Last updated: 16 April 2024

SPHEX

Sphex Linnaeus, 1758:569. Type species: *Sphex flavipennis* Fabricius, 1793, designated by International Commission on Zoological Nomenclature, 1946:571 (Opinion 180) which reversed its earlier designation as type of *Sphex sabulosus* Linnaeus, 1758 (1911:76, Opinion 32).

Sphaex Scopoli, 1772:122. Lapsus or emendation of *Sphex* Linnaeus, 1758.

Ammobia Billberg, 1820:105. Type species: *Pepsis argentata* (Fabricius, 1804) [= *Sphex argentatus* Fabricius, 1787], designated by Rohwer, 1911c:153.

Proterosphex Fernald, 1905:163. Type species: *Sphex maxillosus* Fabricius, 1793 [= *Sphex funerarius* Gussakovskij, 1934], junior primary homonym of *Sphex maxillosus* Poiret, 1787, designated by Fernald, 1905:166.

Fernaldina R. Bohart and Menke, 1963:130. Type species: *Sphex lucae* de Saussure, 1867, by monotypy.

Menkeella Dörfel and Ohl, 2022:23, as subgenus of *Sphex*. Type species: *Sphex paulinierii* Guérin-Méneville, 1843, by monotypy.

Key to species: R. Turner, 1910a:343 (Australia); Arnold, 1928c:341 (Sphecini of southern Africa); Willink, 1951 (Chile and Argentina, includes all Sphecini, as Chlorioninae); Berland, 1956 (African French colonies, includes all Sphecini); Leclercq, 1961i (*Sphex haemorrhoidalis* species group); Diniz, 1964c:99 (Angola, includes all Sphecini); Alayo Dalmau, 1976:10 (Cuba); Pagliano, 1984:366 (Italy); Guichard, 1988 (Arabia); Danilov, 2(Siberia).

Review of biology: Kazenas 014b:513: 2001b:75.

Revisions: Menke and Pulawski, 2000 (*Sphex flavipennis* species group), Schmid-Egger, 2014 (Palearctic species of *Sphex argentatus* species group); Dörfel and Ohl, 2015 (Australia); Schmid_Egger, 2017b (*Sphex flavipennis* species group in northwestern Africa); Anagha, Girish Kumar, and Hegde, 2021 (*Sphex* of India); Dörfel and Ol, 2022 (sub-Saharan Africa).

1. *abbotti* W. Fox

Sphex abbotti W. Fox, 1891b:42, ♀ (as *Abbotti*, incorrect original capitalization). Holotype: ♀, Tanzania: Kilimanjaro (ANSP). – Kohl, 1895:62 (original description copied); Dalla Torre, 1897:412 (in catalog of world Hymenoptera, as *abbottei*); Berland, 1927:154 (miscellaneous locality records); Cresson, 1928:43 (holotype in ANSP); Schouteden, 1930:95 (Zaire); Leclercq, 1955h:9 (as new synonym of *Sphex bohemanni*); Dörfel and Ohl, 2022:17, 19 (in key to sub-Saharan *Sphex*, as *abbotti abbotti*), 101 (as valid species, in revision of sub-Saharan *Sphex*, as *abbotti abbotti*).

Sphex kilimandjaroensis Cameron, 1908a:262, ♀, ♂. Lectotype: ♂, Tanzania: Mount Kilimanjaro: Kibonoto at 3°05'5.9″S 37°20'38.5"E (NRS), designated by Dörfel and Ohl, 2022:103. Synonymized with *Sphex abbotti* by Dörfel and Ohl, 2022:101. – R. Turner, 1918b:361 (as new synonym of *Chlorion bohemanni*); Berland, 1927:154 (synonymy with *Chlorion bohemanni* confirmed).

Chlorion neavei Arnold, 1928c:370, ♀, ♂ (as *Neavei*, incorrect original capitalization). Syntypes: Malawi: Mlanje (BMNH). Synonymized with *Sphex abbotti* by Dörfel and Ohl, 2022:101. – Arnold, 1930:18 (in checklist of Afrotropical Sphecidae). – **As *Sphex neavei***: Leclercq, 1955h:10 (new combination, Zaire: Upemba National Park, determination tentative); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Dollfuss, 2008b:1428 (diagnostic characters, locality records from Kenya, Malawi, Tanzania, Zambia, and Zimbabwe).

ssp. *nivarius* Dörfel and Ohl

Sphex abbotti nivarius Dörfel and Ohl, 2022:104, ♀, ♂. Holotype: ♂, Zambia: North-Western Province: east of Mufumbwe and northwest of Kasempa at 13°22'37"S 25°20'52.1"E (OÖLM). – Dörfel and Ohl, 2022:17, 19 (in key to sub-Saharan *Sphex*).

2. *abyssinicus* (Arnold)

Chlorion abyssinicum Arnold, 1928c:372, ♂. Holotype: ♂, Ethiopia: no specific locality (BMNH). – Arnold, 1930:18 (in checklist of Afrotropical Sphecidae); Scott *in* Arnold, 1933a:370 (Ethiopia: Harar District and Higo Samula). – **As *Sphex abyssinicus***: Leclercq, 1955h:10 (new combination, bibliographic references); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Dörfel and Ohl, 2022:17, 19 (in key to sub-Saharan *Sphex*), 106 (in revision of sub-Saharan *Sphex*).

3. *afer* Lepeletier de Saint Fargeau

Sphex afer Lepeletier de Saint Fargeau, 1845:350, ♀ (as *afra*, incorrect original termination). Lectotype: ♀, Algeria: Oran (MNHN), designated by Menke in R. Bohart and Menke, 1976:114. Synonymized with *Sphex leuconotus* by Menke and Pulawski, 2000:336, resurrected from synonymy by Schmid-Egger, 2019b:462. – Lucas, 1849:270 (Algeria: La Calle, Oran, Setif; original description copied with modifications); F. Smith, 1856:244 (in catalog of Hymenoptera in British Museum); Girard, 1879:964 (color and distribution); Kohl, 1885b:204 (original description copied); Ed. André, 1888:138 (in revision of Sphecidae of Europe and Algeria), 7* (bibliographic references); Kohl, 1890b:438 (original description copied); Schmiedeknecht, 1896:163 (Algeria: Hammam-Bou-Hadjar); Acloque, 1897:96 (in Sphecid Fauna of France and Algeria); Dalla Torre, 1897:413 (in catalog of world Hymenoptera); Morice, 1911:76 (Algeria: Biskra); Roth, 1925:394 (in revision of North African Sphecini); Berland, 1927:153 (Algeria: Oran, Bône, Mascara); Nadig, 1933:103 (Morocco); Guiglia, 1938b:9 (Italy: Sardegna); de Beaumont, 1947b:383 (Cyprus); Pittioni, 1950:21 (Cyprus); de Beaumont, 1951e (Morocco); Berland, 1952a:87 (first record from France: Pyrénées-Orientales: Canet); Leclercq, 1955h:17 (bibliographic references, summary of locality records from Africa); de Beaumont, 1956a:182 (Libya), 1960a:6 (Greece: Island of Rhodes), 1960b:227 (Libya), 228 (male antenna); Scobiola, 1960b:230 (first record from Romania: Constanţa Region: Techirghiol; Medgidia Region: Valul lui Traian; redescription, male genitalia illustrated); Ceballos, 1964:87 (in supplement to catalog of Spanish Sphecidae); Myartseva, 1964a:76 (nesting habits in Turkmenistan); Diniz, 1965:4 (Portugal: Coimbra); Myartseva, 1965:83 (Turkmenistan: Akibay; Murgab district), 1966:48 (preying on orthopterans), 49 (Turkmenistan: lower course of Murgab and Tedjen rivers; preying on adult larvae of *Tettigonia viridissima* L., and *Metrioptera intermedia* Serv.), both Tettigoniidae; de Beaumont, 1967a:276 (Turkey); Kazenas, 1972b:111 (Kazakhstan); Georghiou, 1977:191 (Cyprus); Kazenas, 1978b:40 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:183 (in key to Sphecidae of European part of USSR); Casolari and Casolari Moreno, 1980:103 (specimens in M. Spinola collection, Torino, as *afra*); Esenbekova and Kazenas, 2000:7 (southeastern Kazakhstan: six localities); Islamov, 1986:515 (Uzbekistan: Surkhandarya Oblast'), 1989b:40 (Uzbekistan: Surkhandarya and Tashkent Oblast's); Pagliano, 1990:59 (in catalog of Italian Sphecidae); Kazenas and Nasyrova, 1991:38 (Kazakhstan: preying on *Tettigonia viridissima* L., Tettigoniidae); Kazenas and Tobias, 1992:29 (sleeping aggregations); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:2 (in catalog of Italian fauna); Pagliano and Scaramozzino, 1995:731 (Italy: island of Lampedusa); Nazarova and Shomirsaidov, 1997:23 (Tajikistan: fruit tree orchards in Vakhsh River valley); Kazenas, 1998b:89 (in Sphecid Fauna of Kazakhstan); Nazarova, 2005:93 (alfalfa fields in southwestern Tajikistan); Pagliano, 2008:534 (specimens in M. Spinola collection, Torino); Schmid-Egger, 2017b:461 (in key to *Sphex flavipennis* species group of northwestern Africa), 462 (in revision of *Sphex flavipennis* species group of northwestern Africa, resurrected from synonymy); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey).

4. *ahasverus* Kohl

Sphex ahasverus Kohl, 1890b:397, ♀. Holotype or syntypes: Australia: southern Australia: no specific locality, but actually Africa (NHMW). – Dalla Torre, 1897:413 (in catalog of world Hymenoptera); R. Turner, 1910a:344 (in key to Australian Sphecini, as *ahasuereus*); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Cardale, 1985:222 (in catalog of Australian Sphecidae); Dollfuss, 1989:12 (type material in NHMW); Hensen, 1991a:26 (member of *Sphex subtruncatus* species group); Dörfel and Ohl, 2015:13 (in key to Australian *Sphex*), 58 (in revision of Australian *Sphex*), 2022:15 (in key to sub-Saharan *Sphex*), 83 (in revision of sub-Saharan Africa, records from Australia are in error).

Chlorion observabilis R. Turner, 1918b:360, ♀. Syntypes: Uganda: Tero Forest southeast of Buddu (BMNH). Synonymized with *Sphex ahasverus* by Dörfel and Ohl, 2022:83. – Arnold, 1928c:373 (in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae). – **As *Sphex observabilis***: Leclercq, 1955h:9 (new combination, bibliographic references), 1961i:325 (in key to *Sphex haemorrhoidalis species* group), 327 (locality records); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae).

5. *alacer* Kohl

Sphex alacer Kohl, 1895:54, ♀. Holotype: ♀, New Guinea: no specific locality (NHMW). – Dalla Torre, 1897:413 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:114 (in of world Sphecidae); Dollfuss, 1989:12 (type material in NHMW); Hensen, 1991a:21 (member of *Sphex argentatus* species group, checklist in revision of Malesian Sphecina).

6. *antennatus* F. Smith

Sphex antennatus F. Smith, 1856:252, ♂ (as *antennata*, incorrect original termination). Holotype: ♂, New Hebrides, now Vanuatu: Aneiteum (BMNH). – Kohl, 1890b:438 (original description copied); Dalla Torre, 1897:414 (in catalog of world Hymenoptera); Hensen, 1991a:22 (full species status, member of *Sphex resplendens* species group); Dollfuss, 2008b:1417 (New Caledonia: 10 km southeast of Camp Nefecha); Jennings, Krogmann, and Burwell, 2013:32 (in checklist of Hymenoptera of New Caledonia). – **As *Sphex fumipennis antennatus***: R. Bohart and Menke, 1976:115 (new status, in checklist of world Sphecidae); Callan, 1990a:22 (New Caledonia: no specific locality).

7. *argentatissimus* Dörfel and Ohl

Sphex argentatissimus Dörfel and Ohl, 2015:59, ♀, ♂. Holotype; ♂ Australia: Northern Territory: 27.5 km southeast of Katherine at 14°34'0"S 132°28'5"E (Australian Museum Sydney). – Dörfel and Ohl, 2015:13, 18, 19 (in key to Australian *Sphex*).

8. *argentatus* Fabricius

Sphex argentatus Fabricius, 1787:274, sex not stated (as *argentata*, incorrect original termination). Lectotype: ♀, southeastern India: Coromandel coast: no specific locality (ZMUC), designated by van der Vecht, 1961a:28. – Nec Western Palearctic records (= *Sphex fumicatus*). – Gmelin, 1790:2725 (redescription); Thunberg, 1791:126 (specimens donated to Academia Upsaliensis); Fabricius, 1793:200 (redescription); Lichtenstein, 1796:199 (in auction catalog); Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793); Jurine, 1807:129 (in list of known *Sphex*); Lepeletier de Saint Fargeau and Audinet-Serville, 1828:462 (in list of known *Sphex*); Guérin-Méneville, 1829a:562 (is a member of *Sphex*); Dahlbom, 1843:25 (in revision of Sphecidae and Pompilidae), 1845:XXI (specimens in collection Fabricius), 435 (in key to world Sphecini); F. Smith, 1856:252 (in catalog of Hymenoptera in British Museum), 1859a:157 (Indonesia: Maluku: island of Aru); A. Costa, 1864b:112 (three specimens from Senegal in Museo Zoologico di Napoli); F. Smith, 1860b:121 (Indonesia: Maluku: Batjan), 1862:55 (Indonesia); Cresson, 1863:319 (in catalog of North American Hymenoptera, obviously in error, as *argentata* Dahlbom); F. Smith, 1863a:33 (Indonesia), 1863b:134 (known from India, Sumatra, Java, Batjan, Sulawesi, Ceram, Aru, Africa, and Europe), 1865a:83 (New Guinea; Maluku: island of Morotai), 1871a:361 (in catalog of Oriental Aculeata, as *argentata* Dahlbom); Walker, 1871:19 (Djibouti: island of Daklak, Tajura); F. Smith, 1873a:191 (Japan, India, Africa, North America); Radoszkowski, 1881:209 (Angola); Cresson, 1887:275 (in catalog of North American Hymenoptera, as *argentata* Dahlbom); Cameron, 1889c:107 (in list of Sphecidae of Oriental Region), 112 (common in entire Oriental Region); Kohl, 1890b:438 (original description copied); Gribodo, 1894c:137, footnote (diagnostic characters, Oriental and Australian species); Ashmead, 1899d:353 (in checklist of North American Sphecidae, obviously in error, as *argentata* Dahlbom), 1904a:6 (Philippines: Manila); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); Fernald, 1906:417 (unidentified species, as *argentata* Dahlbom); Innes Bey, 1912:111 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected at island of Dakleeh); Mellor, 1928:129 (Egypt: nocturnal clustering at

Maadi); van der Vecht, 1957c:363 (bibliographic references, Lesser Sunda Islands: locality records, lack of geographic variation), 1961a:28 (interpretation of species, only first of eight varieties of Kohl, 1890b:408, is *argentatus*); Iwata, 1964a:318 (nesting gregariously in Japan, but solitary in Thailand), 1964b:353 (Thailand: nesting habits), 1965:106 (number of oocytes); Yasumatsu and Hirashima, 1965:176 (Taiwan: Tainan); Baltazar, 1966:343 (in catalog of Hymenoptera of Philippines); Tsuneki, 1966a:21 (Japan; as *argentatus argentatus*), 1967i:382 (Ryukyu Islands), 1967j:2 (Taiwan); Nambu, 1968b:26 (Japan: Saitama Prefecture); Nishino, 1968:24 (Japan); Tsuneki, 1969e:24 (Japan, specimens in Osaka Museum of Natural History; as *argentatus argentatus*); Haneda, 1971b:31 (Taiwan); Tsuneki, 1971f:1 (Taiwan), 1971m:1 (China: Peking, now Beijing: Tiendang); Yamada, 1971:34 (Japan: Aichi Prefecture); Haneda, 1972a:5 (Taiwan); Tano, 1972:22 (Japan: Ryukyu Islands); Leclercq, 1973a:11 (recognition, comparison with *Sphex umbrosus*); Murota, 1973a:101 (Ryukyu Islands: Amami Oshima Islands), 1973b:116 (Taiwan); Nambu, 1975b:69 (Japan: Saitama Prefecture); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection, Torino, as *argentata*); Tsuneki, 1982b:14 (known from Korea), 1982d:6 (Taiwan), 1982f:46 (Ryukyu Islands: Okinawa), 1982g:54 (know from Ryukyu archipelago); Brockmann, 1985b:312 (nest closure summary); Cardale, 1985:222 (in catalog of Australian Sphecidae); Paik, 1985:197 (in list of Sphecidae of Korea); Hua, 1989:117 (China); Yamane and Ikudome, 1990:99 (Japan: distribution in Ryukyu Islands); Hensen, 1991a:21 (member of *Sphex argentatus* species group, in revision of Malesian Sphecina); Takahashi 1993:3 (Japan: island of Hachijo-Jima); Jha and Farooqi, 1994:15 (description and illustration of male genitalia); Tano, Nozaka, Kurokawa, and Murota, 1994:52 (Philippines); S. Gupta, 1995:85 (India: Uttar Pradesh); Li and Yang, 1995c:270 (China: Zhejiang Province: Gutianshan); van Vondel, 1995:29 (specimens from Indonesia: island of Ambon, in Natuurmuseum Rotterdam); Belavadi and Mohanraj, 1996:127 (nesting habits); Miyatake, 1996:101 (specimens in Hiroshi Aoki collection); Al-Houty, 1997:161 (Kuwait: no specific locality); Porter, Stange, and Wang, 1999:5 (in checklist of Sphecidae of Taiwan); Yamane, Ikudome, and Terayama, 1999:475 (Japan: in Identification Guide to Sphecidae of Nansei = Ryukyu Islands); Jonathan, Ray, and Kundu, 2000:182 (India: Meghalaya: East Garo Hills: Dainadubi); Kazenas, 2001b:13 (in checklist of Sphecidae of Kazakhstan and Central Asia: may occur in Turkmenistan); Konno et al., 2002:310 (bradykinins not found in venom); Ohl and Linde, 2003:149 (number of ovarioles); Pagliano, 2003a:506 (Australia: Australian Capital Territory); Li and He, 2004:1127 (China : in hymenopterous fauna of Zhejiang Province); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Terayama and Tano, 2006:5, 13, 17 (in key to Japanese Ampulicidae and Sphecidae); Haneda, Nozaka, Tano, Kurokawa, H. Murota, and T. Murota, 2007:52 (Japan: Kagoshima Prefecture: Amami Oshima Islands, as *argentatus argentatus*); Dollfuss, 2008b:1418 (locality records from Benin, Botswana, China, Egypt, Indonesia, Japan, Kenya, Laos, Malawi, Malaysia, Mozambique, Namibia, South Africa, Thailand, Tanzania, Vietnam, Zambia, and Zimbabwe); Pagliano, 2008:525 (specimens in M. Spinola collection, Torino); Haneda, 2011:43 (Philippines: Palawan: Aborlan, as *argentatus argentatus*); nec Schmid-Egger, 2011b:603 (= *Sphex taschenbergi*); Barthélémy, 2014:8 (China: Hong Kong); Job and Olakkengil, 2014:15 (India: Kerala: Thrissur District); Schmid-Egger, 2014:625 (his 2011 record from United Arab Emirates is wrong; in key to *Sphex argentatus* species group), 626 (color photograph of female); Deshmukh, 2015:37 (India: Maharashtra: Koradi Region in Nagpur District); Dörfel and Ohl, 2015:13, 20 (in key to Australian *Sphex*), 21 (in revision of Australian *Sphex*); Pham, Kumar, and Danilov, 2015:1588 (in list of Sphecidae *sensu lato* of Vietnam, as *argentatus argentatus*); Habib, Rustamani, Khatri, Dhiloo, Yaseen, Dhiloo, and Mastoi, 2017:468 (Pakistan: Sindh: Tando Jam); Sheikh, Thomas, Bandari, and Jubiraj, 2017:287 (India: Madhya Pradesh: Jabalpur District: Dumna Nature Park; diagnostic characters); Madl, 2018:944 (in catalog of Hymenoptera of Djibouti); Pham, Truong, Th.T. Nguyen, Th.H. Nguyen, Q. Nguen, and Th.M. Nguyen, 2019:73 (Vietnam: Hanoi and vicinity); Danilov, 2020:320 (specimens from Japan and Thailand in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Gadallah, 2020d:86 (in list of aculeate wasps of Arabian Peninsula); Anagha, Girish Kumar, and Hegde, 2021:450 (in revision of Indian *Sphex*), 461 (in key to Indian *Sphex*). – **As *Ammobia argentata***: Billberg, 1820:105 (new combination, specimens in collection Billberg); Rohwer, 1911c:153 (discussion of name).

Sphex unicolor Fabricius, 1787:275, sex not stated. Holotype or syntypes: Spain: no specific locality (depository uncertain, perhaps under *Sphex argentatus* in ZMUC). Synonymized with *Sphex argentatus* by Fabricius, 1804:209. – de Villers, 1789:226 (redescription); Gmelin, 1790:2728 (redescription); Fabricius, 1793:208 (redescription), 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:488 (redescription); van der Vecht, 1961a:29 (discussion of species identity).

