea, and Liberia: Mount Nimba), 1956:1164 (in revision of African Sphecini); I. Robertson, 1969:480 (Tanzania: Ukiriguru, as *xanthurus* var. *subcyaneum*). – **As *Sphex xanthocerus subcyaneus***: Guiglia, 1934b:293 (new status, Libya: bibliography and summary of locality records). – **As *Chlorion xanthocerus* var. *subcyaneum***: Arnold, 1928c:348 (new status, in revision of southern African *Chlorion*), 1930:17 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:95 (in list of Sphecidae of Zaire, as *subcyaneus*); Guiglia, 1939a:201 (Ethiopia: Tembien: Abi Zubahà). – **As *Chlorion xanthocerus subcyaneum***: Arnold, 1943:78 (new status, Zaire).
- Chlorion fulvipes* Gerstaecker, 1862:482, ♂. Objective synonym of *Chlorion fulvipes* Gerstaecker, 1858.
- Chlorion subcyaneum* Gerstaecker, 1862:482. Objective synonym of *Chlorion subcyaneum* Gerstaecker, 1858.
- Chlorion zonatum* de Saussure, 1867:36, ♂. Holotype or syntypes: ♂, Guinea: no specific locality (NHMW). Synonymized with *Sphex xanthocerus* by Kohl, 1890b:183. – **As *Sphex xanthocerus* var. *zonatus***: Dalla Torre, 1897:448

(new generic assignment, new status, in catalog of world Hymenoptera); Berland, 1956:1165 (in revision of African Sphecini). – **As *Chlorion xanthocerus* var. *zonatum***: Arnold, 1928c:349 (in revision of southern African *Chlorion*), 1930:17 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:95 (in list of Sphecidae of Zaire, as *zonatus*).

Sphex mandibularis var. *unicolor* de Saussure, 1867:37, sex not stated. Holotype or syntypes: Mozambique: no specific locality (NHMW). Synonymized with *Sphex xanthocerus* by Kohl, 1890b:183. – Dalla Torre, 1897:448 (in catalog of world Hymenoptera). – **As *Chlorion xanthocerus* var. *unicolor***: Arnold, 1928c:348 (new generic assignment, new status, in revision of southern African *Chlorion*), 1930:17 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:95 (in list of Sphecidae of Zaire). – **As *Chlorion xanthocerus unicolor***: Arnold, 1943:78 (new status, Zaire). – **As *Chlorion xanthoceros unicolor***: Leclercq, 1955h:42 (Zaire: Katanga: Sakania).

? *Sphex cyanescens* Radoszkowski, 1881:209, ♂. Holotype or syntypes: ♂, Angola: Humbe (Kraków). – Gribodo, 1884c:301 (Ethiopia: Let Marefia 16 km north of Ankober); Dalla Torre, 1897:420 (in catalog of world Hymenoptera, is not a *Sphex*). – As tentative synonym of *Chlorion maxillosum ciliatum*: R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae).

Chlorion columbianum Gribodo, 1882:262, ♀. Lectotype: ♀, Colombia: Caracas, locality in error (Genova), designated by Menke in R. Bohart and Menke, 1976:90. Synonymized with *Chlorion xanthoceros* by Menke and Willink, 1964:548 and with *Chlorion maxillosum ciliatum* by Menke in R. Bohart and Menke, 1976:90. – Ashmead, 1899d:353 (in checklist of North American Sphecidae); Pennati and Mariotti, 2015:36 (in list of Hymenoptera described by G. Gribodo) – **As *Sphex columbianum***: Kohl, 1890b:192 (new generic assignment, original description copied); Dalla Torre, 1897:419 (in catalog of world Hymenoptera); W. Schulz, 1911b:162 (redescription).

Sphex massaicus Cameron, 1908a:262, ♀, ♂. Syntypes: Tanzania: Mount Meru: Ngare na nyuki, now Nanyuki (NRS). Synonymized with *Chlorion xanthocerus* by R. Turner, 1913:746 and with *Sphex xanthocerus* by Berland, 1926b:164.

Sphex levilabris Cameron, 1910:137, ♀. Holotype or syntypes: ♀, South Africa: Limpopo: Kranspoort (TMP). Synonymized with *Chlorion xanthocerus* var. *maxillaris* by Arnold, 1928c:348.