Sphex umbrosus Christ, 1791:293, sex not stated. Holotype or syntypes: origin not stated (destroyed). Synonymized with *Sphex argentatus* by van der Vecht, 1961a:28, and 1973:345. – Kohl, 1890b:406 (in revision of world Sphecini); Radoszkowski, 1892:576 (male genitalia); Bingham, 1896a:439 (bibliographic references), 1897:250 (in revision of wasps and bees of British India, now India and Pakistan); Dalla Torre, 1897:445 (in catalog of world Hymenoptera); Bingham, 1900:177 (India: Mandalay; nesting colony, preying on Locustidae); Cameron, 1901a:24 (Malaysia: Bukit Besar); Bingham, 1902:216 (South Africa, Malawi); Rothney, 1903:105 (India: West Bengal: Barrackpore), 112 (fairly common about jungle ground round Pulta); Ashmead, 1904a:6 (Philippines), 1904d:150 (Philippines); Cameron, 1905k:64 (Borneo, Java, Queensland); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); Cameron, 1906b:56 (New Guinea: West Papua: Manokwari), 1906d:220 (New Guinea: Papua: Merauke); Kohl, 1906a:199 (Yemen: Socotra); Cameron, 1907e:75 (Seychelles Islands), 1908a:261 (Tanzania: Mount Meru), 1910:139 (South Africa: Transvaal, now Gauteng, Limpopo, and Mpumalanga); Strand, 1910c:49 (Java); R. Turner, 1910a:344 (in key to Australian Sphecini); Cameron, 1911:200 (Indonesia: Papua: island of Bivak near mouth of Lorentz River); Longstaff, 1911:125 (Sudan: Khartum); Matsumura, 1911:117 (in Thousand insects of Japan); R. Turner, 1911b:370 (Seychelles Islands); 1912a:197 (Indonesia: Papua: Wataikwa River); Strand, 1913a:83 (Taiwan); Nurse, 1914:445 (India: Assam: Dibrugarh); Strand, 1915:89 (Sri Lanka, variation); R. Turner *in* R. Turner, Meade-Waldo, and Morley, 1915:4 (Indonesia: Papua: Wataikwa River); Ramakrishna Aiyar, 1916:554 (reference to Bingham, 1900); Storey, 1916:107 (Egypt: Faraskur, Maadi, Mssare, Nag Hamadi, Tel el Kebir); Strand, 1916:103 (German East Africa, now Tanzania); Dover, 1926:234 (China: Hong Kong); Matsumura and Uchida, 1926:40 (Okinawa); Berland, 1928a:330 (Judea, now Israel); G. Carpenter, 1929:9 (sleeping aggregation in Uganda); von Schulthess, 1932:41 Indonesia: Java: Buitenzorg, now Bogor); Nomura, 1934:25 (Japan: Ryukyu Islands); Shirôzu, 1934:122 (Japan: Goto Islands); Piel, 1935:273 (nesting habits); von Schulthess, 1935:305 (Australia: Northern Territory: Burnside): G. Bouvier, 1936:330 (Zaire: prey consisting of Diptera, including tsetse fly, certainly in error); T. Ma, 1936a:470 (China: Szechwan: Kienwei); Iwata, 1936b:1179 (nesting habits); Fujimatsu, 1937:347 (nesting habits, description of larva, pupa); Masaki, 1937:83 (Japan: Honsu: islands off Izu Peninsula); Yasumatsu, 1938:54 (in revision of Sphecini of Japanese Empire = Japan, Korea, part of China, Taiwan); Iwata, 1939g:161 (nesting habits); Yasumatsu, 1942c:105 (China: Beijing, corrected to *Sphex argentatus* by Tsuneki, 1971m:1; nec Honoré, 1944a:73 (= *Sphex fumicatus*); Iwata, 1955:28 (egg size, number of oocytes); Leclercq, 1955h:20 (bibliographic references, discussion of subspecies); Berland, 1956:1175 (in revision of African Sphecini); Evans and Lin, 1956a:140 (description of larva); Tsuneki, 1957b:48 (comparison with *Sphex fukuianus*), 1962e:70 (*Sphex umbrosus* in Iconographia Insectorum Japonicorum, Ed. II is actually *Sphex argentatus fumosus*); Diniz, 1964c:100 (in key to Angolan *Sphex*); Leclercq, 1973a:11 (African species recorded as *argentatus* actually are *umbrosus*; recognition characters); Kazenas, 1978b:40 (in key to Sphecidae of Kazakhstan and Central Asia); Piek and Spanjer, 1986:190 (in list of Sphecidae with known prey); Steiner, 1986:96 (references to papers on nesting habits); Al-Houty, 1989:162 (Kuwait); Hua, 1989:117 (China); van Vondel, 1995:29 (specimens from India, Sri Lanka, and island of Sulawesi in Natuurmuseum Rotterdam); Wu and Zhou, 1996a:36 (in revision in Economic Insects of China). – **As *Chlorion umbrosum***: Okamoto, 1924:203 (new combination, Korea: island of Quelpart, now island of Cheju); Arnold, 1928c:361 (in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae); Scott *in* Arnold, 1933a:370 (Ethiopia: Harar District); Hua, 1989:116 (China, as *umbrosus*).

Sphex argenteus Turton, 1800:485 (as *argentea*, incorrect original termination). Lapsus or emendation of *Sphex argentatus* Fabricius. Holotype or syntypes: sex not stated, southeastern India: Coromandel coast: no specific locality (destroyed). Synonymized with *Sphex argentatus* by van der Vecht, 1960:6. – Bradley, 1957:40 (Lepeletier de Saint

Fargeau's specimens in M. spinola collection inTurin; as *argentea* Lep.); Casolari and Casolari Moreno, 1980:103 (specimens in M. Spinola collection, as *argentea*); Pagliano, 2008:532 (specimens in M. Spinola collection, Torino, are *Prionyx* sp,).

Sphex argentifrons Lepeletier de Saint Fargeau, 1845:337, ♀. Lectotype: ♀, Indonesia: Java: no specific locality (M. Spinola collection, Torino), designated by Menke *in* R. Bohart and Menke, 1976:114. Synonymized with *Sphex argentatus* by F. Smith, 1856:252. – Kohl, 1885b:196 (in revision of Palearctic *Sphex*); Bradley, 1957:40 (Lepeletier de Saint Fargeau's specimens in Turin); Casolari and Casolari Moreno, 1980:102 (specimen in M. Spinola collection, Torino); Pagliano, 2008:528 (lectotype in M. Spinola collection, Torino). – **As *Sphex umbrosus* var. *argentifrons***: Berland, 1928a:330 (new status, Uganda, South Africa, Ivory Coast).

Sphex plumifer A. Costa, 1864b:112, sex not stated (as *plumifera*, incorrect original termination). Holotype: Philippines: Luzon: no specific locality (Napoli). Synonymized with *Sphex umbrosus* by Kohl, 1890b:407. – Baltazar, 1966:345 (in catalog of Hymenoptera of Philippines, as *plumiferus*). – **As *Sphex umbrosus* var. *plumiferus***: Dalla Torre, 1897:446 (new status, in catalog of world Hymenoptera); Ashmead, 1904d:150 (Philippines); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera, as *plumbiferus*); F. Williams, 1919d:125 (Philippines: Luzon: Los Baños: nesting habits). – **As *Chlorion umbrosa* var. *plumifera*:** Rohwer, 1922:667 (new combination, Philippines); Yasumatsu, 1935c:58 (Philippines: island of Basilan: Maloong). – **As *Chlorion umbrosa plumifera***: Bibby, 1947:79 (new status, Philippines: Samar group of islands: island of Calicoan)

Sphex argentifer Walker, 1871:19, ♂ (as *argentifera*, incorrect original termination). Holotype or syntypes: ♂, Africa: Red Sea coast: island of Akeek (destroyed). Synonymized with *Sphex umbrosus* by Kohl, 1890b:407. − Innes Bey, 1912:111 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected at island of Dahleeh).

Sphex umbrosus var. *nanulus* Strand, 1913:83. Holotype: ♀, Taiwan: Waihorin (DEI). Synonymized with ..

ssp. *fumosus* Kohl

Sphex umbrosus var. *fumosus* Kohl, 1890b:408, ♀ (as *fumosa*, incorrect original termination, authorship attributed to Mocsáry). Holotype or syntypes: ♀, Japan: no specific locality (TMB?). – Dalla Torre, 1897:445 (in catalog of world Hymenoptera); Pérez, 1905a:25 (In list oh Hymenoptera of Japan); Berland, 1928a:330 (central Japan: Kofu). – **As *Sphex argentatus fumosus***: Tsuneki, 1962a:6 (new status, Japan: Ryukyu Islands: island of Amami-Oshima), 1963b:14 (nesting habits); Tano, 1964:38 (Japan: Kyushu: island of Yakushima); Evans, 1966b:466 (illustration of nest entrance); T. Iida, 1967:2 (description of larva); Fukuda, 1968:26 (Japan); Haneda, 1968a:45 (Japan); Itami, 1968a:15 (Japan: Yamagata Prefecture: foot of Mount Iide); Tano, 1968:33 (Japan); Itami, 1969:46 (Japan: Niigata Prefecture); Tsuneki, 1969e:24 (Japan: specimens in Osaka Museum of Natural History); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Tsuneki, 1982g:55 (know from Ryukyu archipelago); Hilchie, 1982:110 (review of accessory burrows); Paik, 1985:196 (in list of Sphecidae of Korea); Sk. Yamane and Ikudome, 1990:97 (Japan: distribution in Ryukyu Islands,); Kurokawa, 2003:60 (Japan: city of Fukui: Egamichou); Nozaka and Murota, 2003:44 (photograph of female with prey); Suda, 2004:35 (Japan: Yamanashi Prefecture); Negoro, Haneda, and Tano, 2005:43 (Japan: Toyama Prefecture); Haneda, Nozaka, Tano, Kurokawa and Murota, 2006a:18 (Japan: Toyama Prefecture), 2006b:47 (Japan: Nagasaki Prefecture: Tsushima); Nambu, 2006:246 (Japan: Tokyo: Imperial Palace garden); Ohkusa, 2007:33 (Japan: central Honshu: Aichi Prefecture); Ohkusa and Tajima, 2008:74 (Japan: central Honshu: Aichi Prefecture); N. Yamamoto, 2011:10 (Japan: Kyūshyū: mainland Nagasaki Prefecture); J.-K. Kim, 2014:420 (in catalog of Sphecidae *sensu lato* of Korean Peninsula; Kim, Yeo, and Kim, 2014:288 (in key to *Sphex* of South Korea, in revision of Sphecidae sensu stricto of South Korea); Kishi and Nagase, 2015:16 (Japan: Tokyo University: Yayoi Campus: visiting flowers); Murao, 2015:39 (Japan: Kyushu: coast of northwestern Fukuoka Prefecture).

9. *argentinus* Taschenberg

Sphex argentinus Taschenberg, 1869:417, ♀, ♂ (as *argentina*, incorrect original termination). Lectotype: ♂, Argentina: Mendoza: Rosario (Halle), designated by Menke, 1963b:229. – Burmeister, 1872:239 (Argentina: Mendoza and Rosario); Kohl, 1890b:400 (in revision of world Sphecini); Dalla Torre, 1897:415 (in catalog of world Hymenoptera); Schrottky, 1902a:315 (Brazil), 1903b:124 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay); W. Schulz, 1906:193 (Argentina: Tucumán); Jörgensen, 1912:286 (Argentina: Mendoza Province; floral records); Berland, 1929b:310 (Argentina); Liebermann, 1931:18 (in revision of Argentinean Sphecini); Bischoff and von Schulthess, 1937:168 (Argentina); Menke, 1963b:229 (Willink's, 1951, interpretation of species is correct); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Genise, 1980c:252 (nesting habits); Nascimento and Overal, 1980:10 (Argentina); Amarante, 2002:74 (in catalog of Neotropical Sphecidae), 2005a:14 (correction to his 2002 catalog); Dollfuss, 2008b:1419 (Argentina: Entre Ríos: Pronunciamiento). – **As *Proterosphex argentinus***: Schrottky, 1913a:225 (new combination, Argentina). – **As *Chlorion argentinum*:** Fernald, 1907:267 (new combination, Argentina, variation); Willink, 1951:125 (in revision of Argentinean Sphecini); Llano, 1959:101 (nest and prey, metamorphosis).

10. *ashmeadi* (Fernald)

Chlorion ashmeadi Fernald, 1906:389, ♀, ♂. Lectotype: ♂, USA: Arizona: no specific locality (USNM), designated by Bohart and Menke, 1963:120. – **As *Sphex ashmeadi***: Snow, 1906:133 (new combination, Arizona); Berland, 1929b:312 (Mexico: Baja California); Murray *in* Muesebeck, Krombein, and Townes, 1951:971 (in catalog of North American Hymenoptera); Hurd and Linsley, 1975:116 (New Mexico: Dona Ana County: Las Cruces; on flowers of *Larrea tridentata* (De Candolle) Coville, Zygophyllaceae); R. Bohart and Menke, 1963:120 (in revision of Nearctic Sphecini), 1976:114 (in checklist of world Sphecidae); Ch. Porter, 1978:170 (Texas); Krombein, 1979b:1579 (in catalog of North American Hymenoptera); S. Frommer, 1988:95 (California: Riverside County: Deep Canyon); Dollfuss, 1989:12 (type material in NHMW); Amarante, 2002:74 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Ruíz Cancino, Coronado Blanco, and Horta Vega, 2005:170 (Mexico: recorded from Tamaulipas State).

11. *atropilosus* Kohl

Sphex maxillosus var. *atropilosus* Kohl, 1885:202, ♀. Holotype: ♀, Romania: Tultscha, now Tulcea (NHMW). – **As *Sphex atropilosus***: Berland, 1952a:88 (new status, France: locality records); Leclercq, 1955h:19 (bibliographic references, summary of locality records from Africa); Ceballos, 1956:363 (in catalog of Hymenoptera of Spain); Leclercq, 1956g:324 (Greece); Morel, Nouvel, and Ribaut, 1956:337 (France: Département des Pyrénées-Orientales); Diniz, 1959:27 (Portugal: Serra do Poio); de Beaumont, 1962b:19 (Spain); Ceballos, 1964:87 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1965a:14 (Greece); Pulawski, 1978:183 (in key to Sphecidae of European part of USSR); Gayubo, 1983c:230 (Spain: Salamanca Province: Salamanca); Mingo and Gayubo, 1983:145 (Spain); Józan, 1986:367 (Hungary: Kiskunság National Park); Gayubo, 1987:106 (Spain: Ciudad Real Province: Valdepeñas); Kuznetzova, 1990:17 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve); Hamon, Fonfria, and Tussac, 1991:128 and 131 (in key to French Sphecini), 131 (in France limited to Mediterranean shore and valleys of big rivers); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:69 (in Sphecid Fauna of Western Europe); Shkuratov, 1998a:97 (Russia: Rostov Oblast'); Gayubo, González, and Torres, 2000:184 (Spain: Salamanca Province); Menke and Pulawski, 2000:329 (in revision of *Sphex flavipennis* species group); Shkuratov, 2000:54 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Kazenas, 2001b:13 (in checklist of Sphecidae of Kazakhstan and Central Asia); Shkuratov, 2002a:383 (Russia: Rostov Oblast'), 2002b:138 (Russia: Rostov Oblast': Rostovskiy Nature Reserve at 46°27'N 42°41'E), 2004:72 (Russia: Rostov Oblast'); Gayubo and Özbek, 2005:5 (Turkey: Erzurum: University Campus); Vepřek and Straka, 2007:198 (in catalog of Sphecidae of Czech Republic and Slovakia), 210 (the only record from Slovakia by Padr, 1989a is unreliable, species does not ococur in the area); Yildirim and Ljubomirov, 2007:116 (Turkey: Erzurum: Oltu); Dollfuss, 2008b:1419 (Kazakhstan: Dzhanibek; Turkey: Kars: Soganli 30

km west of Sarikamis); Ljubomirov and Yildirim, 2008:17 (in catalog of Sphecidae of Turkey); Baños-Picón, Asís, Gayubo, and Tormos, 2009:310 (Spain: frequency of specimens collected with hand nets and Malaise traps); González, Gayubo, Asís, and Tormos, 2009:622 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Bitsch, 2010:106 (in supplement to vol. II of Faune de France, 1997: *atropilosus* is valid, recent record from Spain reported); Danilov, 2010b:45 (distribution of Tethyan type); Cruz-Sánchez, Asís, Gayubo, Tormos, and González, 2011:497 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park: effects of wildfire); Józan, 2011:179 (in checklist of Sphecidae *sensu lato* of Hungary); Yildirim, 2012:74 (Turkey: Erzurum: Oltu); Danilov, 2014a:424 (Russia: Siberia: Novosibirsk Oblast'), 2014b:513, 514 (in key to Sphecidae s.s. of Siberia); Yildirim, 2014:29 (Turkey: distribution by biogeographic provinces); Koçak and Kemal, 2015:279 (in checklist of Hymenoptera of Turkey); Arens, 2017a:633 (Greece: Peloponnesus); Danilov, 2017b:215 (in catalog of Sphecidae s.s. of Russia); Danilov and Mokrousov, 2017a:108 (Russia: Saratov Oblast' and Volgograd Oblast', Krasnodarskiy Kray, Stavropolskiy Kray); Danilov, 2020:320 (specimens from Russia: Astrakhan' Oblast', Novosibirsk Oblast', and Volgograd Oblast' in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Maharramov, Mokrousov, and Proshchalykin, 2020:46 (Azarbaijan: Nakichivan Autonomous Republic); Cross, Baldock, and Wood, 2021:19 (in catalog of Sphecidae *sensu lato* of Portugal); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey).

Sphex atrohirtus Kohl, 1890b:437. Lapsus for *Sphex atropilosus*, new status. – Dalla Torre, 1897:415 (in catalog of world Hymenoptera); Dusmet and Mercet, 1906:511, 517 (in key to Spanish Sphecini); Roth, 1925:397 (in revision of North African Sphecini); Chaudoir, 1947:142 (France: Gard: Roquemaure); Zavadil *in* Zavadil and Šnoflák, 1948:168 (in key to Sphecidae of Czechoslovakia, not yet found in Czechoslovakia); de Andrade, 1949:8 (Portugal: Serra de Poio); Berland and Bernard, 1949:4 (in revision of French *Sphex* s. l.); Hamon, 1950:29 (France: Pyrénées-Orientales: Banyuls-sur-Mer); Bajári, 1957a:9, 11 (in key to Hungarian Sphecidae), 1957b:134 (first record from Hungary); Diniz, 1965:4 (Portugal: Massorra); Benedek, 1968:70 (Hungary, visiting flowers of *Mentha latifolia* L., Lamiaceae); Balthasar, 1972:421 (in Sphecid Fauna of Czechoslovakia: not yet found in country); Kazenas, 1978b:40 (in key to Sphecidae of Kazakhstan and Central Asia); Dollfuss, 1989:12 (type material in NHMW); Pádr *in* Šedivy, 1989a:166 (in checklist of Czechoslovakian Sphecidae).

12. *basilicus* (R. Turner)

Chlorion basilicus R. Turner, 1915a:65, ♀. Holotype or syntypes: ♀, Australia: Queensland: probably Cape York Peninsula (BMNH). – R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Cardale, 1985:223 (in catalog of Australian Sphecidae); Dörfel and Ohl, 2015:13, 19 (in key to Australian *Sphex*), 62 (in revision of Australian *Sphex*).

13. *bilobatus* Kohl

Sphex canescens F. Smith, 1856:246, ♀, ♂, junior primary homonym of *Sphex canescens* Scopoli, 1786. Syntypes: Australia: no specific locality (BMNH). – Kohl, 1890b:412, footnote (original description copied); Froggatt, 1892:209 (in catalog of Australian Hymenoptera).

Sphex bilobatus Kohl, 1895:59, ♀, ♂. Syntypes: Australia: South Australia: Adelaide (ZMHU). Synonymized with *Sphex canescens* F. Smith, 1856 by R. Turner, 1910a:346. – Dalla Torre, 1897:417 (in catalog of world Hymenoptera); R. Turner, 1910a:344 (in key to Australian Sphecini), 1910a:346 (Australia: New South Wales: Cumberland; South Australia: Adelaide); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Evans, Hook, and Matthews, 1982:222 (nesting habits); Cardale, 1985:223 (in catalog of Australian Sphecidae); Hensen, 1991a:26 (member of *Sphex subtruncatus* species group); Dörfel and Ohl, 2015:13, 19 (in key to Australian *Sphex*), 64 (in revision of Australian *Sphex*).

14. *bohemanni* Dahlbom

Sphex bohemanni Dahlbom, 1845:436, ♂. Holotype or syntypes: sex not stated, South Africa: KwaZulu-Natal: Port Natal, now Durban (Lund). – F. Smith, 1856:245 (in catalog of Hymenoptera in British Museum); Kohl, 1890b:439 (original description copied), 1895:62 (redescription); Dalla Torre, 1897:417 (in catalog of world Hymenoptera); Bingham, 1902:216 (South Africa); Brauns, 1911a:118 (South Africa); Leclercq, 1955h:9 (bibliographic references), 1961i:325 (in key to *Sphex haemorrhoidalis* species group), 326 (Zaire); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Dörfel and Ohl, 2022:19 (in key to sub-Saharan *Sphex*), 108 (in revision of sub-Saharan *Sphex*). – **As *Chlorion bohemanni***: R. Turner, 1918b:361 (new combination, locality records, synonymy); Arnold, 1928c:370 (in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae).