Sphex xanthoceros var. *kigonseranus* Strand, 1916b:103, ♀, ♂ (as *kigonserana*, incorrect original termination). Lectotype: ♂, German East Africa, now Tanzania: Kigonsera (DEI), designated by Oehlke and Wudowenz, 1974:423. Synonymized with *Chlorion maxillosum ciliatum* by Menke in R. Bohart and Menke, 1976:90. – Berland, 1956:1163 (in revision of African Sphecini, as *kingonserana*); I. Robertson, 1969:480 (Tanzania: Ukiriguru, as *xanthurus* var. *kigonseranus*). – **As *Chlorion xanthocerus* var. *kigonserana***: Arnold, 1928c:348 (in revision of southern African *Chlorion*), 1930:17 (new generic assignment, in checklist of Afrotropical Sphecidae). – **As *Chlorion xanthoceros kigonseranus***: Leclercq, 1953b:211 (new status, first record from Madagascar), 1955h:42 (locality records from Rwanda, Zaire, Zambia, and Zanzibar), 1961b:49 (Rwanda).

13. *migiurtinicum* (Giordani Soika)

Sphex migiurtinicus Giordani Soika, 1941:155, ♀. Holotype: ♀, Somalia: Mijertins (= Migiurtinia): Ras Hafun (Venezia). – de Beaumont, 1962a:33 (is a member of *Sphex splendidus* group). – **As *Chlorion migiurtinicum***: Leclercq, 1955h:40 (new generic assignment, bibliographic reference); R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae).

14. *mirandum* (Kohl)

Sphex mirandus Kohl, 1890b:178, ♀. Holotype or syntypes: ♀, Colombia: interior, no specific locality (NHMW). – Dalla Torre, 1897:432 (in catalog of world Hymenoptera). – **As *Chlorion mirandum***: Menke and Willink, 1964:549 (new generic assignment, in revision of Neotropical *Chlorion*); R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae); Nascimento and Overal, 1980:4 (Guyana); Dollfuss, 1989:8 (type material in NHMW); F. Fernández, 1990:23 (Colombia: Meta: Parque Nacional Natural La Macarena); Amarante, 2002:68 (in catalog of Neotropical Sphecidae); Rasmussen and Asenjo, 2009:15 (in checklist of Crabronidae of Peru).

15. *regale* F. Smith

Chlorion regale F. Smith, 1873c:291, ♀ (as *regalis*, incorrect original termination). Syntypes: ♀, Afghanistan, Baluchistan, and Pakistan: Sind: no specific localities (BMNH). – Radoszkowski, 1892:575 (male genitalia, as *regalis*); Leclercq, 1955h:40 (bibliographic references); de Beaumont, 1970c:3 (Iran: Baluchistan; as *regalis*); Myartseva, 1972a:85 (Turkmenistan; as *regalis*); R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae); Islamov, 1986:517 (Uzbekistan: Tashkent Oblast'); Guichard, 1988a:116 (probably occurs in Saudi Arabia); Kazenas, 1992c:25 (Turkmenistan: Repetek Nature Reserve); Al-Houty, 1997:160 (Kuwait: no specific locality); Kazenas, 2001b:12 (in checklist of Sphecidae of Kazakhstan and Central Asia); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:361 (in new catalog of Sphecidae of Saudi Arabia); Tiwari, Kundu, Roychowdhury, and Gosh, 2004:97 (India: Desert National Park Rajasthan); Dunford, Turbyville, and Leavengood, 2014:10 (listed as medically important in Afghanistan); Ebrahimi, 2014:14 (Iran: Fārs, Hormozgān, Kermān, Semnān, and Sīstān-Baluchestān provinces); Girish Kumar, Mazumdar, and Sharma, 2014:373 (in review of *Chlorion* of India); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:20 (Iran: known from Fars, Hormozgan, Kerman, Khorasan-e Razavi, Semnan, and Sistan-o Baluchestann provinces); Danilov, 2020:319 (specimens from Turkmenistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Gadallah, 2020d:83 (in list of aculeate wasps of Arabian Peninsula); Medetov, Embergenov, Kholmatov, Elmurodova, Rakhimov, and Tajibaeva, 2024:417 (Uzbekistan: distribution). – **As *Sphex regalis***: Kohl, 1885b:205 (new generic assignment, original description copied); Kohl and Handlirsch, 1889:274 (Turkmenistan); Kohl, 1890b:179 (in revision of world Sphecini), 1895:42 (relationship to *Chlorion kohli* and synonymy); Bingham, 1893:378 (Pakistan: Karachi); W. Fox, 1896e:551 (Somalia); Bingham, 1897:243 (in revision of wasps and bees of British India); Dalla Torre, 1897:439 (in catalog of world Hymenoptera); Kokujev, 1902:10, footnote (northeastern Iran: Kiyariz); Berland, 1926b:164 (India, Turkmenistan: Askhabad); Gussakovskij, 1933b:271 (Iran); nec Honoré, 1944a:56 (= *Chlorion semenowi occidentale*); nec de Beaumont and Bytinski-Salz, 1955:40 (= *Chlorion semenovi occidentale*); de Beaumont, 1962a:37 (in revision of Palearctic *Chlorion*); Myartseva, 1963b:59 (Turkmenistan: lower Murgab River), 1965:83 (Turkmenistan: Akibay); Al-Houty, 1989:158 (Kuwait: Island of Failakka); Ebrahimi, 1993:96 (Iran); Daminova, 2019:82 (endangered in Uzbekistan).

Chlorion superbum Radoszkowski, 1887b:89, ♀ (as *superbus*, incorrect original termination). Holotype or syntypes: ♀, Turkmenistan: Askhabad (Kraków). Synonymized with *Sphex regalis* by Kohl and Handlirsch, 1889:274. – F. Morawitz, 1887:347 (redescription, description of ♂): Radoszkowski, 1893a:58 (synonymy with *Sphex regalis* confirmed).

16. *semenowi* F. Morawitz

Chlorion semenowi F. Morawitz, 1890:570, ♀ (as *Semenowi*, incorrect original capitalization). Syntypes: ♀, Turkmenistan: Tedjen (ZIN). – Kohl, 1890b:451 (original description copied); Morice, 1921:822 (Iraq: Baghdad); Derwesh, 1965:70 (Iraq: no specific locality); Myartseva, 1972a:85 (Turkmenistan); R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:20 (Iran: known from Bushahr, Khorasan-e Razavi, and Sistan-o Baluchestan provinces). – **As *Sphex semenowi***: Kohl, 1890b:451 (new generic assignment, original description copied); Dalla Torre, 1897:440 (in catalog of world Hymenoptera, as *semenovii*); Semenow, 1901:55 (description of ♂); Gussakovskij, 1933b:271 (Iran); de Beaumont, 1962a:38 (in revision of Palearctic *Chlorion*); Myartseva, 1963b:59 (Turkmenistan: lower Murgab River), 1965:84 (Turkmenistan: Akibay and Bayram-Ali district); Danilov, 2016:339 (syntypes preserved in Zoological Institute, Sankt Petersburg, Russia); Augul, 2019:495 (recorded from Iraq by Morice, 1921).

ssp. occidentale (de Beaumont)

Chlorion bicolor Walker, 1871:20, ♀, Egypt: Sinai Peninsula: Wadi Gharandal (lost), junior primary homonym of *Chlorion bicolor* de Saussure, 1869. – **As *Sphex bicolor***: Kohl, 1885b:204 (new generic assignment, original de-

scription copied); Innes Bey, 1912:111 (as *tricolor*, specimens recorded by Walker, 1871, now destroyed by dermestids, were collected at Wadi Gharandal, Sinai Peninsula); Roche, 2007a:139 (*Chlorion tricolor* in Innes Bey, 1912:111 is a misspelling of *Chlorion bicolor*).

Sphex semenowi occidentalis de Beaumont, 1962a:39, ♀, ♂. Holotype: ♀, Israel: Tel Yeruham (Lausanne), substitute name for *Chlorion bicolor* Walker, 1871. – **As *Chlorion semenowi occidentale***: R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae); Guichard, 1980:224 (Oman), 1988a:114 (Arabian Peninsula); Gadallah and Assery, 2004a:220 (in catalog of Sphecidae of Saudi Arabia); Roche, 2007a:34 (in checklist of Egyptian Sphecidae, redescription), 2007b:2 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Sakenin, Samin, and Bagriacik, 2010:17 (Iran: Bushehr: Brazjan); Schmid-Egger, 2011b:599 (recorded from United Arab Emirates by Guichard, 1988a); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:361 (in new catalog of Sphecidae of Saudi Arabia); Schmid-Egger, 2014:618 (color photograph of male); Dollfuss, 2016:1151 (United Arab Emirates: Al Ain); Gadallah, 2020d:83 (in list of aculeate wasps of Arabian Peninsula).

As *Sphex regalis*: Honoré, 1944:56 (in revision of Egyptian Sphecini) and de Beaumont and Bytinski-Salz, 1955:40 (Israel), corrected to *Sphex semenowi occidentalis* by de Beaumont, 1962a:39.