Sphex transvaalensis Cameron, 1910b:140, ♂. Holotype or syntypes: ♂, South Africa: Gauteng: van der Merwe station (TMP). Synonymized with *Chlorion bohemanni* by R. Turner, 1918b:361.

15. *brachystomus* Kohl

Sphex brachystomus Kohl, 1890b217, ♀, ♂. Syntypes: Papua New Guinea: New Britain: no specific locality (NHMW). – Dalla Torre, 1897:417 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Dollfuss, 1989:12 (type material in NHMW, as *brachysomus*); Hensen, 1991a:22 (member of *Sphex resplendens* species group), 23 (in revision of Malesian Sphecina).

16. *brasilianus* de Saussure

Sphex brasilianus de Saussure, 1867:39, ♀. Holotype or syntypes: ♀, Brazil: Rio de Janeiro (NHMW). – Kohl, 1890b:432 (in revision of world Sphecini), 1895:60 (description of ♂); Dalla Torre, 1897:417 (in catalog of world Hymenoptera); W. Fox, 1897b:376 (Brazil: Chapada); Ashmead, 1899d:353 (in checklist of North American Sphecidae, as *brasiliensis*); Ducke, 1901:242 (Brazil: Pará: Belém); Berland, 1929b:312 (Brazil, Surinam); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Nascimento and Overal, 1980:10 (Brazil: Pará, Óbidos, Oiapoque; Peru: Iquitos); Dollfuss, 1989:12 (type material in NHMW); Amarante, 2002:73 (in catalog of Neotropical Sphecidae); Dollfuss, 2008b:1419 (Ecuador: Napo: Puerto Napo 8 km south of Tena; French Guyana: 20 km east of Saint Laurent du Maroni, Relais de Patawa 35 km south of Roura); Buys, 2009e:277 (Brazil: recorded from Rio de Janeiro State by de Saussure, 1867). – **As *Chlorion brasilianum***: Fernald, 1906:412 (new combination, in revision of Sphecini of North America and West Indies), 1942:31 (Guyana).

17. *brevipetiolatus* Dörfel and Ohl

Sphex brevipetiolatus Dörfel and Ohl, 2015:67, ♀. Holotype: ♀, Australia: Western Australia: 3 mi. north of Moora (BMNH). – Dörfel and Ohl, 2015:13, 14 (in key to Australian *Sphex*)

18. *caelebs* Dörfel and Ohl

Sphex caelebs Dörfel and Ohl, 2015:69, ♂. Holotype: ♂, Australia: Western Australia: Westonia at 31°11’53’’S 118°45’31’’E (Australian Museum Sydney). – Dörfel and Ohl, 2015:19 (in key to Australian *Sphex*).

19. *caeruleanus* Drury

Sphex caeruleanus Drury, 1773:74, pl. XXXIX, fig. 4, [♀] (as *caeruleana*, incorrect original termination). Holotype: ♀, Africa: Bite of Benin: no specific locality (destroyed?). – Cresson, 1875:714 (Arizona, as *caeruleum*); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Dörfel and Ohl, 2022:21 (in key to sub-Saharan *Sphex*), 60 (in revision of sub-Saharan *Sphex*).

Sphex pulchripennis Mocsáry, 1883:35, ♀. Holotype or syntypes: ♀, Ghana: Ashanti: no specific locality (TMB). Synonymized with *Sphex caeruleanus* by Menke in R. Bohart and Menke, 1976:114. – Kohl, 1895:63 (good species, description of ♂); Dalla Torre, 1897:438 (in catalog of world Hymenoptera); Tullgren, 1904:443 (Cameroon); Berland, 1927:153 (Congo and Gabon); Schouteden, 1930:95 (Zaire); Berland, 1956:1177 (in revision of African Sphecini). – **As *Sphex nigripes* f. *pulchripennis***: Strand, 1913a:81 (new status, color variation); Leclercq, l969:1049 (Congo Brazzaville). – **As *Sphex haemorrhoidalis* var. *pulchripennis***: Schletterer, 1891:14 (new status, Zaire);

Brauns, 1911a:118 (South Africa: Transvaaal, now Gauteng, Limpopo, and Mpumalanga); Berland, 1952b:276 (boundary of Ivory Coast, Guinea, and Liberia: Mount Nimba); Leclercq, 1961b:46 (Zaire). – **As *Sphex haemorrhoidalis pulchripennis***: Leclercq, 1955h:16 (new status, summary of earlier records, new locality records from Zaire). – **As *Chlorion haemorrhoidalis* var. *pulchripennis***: Arnold, 1928c:366 (new combination, in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae).

20. *caliginosus* Erichson

Sphex fuscus Lepeletier de Saint Fargeau, 1845:335, ♀ (as *fusca*, incorrect original termination), junior primary homonym of *Sphex fuscus* Linnaeus, 1761. Lectotype: ♀, origin unknown according to original description, but Brazil on label (originally Audinet-Serville coll., now M. Spinola collection, Torino), designated by Menke, 1965a:210. Synonymized with *Sphex caliginosus* by Kohl 1890b:444. – F. Smith, 1856:243 (in catalog of Hymenoptera in British Museum); Kohl, 1890b:444 (original description copied); Dalla Torre, 1897:424 (in catalog of world Hymenoptera); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection, Torino); Pagliano, 2008:525 (lectotype in M. Spinola collection, Torino).

Sphex caliginosus Erichson, 1849:589, sex not stated (as *caliginosa*, incorrect original termination, 10anadensis attributed to Klug). Lectotype: ♂, British Guiana in original publication but Brazil on label (ZMHU), designated by Menke, 1965a:210. – F. Smith, 1856:261 (in catalog of Hymenoptera in British Museum); Kohl, 1890b:415 (in revision of world Sphecini); W. Fox, 1893d:9 (Mexico: Sonora: Hermosillo); Dalla Torre, 1897:418 (in catalog of world Hymenoptera); W. Fox, 1897b:376 (Brazil: Chapada and Santarém); Ashmead, 1899d:353 (in checklist of North American Sphecidae); W. Fox, 1899:200 (Brazil: Rio Grande do Sul); Ashmead, 1900:228 (Lesser Antilles: island of Saint Vincent), 308 (in checklist of Caribbean Hymenoptera); Schrottky, 1902a:315 (Brazil); Strand, 1916b:99 (Colombia, French Guiana); Brèthes, 1920b:49 (Peru); Berland, 1929b:310 (miscellaneous locality records); Bequaert, 1937:186 (Colombia, prey: katydid *Cocconotus atrifrons* (Brunner)); Richards, 1937a:104 (Guyana); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Nascimento and Overal, 1980:10 (Brazil); Simon Thomas, 1984:96 (Caribbean: islands of Saint Martin and of Saba); F. Fernández, 1990:24 (Colombia: Meta: Parque Nacional Natural La Macarena); Hanson and Menke, 1995:637 (known from Costa Rica); Amarante, 2002:73 (in catalog of Neotropical Sphecidae); Dollfuss, 2008b:1419 (Ecuador: Baños: Tungurahua; French Guyana: Relais de Patawa 35 km south of Roura; Peru: Huallsos Aquaycia); Perez-Gelabert, 2008:242 (in list of arthropods of island of Hispaniola); Buys, 2009e:277 (Brazil: Rio de Janeiro: Itatiaia, Niterói, Rio Bonito, Rio de Janeiro); Rasmussen and Asenjo, 2009:16 (in checklist of Crabronidae of Peru); Buys, 2011b:2 (Brazil: Rio de Janeiro: Angra dos Reis, Itatiaia); Rodrigues and Buys, 2013:214 (Brazil: Espírito Santo: Santa Teresa, as *calliginosus*); Buys and Rodrigues, 2014:41 (Brazil: Espírito Santo: Baixo Guandu, Linhares, Santa Teresa). – **As *Chlorion caliginosum***: Fernald, 1906:403 (new combination, in revision of Sphecini of North America and West Indies); Cameron, 1912a:426 (Guyana); Fernald, 1931a:443 (synonymy); Willink, 1951:133 (in revision of Argentinean Sphecini); Maes, 1989:90 (in catalog of Nicaraguan Sphecidae).

Sphex erythropterus Cameron, 1888a:30, ♀, ♂ (as *erythroptera*, incorrect original termination). Lectotype: ♂, Mexico: Orizaba (BMNH), designated by Menke, 1965a:210. Synonymized with *Sphex caliginosus* by Kohl, 1890b:415, Cameron, 1912a:426, Fernald, 1931a:443, and Menke, 1965a:210 (as new synonym).

As *Sphex fuliginosa*: Pagliano, 2008:525 (specimens in M. Spinola collection, Torino).

21. *camerunicus* Strand

Sphex bohemanni var. *camerunicus* Strand, 1916b:105, ♀. Holotype: ♀: Cameroon: no specific locality (DEI). – Strand, 1927:254 (in list of species described by author); Arnold, 1928c:368 (as new synonym of *Chlorion nigrohirtum*); Oehlke and Wudowenz, 1974:421 (holotype in DEI). – **As *Sphex camerunicus***: Dörfel and Ohl, 2022:17 (in key to sub-Saharan *Sphex*), 85 (full species status, in revision of sub-Saharan *Sphex*).

Sphex conradti Berland, 1927:145, ♀. Lectotype: ♀, Fernando Póo, now Bioko (MNHN), designated by Menke *in* R. Bohart and Menke, 1976:115. Synonymized with *Sphex nigrohirtus* by Arnold, 1951:145 and Berland, 1952b:275, and with *Sphex cameronicus* by Dörfel and Ohl, 2022:85.

22. *camposi* Campos

Sphex camposi Campos, 1922:67 (authorship attributed to Pérez), pl. I Fig. 4 (no description but illustration provided, name available under Article 12.2.7). Holotype: ♀, Ecuador: El Salado (depository?). – R. Bohart and Menke, 1976:256 (in checklist of world Sphecidae); Amarante, 2002:73 (in catalog of Neotropical Sphecidae).

23. *carbonicolor* van der Vecht

Sphex carbonarius F. Smith, 1856:247, ♀ (as *carbonaria*, incorrect original termination), junior primary homonym of *Sphex carbonarius* Scopoli, 1763. Holotype or syntypes: ♀, Australia: Sydney (BMNH). – Froggatt, 1892:209 (in catalog of Australian Hymenoptera); R. Turner, 1910a:344 (in key to Australian Sphecini).

Sphex carbonicolor van der Vecht, 1973:342 Substitute name for *Sphex carbonarius* F. Smith. – R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Cardale, 1985:223 (in catalog of Australian Sphecidae); Hensen, 1991a:21 (member of *Sphex argentatus* species group); Dörfel and Ohl, 2015:13, 20 (in key to Australian *Sphex*), 23 (in revision of Australian *Sphex*).

24. *castaneipes* Dahlbom

Sphex castaneipes Dahlbom, 1843:27, ♀. Holotype or syntypes: ♀, South Africa: Western Cape Province: Cape Town area (Lund), but probably South America. – Dahlbom, 1845:438 (in key to world Sphecini); F. Smith, 1856:244 (in catalog of Hymenoptera in British Museum); Magretti, 1884a:249 (Sudan), 1884c:580 (Sudan: Kassala); Kohl, 1890b:364 (in revision of world Sphecini); Dalla Torre, 1897:418 (in catalog of world Hymenoptera); Leclercq, 1955h:16 (listed, bibliographic references); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Dörfel and Ohl, 2022:1 (probably a South American species). – **As *Chlorion castaneipes***: Arnold, 1928c:364 (new combination, Kohl's description translated into English), 1930:18 (in checklist of Afrotropical Sphecidae).

25. *cinerascens* Dahlbom

Sphex cinerascens Dahlbom, 1843:25, ♂. Holotype: ♂, "E. Guinea": no specific locality (Lund and ZMHU). – Dahlbom, 1845:436 (in key to world Sphecini); F. Smith, 1856:244 (in catalog of Hymenoptera in British Museum); Kohl, 1890b:440 (original description copied), 1895:52 (is an Oriental species); Rothney, 1903:105 (India: West Bengal: Barrackpore); Arnold, 1951:145 (Ghana, Mali); Leclercq, 1955h:6 (summary of records); van der Vecht, 1961a:31 (as new synonym of *Sphex obscurus*); Tsuneki, 1963c:20 (Thailand); Dollfuss, 2008b:1419 (Thailand: Pai); Schmid-Egger, 2014:625 (first record from Arabian Peninsula and United Arab Emirates: Bithnah at 25°10'N 56°14'E, diagnostic characters), 626 (color photograph of male); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:28 (Iran: known from Ardabil Province); Dörfel and Ohl, 2022:13 (in key to sub-Saharan *Sphex*), 28 (as valid species, in revision of sub_Saharan *Sphex*).

26. *cognatus* F. Smith

Sphex cognatus F. Smith, 1856:248, ♀ (as *11anaden*, incorrect original termination). Holotype or syntypes: Australia: no specific locality (BMNH). – Taschenberg, 1869:415 (Indonesia: Waigeo; redescription); Kohl, 1890b:441 (original description copied); Froggatt, 1892:210 (in catalog of Australian Hymenoptera); Dalla Torre, 1897:419 (in catalog of world Hymenoptera); R. Turner, 1910a:344 (in key to Australian Sphecini); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Ribi, 1978a:299 (detailed study of eye retina), 1978b:471 (color receptors); Ribi and Ribi, 1979:693 (nesting habits); Evans, Hook, and Matthews, 1982:219 (nesting habits); Cardale, 1985:223 (in catalog of Australian Sphecidae); Piek and Spanjer, 1986:189 (in list of Sphecidae with known prey); Hensen, 1991a:26 (member of *Sphex subtruncatus* species group, in revision of Malesian Sphecina); Naumann, 1993:181 (Australia: Queensland: Heathlands area in Cape York); Dörfel and Ohl, 2015:11, 13, 15 (in key to Australian *Sphex*), 71 (in revision of Australian *Sphex*).

Sphex amator F. Smith, 1856:246, ♂. Holotype or syntypes: Australia: no specific locality (OXUM). Synonymized with *Sphex cognatus* by van der Vecht, 1973:342. – Kohl, 1890b:438 (original description copied); Froggatt, 1892:209 (in catalog of Australian Hymenoptera); Dalla Torre, 1897:414 (in catalog of world Hymenoptera).

Sphex formosus F. Smith, 1856:254 (as *12anaden*, incorrect original termination). Holotype or syntypes: ♂, Indonesia: Seram: no specific locality (BMNH). Synonymized with *Sphex cognatus* by R. Turner, 1910a:345. – F. Smith, 1860b:111 (Indonesia), 1863a:33 (Indonesia), 1863b:134 (known from Batjan, Seram, and Ambon), 1871a:361 (in catalog of Oriental Aculeata); Kohl, 1890b:405 (in revision of world Sphecini); Dalla Torre, 1897:423 (in catalog of world Hymenoptera); W. Schulz, 1905a:214 (Papua New Guinea: Finschhafen); Kohl, 1908b:310 (Solomon Islands: island of Shortland: Poperang); Strand, 1911b:231 (Indonesia: Maluku: island of Kei); Berland, 1928a:330 (Australia; Indonesia: Maluku, Papua; Malaysia: Perak); van Vondel, 1995:29 (specimens from Indonesia: island of Ambon in Natuurmuseum Rotterdam).

Sphex opulentus F. Smith, 1856:250, ♂ (as *opulenta*, incorrect original termination). Holotype or syntypes: ♂, Australia: New South Wales: Richmond River (BMNH). Synonymized with *Sphex umbrosus* by Kohl, 1890b:407, with *Sphex umbrosus* var. *ephippium* by Kohl, 1890b:408, and with *Sphex cognatus* by R. Turner, 1910a:345. – A. Costa, 1864a:60 (two specimens from Australia in Napoli Museum); Froggatt, 1892:210 (in catalog of Australian Hymenoptera).

27. *comorensis* Dörfel and Ohl

Sphex comorensis Dörfel and Ohl, 2022:148, ♀, ♂. Holotype: ♂, Comoros: Mohéli: Châlet Saint Antoine at 12°16′56″S 43°39′48″E (MRAC). – Dörfel and Ohl, 2022:21 (in key to sub-Saharan *Sphex*).

28. *confrater* Kohl

Sphex confrater Kohl, 1890b:414. Syntypes: Papua New Guinea: New Britain: no specific locality (“Mus. Hammon”). – Dalla Torre, 1897:419 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Hensen, 1991a:22 (member of *Sphex resplendens* species group), 23 (in revision of Malesian Sphecina).

? *Sphex confrater* var. *sieberti* Strand, 1910c:46, ♀ (as *Sieberti*, incorrect original capitalization). Syntypes: Indonesia: Java: Batavia, now Djakarta (Städtisches Mus. Wiesbaden). – Strand, 1927:255 (in list of species described by author); R. Bohart and Menke, 1976:114 (as tentative subspecies of *Sphex confrater*); Hensen, 1991a:23 (as tentative synonym of *Sphex confrater*).

29. *corporosus* Dörfel and Ohl

Sphex corporosus Dörfel and Ohl, 2015:74, ♀, ♂. Holotype: ♂, Australia: South Australia: Pooncarie (Australian Museum Sydney). – Dörfel and Ohl, 2015:13, 14, 19, 20 (in key to Australian *Sphex*).

30. *cristi* Genaro

Sphex cristi Genaro *in* Genaro and Juarrero, 2000:179, ♀. Holotype: ♀, Cuba: Punta Caguanes, Yaguajay: Sancti Spiritus (Mus. Nac. Hist. Nat., Cuba). – Amarante, 2005a:5 (in addendum to his 2002 catalog of Neotropical Crabronidae and Sphecidae); Genaro, 2006:51 (in Catalog of Cuban Sphecidae and Crabronidae).

31. *cubensis* (Fernald)

Sphex clavipes Kohl, 1890b:395, ♀, ♂, junior primary homonym of *Sphex clavipes* Linnaeus, 1758, now in *Rhopalum*. Syntypes: Cuba: no specific locality (MNCN, NHMW). – Dalla Torre, 1897:419 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae); Berland, 1929b:312 (Cuba: Havana; Mexico: Orizaba); Alayo Dalmau, 1973:183 (in catalog of Cuban Hymenoptera); de Zayas, 1981:78 (Cuba, illustration of habitus); Dollfuss, 1989:12 (type material in NHMW).

Chlorion cubensis Fernald, 1906:367. Substitute name for *Sphex clavipes* Kohl. – Dow, 1932:9 (Cuba; prey: *Neoconocephalus maxillosus* (Fabricius, Tettigoniidae). – **As *Ammobia cubensis***: Rau, 1933:184 (new combination, Panama: island of Barro Colorado, nest structure, prey). – **As *Sphex cubensis***: Alayo Dalmau, 1976:11 (new combination, in key to Cuban *Sphex*), 26 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:114 (in checklist of world

Sphecidae); Alayo Soto, 1982:6 (nesting habits); Genaro, 1998:241 (nesting habits); Amarante, 2002:73 (in catalog of Neotropical Sphecidae); Fernández, Saríol, Vega, Ricardo, González, and Portuondo, 2002:46 (Cuba: Provincia Granma); Portuondo and Fernández, 2004:135 (Cuba: Sierra Maestra); Genaro, 2006:51 (in catalog of Cuban Sphecidae and Crabronidae); Dollfuss, 2008b:1419 (Cuba).

As *Sphex lanierii*: Cresson, 1865a:137 (Cuba), corrected to *Sphex cubensis* by Alayo Dalmau, 1973:184.

32. *darwiniensis* R. Turner

Sphex darwiniensis R. Turner, 1912f :56, ♀. Holotype or syntypes: ♀, Australia: Northern Territory: Darwin (BMNH). – R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Dörfel and Ohl, 2015:10 (in key to Australian *Sphex*), 37 (in revision of Australian *Sphex*).

33. *decipiens* Kohl

Sphex decipiens Kohl, 1895:65, ♀, ♂. Syntypes: ♀, ♂, South Africa: Cape Province (Eastern or Western?): no specific locality (NHMW). – Dalla Torre, 1897:420 (in catalog of world Hymenoptera); Brauns, 1911a:118 (South Africa); Leclercq, 1955h:12 (bibliographic references, Zaire: Kabinda, comparison with *Sphex haemorrhoidalis*); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Dollfuss, 1989:12 (type material in NHMW); S. Gess, 1996:269, 273 (floral records); S. Gess and F. Gess, 2003:93 (South Africa: visiting flowers of undetermined Mesembryanthema, *Deverra 13anadens* (Viv.) Pfisterer and Podl., and *Foeniculum vulgare* L., Apiaceae,), *Asclepias buchenaviana* Schinz and *Sarcostemma viminale* (L.) R. Br., Apocynaceae, *Acacia caffra* (Thunb.) Willd. And *Acascia karroo* Hayne, Fabaceae, *Ziziphus mucronata* Willd., Rhamnaceae, and *Lycium* sp., Solanaceae), 2006:36 (Namibia, visiting flowers of *Lycium* sp., Solanaceae); Dollfuss, 2008b:1419 (locality records from Namibia and South Africa); Dörfel and Ohl, 2022:13, 21 (in key to sub-Saharan *Sphex*), 123 (in revision of sub-Saharan *Sphex*). – **As *Chlorion decipiens***: Arnold, 1928c:365 (new combination, in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae), 1947:145 (diagnostic characters).