17. *splendidum* Fabricius

Chlorion splendidum Fabricius, 1804:218, sex not stated. Holotype: ♂, India: no specific locality (ZMK). – F. Smith, 1851a:32 (description of ♂), 1856:238 (in catalog of Hymenoptera in British Museum); A. Costa, 1864b:112 (specimen from India in Museo Zoologico di Napoli); F. Smith, 1871a:361 (in catalog of Oriental Aculeata); Gribov, 1884d:358 (Burma: Minhla); Radoszkowski, 1886a:25 (Turkmenistan), 1892:575 (male genitalia); Rohwer, 1922:666 (occurrence in Philippines questionable); Shalaby, 1961:226 (Saudi Arabia: Gizan); van der Vecht, 1961a:37 (study of holotype, diagnostic characters); Baltazar, 1966:348 (occurrence in Philippines doubtful); R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae); Radović, 1985:64 (sting apparatus analyzed); Jha and Farooqi, 1994:9 (description and illustration of male genitalia); van Vondel, 1995:29 (specimens from India in Natuurmuseum Rotterdam); Gadallah and Assery, 2004a:220 (in catalog of Sphecidae of Saudi Arabia); Sakenin, Samin, and Bagriacik, 2010:17 (Iran: Khorasan: Serakhs); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:361 (in new catalog of Sphecidae of Saudi Arabia); Girish Kumar, Mazumdar, and Sharma, 2014:373 (in review of *Chlorion* of India); Ebrahimi, 2014:15 (Iran: Markazi: Khomein: Farnagh); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:20 (Iran: known from Khorasan-e Razavi and Markazi provinces); Gadallah, 2020d:83 (in list of aculeate wasps of Arabian Peninsula); Gadallah and Abu El-Ghiet, 2024:92 (Saudi Arabia: Jazan Province: Jazan). – **As *Sphex splendidus***: Radoszkowski, 1888a:329 (new generic assignment, male genitalia, as *splendida*); Cameron, 1889c:105 (in list of Sphecidae of Oriental Region, as *splendida*), 109 (redescription); Kohl, 1890b:181 (in revision of world Sphecini), 1895:44 (redescription); Bingham, 1897:243 (in revision of wasps and bees of British India); Dalla Torre, 1897:441 (in catalog of world Hymenoptera); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera, as *splendidus* Kohl); Berland, 1926b:164 (India, Turkmenistan: Askhabad); Bajári, 1957a:7 (in key to Hungarian Sphecidae); de Beaumont, 1962a:33 (is a member of *Sphex splendidus* species group).

Pronoeus campbelli W. Saunders, 1841:58, [♀] (as *Campbelli*, incorrect original capitalization). Holotype: ♀, India: no specific locality (depository unknown). Synonymized with *Sphex splendidus* by F. Smith, 1851:32.

Sphex pulcher Lepeletier de Saint Fargeau, 1845:335, ♂ (as *pulchra*, incorrect original termination). Holotype: ♂, origin unknown (originally Audinet-Serville collection, now M. Spinola collection, Torino). Synonymized with *Sphex splendidus* by F. Smith, 1856:238. – Bradley, 1957:40 (Lepeletier de Saint Fargeau's specimens in M. Spinola collection, Torino); Casolari and Casolari Moreno, 1980:103 (specimens in M. Spinola collection, Torino, as *pulchra*); Pagliano, 2008:534 (holotype in M. Spinola collection, Torino).

Chlorion melanosoma F. Smith, 1856:238, ♀. Holotype or syntypes: ♀, India: Pondicherry (BMNH). Synonymized with *Sphex splendidus* by Kohl, 1890b:181. – F. Smith, 1871a:361 (in catalog of Oriental Aculeata, as *melasoma*);

Walker, 1871:20 (Sinai Peninsula: Wadi Gharandal, Wadi Nash); Magretti, 1884c:578 (Sudan: Kassala; Eritrea or Ethiopia: Kor Cheru); F. Morawitz, 1891b:234 (comparison with *Chlorion magnificum* and *Ch. splendidum*: distinct species); Innes Bey, 1912:111 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected in unknown locality). – **As *Sphex melanosoma***: Ed. André, 1888:125 (new generic assignment, in revision of Sphecidae of Europe and Algeria), 7* (bibliographic references); Cameron, 1889c:105 (in list of Sphecidae of Oriental Region); de Beaumont, 1962a:33 (is a member of *Sphex splendidus* species group).

Chlorion forficula de Saussure, 1891:259, ♀. Holotype or syntypes: ♀, Madagascar: no specific locality (MHNG).
Synonymized with *Sphex splendidus* by Kohl, 1895:45.

Sphex forficula de Saussure, 1892:259, ♀. Objective synonym of *Sphex forficula* de Saussure, 1891.

18. *strandi* Willink

Sphex hemiprasinus forma *tibialis* Strand, 1910a:132, ♀, ♂, junior primary homonym of *Sphex tibialis* Fabricius, 1781.