34. *decoratus* F. Smith

Sphex decoratus F. Smith, 1873d:461, ♀ (as *decorata*, incorrect original termination). Holotype or syntypes: ♀, Australia: northwest coast: no specific locality (BMNH). – Kohl, 1890b:441 (original description copied); Froggatt, 1892:210 (in catalog of Australian Hymenoptera); Dalla Torre, 1897:420 (in catalog of world Hymenoptera); R. Turner, 1910a:344 (in key to Australian Sphecini); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Cardale, 1985:224 (in catalog of Australian Sphecidae); Hensen, 1991a:21 (member of *Sphex argentatus* species group); Dörfel and Ohl, 2015:14 (in key to Australian *Sphex*), 25 (in revision of Australian *Sphex*).

35. *deplanatus* Kohl

Sphex deplanatus Kohl, 1895:53, ♂. Holotype: ♂, Sri Lanka: no specific locality (NHMW). – Cameron, 1898b:24 (omitted by Bingham, 1897, original description copied); Kohl, 1906a:199 (Yemen: Socotra, description of ♀); Ramakrishna Aiyar, 1916:554 (in catalog of Indian aculeates described after Bingham, 1897); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Dollfuss, 2008b:1419 (India: Karnataka: Bhatkal in Udupi District; Vietnam: Thuan Ho: Phan Rang); Pham, Kumar and Danilov, 2015:1588 (in list of Sphecidae *sensu lato* of Vietnam); Gadallah, 2020d:86 (in list of aculeate wasps of Arabian Peninsula); Anagha, Girish Kumar, and Hegde, 2021:451 (in revision of Indian *Sphex*).

36. *diabolicus* F. Smith

Sphex diabolicus F. Smith, 1858a:100, ♀. Lectotype: ♀, Malaysia: Sarawak: no specific locality (OXUM), designated by van der Vecht, 1973:342. – F. Smith, 1860b:122 (Indonesia: Maluku: Batjan), 1863a:33 (Indonesia), 1863b:134 (known from Borneo, Batjan, Ceram, and Ambon), 1865a:83 (New Guinea), 1871a:361 (in catalog of Oriental Aculeata); Kohl, 1890:407 (as synonym od *Sphex umbrosus*); Baltazar, 1966:343 (in catalog of Hymenoptera of Philippines); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Hensen, 1991a:21 (member of *Sphex ar-*

gentatus species group, in revision of Malesian Sphecina); Tano, Nozaka, Kurokawa, and Murota, 1994:53 (Philippines); van Vondel, 1995:29 (specimens from India in Natuurmuseum Rotterdam); Yamane, Ikudome, and Terayama, 1999:475 (Japan: in Identification Guide to Sphecidae of Nansei = Ryukyu Islands); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Terayama and Tano, 2006:3, 14, 17 (in key to Japanese Ampulicidae and Sphecidae); Endo, Nishimoto, Hashimoto, and Nakanishi, 2007:13 (Japan: Hyogo Prefecture: sandy beaches); Dollfuss, 2008b:1420 (locality records from India, Indonesia, Laos, Malaysia, and Vietnam); N. Yamamoto, 2010:44 (extermination of nesting colonies in urban environment, in Japanese); Barthélémy, 2014:8 (China: Hong Kong); Pham, Kumar and Danilov, 2015:1588 (in list of Sphecidae *sensu lato* of Vietnam, taxonomic history); Pham, Truong, Th.T. Nguyen, Th.H. Nguyen, Q. Nguen, and Th.M. Nguyen, 2019:73 (Vietnam: Hanoi and vicinity, as *diabonicus*); Danilov, 2020:320 (specimens from Japan and Vietnam in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Pham and Antropov, 2021:316 (recorded from Vietnam by Berland, 1928a, Dollfuss, 2008b, and Tano andKurokawa, 2015); Anagha, Girish Kumar, and Hegde, 2021:453 (in revision of Indian *Sphex*), 461 (in key to Indian *Sphex*).

Sphex fulvohirtus Bingham, 1890:242, ♀ (as *fulvo-hirta*, incorrect original hyphenation and termination). Holotype: ♀, Sri Lanka: Pundaluoya (BMNH). Synonymized with *Sphex diabolicus* by Hensen, 1991a:21. – Bingham, 1893:379 (reference to Fig. 8), 1896a:439 (bibliographic references), 1897:244 (in revision of wasps and bees of British India, now India and Pakistan); Dalla Torre, 1897:423 (in catalog of world Hymenoptera); Yasumatsu, 1934c:63 (Japan: island of Yakushima); van der Vecht, 1973:343 (diagnostic characters, uncertain status); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae).

Sphex flammitrichus Strand, 1913a:83, ♀, ♂. Lectotype: ♀, Taiwan: Kankau (DEI), designated by Hensen, 1991a:21. Synonymized with *Sphex diabolicus* by Hensen, 1991a:21. – Matsumura and Uchida, 1926:40 (Okinawa, as *flammitricus*); Strand, 1927:255 (in list of species described by author); Torikata, 1931:1 (nesting habits); Iwata, 1936b:170 (nesting habits); Yasumatsu, 1938:61 (Japan, Taiwan; in revision of Sphecini of Japanese Empire = Japan, Korea, part of China, Taiwan); Iwata, 1939b:161 (nesting habits); Tsuneki, 1962a:6 (Japan: Ryukyu Islands: island of Amami-Oshima; as *flammitricus*), 1963b:32, 77 (nesting habits); Tano, 1964:38 (Japan: Kyushu: island of Yakushima); Tsuneki, 1967i:382 (Ryukyu Islands); T. Iida, 1967:4 (description of larva); Tsuneki, 1967j:1 (Taiwan); Haneda, 1968a:45 (Japan); Itami, 1969:46 (Japan: Niigata Prefecture); Nishino, 1968:24 (Japan); Haneda, 1971b:31 (Taiwan); Tsuneki, 1971f:1 (Taiwan; as *flammitricus*); Haneda, 1972a:5 (Taiwan); Tano, 1972:22 (Japan: Ryukyu Islands); Murota, 1973a:101 (Japan: Ryukyu Islands: Amami-Oshima Islands), 1973b:116 (Taiwan); Oehlke and Wudowenz, 1974:422 (syntypes in DEI). – **As *Sphex diabolicus flammitrichus***: van der Vecht, 1973:343 (new status); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Tsuneki, 1982d:6 (Taiwan), 1982g:55 (known from Ryukyu archipelago); Sk. Yamane and Ikudome, 1990:98 (Japan: distribution in Ryukyu Islands); Wu and Zhou, 1996a:37 (in revision in Economic Insect Fauna of China); Porter, Stange, and Wang, 1999:5 (in checklist of Sphecidae of Taiwan); Wu, Zhou, Q. Li, and Yang, 2003:807 (China: Fujian Province); Ohkusa, 2007:34 (Japan: central Honshu: Aichi Prefecture); Ohkusa and Tajima, 2008:74 (Japan: central Honshu: Aichi Prefecture); Sugiura and Takahashi, 2009:67 (Japan: Ryukyu Islands: Island of Iriomote; preying on *Psyrana ryukyuensis* Ichikawa, a tettigoniid); N. Yamamoto, 2011:11 (Japan: Kyūshyū: mainland Nagasaki Prefecture); Murao, 2015:40 (Japan: Kyushu: coast of northwestern Fukuoka Prefecture); Tano and Kurokawa, 2015:26 (central Vietnam: Mount Ba Na); Komeda, 2021b:63 (Japan: Honshu: Yamanashi Prefecture).

Sphex umbrosus var. *aureopilosus* Berland, 1928a :330, ♀, ♂ (as *aureopilosa*, incorrect original termination). Lectotype: ♂, Vietnam: Ba-Cha in Tonkin (MNHN), designated by van der Vecht, 1973:343 and Menke *in* R. Bohart and Menke, 1976:114. Synonymized with *Sphex diabolicus flammitrichus* by Menke *in* R. Bohart and Menke, 1976:114.

As *Sphex umbrosus* var. *rufipennis* Fabricius (*Sphex rufipennis* actually is a *Prionyx*): Kohl, 1890b:432 (new status, in revision of world Sphecini, as senior synonym of *Sphex diabolicus*); Dalla Torre, 1897:446 (in catalog of world Hymenoptera); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); Berland, 1928a:330 (India, Vietnam);

von Schulthess, 1932:41 (Sri Lanka: Kandy); Haupt, 1933:4 (Philippines: Samar: Mauo). – **As *Chlorion umbrosa* var. *rufipennis***: Rohwer, 1922:667 (new combination, Philippines).

37. *dorsalis* Lepeletier de Saint Fargeau

Sphex dorsalis Lepeletier de Saint Fargeau, 1845 :347, ♂. Holotype or syntypes: ♂, "Cayenne", can be French Guyana, or department of Cayenne, or city of Cayenne (originally Audinet-Serville coll., now M. Spinola collection, Torino). – F. Smith, 1856:259 (description of ♀, in catalog of Hymenoptera in British Museum), 1862a:36 (Panama); Cresson, 1863:319 (in catalog of North American Hymenoptera); A. Costa, 1864b:112 (specimen from Brazil in Museo Zoologico di Napoli); Kohl, 1890b:430 (as synonym of *Sphex ichneumoneus*); Ashmead, 1900:228 (Lesser Antilles: Island of Saint Vincent), 308 (in checklist of Caribbean Hymenoptera); Fernald, 1906:417 (unidentified species); Campos, 1922:68 (Ecuador: El Salado); Berland, 1929b:311 (miscellaneous locality records); Bradley, 1957:40 (Lepeletier de Saint Fargeau's specimens in M. Spinola collection in Turin); Menke, 1963b:230 (synonymy); Evans, 1972:8 (Caribbeans: Island of Dominica); Alayo Dalmau, 1973:184 (in catalog of Cuban Hymenoptera), 1976:11 (in key to Cuban *Sphex*), 26 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1963:127 (in revision of Nearctic Sphecini), 1976:114 (in checklist of world Sphecidae); Ch. Porter, 1978:170 (Texas); Krombein, 1979b:1579 (in catalog of North American Hymenoptera); Casolari and Casolari Moreno, 1980:103 (specimens in M. Spinola collection, Torino); Genise, 1980c:253 (nesting habits); Nascimento and Overal, 1980:10 (Brazil); Simon Thomas, 1984:96 (Caribbean Islands: islands of Saint Martin and of Guadalupe); Radović, 1985:64 (sting apparatus analyzed); Parks, 1986:34 (California: Torrey Pines State Reserve); Callan, 1990b:19 (in checklist of Trinidad Sphecidae); Hanson and Menke, 1995:637 (known from Costa Rica); Wcislo, 1998:181 (proportions of antennae in relations to parasitic/non-parasitic habits); Amarante, 2002:73 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Starr and Hook, 2003:22 (in catalog of Aculeata of Trinidad, West Indies); Genaro, 2006:51 (in Catalog of Cuban Sphecidae and Crabronidae; other countries: USA: Florida to New Mexico, Mexico, Central America, Jamaica, Hispaniola, Island of Mona, Puerto Rico, island of Guana, Saint Martin, Saint Vincent, Guadalupe, Dominica, Trinidad, Brazil, Argentina); Buys, 2008c:147 (nesting habits); Dollfuss, 2008b:1420 (locality records from Argentina, Ecuador, and French Guyana); Pagliano, 2008:529 (specimens in M. Spinola collection, Torino, labeled as *Sphex micans* are actually *Sphex dorsalis*), 533 (specimens in M. Spinola collection, Torino); Perez-Gelabert, 2008:242 (in list of arthropods of island of Hispaniola); Buys, 2009e:277 (Brazil: Rio de Janeiro: Duque de Caxias, Niterói, Maricá, Nova Iguaçú, Petrópolis, Rio de Janeiro, Seropédica); Rasmussen and Asenjo, 2009:16 (in checklist of Crabronidae of Peru); Buys, 2011b:2 (Brazil: Rio de Janeiro: Itatiaia, Rio de Janeiro, Seropédica); Silvestre, Demétrio, Trad, de Oliveira Lima, Auko, and de Souza, 2014:70 (Brazil: Mato Grosso do Sul: dry forests in Bodoquena Mountain Range and Brazilian Chaco); Trad and Silvestre, 2017:4 (Brazil: Mato Grosso do Sul); Buys, 2020b:80 (in 15anadensis analysis of larvae of Sphecidae s.s.), 2020c:263 (description of mature larva). – **As *Sphex ichneumonea* var. *dorsalis***: W. Fox, 1891d:341 (new status, Jamaica); Dalla Torre, 1897:426 (in catalog of world Hymenoptera); Callan, 1954:23 (Venezuela: Paria Peninsula: Cristóbal Colón, Irapa).

Sphex singularis F. Smith, 1856:261, ♂. Holotype or syntypes: ♂, Honduras: no specific locality (BMNH). Synonymized with *Sphex dorsalis* by Menke, 1963b:230. – Cresson, 1863:320 (in catalog of North American Hymenoptera); Cameron, 1889a:33 (Guatemala, Honduras, Mexico, Panama); Kohl, 1890b:452 (original description copied, also Cameron's description of 1889a copied); W. Fox, 1891d:341 (Jamaica); Dalla Torre, 1897:440 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae), 1900:228 (Lesser Antilles: Saint Vincent), 308 (in checklist of Caribbean Hymenoptera); Fernald, 1906:418 (possibly a synonym of *Sphex spiniger*); Murray *in* Muesebeck, Krombein, and Townes, 1951:972 (in catalog of North American Hymenoptera). – **As *Ammobia singularis***: Wolcott, 1951:841 (new combination, in review of insects of Puerto Rico). – **As *Chlorion 15anadens***: Fernald, 1931a:443 (synonymy), 1943a:289 (Florida), 1942:31 (Guyana); Willink, 1951:167 (in revision

of Argentinean Sphecini); Krombein and Evans, 1954:233 (Florida, nest and prey); Krombein, 1958f:191 (in supplement to catalog of North American Hymenoptera: reference to Krombein and Evans, 1954).

Sphex chlorargyricus A. Costa, 1862a:16 (as *chlorargirica*) and 1862b:66, ♂ (as *chlorargyrica*, incorrect original termination). Holotype: ♂, Brazil: no specific locality (Napoli). Synonymized with *Sphex ichneumoneus* by Kohl, 1890b:430, and with *Chlorion singularis* by Fernald, 1931a:444.

Sphex micans Taschenberg, 1869:419, ♀, junior primary homonym of *Sphex micans* Eversmann, 1849. Lectotype: ♀, Argentina: Entre Ríos: Paraná (Halle), designated by Menke, 1963b:230. Synonymized with *Sphex ichneumoneus* by Kohl, 1890b:430 and with *Chlorion dubitatum* by Fernald, 1906:394 and 1931a:444. – Burmeister, 1872:239 (Argentina: Buenos Aires; Brazil: Rio de Janeiro; preying on blattids); Holmberg, 1884:2226 (Uruguay); Casolari and Casolari Moreno, 1980:102, 103 (specimens in M. Spinola collection, Torino); Pagliano, 2008:529 (specimens in M. Spinola collection, Torino).

Sphex dubitatus Cresson, 1873:213, ♀ (as *dubitata*, incorrect original termination). Lectotype: ♀, USA: Texas: no specific locality (ANSP), designated by Cresson, 1916:94. Synonymized with *Sphex dorsalis* by Willink, 1951:167 and 170. – Cresson, 1887:275 (in catalog of North American Hymenoptera); Kohl, 1890b:444 (original description copied); W. Fox, 1894c:103 (Mexico: Baja California Sur); Dalla Torre, 1897:421 (in catalog of world Hymenoptera); W. Fox, 1897b:377 (Brazil: Chapada and Corumbá; description of ♂); Ashmead, 1899d:353 (in checklist of North American Sphecidae); W. Fox, 1899:200 (Brazil: Rio Grande do Sul). – **As *Chlorion dubitatum***: Fernald, 1906:394 (new combination, in revision of Sphecini of North America and West Indies), 1931a:444 (*Sphex micans* and *dorsalis* of Smith are synonyms of *dubitatum*); Dow, 1932:8 (Cuba; nest, prey, cocoon); Fernald, 1943a:289 (Florida).

Sphex spiniger Kohl, 1890b:428, ♂. Syntypes: Brazil, Mexico: no specific localities (NHMW, TMB). Tentatively synonymized with *Sphex dorsalis* by Fernald, 1906:392, synonymy confirmed by Fernald, 1931a:443. – Dalla Torre, 1897:441 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae); Ducke, 1901:242 (Brazil: Pará: Belém). – **As *Chlorion spiniger***: Fernald, 1906:392 (new combination, in revision of Sphecini of North America and West Indies). – **As *Ammobia spinigera***: Rohwer, 1913:451 (new combination, Panama: Canal Zone), 1915:244 (Jamaica).

As *Sphex habenus*: Cresson, 1872:211 (Texas), corrected to *Sphex spiniger* by Fernald, 1906:392.

As *Sphex ichneumoneus*: Snelling, 1993a:18 (British Virgin Islands: island of Guana), 19 (same: island of Mona), corrected to *Sphex dorsalis* by Snelling, 1993b:13.

38. *dorycus* Guérin-Méneville

Sphex dorycus Guérin-Méneville, 1838:262, ♀. Holotype: ♀, Indonesia: West Papua: Dory, now Manokwari (MSNG). – F. Smith, 1856:246 (in catalog of Hymenoptera in British Museum); Kohl, 1890b:444 (original description copied); Dalla Torre, 1897:421 (in catalog of world Hymenoptera); Berland, 1928a:331 (Indonesia: West Papua: Amberbaki); Guiglia, 1948b:180 (type in Genova); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Hensen, 1991a:22 (member of *Sphex resplendens* species group), 23 (in revision of Malesian Sphecina).

Sphex errabundus Kohl, 1898a:338, ♀. Holotype: ♀, Indonesia: Maluku: Waigeo (TMB). Synonymized with *Sphex dorycus* by van der Vecht, 1973:343.

39. *ephippium* F. Smith (preoccupied)

Sphex ephippium F. Smith, 1856:249, ♀, junior primary homonym of *Sphex ephippius* Linnaeus, 1767 (now in *Sphecodes*). Holotype or syntypes: ♀, Australia: Northern Territory: Port Essington (BMNH). – Froggatt, 1892:210 (in catalog of Australian Hymenoptera); van der Vecht, 1973:344 (full species, not a variety; locality records); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Evans, Hook, and Matthews, 1982:222 (nesting habits); Cardale, 1985:224 (in catalog of Australian Sphecidae); Hensen, 1991a:21 (member of *Sphex argentatus* species group); Naumann, 1998:182 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E); Dörfel and Ohl, 2015:14, 20 (in key to Australian *Sphex*), 27 (in revision of Australian *Sphex*). – **As**

Sphex umbrosus* var. *ephippium: Kohl, 1890b:408 (new status, in revision of world Sphecini); Dalla Torre, 1897:445 (in catalog of world Hymenoptera); Berland, 1928a:330 (Australia).

40. *ermineus* Kohl

Sphex ermineus Kohl, 1890b:412, ♀. Syntypes: Australia: Western Australia: Swan River (NHMW). – Dalla Torre, 1897:421 (in catalog of world Hymenoptera); R. Turner, 1910a:344 (in key to Australian Sphecini); Strand, 1916b:108 (Western Australia); von Schulthess, 1935:305 (Australia: Northern Territory: Marrakai); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Cardale, 1985:224 (in catalog of Australian Sphecidae); Dollfuss, 1989:12 (type material in NHMW); Hensen, 1991a:26 (member of *Sphex subtruncatus* species group); Naumann, 1993:181 (Australia: Queensland: Heathlands area in Cape York), 1998:182 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E); Dörfel and Ohl, 2015:11, 13, 19 (in key to Australian *Sphex*), 77 (in revision of Australian *Sphex*).

41. *erythrinus* (Guiglia)

Sphex erytrhinus [sic] Magretti, 1906:20 (as *erytrhina*, incorrect original termination). Nomen nudum.

Chlorion umbrosusm var. *erythrinum* Guiglia, 1939a:201, ♀, ♂ (authorship attributed to Magretti). Syntypes: Eritrea Sabarguma (MSNG). – **As *Sphex erythrinus***: R. Bohart and Menke, 1976:114 (new combination, new status, in checklist of world Sphecidae); Dörfel and Ohl, 2022:15 (in key to sub-Saharan *Sphex*), 31 (in revision of sub-Saharan *Sphex*).

42. *feijeni* Dörfel and Ohl

Sphex pruinosus var. *haemorrhoidalis* Magretti, 1898:44, ♀, junior primary homonym of *Sphex haemorrhoidalis* Fabricius, 1781. Holotype: ♀, Somalia: no specific locality (MSNG). – Giordani Soika, 1942:198 (as new synonym of *Sphex rufiscutis*).

Sphex feijeni Dörfel and Ohl, 2022:33. Substitute name for *Sphex haemorrhodalis* Magretti, 1898. – Dörfel and Ohl, 2022:15 (in key to sub-Saharan *Sphex*), 33 (as valid species, in revision of sub-Saharan *Sphex*).

Commented [w1]:

43. *ferrugineipes* W. Fox

Sphex ferrugineipes W. Fox, 1897b :377, ♀, ♂. Lectotype: ♂, Brazil: Chapada (Carnegie Mus.), designated by Menke, 1964d:238. – LaBerge, 1956:528 (paratypes in Snow Entomological Museum); Menke, 1964d:238 (redescription); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Amarante, 2002:74 (in catalog of Neotropical Sphecidae).

44. *finschii* Kohl

Sphex finschii Kohl, 1890b:412, sex not stated (as *Finschii*, incorrect original capitalization). Lectotype: ♂, Papua New Guinea: New Britain: no specific locality (ZMHU), designated by Hensen, 1991a:21. – Dalla Torre, 1897:422 (in catalog of world Hymenoptera); Strand, 1911b:231 (Indonesia: Maluku: Aru: Island of Terangan), 1916b:108 (Solomon Islands); Berland, 1928a:331 (Solomon Islands, Maluku); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Cardale, 1985:224 (in catalog of Australian Sphecidae); Hensen, 1991a:21 (member of *Sphex argentatus* species group); Dörfel and Ohl, 2015:13, 14, 18, 20 (in key to Australian *Sphex*), 29 (in revision of Australian *Sphex*).

45. *flammeus* Dörfel and Ohl

Sphex flammeus Dörfel and Ohl, 2015:79, ♀. Holotype: ♀, Australia: Northern Territory: 50 km east of Three Ways (ZMHU). – Dörfel and Ohl, 2015:13, 14 (in key to Australian *Sphex*).

46. *flavipennis* Fabricius

Sphex flavipennis Fabricius, 1793:201, sex not stated. Lectotype: ♀, Italy: no specific locality (ZMUC), designated by van der Vecht, 1961a:31. – Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:485 (redescription); Latreille, [1805]:293 (redescription); Jurine, 1807:129 (in list of known *Sphex*) and pl. 8, unnumbered Figure (illustration of habitus); Germar, 1817:260 (Dalmatia: Cherso, now Croatia: Cres); Guérin-Méneville,

1829a:562 (is a member of *Sphex*); Stephens, 1829a:361 (in catalog of British insects, 1829b:33 (in checklist of British insects); Vander Linden, 1827:364 (France, Italy); Lepeletier de Saint Fargeau and Audinet-Serville, 1828:462 (in list of known *Sphex*); Klug *in* Waltl, 1835:88 (in list of Hymenoptera of Andalusia); Shuckard, 1837:83 (recorded from Britain: Norfolk, certainly in error) and 252 (Stephens's specimens came from Dr. Lindley collection); nec von Sieboldt, 1839:47 (= *Sphex funerarius*); Ghiliani, 1842:24 (listed from Italy: Sicilia after Fabricius); Lepeletier de Saint Fargeau, 1845:349 (in revision of world Hymenoptera); Stephens, 1846:14 (in revision of British insects, recorded from Norfold, certainly in error); Lucas, 1849:271 (Algeria: Oran, citation after Lepeletier de Saint Fargeau, 1845); F. Smith, 1852c:17 (Great Britain: Norfolk, identification tentative), 1853:62 (in checklist of British Hymenoptera); nec Fabre, 1856:140 (= *Sphex funerarius*); A. Costa, 1858b:4, 26 (in revision of Sphecidae of Kingdom of Naples); F. Smith, 1856:241 (in catalog of Hymenoptera in British Museum), 1858c:80 (in review of British Aculeata, redescription, occurrence in Britain doubtful); A. Costa, 1861:35 (color variation in male); von Frauenfeld, 1861:103 (Croatia: Dalmatia: no specific locality); A. Costa, 1863:65 (Italy: Calabria Ulteriore: no specific locality), 1867b:67 and 1867c:11 (in revision of Italian Sphecidae); Kirchner, 1867:218 (in catalog of European Hymenoptera); Palma, 1869:38 (Italy: Sicilia settentrionale); Dours, 1874:146 (in catalog of Hymenoptera of France); nec Laboulbène, 1875:179 (= *Sphex funerarius*); Marquet, 1875:207 (France: Haute-Garonne: Toulouse; Hérault: Montpellier and Cette, now Sète; preying on *Decticus*, Tettigoniidae); nec Fabre, 1879:81 (as Sphex à ailes jaunes = *Sphex funerarius*); Girard, 1879:963 (morphology and habits), 964 (reported biological observations by Fabre); Gribodo, 1880:401 (Tunisia); Marquet, 1881:179 (France: Haute-Garonne: Toulouse); A. Costa, 1882b:22 (Italy: Sardegna); De Stefani Perez, 1882:38, 41 (Italy: Sicilia: Sciacca); A. Costa, 1884b:32 (Italy Sardegna, Cagliari, Nuoro); Kohl, 1885b:202 (in revision of Palearctic *Sphex*); Gasperini, 1887:18 (recorded from Dalmatia, now Croatia, by Germar, 1817, von Frauenfeld, 1861, and Kirchner, 1869); Ed. André, 1888:139 (in revision of Sphecidae of Europe and Algeria), 7* (bibliographic references); Riggio and De Stefani Perez, 1888:149 (Italy: island of Ustica); Gasperini, 1889:71 (Dalmatia: Lesina, now Croatia: Hvar); Kohl and Handlirsch, 1889:275 (Turkmenistan: Chuli); Kohl, 1890b:484 (in revision of world Sphecini); F. Morawitz, 1891a:202 (Russia: Astrakhan Governorate), 1893b:407 (Tajikistan: Pyandjikent); Medina, 1894a:259 (Spain); Pérez, 1894:245 (illustration of hindtibial spur); De Stefani Perez, 1895:226 (in catalog of Sicilian Hymenoptera); Acloque, 1897:96 (in Sphecid Fauna of France and Algeria); Cuní y Martorell, 1897:331 (Spain: Cataluña: villa de Calella); Dalla Torre, 1897:422 (in catalog of world Hymenoptera); Mocsáry, 1897:79 (Hungary: Zegg, now Croatia: Senj); Dominique, 1901a:507 (France: Loire-Inférieure, now Loire-Atlantique: Le Pouliguen, Saint-Brevin, Sainte-Marie-de-Pornic, can be *Sphex funerarius*); E. Saunders, 1902b:143 (Great Britain: island of Jersey, record obviously wrong for geographic reasons; France: Bretagne: Saint Briac); Adlerz, 1904:139 (known prey: gryllids according to Fabre, 1879:82); Antiga and Bofill, 1904:6 (Spain: Cataluña Province); E. Saunders, 1904c:605 (Spain: Mayorca), 636 (France: Cerbère; Spain); W. Schulz, 1904b:93 (Transcaspia); Mantero, 1905:68 (Italy: Toscana: Isola del Giglio); Dusmet and Mercet, 1906:511, 517 (in key to Spanish Sphecini); Graeffe, 1906:456 (Tunisia: Tunis); W. Schulz, 1906:44 (Greece: island of Crete); de Gaulle, 1908:104 (in catalog of French Hymenoptera); Morice, 1911:77 (Algeria: Biskra, Médéa); Zilahi Kiss, 1915:80 (Hungary: Csepel, may actually be *Sphex funerarius*); Storey, 1916:107 (Egypt: Saqqara); Berland, 1921:533 (Greece); Fahringer, 1922:177 (Turkey); Maidl, 1922:68 (Croatia); Berland, 1924:90 (France: Var: Callian), 1925d:40 (in Sphecid Fauna of France); Roth, 1925:392 (in revision of North African Sphecini); Zanon, 1926:89 (Libya: Fueihat 15 km south of Benghazi); Friese, 1926:168 (illustration of nesting site); von Schulthess, 1926b:210 (Libya); Benoist, 1928:409 (France: Alpes-Maritimes: Saint-Martin-Vésubie); Berland, 1928b:175 (add Zanon, 1925 to bibliography in Berland, 1925d); Bischoff, 1930a:216 (Tajikistan: Pamir; France); Grandi, 1930:340 (Italy: Toscana: Maremma); A. Müller, 1930:181 (Bulgaria: Kaliakra); Berland, 1932a:22 (France: Var Department; visiting old charcoal preparation sites); Bischoff, 1933:5 (Morocco); Nadig, 1933:103 (Morocco); Guiglia, 1934b:294 (Libya: bibliography and summary of locality records); Maidl, 1934:65 (Greece: Aegean islands: Amorgos, Milos, and Seriphos); Nadig, 1934:34 (Italy: Sardegna: Alghero); Bernard, 1935:61 (France: Var: Fréjus area); Dusmet y Alonso, 1935:49 (Spain: Madrid: Montarco, Vaci-

amadrid); Gussakovskij, 1935:413 (Tajikistan); Rungs, 1936:24 (Morocco: Séhoul); Stiles, 1936:215 (proposed selection as type species of *Sphex*); Guiglia, 1940a:287 (Libya: Giado), 1941c:165 (Italy: Calabria: Grande Sila), 1942a:60 (Greece: island of Rhodes: Villanova), 1942b:229 (Libya); Giner Marí, 1943a:85 (in Sphecid Fauna of Spain); Guiglia, 1944b:8 (Italy); Honoré, 1944a:76 (in revision of Egyptian Sphecini); Giner Marí, 1945b:359 (eastern Morocco: Ain Zorah); Deleurance, 1946b:67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); de Beaumont, 1947b:383 (Cyprus); Zavadil *in* Zavadil and Šnoflák, 1948:168 (in key to Sphecidae of Czechoslovakia, not yet found in Czechoslovakia); Berland and Bernard, 1949:4 (in revision of French *Sphex* s. l.), 14 (review of biological data); de Beaumont, 1950f:396 (Algeria); Pittioni, 1950:20 (Cyprus); de Beaumont, 1951e:269 (Morocco; diagnostic characters); Cleu, 1953:50 (France: Ardèche River basin); Balthasar, 1954b:281 (Palestine: Wadi el Kelt near Jericho); de Beaumont and Bytinski-Salz, 1955:42 (Israel); Harant and Leclercq, 1955:250 (France: Hérault: Les Baux, Sète); Leclercq, 1955h:18 (bibliographic references, summary of locality records from Africa); Vogrin, 1955:31 (Yugoslavia); Bytinski-Salz, 1956:224 (Turkey: Akşehir, Dinar, Konya); Ceballos, 1956:363 (in catalog of Hymenoptera of Spain); de Beaumont, 1956a:182 (Libya); Leclercq, 1956g:324 (Greece); Bajári, 1957a:9, 11 (in key to Hungarian Sphecidae); de Beaumont, 1957b:131 (northern Iran; geographic variation); Grandi, 1957:387 (Italy); Nouvel and Ribaut, 1958:8 (France: Pyrénées-Orientales: Banyuls-sur-Mer area); Pulawski, 1958a:164 (Bulgaria: Akhtopol, Kurilo, Sozopol); de Beaumont, 1959a:11 (Italy); Čingovski, 1960:7 (Macedonia: Ohrid, Vodno); de Beaumont, 1960a:6 (Greece: island of Rhodes), 1960b:227 (Libya), 228 (male antenna), 1960c:170 (Afghanistan); nec Evans, 1963c:51 (= *Sphex funerarius*); Myartseva, 1963b:59 (Turkmenistan: lower Murgab River); de Beaumont, 1965a:14 (Greece); Diniz, 1965:4 (Portugal: Coimbra); Myartseva, 1965:82 (Turkmenistan: Murgab district); de Beaumont, 1967a:276 (Turkey); Scobiola-Palade, 1967b:36 (Romania); de Beaumont, 1969:81 (Turkey); Kazenas, 1969a:22 (Kazakhstan: Chilik, Ili River, Golodnaya Step', Kyzylkum Desert, Kzyl-Orda); Suárez, 1969:28 (Spain: Almería Province; determination tentative); de Beaumont, 1970a:393 (Afghanistan); Islamov, 1970:63, 64 (Uzbekistan: Chirchik Basin); Balthasar, 1972:420 (in Sphecid Fauna of Czechoslovakia: not et found in the country); Kazenas, 1972b:111 (Kazakhstan); Myartseva, 1972a:83 (Turkmenistan); Erlandsson, 1974:58 (France, Malta, Spain); Esmaili and Rastegar, 1974:45 (Iran, determination tentative); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Georghiou, 1977:192 (Cyprus); Kazenas, 1978b:40 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:183 (in key to Sphecidae of European part of USSR); Radović and Krunić, 1979:unpaginated foldout (nesting in sand, foreleg structure); Casolari and Casolari Moreno, 1980:103 (specimens in M. Spinola collection, Torino); Pagliano, 1980:110 (Italy: Piemonte); Gayubo, 1981a:134 northern Spain: Sierra de Béjar); Gayubo, 1982f:245 (Spain: Cádiz Province: San Roque); Gayubo, 1983c:230 (Spain: Salamanca Province: Salamanca); Mingo and Gayubo, 1983:147 (Spain); Schmidt and Westrich, 1983:120 (Greece); Gayubo, 1984c:355 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:8 (Spain: Valencia); Pagliano, 1984:367 (Italy); Chevin and Chevin, 1985:38 (France: Aude); Pagliano, 1985:11 (Italy); Radović, 1985:64 (sting apparatus analyzed); Islamov, 1986:515 (Uzbekistan: Surkhandarya and Tashkent Oblast's); Steiner, 1986:95 (references to papers on nesting habits); Gayubo, 1987:106 (Spain: Ciudad Real Province); Tormos and Jiménez, 1987a:122 (Spain: Valencia); Guichard, 1988a:119 (United Arab Emirates); Islamov, 1989b:39 (Uzbekistan: Surkhandarya and Tashkent Oblast's); Gayubo, Asís, and Tormos, 1990a:9 (Spain); Pagliano, 1990:59 (in catalog of Italian Sphecidae); Gayubo, Borsato, and Osella, 1991:392 (Italy: Calabria, Sicilia); Hamon, Fonfria, and Tussac, 1991:128 and 131 (in key to French Sphecini), 132 (in France mainly in Mediterranean departments); Gayubo, Borsato, and Osella, 1992:275 (Greece); Ebrahimi, 1993:95 (Iran); Luchetti, 1993:105 (Italy: Sardegna: Maddalena archipelago); Negrisolo and Pagliano, 1993:90 (Italy: Sardegna); Torregrosa, Gayubo, Tormos, and Asís, 1993:11 (Spain: Alicante Province); Gayubo and Borsato, 1994:199 (Italy: Toscana, Sardegna); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:2 (in catalog of Italian fauna); Pagliano and Scaramozzino, 1995:731 (Italy: island of Lampedusa); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:69 (in Sphecid Fauna of Western Europe); Nazarova and Shomirsaidov, 1997:23 (Tajikistan: fruit tree orchards in Vakhsh River valley); Kazenas, 1998b:91 (in Sphecid Fauna of Kazakhstan); Nazarova, 1998:39 (Tajikistan: Tigrovaya Balka Nature Reserve); Esenbekova and Kazenas, 2000:7 (southeastern Kazakhstan: nine localities); Gayubo, González, and

Torres, 2000:184 (Spain: Salamanca Province); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:104 (Greece); Menke and Pulawski, 2000:331 (in revision of *Sphex flavipennis* species group); Vicidomini, 2000b:27 (Italy: previously recorded from Campania); Ivanov and Ljubomirov, 2001:210 (Bulgaria: Kresna Gorge at 41°48'N 23°10'E); Kazenas, 2001b:13 (in checklist of Sphecidae of Kazakhstan and Central Asia), 78 (nesting habits), 2002a:24 (geographic distribution, collecting localities in Kazakhstan); Shkuratov, 2002a:383 (Russia: Rostov Oblast'); Drewes, 2003:142 (Greece: Peloponnesus: Yahloron); Generani, Pagliano, Scaramozzino, and Strumia, 2003:64 (Italy: Arcipelago Toscano); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavaler); Nieves-Aldrey, Fontal-Cazalla, Garrido-Torres, and Rey del Castillo, 2003:42 (Spain: Madrid: Estación Biogeólogica de El Ventorrillo in Sierra de Guadarrama); Pagliano, 2003b:131 (Italy: islands of Lampedusa and Pantelleria); Schmid-Egger, 2003:757 (Italy: Sicilia: Madonie); Gayubo et al. 2004:130 (Spain: Madrid: Estación Biogeólogica de El Ventorrillo in Sierra de Guadarrama); Gayubo**,** Nieves-Aldrey, González, Tormos, Rey del Castillo, and Asís, 2004:108 (Spain: Madrid: Monte de El Pardo); Gorobchishin, 2004:34 (Ukraine: Zaporiz'ka Oblast': Obitichna Kosa Nature Reserve); Kazenas, 2004b:98 (Kazakhstan: western Tien Shan Mountains); Nazarova, 2004:104 (Tajikistan: Badakhshan Region: Barvoz village in Giandor River valley); Shkuratov, 2004a:72 (Russia: Donetsk and Lugansk Oblast's); Wiśniowski, 2004:38 (in checklist of Polish Sphecidae: mistakenly recorded from Baltic coast by Siebold, 1839); Cruz-Sánchez, Gayubo, González, and Torres, 2005:219 (Spain: Salamanca: San Martín del Castañar); Gayubo and Özbek, 2005:5 (Turkey: many localities); Gülmez and Tüzün, 2005:44 (Turkey: Ankara Province); Pagliano and Negrisolo, 2005:62 (in Sphecid Fauna of Italy); Shorenko, 2005a:161 (Ukraine: Crimea), 2005b:97 (Ukraine: Crimea: Karadagh Nature Reserve); Yildirim and Ljubomirov, 2005:1786 (Turkey: Ankara, Balıkesir, Erzincan, Erzurum, and Kahramanmaraş provinces); Standfuss and Standfuss, 2006c:307 (Greece: Thessalia: Magnisia Peninsula at 39°N 23°E); Roche, 2007a:48 (in checklist of Egyptian Sphecidae, redescription), 2007b:3 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); G. Turrisi and R. Turrisi, 2007:115 (Italy: Sicilia: Mount Etna: Botanical Garden Nuova Gussonea and vicinity); Dollfuss, 2008b:1420 (locality records from Algeria, Bulgaria, China, Croatia, Greece, Italy, Iran, Kazakhstan, Kyrghyzstan, Macedonia, Morocco, Russia, Spain, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, and Uzbekistan); Yildirim and Ljubomirov, 2007:116 (Turkey: Erzurum: Oltu); Anlaş, Tezcan, and Yildirim, 2008:26 (Turkey: İzmir: Bozdağ Mountains); Gayubo, González, Tormos, and Asís, 2008:136 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov and Yildirim, 2008:18 (in catalog of Sphecidae of Turkey); Pagliano, 2008:529, 530 (specimens in M. Spinola collection, Torino); Kazenas, 2008a:98 (southeastern Kazakhstan: 11 localities), 2008c:255 (Kazakhstan: village Koktum south of Lake Alakol'); Baños-Picón, Asís, Gayubo, and Tormos, 2009:310 (Spain: frequency of specimens collected with hand nets and Malaise traps); Gayubo, González, Tormos, and Asís, 2009:362 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); González, Gayubo, Asís, and Tormos, 2009:622 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Guéorguiev and Ljubomirov, 2009:261 (Bulgaria: Maleshevska Planina); Shorenko, 2009:366 (in list of Sphecidae *sensu lato* of Crimea); Bitsch, 2010:106 (in supplement to vol. II of Faune de France, 1997: *flavipennis* is valid, recognition characters from Menke and Pulawski, 2000, reported); Burguet *in* Durand and Burguet, 2010:23 (France Département d'Ardèche: Ardèche Gorges); Danilov, 2010b:44 (distribution of western Palearctic type); Ghazi-Soltani, Ebrahimi, Iranipour, and Pour Abad, 2010:797 (Iran: East Azarbaijan: counties of Ahar and Maraqeh); Kazenas, 2010a:168 (Kazakhstan: new locality records); Shorenko and Konovalov, 2010:12 (Ukraine: Crimea: Kerch, Koktebel); Tüzün and Yüksel, 2010:4467 (Turkey: Niğde Province); van der Smissen, 2010b:387 (France: Ardèche: Saint-Thomé; Vaucluse: Bédoin); Cruz-Sánchez, Asís, Gayubo, Tormos, and González, 2011:497 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park: effects of wildfire); Demir and Suicmez, 2011:397 (morphology and ultrastructure of digestive tract); Józan, 2011:179 (in checklist of Sphecidae *sensu lato* of Hungary); Murai and Amr, 2011:120 (recorded from Syria by Dollfuss, 2008b); Schmid-Egger, 2011a:43 (France: Parc National du Mercantour), 2011b:605 (recorded from United Arab Emirates by Guichard, 1988a); Ceccolini and Terzani, 2012:210 (Italy: Valle d'Aosta: Aosta);