Lectotype: ♀, Argentina: Tucumán: no specific locality (ZMHU), designated by Menke and Willink, 1964:549. – Strand, 1927:254 (in list of species described by author).

Chlorion strandi Willink, 1951:118. Substitute name for *Sphex tibialis* Strand, 1910. – Menke and Willink, 1964:550 (in revision of Neotropical *Chlorion*); R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae); Amarante, 2002:68 (in catalog of Neotropical Sphecidae); Dollfuss, 2016:1151 (locality records from Argentina).

19. *striatum* Q. Li and Yang

Chlorion striatum Q. Li and Yang, 1989:33, ♂. Holotype: ♂, China: no specific locality (Beijing Agric. Univ.). – Q. Li, 1995:87 (in key to Chinese Sceliphriini); Hua, 2006:275 (in list of Chinese insects, geographic distribution).

20. *viridicoeruleum* Lepeletier de Saint Fargeau and Audinet-Serville

Chlorion viridicoeruleum Lepeletier de Saint Fargeau and Audinet-Serville, 1828:451, ♀, ♂ (as *viridi-coeruleum*, incorrect original hyphenation). Syntypes: French Guyana: Cayenne (M. Spinola collection, Torino). – Lepeletier de Saint Fargeau, 1845:330 (in revision of world Hymenoptera, as *viridi-caeruleum*); F. Smith, 1856:238 (in catalog of Hymenoptera in British Museum, as *viridi-coeruleum*); Girard, 1879:967 (morphology and habits); Kohl, 1890b:194 (original description copied); Dalla Torre, 1897:447 (in catalog of world Hymenoptera); W. Schulz, 1906:194 (correct authorship); Cameron, 1912a:426 (Guyana); Strand, 1916b:99 (Colombia); Richards, 1937a:102 (Guyana); Bradley, 1957:40 (Lepeletier de Saint Fargeau's specimens in M. Spinola collection, Turin); Menke and Willink, 1964:549 (in revision of Neotropical *Chlorion*); Menke, 1965a:214 (study of presumed type); R. Bohart and Menke, 1976:90 (in checklist of world Sphecidae); Vardy, 1984:129 (one species in South America, not a mixture of two; prey); Casolari and Casolari Moreno, 1980:110 (specimens in M. Spinola collection, as *viridicoeruleum*); Hanson and Menke, 1995:637 (known from Costa Rica, as *viridicoeruleum*); Amarante, 2002:68 (in catalog of Neotropical Sphecidae); Pagliano, 2008:539 (specimens in M. Spinola collection, Torino); dos Santos, Grandinette, and Noll, 2015:37 (first record from Peru: Ucayali: Pucallpa); Dollfuss, 2016:1151 (locality records from Argentina). – **As *Sphex viridicoeruleus***: Kohl, 1890b:194 (new generic assignment, original description copied); Berland, 1926b:165 (French Guyana, Colombia, Mexico: locality records).

As *Chlorion lepidum*: Willink, 1951:115 (in revision of Argentinean Sphecini), corrected to *Chlorion viridicoeruleum* by Menke and Willink, 1964:549.

sp.

Al-Ali, 1977:100 (Iraq: Baghdad); Deshmukh, 2015:37 (India: Maharashtra: Koradi Region in Nagpur District); Gadallah, 2020d:83 (in list of aculeate wasps of Arabian Peninsula).

SPECIES DESCRIBED IN CHLORION AND TRANSFERRED TO OTHER GENERA

bruneri Fernald, 1943 = *Isodontia*

davisi Fernald, 1907 = *Sphex metallicus* Taschenberg, 1869

cyanipes Westwood, 1841a, 1841b, 1942 = *Ampulex*

rufiscute R. Turner, 1918 = *Sphex*
simillimum Fernald, 1907 = *Prionyx*

UNRECOGNIZABLE NAMES

Chlorion bifoveolatum Fabricius: Carter, 1925:132 (Canada: Alberta). The other species of *Chlorion* cited by the author (*atratum* Lepeletier de Saint Fargeau) is a *Prionyx*.
Chlorion albispinosus: Bradley, 1921:55 (Chile).

NOMINA NUDA IN CHLORION

Chlorion fuscicorne Casolari and Casolari Moreno, 1980:110 (specimens in M. Spinola collection, Torino); Pagliano, 2008:539 (specimens in M. Spinola collection, Torino).
Chlorion senescens Casolari and Casolari Moreno, 1980:110 (specimens in M. Spinola collection); Pagliano, 2008:539 (specimens in M. Spinola collection, Torino).
Chlorium elegans Billberg, 1820:105 (specimens in coll. Billberg, origin unknown).