Protsenko, Fateryga, Ivanov, and Puzanov, 2012:58 (Crimea); Strumia, Pagliano, and Gayubo, 2012:55 (Italy: Toscana: Riserva di San Rossore); Yildirim, 2012:74 (Turkey: Tunceli: Mazgirt: Kalaycı); Kazenas, 2013a:7, 8 (color photographs of females, short information on geographic distribution and nesting habits); Vieira, Oliveira, Brewster, and Gayubo, 2013:15 (Portugal: Douro International Natural Park); Baldock, 2014:355 (Spain: island of Mallorca); Danilov, 2014b:514 (in key to Sphecidae s.s. of Siberia, not yet found in Siberia); Dunford, Turbyville, and Leavengood, 2014:11 (listed as medically important in Afghanistan); Ebrahimi, 2014:24 (Iran: Alborz, Ardebil, Āzarbāijān-e Gharbi, Esfahān, Fārs, Gilān, Golestān, Hamadān, Kermānshāh, Khorāsān-e Razavi, Lorestān, Markazi, Māzandarān, Sistān-Baluchestān, and Tehrān provinces); Ghahari, Hayat, Lavigne, and Ostovan, 2014:1388 (prey of asilid *Asilus 21anadensi* Linnaeus); Kazenas, 2014a:131 (Kazakhstan: Karatau Mountain Range); Shayestehfar, Noori, Talebi, and Moniri, 2014:24 (Iran: Isfahan: Golpayegan); Yildirim, 2014:29 (Turkey: distribution by biogeographic provinces); Augul, Abdul-Rassoul, and Kaddou, 2015:113 (in key to Sphecini of Iraq; Iraq: locality records), 114 (illustrations); Gülmez and Can, 2015:12 (usability of ITS2 and 28S-D2 gene regions for species identification); Ivanov, Fateryga, and Filatov, 2015:300 (Crimea: Karadag Nature Reserve, a protected species); Koçak and Kemal, 2015:279 (in checklist of Hymenoptera of Turkey); Protsenko and Gorobchishin, 2015:21 (in Red Book of Ukraine; map of locality records in Ukraine); Samin, Bagriacik, and Monaem, 2015:195 (Iran: Ardabil: Mshkinshahr); Shorenko, 2015:317 (in list of Sphecidae *sensu lato* of Crimea); Can, Gülmez, and Aydın, 2016a:2629 (venom active against human malignant tumors, more so than venoms of *Hoplammophila armata* and *Sceliphron destillatorium*); Gülmez and Dizer, 2016:58 (Turkey: Tokat Province); Mokrousov and Popov, 2016:560 (Russia: Abkhazia, Krasnodarskiy Kray); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:4 (Turkey: Antalya, Erzurum, Mersin, Şanlıurfa, and Tunceli provinces); Arens, 2017a:632 (Greece: Peloponnesus); Danilov, 2017b:215 (in catalog of Sphecidae s.s. of Russia); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:28 (Iran: known from Alborz, Ardabil, East Azerbaijan, Fars, Golestan, Guilan, Hamadan, Hormozgan, Isfahan, Kermanshah, Khorasan-e-Razavi, Kohgiluyeh-va Boyerahmad, Markazi, Mazandaran, Lorestan, Qazvin, Sistan-O Baluchestan, Tehran, and West Azerbaijan provinces); Shorenko, 2017:76 (in Crimea collected in May through August); Suiçmez, Duran, and Özmen, 2017:66 (morphology and ultrastructure of poison gland); Can, Kısa, and Gülmez, 2018:1234 (antioxidant enzymes and total protein in venom glands), Shorenko, 2018:127 (Crimea, including localities, habitats, and number of specimens); Gülmez, 2019:3 (Turkey: Amasya, Ankara, Sivas, and Tokat provinces: no specific localities); Schmid_Egger, 2017b: 461 (in key to *Sphex flavipennis* species group of northwestern Africa), 462 (in revision of *Sphex flavipennis* species group of northwestern Africa); Augul, 2019:498 (Iraq: Dohuk Province: Gara Mountains); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:316 (in list of Tunisian Sphecidae *sensu stricto*); Cassar and Mifsud, 2020:164 (in checklist of Sphecidae s.s. of Malta); Danilov, 2020:320 (specimens from Kazakhstan, Kyrgyzstan, Russia: Dagestan, and Tajikistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Gadallah, 2020d:87 (in list of aculeate wasps of Arabian Peninsula); Maharramov, Mokrousov, and Proshchalykin, 2020:46 (Azarbaijan: Nakichivan Autonomous Republic); Örgel, Anlaş, and Tezcan, 2020:638 (Turkey: Manisa Province); Shorenko, 2020:47 (Crimea: Karadag Nature Reserve); Can and Gülmez, 2021b:313 (Turkey: several localities); Cross, Baldock, and Wood, 2021:19 (in catalog of Sphecidae *sensu lato* of Portugal); Ghaderipour, Khayrandish, Madjdzadeh, Ebrahimi, and Schmid-Egger, 2021:505 (Iran: Kerman Province); Embergenov, Élmurodova, Amirov and Kimyonazarov, 2022:47 (Uzbekistan: Tashkent Province); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey). – **As *Pepsis flavipennis***: Fabricius, 1804:210 (new combination, redescription). – **As *Pelopaeus flavipennis***: Stephens, 1829a:361 (new combination, in catalog of British insects). – **As *Ammophila flavipennis***: Valetta, 1979:215 (erroneous new combination, Malta); Casolari and Casolari Moreno, 1980:100 (specimens in M. Spinola collection, Torino). – **As *Prionyx flavipennis***: Schembri, 1991:176 (new combination, Malta).

Sphex rufocinctus Brullé, 1833a:367, ♂ (as *rufo-cincta*, incorrect original hyphenation and termination). Holotype or syntypes: ♂, Greece: Morea: Petalidi, now Peloponnesus: Koroni (MNHN). Synonymized with *Sphex maxillosus* by Kohl, 1890b:433, and with *Sphex flavipennis* by Menke and Pulawski, 2000:331. – Nec Bohart and Menke, 1976, and subsequent authors (= *Sphex funerarius*). – **As *Sphex maxillosa* var. *rufo-cincta***: De Stefani Perez, 1886:171

(new status, Italy: Sicilia: monte di Renda near Palermo). **As *Sphex flavipennis rufocinctus***): Strumia, Pagliano, and Gayubo, 2012:55 (new status, Italy: Toscana: Riserva di San Rossore).

Sphex bicolor Dahlbom, 1845:437, sex not stated, junior primary homonym of *Sphex bicolor* Fabricius, 1775). Holotype or syntypes: ♂, Dalmatia: now coastal Croatia and Montenegro: no specific locality (ZMHU?). Synonymized with *Sphex maxillosus* by Kohl, 1881:39, and with *Sphex flavipennis* by Kohl, 1890b:236. – F. Smith, 1856:242 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:218 (in catalog of European Hymenoptera); De Stefani Perez, 1882:38 (Italy: Sicilia: Sciacca), 1886:171 (Italy: Sicilia: Monte di Renda near Palermo); de Beaumont, 1953h:195 (type specimens not in Lund).

Sphex cinereorufocinctus Dahlbom, 1845:437, sex not stated (as *cinereo-rufo-cincta*, incorrect original hyphenation and termination). Syntypes: ♂, Greece: Island of Rhodes (Stockholm, Hedenborg coll.). Synonymized with *Sphex flavipennis* by de Beaumont, 1949a:127. – F. Smith, 1856:243 (in catalog of Hymenoptera in British Museum); nec Schenck, 1857:200, 1860:149 and 1861:149 (= *Sphex funerarius*); nec von Aichinger, 1870:320 (= *Sphex funerarius*).

Sphex sellae Gribodo, 1873:86, ♀. Holotype: ♀, Italy: Sicilia: no specific locality (MSNG). Synonymized with *Sphex flavipennis* by Kohl, 1890b:434. – Penati and Mariotti, 2015:115 (in list of Hymenoptera described by G. Gribodo). – **As *Sphex flavipennis* var. *sellae***: Roth, 1925:393 (new status, redescription); Pittioni, 1950:20 (Cyprus, as *settae*).

Sphex flavipennis var. *rufodorsatus* De Stefani Perez, 1887:88, ♀ (as *rufodorsata*, incorrect original termination). Holotype: ♀, Italy: Sicilia: no specific locality (depository unknown). Synonymized with *Sphex flavipennis* by Kohl, 1890b:434. – De Stefani Perez, 1895:226 (in catalog of Sicilian Hymenoptera); Dalla Torre, 1897:423 (in catalog of world Hymenoptera).

47. *flavovestitus* F. Smith

Sphex flavovestitus F. Smith, 1856:253, ♂ (as *22anade-vestita*, incorrect original hyphenation and termination). Holotype or syntypes: ♂, as India, but actually North America (Fernald, 1931a:442; Menke, 1965a:208): no specific locality (BMNH). – F. Smith, 1871a:361 (in catalog of Oriental Aculeata); Cameron, 1889c:108 (in list of Sphecidae of Oriental Region, as *22anade-vistata*); Kohl, 1890b:444 (original description copied); Dalla Torre, 1897:423 (in catalog of world Hymenoptera); Cameron, 1898b:24 (not included in Bingham, 1897); Ramakrishna Aiyar, 1916:554 (not included in Bingham, 1897); Fernald, 1931a:442 (study of holotype, as synonym of *Sphex opacus*); Menke, 1965a:208 (synonymy, geographic variation); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Krombein, 1979b:1580 (in catalog of North American Hymenoptera); Ahlstrom, 1995:106 (in checklist of insects of North Carolina); Amarante, 2002:74 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Miller, Pearce, and O'Neill, 2009:3 (known to be parasitized by *Paraxenos westwoodi* (Templeton), Strepsiptera).

Sphex flavipes F. Smith, 1856:263, ♀, junior primary homonym of *Sphex flavipes* Fabricius, 1781 and *Sphex flavipes* Christ, 1791. Holotype or syntypes: ♀, USA: Georgia: no specific locality (BMNH). Synonymized with *Sphex flavovestitus* by Menke, 1965a:208. – Cresson, 1863:319 (in catalog of North American Hymenoptera), 1873:211 (Texas), 1887:275 (in catalog of North American Hymenoptera); Patton, 1880a:383 (diagnostic characters, Tennessee, description of ♂); Kohl, 1890b:404 (in revision of world Sphecini); W. Fox, 1895c:265 (Mexico: Baja California); Dalla Torre, 1897:423 (in catalog of world Hymenoptera); nec W. Fox, 1897b:377 (= *Sphex opacus*); Ashmead, 1899d:353 (in checklist of North American Sphecidae); Berland, 1929b:311 (specimens from Mexico, Argentina, French Guiana, and Brazil in MNHN); Liebermann, 1931:20 (in revision of Argentinean Sphecini). – **As *Sphex opacus flavipes***: W. Schulz, 1912:93 (new status).

Chlorion flavitarsis Fernald, 1906:379. Substitute name for *Sphex flavipes* F. Smith. – Fernald, 1906:379 (in revision of Sphecini of North America and West Indies), 1912:259 (*flavitarsis* is a substitute name). – **As *Chlorion opacum flavitarsis***: Fernald, 1931a:442 (new status); Brimley, 1938:444 (North Carolina: Havelock, Marion, Raleigh, Swannanoa, Wilmington). – **As *Sphex opacus flavitarsis*:** Murray *in* Muesebeck, Krombein, and Townes, 1951:972 (new

combination, in catalog of North American Hymenoptera). – **As *Sphex flavitarsis***: R. Bohart and Menke, 1963:121 (reversed status, in revision of Nearctic Sphecini).

Ssp. *saussurei* (Fernald)

Sphex hirsutus de Saussure, 1867:40, ♂, junior primary homonym of *Sphex hirsutus* Scopoli, 1763. Lectotype: ♂, Mexico: Orizaba (MHNG), designated by Menke, 1965a:208. – Cameron, 1888a:31 (Mexico); Kohl, 1890b:404 (as synonym of *Sphex flavipes*); W. Fox, 1895c:265 (as synonym of *Sphex flavipes* F. Smith); Menke, 1965a:208 (as new synonym of *Sphex flavovestitus*). – **As *Sphex flavipes* var. *hirsutus***: Kohl in Dalla Torre, 1897:423 (new status, in catalog of world Hymenoptera). – **As *Sphex opacus hirsutus***: W. Schulz, 1912:93 (new status).

Chlorion flavitarsis saussurei Fernald, 1906:381. Substitute name for *Sphex hirsutus* de Saussure. – Fernald, 1906:381 (in revision of Sphecini of North America and West Indies). – **As *Chlorion opacum saussurei***: Fernald, 1931a:442 (new subspecific combination). – **As *Sphex flavovestitus saussurei***: R. Bohart and Menke, 1976:114 (new combination, in checklist of world Sphecidae); Amarante, 2002:74 (in catalog of Neotropical Sphecidae).

48. *formosellus* van der Vecht

Sphex formosellus van der Vecht, 1957c :366, ♀, ♂. Holotype: ♀, Indonesia: Timor: no specific locality (RMNH). – R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Cardale, 1985:224 (in catalog of Australian Sphecidae); Hensen, 1991a:26 (member of *Sphex subtruncatus* species group, in revision of Malesian Sphecina); Naumann, 1998:182 (Australia: northwestern Queensland: Musselbrook area, approximately 18°40’S 138°23’E); Dollfuss, 2008b:1422 (Indonesia: island of Timor: 28 km south of Kupang, 50 km south of Kupang Buraon); Dörfel and Ohl, 2015:13, 15 (in key to Australian *Sphex*), 80 (in revision of Australian *Sphex*).

49. *fortunatus* Dörfel and Ohl

Sphex fortunatus Dörfel and Ohl, 2015:82, ♂. Holotype: ♂, Australia: Queensland: “North Queensland” (BMNH). – Dörfel and Ohl, 2015:18 (in key to Australian *Sphex*).

50. *fumicatus* Christ

Sphex fumicatus Christ, 1791:295, sex not stated. Holotype or syntypes: origin unknown (destroyed). – van der Vecht, 1973:344 (use of the name *fumicatus* for this species); R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Pulawski, 1978:182 (in key to Sphecidae of European part of USSR); Guichard, 1980:224 (Oman), 1988a:118 (Arabian Peninsula); Dollfuss, 1990:122 (Central African Republic); Hensen, 1991a:21 (member of *Sphex argentatus* species group); S. Gess and F. Gess, 2003:93 (Namibia: visiting flowers of *Acacia karroo* Hayne and *Acacia 23anaden* (L.) Willd., Fabaceae); Gadallah and Assery, 2004a:217 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 221 (in catalog of Sphecidae of Saudi Arabia: Hadasham 120 km east of Jeddah); Gayubo and Özbek, 2005:5 (Turkey: Ýçel: Ýçel, Erdemli; Kars: Sarýkamýþ, Karakurt); Roche, 2007a:49 (in checklist of Egyptian Sphecidae, redescription, as *fumicatus fumicatus*), 2007b:3 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae, as *fumicatus fumicatus*); Dollfuss, 2008b:1422 (locality records from Ethiopia, Kenya, Tanzania, and Turkey); Ljubomirov and Yildirim, 2008:19 (in catalog of Sphecidae of Turkey); Sakenin, Samin, Bagriacik and Rastegar, 2011:3 (Iran: Sistan-o Baluchistan: Chabahar); Schmid-Egger, 2011b:605 (recorded from United Arab Emirates by Guichard, 1988a); El-Hawagry, Khalil, Sharaf, Fadl, and Aldawood, 2013:79 (Saudi Arabia: Al-Baha Province: Ghabet Raghdan); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:362 (in new catalog of Sphecidae of Saudi Arabia); Schmid-Egger, 2014:625 (in key to *Sphex argentatus* species group), 627 (United Arab Emirates, also Egypt, India, Namibia, Nepal, Oman, and Turkey; color photograph of female); Yildirim, 2014:29 (Turkey: distribution by biogeographic provinces); Koçak and Kemal, 2015:279 (in checklist of Hymenoptera of Turkey); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:28 (Iran: known from Sistan-o Baluchestan Province); Danilov, 2020:320 (specimens from Turkey in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Gadallah, 2020d:87 (in list of aculeate wasps of Arabian Peninsula); Can and Gülmez, 2021b:313 (Turkey: Sivas: Suşehri:

Çokrak); Dörfel and Ohl, 2022:15 (in key to sub-Saharan *Sphex*), 35 (in revision of sub-Saharan *Sphex*); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey).

Sphex albifrons Fabricius, 1793:207, sex not stated, junior primary homonym of *Sphex albifrons* de Villers, 1789. Holotype: ♀, Guinea: no specific locality (ZMUC). Synonymizes with *Sphex metallicus* by van der Vecht, 1961a:29. – Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:488 (redescription); Jurine, 1807:129 (in list of known *Sphex*); Lepeletier de Saint Fargeau, 1845:337 (in revision of world Hymenoptera); Gerstaecker, 1858:510 and 1862:480 (Mozambique); van der Vecht, 1961a:29 (identity of species). – **As *Pepsis albifrons***: Fabricius, 1804:212 (new combination, redescription).

Sphex metallicus Taschenberg, 1869:414, ♀, ♂ (as *metallica*, incorrect original termination). Syntypes: Sudan: Khartum (Halle). Synonymized with *Sphex fumicatus* by van der Vecht, 1973:344. – de Beaumont, 1965a:14 (Kohl's 1885 record from Greece, as *argentifrons*, is questionable). – **As *Sphex umbrosus* var. *metallicus***: Kohl, 1890b:408 (new status, in revision of world Sphecini); Radoszkowski, 1893a:58 (Turkmenistan); Kohl, 1894:342 (Congo: Gabun; Gabon: Cap Lopez; country unknown: island of Eloby); Dalla Torre, 1897:446 (in catalog of world Hymenoptera); Bingham, 1898a:105 (Yemen: Aden); Kohl, 1883e:183 (Tanzania: Bagamoyo), 1909:370 (Tanzania: Pemba Island); Berland, 1928:330 (India: Kurrachee); Schouteden, 1930:95 (Zaire); Guiglia, 1943c:76 (Ethiopia: Gamo Gofa: Sagan – Omo region); Giner Marí, 1945c:851 (India: Maharashtra: Salsete); de Beaumont, 1947b:383 (Cyprus); Guiglia, 1950:248 (Ethiopia: Gamo Gofa: Gondaraba at 4°58'N 36°49'E, headwaters of Sagan); Diniz, 1964c:101 (Angola: Lunda: Andrada, Dundo, Muíta-Luembe); I. Robertson, 1969:480 (Tanzania: Ukiriguru, preying on Tettigoniidae). – **As *Chlorion umbrosum* var. *metallicum***: Arnold, 1928c:362 (new combination, in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae), 1935a:503 (South Africa: Kalahari); Guiglia, 1938a:186 (Somalia: Belet Amin in Jubba River area), 1940b:288 (Somalia). – **As *Sphex umbrosus metallicus***: Pittioni, 1950:20 (new status, Cyprus); de Beaumont and Bytinski-Salz, 1955:42 (Israel); Leclercq, 1955h:21 (summary of locality records from Africa, new locality records), 1961b:45 (Zaire). – **As *Sphex fumicatus metallicus***: Bonelli, 1976:225 (new subspecific combination, nesting habits).

Sphex magrettii Gribodo, 1894c:136, ♀ (as *Magrettii*, incorrect original capitalization). Syntypes: ♀, Mozambique: Inhambane River (Mus. Zool. Univ. Bologna) and Zanzibar (lost). Synonymized with .. by .. – Kohl, 1895:57 (original description copied, probably a variety of *Sphex umbrosus*); Tomassini and Marini, 1984:45 (type material depository); Penati and Mariotti, 2015:82 (in list of Hymenoptera described by G. Gribodo). – **As *Sphex umbrosus* var. *magrettii***: Dalla Torre, 1897:446 (new status, in catalog of world Hymenoptera); Magretti, 1899:601 (Somalia: Lugh at 3°48'N 42°33'E); Guiglia, 1932:124 (Somalia: Brava, Giumbo).

Sphex erebus W.F. Kirby, 1900:15, sex not stated. Syntypes: Yemen: Island of Socotra: Hadibu Plain (BMNH). Synonymized with *Sphex umbrosus* by Kohl, 1906a:199. – W.F. Kirby, 1903:240 (Socotra, redescription).

Chlorion davisi Fernald, 1907:267, ♀. Holotype: ♀, Argentina: Córdoba: Córdoba (MCZ), but locality label in error (Menke, 1962a:63). Synonymized with *Sphex metallicus* by Menke, 1962a:63. – Willink, 1951:141 (in revision of Argentinean Sphecini). – **As *Proterosphex davisi***: Schrottky, 1913a:225 (new combination, Argentina: Córdoba); Liebermann, 1931:21 (in revision of Argentinean Sphecini).

As *Sphex argentatus* (corrected to *Sphex fumicatus* by …): Ed. André, 1888:144 (in revision of Sphecidae of Europe and Algeria), 8* (bibliographic references).

As *Sphex umbrosus*: Honoré, 1944a:73 (in revision of Egyptian Sphecini); Leclercq, 1973:11 (*Sphex metallicus* is a synonym of *umbrosus*); Shalaby, 1961:226 (Saudi Arabia: Jeddah); Georghiou, 1977:192 (Cyprus).

51. *fumipennis* F. Smith

Sphex fumipennis F. Smith, 1856:249, ♀, ♂. Syntypes: Australia: South Australia: Adelaide (BMNH). – Kohl, 1890b:413 (as *Sphex luctuosus* var. *fumipennis*, new status); Froggatt, 1892:210 (in catalog of Australian Hymenoptera); Dalla Torre, 1897:430 (in catalog of world Hymenoptera (as *Sphex luctuosus* var. *fumipennis*); R. Turner, 1910a:344 (in key to Australian Sphecini, as *Sphex luctuosus* var. *fumipennis*); von Schulthess, 1915:48 (New Caledonia: Tao); R.

Turner, 1919b:238 (New Caledonia, reverted to full species status); Berland, 1928a:330 (Australia, Sulawesi, New Caledonia; as *Sphex luctuosus* var. *fumipennis*); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Cardale, 1985:224 (in catalog of Australian Sphecidae); Hensen, 1991a:22 (member of *Sphex resplendens* species group); Naumann, 1998:182 (Australia: northwestern Queensland: Musselbrook area, approximately 18°40'S 138°23'E); Dörfel and Ohl, 2015:10, 15 (in key to Australian *Sphex*), 39 (in revision of Australian *Sphex*). – **As *Chlorion fumipennis***: F. Williams, 1945:437 (new combination, New Caledonia).

ssp. *rouxi* von Schulthess

Sphex rouxi von Schulthess, 1915:47, ♀, ♂. Syntypes: Vanuatu (as New Hebrides): no specific locality (♀, Mus. Zurich) and New Caledonia: Loyalty Islands: no specific locality (♂, MHNB). – **As *Sphex fumipennis rouxi***: R. Bohart and Menke, 1976:115 (new status, in checklist of world Sphecidae).

Sphex luctuosus var. *splendidus* Berland, 1928:331, ♀ (as *splendida*, incorrect original termination), junior primary homonym of *Sphex splendidus* O. Müller, 1776 and *Sphex splendidus* Reich, 1793. Holotype: ♀, New Caledonia: Loyalty Islands: Maré (MNHN). Synonymized with *Sphex .. rouxi* by ..

52. *funerarius* Gussakovskij

Sphex maxillosus Fabricius, 1793:208, sex not stated (as *maxillosa*, incorrect original termination), junior primary homonym of *Sphex maxillosus* Poiret, 1787. Lectotype: ♀, "Barbaria", now northwestern Africa: no specific locality (ZMUC), designated by van der Vecht, 1961a:30. – Fabricius, 1796:156 (in Index to his Entomologia Systematica, 1793); Coquebert, 1801:50 (original description copied), pl. XII Fig. 2 (illustration of Fabrician type); Dahlbom, 1843:26 (in revision of Sphecidae and Pompilidae), 1845:437 (in key to world Sphecini); Eversmann, 1849:366 (Russia: Astrakhan, Orenburg, and Saratov Governorates; Kazakhstan); von Kiesenwetter, 1849:88 (Germany: Kingdom of Saxony: Dresden); Lucas, 1849:271 (Algeria: Alger, Bône, Constantine, La Calle, Oran); Ruthe and Stein, 1857:312 (Germany: Berlin area); A. Costa, 1858b:5 (Italy: in revision of Sphecidae of Kingdom of Naples); Taschenberg, 1858:62 (in key to Sphecidae of Germany); Funk, 1859:59 (Germany: Bayern: Bamberg); von Frauenfeld, 1861:103 (Croatia: Dalmatia: no specific locality); Sichel, 1861:751 (Italy: Sicilia); Taschenberg, 1866:207 (in revision of Hymenoptera of Germany); A. Costa, 1867b:68 and 1867c:12 (in revision of Italian Sphecidae); Kirchner, 1867:218 (in catalog of European Hymenoptera); Schenck, 1867a:357 (Germany: Nassau Region); Palma, 1869:38 (Italy: Sicilia settentrionale); Taschenberg, 1869:417 (present in Halle University collection); von Aichinger, 1870:320 (Austria: Tirol); P. Ivanov, 1872:152 (Ukraine: Khar'kov Oblast': Kupyansk area); Beletskiy, 1873:80 (Ukraine: vicinity of Khar'kov); Wierzejski, 1874:259 (Ukraine: Podole Region: Dzwinogród); Frivaldszky, 1876:354 (Hungary: Temes Komitat: Grebenácz, now in Romania: Timiş District); Kohl, 1880:181 (Italy: Trentino–Alto Adige: Bolzano area), 236 (preying on tettigoniids *Thamnotrizon dorsatum* Fischer and *T. striolatum* Fischer); Yaroshevskiy, 1881:127 (Ukraine: Khar'kiv Oblast': Khar'kiv, Kupyansk); A. Costa, 1882b:22 (Italy: Sardegna), 1883:57 (Italy: Sardegna: Oschiri); Kohl, 1883e:674 (Switzerland); Magretti, 1884b:106 (Italy: Firenze area); Kohl, 1885b:201 (in revision of Palearctic *Sphex*); Gasperini, 1887:18 (recorded from Dalmatia, now Croatia, by von Frauenfeld, 1861 and Kohl, 1885b); Ed. André, 1888:141 (in revision of Sphecidae of Europe and Algeria), 8* (bibliographic references); Radoszkowski, 1886a:26 (Turkmenistan); Cuní y Martorell, 1888:164 (Spain: Barcelona); Kohl, 1888b:730 (Austria: Tirol, now Italy: Alto Adige), 1890b:432 (in revision of world Sphecini); F. Morawitz, 1891a:202 (Russia: Astrakhan Governorate); Radoszkowski, 1892:575 (male genitalia); A. Costa, 1893b:3 (Tunisia); F. Morawitz, 1893b:407 (Tajikistan: Takfan in Yagnob River 25anade); Baldini, 1894:50 (Italy: Modena area); Krieger, 1894:14 (Germany: Kingdom of Saxony: recorded from Dresden area by von Kiesenwetter, 1849); Medina, 1894a:259 (Spain); Schletterer, 1894:34 (Istria Peninsula, now part of Croatia, Slovenia, and Italy); De Stefani Perez, 1895:226 (in catalog of Sicilian Hymenoptera); Rudow, 1896:329 (Germany: Brandenburg: no specific locality); Dalla Torre, 1897:431 (in catalog of world Hymenoptera); Lüderwaldt, 1897b:31 (Germany: Gollnow, now Poland: Pomorze Region: Goleniów); Mocsáry, 1897:79 (Kingdom of Hungary, some localities are in today's Croatia, Romania, and Slovakia); Flamary, 1898:38 (France: Saône-et-Loire: Mâcon area); Medina,

1898:153: (Portugal: Vallongo); Hoemke, 1899:9 (Germany: Deutsch-Krone, now Poland: Wałcz); de Cobelli, 1900a:154 (Italy, Rovereto, prey: *Platycleis grisea* Fabricius, Tetigoniidae); Ferton, 1901a:108 (prey); Ghigi, 1902:190 (Greece: Ionian Islands: Kefalonia: Argostoli); N. Arnold, 1902:90 (Russia: Mohilev Province, now Belorussia); de Cobelli, 1903:105 (Italy: Province of Trentino); Gadeau de Kerville, 1903:306 (France: Manche Department); Picard, 1903c:97 (detailed nesting habits); Adlerz, 1904:138 (known prey: tettigoniids); Antiga and Bofill, 1904:5 (Spain: Cataluña Province); E. Saunders, 1904c:637 (Spain: Monserrat); Aurivillius, 1904:253 (in revision of Swedish Sphecidae); Ferton, 1905:64 (prey, egg position); Kohl, 1905c:232 (Turkey: Kayseri: Erciyes Dağı); Mantero, 1905:68 (Italy: Toscana: Isola del Giglio); W. Schulz, 1905b:35 (Algeria: Biskra); Vángel, 1905:166 (Hungary); Dittrich, 1906:XXI (Germany: Krehlau in Kreis Wohlau, now Poland: Krzelów in powiat Wołów); Dusmet and Mercet, 1906:511, 517 (in key to Spanish Sphecini); Graeffe, 1906:456 (Tunisia: Tunis area); Móczár and Henter, 1907:205 (Hungary: Hatvan, Tiszaalpár; Romania: Caraş-Severin: Mehadia); Schmiedeknecht, 1907:244 (in key to Hymenoptera of Central Europe); Olivier, 1910:163 (Algeria: Saïda); M. Müller, 1909:98 (Germany: Mark Brandenburg: north to Arnswalde District); E. Scholz, 1909a:23 (Germany: Schlesien: Kreis Wohlau, now Poland: Dolny Śląsk: Wołów; prey: *Platycleis grisea* Fabricius, Tettigoniidae), 179 (nesting habits), 1909b:169 (comment on M. Müller's article), 1910:306 (Germany: Schlesien, now Poland: Śląsk Region; prey: *Platycleis grisea* Fabricius, Tettigoniidae); Dittrich, 1911a:VII (Germany: Niederschlesien: Obernigk near Breslau, now Poland: Dolny Śląsk: Oborniki Śląskie), 1911b:25 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Graeffe, 1911:49 (Italy: Trieste area); Mantero, 1911:71 (Italy: Sardegna: Isola dell'Asinara); Morice, 1911:77 (Algeria); Ferton, 1912a:366 (nest and prey, presence of foreign egg), 388 (nesting habits identical in Europe and Algeria); Rudow, 1912:43 (nesting sites and prey); Schirmer, 1912:168 (Germany: Berlin area); Haupt, 1913:50 (Germany: Sachsen-Anhalt: Dübener Heide in Halle area); Kohl, 1913b:15 (Russia: Voronezh Oblast': Valuyki at 50°14'N 38°08'E); Smits van Burgst, 1913a:319 and 1913b:6 (Tunisia: no specific locality); Dusmet y Alonso, 1915:86 (Spain: Aragón); Strand, 1915:90 (Greece: Olympus); Torka, 1916:32 (Germany: Posen Province: south of Nakel, now Poland: Poznań Region: south of Nakło); O. Meyer, 1919:156 (Germany: Posen Province, now Poland: Poznań Region); Stöckhert, 1919:41 (Germany: Franken); A. Wagner, 1920:34 (Germany: Lower Elbe region, not found but can be expected); Fahringer, 1922:177 (Turkey); Hedicke, 1922:272 (Germany: Brandenburg: Gross Machnower Weinberg); Maidl, 1922:68 (Albania, Croatia); Ferton, 1923:121 (preying on locusts, position of egg on prey), 316 (nest and prey identical in Algeria, Corsica, and continental France), 324 (presence of egg and larva in same cell, perhaps because of bad weather); Gribodo, 1924b:49 (Libya: Derna, Tolmetta, Zavia Mechili); Berland, 1925d:40 (in Sphecid Fauna of France); Lauterborn, 1925:355 (Germany: Rheinland); Picard, 1925:24 (nesting habits, relationships to *Sphex flavipennis*); Roth, 1925:390 (in revision of North African Sphecini); Friese, 1926:167 (in key to Sphecidae of Central Europe, short morphological and biological characteristics), 168 (illustration of prey); Hémon, 1926:199 (France: Finistère: Fouesnant); von Schulthess, 1926b:210 (Libya, an all black variety); Berland, 1927:153 (in France north to Normandie and south of Paris, Algeria, Tunisia, Syria); Dusmet y Alonso, 1927:25 (Spain: Cataluña: Montserrat); Benoist, 1928:409 (France: Alpes-Maritimes, Basses-Alpes); Berland, 1928b:175 (add Roth, 1925 to bibliography in Berland, 1925d; France: Calvados: Lion-sur-Mer); Grandi, 1929:262 (nest construction), 1929:288 (Italy: Toscana: valle della Limentra); Grandi, 1930:304 (nest closure), 340 (Italy: Toscana: Maremma); A. Müller, 1930:181 (Bulgaria: Kaliakra; Romania: Movila); Schmiedeknecht, 1930:705 (in keys to Hymenoptera of North and Central Europe); Dusmet y Alonso, 1931:7 (Portugal: Leiria, Porto, as *maxillosis*); Giordani Soika, 1932a:20 (Italy: Lido di Venezia); Motaş, 1932:5 (nesting habits after Fabre), 14 (nest parasites: tachinids *Metopia leucocephala* Rossi and *M. campestris* (Fallén)); Zavadil, 1932:96 (Czechoslovakia); Bischoff, 1933:5 (Morocco); Gussakovskij, 1933b:273 (Iran); Nadig, 1933:103 (Morocco); Giner Marí, 1934a:130 (Spain); Grandi, 1934:130 (Italy: Lazio: Acilia, Sardegna: Iglesias, and Toscana: San Vincenzo); Guiglia, 1934b:294 (Libya: bibliography and summary of locality records); Molitor, 1934c:463 (nesting habits); Nadig, 1934:34 (France: Corse: Evisa; Italy: Sardegna: Aritzo, Cagliari, Gennargentu, Macomer, Mandas); Zavadil, 1934:188 (Slovakia); Bernard, 1935:61 (France: Var: Fréjus area); Gussakovskij, 1935:413 (Tajikistan); Vergne,

1935:117 (France: Auvergne: Billom, Les Martres-d'Artières, Pont-du-Chateau); Molitor, 1936b:526 (reaction to disturbance and obstacles); Noskiewicz, 1936:136 (Poland: Podole Region: Bilcze, Dobrowlany, Krzywcze, Okopy, Sinków, Zaleszczyki, now Ukraine); Zavadil, Šustera, and Bat'a, 1937:211 (in catalog of Sphecidae of Czechoslovakia); Kuntze and Noskiewicz, 1938:408 (Poland: Podole region, now Ukraine, also known from more northern parts of Poland); Molitor, 1938:439 (color recognition); Yasumatsu, 1938c:49 (China: south of Manchuria; in revision of Sphecini of Japanese Empire = Japan, Korea, part of China, Taiwan); Drogoszewski, 1939:165 (Poland: Betchów in Łowicz District); Zavadil, 1939:121 (Czech Republic: Čejč, Karaný); Balthasar, 1941b:112 (Czech Republic: eastern Moravia); Paul, 1941:48 (Germany: Pommern: Stettin area, now Poland: Województwo Zachodniopomorskie: Szczecin area); Ander, 1942:15 (Sweden: Gotland Province: island of Fårö); Yasumatsu, 1942c:105 (China: Nei Mongol: Apaka at 44°N 114.96°E); Giner Marí, 1943a:85 (in Sphecid Fauna of Spain); Guiglia, 1943b:69 (Albania: Kopliku); Timon-David, 1943:29 (France: Bouches-du-Rhône: plage de Fos); Giordani Soika, 1944:13 (Italy: Sicilia: Messina); Guiglia, 1944b:8 (Italy); Honoré, 1944a:75 (in revision of Egyptian Sphecini); Deleurance, 1946b:62 (list of prey), 67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); Chaudoir, 1947:142 (France: Gard: Roquemaure); de Beaumont, 1947b:383 (Cyprus); Balthasar, 1948:144 (Slovakia: Kovačov, Parkan); Guiglia, 1948c:200 (Italy: Sardegna: Cagliari, Villasalto); Zavadil *in* Zavadil and Šnoflák, 1948:168 (in key to Sphecidae of Czechoslovakia); de Andrade, 1949:7 (Portugal; nesting habits); Berland and Bernard, 1949:4 (in revision of French *Sphex* s. l.), 12 (review of biological data); de Beaumont, 1950f:396 (Algeria); Parré, 1950:177 (Poland: Łódź area: Barycz); Scobiola, 1950:21 (Romania); Caruel, 1951:100 (France: Marne Department); de Beaumont, 1951e:269 (Morocco); Leininger, 1951:118 (Germany: Baden-Württemberg: Sandhausen); Cleu, 1953:50 (France: Ardèche River basin); Głowacki, 1953:520 (Poland: Brwinów near Warszawa); Guiglia, 1953b:10 (Italy: Lucania-Calabria: Santicelli); Nouvel and Ribaut, 1953:177 (France: upper Garonne River valley, Hautes-Pyrénées: Cauterets); Balthasar, 1954b:281 (Palestine: Jerusalem); de Beaumont, 1954e:86 (Italy); Grandi, 1954:236 (Italy); Hertzog, 1954:100 (France: Bouches-du-Rhône: Camargue); de Beaumont and Bytinski-Salz, 1955:42 (Israel); Harant and Leclercq, 1955:250 (France: Bionne, Palavas-les-Flots); Leclercq, 1955h:18 (bibliographic references, summary of locality records from Africa); Steiner, 1955:134 (France: Dordogne); Vogrin, 1955:31 (Yugoslavia); Bytinski-Salz, 1956:224 (Turkey: Kojut Dere); Ceballos, 1956:363 (in catalog of Hymenoptera of Spain); de Beaumont, 1956a:182 (Libya); Hertzog, 1956:154 (prey: *Gryllus desertus* (Pallas), Gryllidae, exceptionally *Conocephalus fuscus* (Fabricius), Tettigoiiae, experiments with prey removal); Morel, Nouvel, and Ribaut, 1956:337 (France: Département des Pyrénées-Orientales); Bajári, 1957a:9, 11 (in key to Hungarian Sphecidae); Grandi, 1957:343 (prey: *Platycleis grisea* Fabricius, Tettigoniidae), 387 (Italy: Abruzzi); Guiglia, 1957:144 (Italy: Isole Pelagie); Zirngiebl, 1957:184 (Germany: Rheinland-Pfalz: Birkenheide); de Beaumont, 1958a:290 (illustration of genitalia); Nouvel and Ribaut, 1958:8 (France: Pyrénées-Orientales: Banyuls-sur-Mer area); Puławski, 1958a:164 (Bulgaria: Nesebar, Sandanski, Tolbukhin, Varna; male distinctive characters); Compte Sart, 1959:131 (Spain: Mayorca); de Beaumont, 1959a:10 (Italy); Diniz, 1959:27 (Portugal: 14 localities); Giner Marí, 1959:388 (Morocco); Olberg, 1959:28 (photographs of specimens visiting flowers of *Thymus serpyllum* Linnaeus, Lamiaceae); Suárez, 1959:53 (Spain: Almería Province); van der Vecht, 1959c:214 (the name *maxillosus* is preoccupied by Poiret, 1787); Wolf, 1959b:28 (Germany: Nassau); Čingovski, 1960:7 (Macedonia: Saint Dojran, Stobi, Vodno); de Beaumont, 1960b:227 (Libya), 228 (male antenna); Guiglia, 1960:360 (Italy: Isole Pelagie: Lampedusa); Noskiewicz and Puławski, 1960:40 (in key to Polish Sphecidae); Scobiola, 1960b:232 (Romania: Craiova Region: Bucovăţ, Jassy Region: Jassy, illustration of male genitalia); de Beaumont, 1961b:272 (Afghanistan), 1961c:45 (Greece: island of Crete); Grandi, 1961:104 (structure of gastral segment I, illustration), 145 (nesting habits); Atanassov, 1962:125 (Bulgaria: Petrich area); de Beaumont, 1962b:19 (Spain); Grandi, 1962:97 (Italy); Myartseva, 1963b:59 (Turkmenistan: lower Murgab River); Tsuneki, 1963b:36 (nesting habits); Ceballos, 1964:87 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:28 (in Sphecid Fauna of Switzerland); Myartseva, 1964a:75 (nesting habits in Turkmenistan); Parré, 1964:100 (Germany: Sachsen-Anhalt: Diebzig near Köthen); de Beaumont,

1965a:14 (Greece); Diniz, 1965:4 (Portugal: 23 localities); Isensee, Lesemann, and Röseler, 1965:612 *(*Spain: Gerona: no specific locality); Myartseva, 1965:82 (Turkmenistan: Akibay, Bayram Ali; Murgab district), 1966:48 (preying on orthopterans); Scobiola-Palade, 1966b:390 (Romania: Tulcea District: Periprava, as *maxilosus*); Balthasar, Hrubant, and Hrubant, 1967:175 (Bulgaria: Slanchev Bryag near Nessebar); de Beaumont, 1967a:276 (Turkey); Gauss, 1967:551 (Germany: Baden-Württemberg: nördliches Rheinvorland); J. Heinrich, 1967:70 (Germany: Bayern: Kahl); Scobiola-Palade, 1967b:36 (Bulgaria, Italy: Venezia, Romania), 1968b:141 (Romania: island of-Letea in delta of Danube), 1968c:382 (Romania: Budeşti, Cernica); Kazenas, 1969a:22 (Kazakhstan: 11 localities); Romanova, 1969:133 (Russia: North Caucasus, as *maxillosum*); Zangheri, 1969:1699 (Italy: in catalog of flora and fauna of Romagna Region); de Beaumont, 1970c:4 (Iran: Resht); Oehlke, 1970:677 (Democratic Germany); Kazenas, 1971:161 (Kazakhstan: Zailiyskiy Alatau Range; widely distributed in Kazakhstan); Schmidt, 1971b:23 (Germany: Rheinland-Pfalz: Gonsenheimer Wald, Mainzer Sand: no longer present); Tsuneki, 1971k:140 (Mongolia), 1971m:1 (China: Nei Mongol: Apaka at 44°N 114.96°E); Valetta, 1971:46 (Malta); Atanassov, 1972a:192 (Bulgaria: Stara Planina Mountains), 1972b:32, 50 (Bulgaria: Stara Planina Mountains); Balthasar, 1972:420 (in Sphecid Fauna of Czechoslovakia); Kazenas, 1972b:112 (Kazakhstan); Myartseva, 1972a:83 (Turkmenistan); Olberg, 1972:56 (habitat, nesting habits, colonial nesting), 59 (photograph of female); Scobiola-Palade, 1972a:148 (Romania: delta of Danube: Caraorman); Simon Thomas, 1972:176 (France: Gironde, Lot-et-Garonne); Esmaili and Rastegar, 1974:45 (Iran); Kazenas, 1974b:110 (feeding on flowers of *Peganum harmala* L., Zygophyllaceae, and *Daucus carota* L., Apiaceae, in Kazakhstan), 112 (feeding on flowers of *Salsola laricifolia* Turcz., Chenopodiaceae, in Kazakhstan); Levi, Sysoletina, and Shernin, 1974:268 (Russia: Kirov Oblast': Klimkovka); Benedek, 1975:251 (Hungary; onion pollinator); Erlandsson, 1974:58 (France, Italy, Malta, Yugoslavia); Simon Thomas, 1976:3 (France: Lot-et-Garonne: Forêt de Campet); Georghiou, 1977:192 (Cyprus); Kolesnikov, 1977:317 (Russia: Bryansk Oblast'); Kazenas, 1978b:40 (in key to Sphecidae of Kazakhstan and Central Asia); Marion, 1978:85 (France: Nièvre Department); Pulawski, 1978:183 (in key to Sphecidae of European part of USSR); Benedek, 1979:227 (Hungary: Bakony Hills); Islamov and Kazenas, 1979:65 (Uzbekistan: floral records); Radović and Krunić, 1979:unpaginated foldout (nesting in sand, foreleg structure); Donath, 1982:212 (Germany: Cottbus Bezirk); Donath and Gundlach, 1882:84 (Democratic Germany: endangered in Niederlausitz area); Skibińska, 1982:122 (Poland: Warszawa area); Scobiola-Palade, 1985:95 (Romania: delta of Danube); Józan, 1986:367 (Hungary: Kiskunság National Park); Piek and Spanjer, 1986:189 (in list of Sphecidae with known prey); Steiner, 1986:95, 96 (references to papers on nesting habits); Kowalczyk, 1988b:63 (Poland: environs of Łódź); Pádr *in* Šedivy, 1989a:166 (in checklist of Czechoslovakian Sphecidae); Scobiola-Palade, 1989:87 (Romania: delta of Danube); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Ebrahimi, 1993:95 (Iran); Gorobchishin, 1993:46 (Ukraine: Kanev Nature Reserve); Blagoveshchenskaya, 1994:89 (Russia: Ul'yanovsk Oblast'); Gorobchishin, 1995:17 (Ukraine: Kanev Nature Reserve); Schmid-Egger, Risch, and Niehuis, 1995:208 (summary of records from Rheinland-Pfalz Province of Germany), 183 (color photograph); Gorobchishin, 1996:53 (Ukraine: Kanev Nature Reserve); Wu and Zhou, 1996a:38 (in revision in Economic Insect Fauna of China); Nazarova and Shomirsaidov, 1997:23 (Tajikistan: fruit tree orchards in Vakhsh River valley); Gorobchishin, 1998a:48 (Ukraine: Kiev and surroundings); Nazarova, 1998:39 (Tajikistan: Tigrovaya Balka Nature Reserve); Anan'eva and Kochetkov, 1999:6 (Russia: Ryazan Oblast': no specific locality); Nazarova, 2004:104 (Tajikistan: Badakhshan Region: Ridzef village in Shakhdar River valley); Mokrousov and Selivanova, 2005:754 (Russia: Voronezh Oblast'); Nazarova, 2005:93 (alfalfa fields in southwestern Tajikistan); Pagliano and Negrisolo, 2005:62 (in Sphecid Fauna of Italy); Blösch, 2006:62 (males spend nights attached to plant stems or leave blades); Alieva and Humbatov, 2007:77 (nesting and prey, from literature); Baghirov, 2007:93 (Russia: southwestern Siberia); Baños-Picón, Gayubo, Asís, and González, 2007:255, 258 (Spain: Zamora: Cabañas de Aliste); Kochetkov, Bol'shakova, Butenko, and Priklonskiy, 2008:262 (Russia: Ryazan' Oblast': Oka Nature Reserve); Rudoiskatel', 2010:147 (Russia: central and southern Ural Mountains), 2011d:239 (Russia: central Ural Mountains). – **As *Pepsis maxillosa***: Fabricius, 1804:213 (new combination, redescription); Dahlbom, 1845:XXI

(specimens in collection Fabricius are *Sphex maxillosus*, new synonym). – **As *Chlorion maxillosum***: Bischoff, 1931:9 (new combination, Spain); Schneid, 1941:1049 (Germany: Bayern: Bamberg area).

Sphex obscurus Fischer de Waldheim, 1843:2, sex not stated, junior primary homonym of *Sphex obscurus* Schrank, 1802, and junior secondary homonym of of *Sphex obscurus* (Fabricius, 1804). Holotype or syntypes: southern Russia: no specific locality (depository unknown). Synonymized with *Sphex maxillosus* Fabricius by Kohl, 1895:69. – Kohl, 1885b:205 (original description copied).

Sphex maxillosus varietas *pedibus nigris* : Zanon, 1926 :90, ♀. Holotype: ♀, Libya: Fueihat 15 km south of Benghazi (MSNG?). Not available (Article 11.4 of the Code: polynomial).

Sphex funerarius Gussakovskij, 1934a:3, ♀, ♂. Lectotype: ♂, China: Gansu: Bei-lung-shui (NRS), designated by Menke and Pulawski, 2000:333. Synonymized with *Sphex maxillosus* Fabricius, 1793 by Menke and Pulawski, 2000:332. – R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Kazenas, 1986:237 (rare in Kazakhstan, needs protection), 1998b:93 (in Sphecid Fauna of Kazakhstan); Jacobs, 2000:9, 16 (Germany: Land Mecklenburg-Vorpommern: extinct); Ljubomirov, 2000:7 (Bulgaria, specimens in N. Nedelkov collection); Menke and Pulawski, 2000:332 (in revision of *Sphex flavipennis* species group); Kazenas, 2001b:13 (in checklist of Sphecidae of Kazakhstan and Central Asia), 78 (review of nesting habits); Ljubomirov, 2001b:46 (Bulgaria: Mount Vitosha near Sofia); Ohl et al., 2001:141 (distribution in Germany by provinces); Zettel, Gross, and Mazzucco, 2001:66 (Austria: Wien); Freundt, 2002:19 (Germany: Nordrhein-Westphalen: Wesel-Rhein area); Kazenas, 2002a:24 (geographic distribution, collecting localities in Kazakhstan); Cerretti and Pape, 2003:549 (nest parasite: sarcophagid Metopodia pilicornis Pandellé); Freundt and Illmer, 2003:10 (Germany: Nordrhein-Westfalen: Wesel District); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavaler); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:70 (Germany: in catalog of wasps and bees of Bayern); Nieves-Aldrey, Fontal-Cazalla, Garrido-Torres, and Rey del Castillo, 2003:42 (Spain: Madrid: Estación Biogeólogica de El Ventorrillo in Sierra de Guadarrama); Pagliano, 2003b:131 (Italy: islands of Lampedusa and Pantelleria); Reder, 2003:26 (Germany: Rheinland-Pfalz: Eisenberg area); Schmid-Egger, 2003:757 (Italy: Sicilia: Armeria, Ragusa, Randazzo, Vendicari; Malta: Ramla); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:197 (Germany: Bayern: probably endangered); Dathe and Blank, 2004:181 (Germany: Nordrhein-Westfalen, addition to Ohl et al., 2001); Esser, Jakubzik, and Sonnenburg, 2004:18 (Germany: Nordrhein-Westfalen); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:264 (Germany: in checklist of Sphecidae of Nordrhein-Westfalen); Gayubo et al. 2004:130 (Spain: Madrid: Estación Biogeólogica de El Ventorrillo in Sierra de Guadarrama); Gayubo, Nieves-Aldrey, González, Tormos, Rey del Castillo, and Asís, 2004:108 (Spain: Madrid: Monte de El Pardo); Kazenas, 2004b:98 (Kazakhstan: western Tien Shan Mountains), 2004d:26 (Kazakhstan: northern Caspian region); Shkuratov, 2004a:72 (Russia: Rostov Oblast'), 2004b:164 (Russia: Rostov Oblast': Gosudarstvennyi Muzey-Zapovednik M.A. Sholokhova); Stolle et al., 2004:373 (Germany: Sachsen-Anhalt: last collected in 1960); Straka, Bogusch, Tyrner, and Vepřek, 2004:147 (Czech Republic: first record in 40 years: Most); Wiśniowski, 2004:38 and 58 (in checklist of Polish Sphecidae); Amarante, 2005a:14 (correction to his 2002 catalog); Burger, 2005:35 (Germany: Thüringen); Cruz-Sánchez, Gayubo, González, and Torres, 2005:219 (Spain: Salamanca: San Martín del Castañar); Gayubo and Özbek, 2005:6 (Turkey: many localities); Gülmez and Tüzün, 2005:44 (Turkey: Ankara Province); Jacobs, 2005a:438 (Bulgaria); Mokrousov and Selivanova, 2005:754 (Russia: Voronezh Oblast'); Reder, 2005:953 (Germany: Rheinland-Pfalz: Bechtheim-West, Eisenberg, Gundersheim, Ingelheim, Monsheim, Worms); Saure, 2005:13 (Germany: Berlin); Shorenko, 2005a:161 (Ukraine: Crimea), 2005b:97 (Ukraine: Crimea: Karadagh Nature Reserve); Straka, 2005a:402 (endangered in Czech Republic); Yildirim and Ljubomirov, 2005:1786 (Turkey: Adana, Ankara, Balıkesir, Erzurum, Konya, and Rize provinces); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Ljubomirov, 2006:537 (Bulgaria: records from Rhodope Mountains summarized, also: Velingrad); Standfuss and Standfuss, 2006c:307 (Greece: Thessalia: Magnisia Peninsula at 39°N 23°E); Burguet, 2007:unnumbered p. 6 (France: Puy-de-Dôme: sands Girauds-Faures in Orléat commune); Cungs, Jakubzik, and Cölln, 2007:140 (Luxemburg: Haardt Nature Re-

serve); Jacobs, 2007:41 (in key to Sphecidae of Germany); Kazenas, 2007a:89 (Kazakhstan: Akmala Oblast': Kurgandzhin Nature Reserve and vicinity); Nemkov, 2007c:997 (in Appendix to Key to identification of Sphecidae of Far East of Russia); Roche, 2007a:50 (in checklist of Egyptian Sphecidae, redescription), 2007b:3 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Sipos and Móczár, 2007:204 (Hungary: Bács-Kiskun megye: vicinity of Foktő); Vepřek and Straka, 2007:198 (in catalog of Sphecidae of Czech Republic and Slovakia); Yildirim and Ljubomirov, 2007:116 (Turkey: Erzurum: Oltu); Danilov, 2008:348 (Russia: Altayskiy Kray: Barnaul area); Danilov and Tshernyshev, 2008:41 (Russia: Novosibirsk Oblast': Karasuk area); Dollfuss, 2008b:1422 (locality records from Algeria, Bulgaria, Croatia, Czech Republic, France, Greece, Hungary, Italy, Kazakhstan, Kyrghyzstan, Mongolia, Morocco, Portugal, Romania, Russia, Slovakia, Slovienia, Spain, Syria, Tajikistan, Turkey, Turkmenistan, Ukraine, and Uzbekistan); Gayubo, González, Tormos, and Asís, 2008:136 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Kazenas, 2008b:111 (Kazakhstan: foothills of Zailiskiy Alatau: sometimes found at basis of loess cliffs), 2008c:255 (Kazakhstan: village Koktum south of Lake Alakol'); Ljubomirov and Yildirim, 2008:19 (in catalog of Sphecidae of Turkey); Mokrousov, 2008a:28 (Russia: proposed to be included in Red Book of Nizhniy Novgorod Oblast'; locality records from Nizhniy Novgorod Oblast'); Nemkov, 2008b:17 (in catalog of Sphecidae of Asiatic Russia); Sobczyk and Burger, 2008:181 (Germany: Sachsen: Kreis Bautzen: Bergen near Hoyerswerda, Hoyerswerda; Kreis Görlitz: Nochten near Weißwasser); Blösch and Kraus, 2009:7 (recent range expansion in Germany discussed; Bayern: near village Möhrendorf); Baños-Picón, Asís, Gayubo, and Tormos, 2009:310 (Spain: frequency of specimens collected with hand nets and Malaise traps); Danilov, 2009:53 (Russia: Western Siberia: Kulundinskaya Steppe); Fallahzadeh, Ostovan, and Saghaei, 2009:236 (Iran: Fars: Dasht-e Arzhan, Firoz Abad, Kazeron), 241 (color photograph); Gayubo, González, Tormos, and Asís, 2009:362 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); González, Gayubo, Asís, and Tormos, 2009:622 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Guéorguiev and Ljubomirov, 2009:261 (Bulgaria: Maleshevska Planina); Nemkov, 2009b:44 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Rennesson and Barbier, 2009:1 (Belgium: Luxemburg Province: Meix-devant-Virton); Shorenko, 2009:366 (in list of Sphecidae *sensu lato* of Crimea); Bitsch, 2010:106 (in supplement to vol. II of Faune de France, 1997: *funerarius* is valid name for the species, recent records from Germany, Luxemburg, and Belgium reported; France: first records from Département de Haut-Rhin: Fessenheim and Niederentzen); Burguet *in* Durand and Burguet, 2010:23 (France Département d'Ardèche: Ardèche Gorges); Danilov, 2010b:45 (distribution of transpalearctic type); Esser, Fuhrmann, and Venne, 2010:38 (Germany: in checklist of aculeates of Nordrhein-Westfalen); Mokrousov, 2010a:60 (Russia: Kirov and Nizhniy Novgorod Oblast's, Chuvash Republic, Tatarstan: no specific localities); Ohl and Spahn, 2010:52 (in 30anadensis analysis of Ampulicidae); Rudoiskatel', 2010:147 (Russia: southern Ural Mountains); Schmid-Egger, 2010a:22 (in red list of Aculeata of Germany: relatively common); Shorenko and Konovalov, 2010:12 (Ukraine); Smith and Wingaard, 2010:69 (in checklist of Sphecidae of Netherlands); Vago, 2010:3 (nordwestern France: Baie de l'Authie); Baghirov, 2011b:140 (Russia: Altayskiy Kray); Burger, 2011a:288 (Germany: in red list of Sphecidae *sensu lato* of Thüringen), 2011b:73, 74 (Germany: Thüringen); Danilov, 2011a:188 (Russia: Buryatiya, Irkutskaya Oblast', Kurganskaya Oblast', Sverdlovskaya Oblast', Tyva, Zabaikal'skiy Kray), 2011b:200 (Russia: Zabaikal'skiy Kray: Daurskiy Nature Reserve); De Bleeckere, 2011:19 (France: Pas-de-Calais: Ecault and Mount Saint-Frieux); Mokrousov and Zryanin, 2010:98 (needs to be protected in Russia: Novgorod Oblast'); Smetana, Roller, Beneš, Bogusch, Dvořák, Holý, Karas, Macek, Straka, Šima, Tyrner, Vepřek, and Zeman, 2010:100 (Western Slovakia: recorded from Borská Nížina); Smit and Wijngard, 2010:68 (in checklist of Sphecinae of Netherlands); Treiber, 2010:136 (France: département du Bas-Rhin); Burger, 2011:73 (Germany: Thüringen☺; Cruz-Sánchez, Asís, Gayubo, Tormos, and González, 2011:497 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park: effects of wildfire); H. Beutler, D. Beutler, and Liebig, 2011:23 (Germany: rediscovery in Brandenburg after more than 50 year of absence; prey); Gogala, 2011:6 (Slovenia); Mokrousov, Berezin, and Egorov, 2011:65 (Russia: Chuvash Republic); Murai and Amr, 2011:120 (recorded from Syria by Berland, 1927, and Dollfuss, 2008b); Schmid-Egger, 2011a:43 (France: Parc National du Mercantour); Tischendorf, Frommer, Flügel

et al., 2011:171 (Germany: Hessen: not endangered); R. Burger, 2012:32 (Germany: Rheinland-Pfalz: Sandrennbahn near Altrip); Burguet *in* Durand and Burguet, 2012:2 (France: Puy-de-Dôme: sands Girauts-Faures in Orléat commune); Ceccolini and Paggetti 2012b:118 (Italy: Umbria); Ceccolini and Terzani, 2012:210 (Italy: Valle d'Aosta: Aosta); Egorov, Kurulenko, and Arzamastsev, 2012:32 (Russia: Chuvash Republic: Natural State Reserve "Prisuskiy"); Egorov, Podshivalina, and Kurulenko, 2012:35 (Russia: Chuvash Republic: inundation zone of Cheboksary Reservoir); Egorov, Yakovlev, and Sinichkin, 2012:37 (Russia: Chuvash Republic: Chăvash Barmanĕ National Park); Gerth, Mayer, Hering, Wolf, Schaffer, and Bleidorn, 2012:9 (Germany: Sachsen: Bienitz in Leipzig); Hellrigl, 2012:129 (Italy: Provincia Autonoma di Bolzano-Alto Adige, as Südtirol); Japoshvili and Ljubomirov, 2012:96: Turkey: Isparta: Gölcük Nature Park 8 km southwest of city of Isparta); Kazenas, 2012b:168 (Kazakhstan: Korgalzhin State Nature Reserve); Prisniy, 2012:46 (Russia: Belgorod Oblast'); Protsenko, Fateryga, Ivanov, and Puzanov, 2012:58 (Ukraine: Crimea and Melitopol'); Srba and Heneberg, 2012:559 (nesting in loose soils); Strumia, Pagliano, and Gayubo, 2012:55 (Italy: Toscana: Riserva di San Rossore); Yildirim, 2012:74 (Turkey: Adana: Karaisalı: Kızıldağ: Akpınar; Erzurum: Oltu, Sarısaz); Zettel, 2012:76 (Austria: Niederösterreich: Golitsch); Bayındır, Gürbüz, Ljubomirov, and Pohl, 2013:146 (Turkey: Isparta: Kasnak Oak Forest Nature Reserve); Dyuzhaeva, 2013:116 (Russia: Samara Oblast': Zhiguli Nature Reserve); Kazenas, 2013a:13,14 (color photographs of adults, short information on geographic distribution and nesting habits); Olszewski, Wiśniowski, Pawlikowski, and Szpila, 2013:132 (Poland: Glinki, Góry Pieprzowe near Sandomierz, Pińczów, Pustynia Błędowska, Skały Rzędkowickie, Toruń); Vieira, Oliveira, Brewster, and Gayubo, 2013:15 (Portugal: Douro International Natural Park and Serras de Aire east of Candeeiros Natural Park); Zettel, Zimmermann, and Wiesbauer, 2013:12 (Austria: Wien: Donaupark), 16 (increasing populations in Austria); Ebrahimi, 2014:26 (Iran: Alborz, Ardebil, Āzarbāijān-e Sharghi, Golestān, Hamadān, Kordestān, and Tehrān provinces); Akulov and Proshchalykin, 2013:110 (Russia: Siberia: Krasnoyarsk Kray); Pankov, 2013:228 (Russia: Ivanovo Oblast'); A. Scholz and Liebig, 2013:26 (Germany: in list of Sphecidae *sensu lato* of Sachsen); Shlyakhtenok, 2013:130 (in annotated catalog of aculeate wasps of Belorussia); Baldock, 2014:355 (Spain: island of Mallorca); Bitsch, 2014:397 (recent records from France and Germany reported); Danilov, 2014a:424 (Russia: Siberia: widely distributed), 2014b:514 (in key to Sphecidae s.s. of Siberia); Dunford, Turbyville, and Leavengood, 2014:11 (listed as medically important in Afghanistan); U. Frommer, 2014:28 (Germany: Hessen: Lorch); Hellqvist, Abenius, and Norén, 2014:90 (in catalog of Ampulicidae, Sphecidae, and Crabronidae of Sweden, by provinces); Józan, 2014:132 (Croatia: Meka Draga, Tribanj Kruščica, Uvala Običaj); Kazenas, 2014a:131 (Kazakhstan: Karatau Mountain Range); Mokrousov and Vafin, 2014:54 (Russia: Republic of Tatarstan); Yildirim, 2014:29 (Turkey: distribution by biogeographic provinces); Gülmez and Can, 2015:12 (usability of ITS2 and 28S-D2 gene regions for species identification); Ivanov, Fateryga, and Filatov, 2015:300 (Crimea: Karadag Nature Reserve, a protected species); Koçak and Kemal, 2015:279 (in checklist of Hymenoptera of Turkey); Lett, 2015:5 (France: Loir-et-Cher: Gièvre); Protsenko and Gorobchishin, 2015:22 (in Red Book of Ukraine; map of locality records in Ukraine); P. Rosa and Pagliano, 2015:96 (Italy: Lombardia and Piemonte: Parco del Ticino); Shorenko, 2015:319 (in list of Sphecidae *sensu lato* of Crimea); Weber, 2015:64 (Germany: Bayern: Nature Reserve Börstig near Hallstadt); Bleidorn, Gerth, Hopfe, et al., 2016:11 (Germany: Sachsen: Trages circa 20 km south of Leipzig); Danilov, 2016:352 (three paralectotypes kept in Zoological Institute, Sankt Petersburg, Russia); Gülmez and Dizer, 2016:58 (Turkey: Tokat Province); Levărdă and Matache, 2016:43 (in catalog of Sphecidae s.s. of Romania); Mokrousov and Popov, 2016:565 (Russia: Abkhazia, Krasnodarskiy Kray); Stolle and Saure, 2016:927 (Germany: in list of Sphecidae *sensu lato* of Sachsen-Anhalt); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:5 (Turkey: Erzurum, Mersin, and Tunceli provinces); Arens, 2017a:632 (Greece: Peloponnesus); Burguet and Durand, 2017:9 (France: Puy-de-Dôme: basin of river Crouël); Danilov, 2017b:215 (in catalog of Sphecidae s.s. of Russia); Danilov and Mokrousov, 2017a:108 (Dagestan, Kalmykia, Volgograd Oblast'); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:29 (Iran: known from Alborz, Ardabil, East Azerbaijan, Fars, Golestan, Hamadan, Kordestan, South Khorasan, and Tehran provinces); Magdalou, 2017:16 (France: Pyrénées-Orientales: Réserves Naturelles Catalanes: Forêt de la Massane, Mas Larrieu, Julols); Schmid_Egger, 2017b:461

(in key to *Sphex flavipennis* species group of northwestern Africa), 463 (in revision of *Sphex flavipennis* species group in northwestern Africa); Shorenko, 2017:76 (in Crimea collected in June through August); Jacobs and Liebig, 2018:136 (Russia: Irkutsk Oblast': Bol'shoye Goloustnoye); Kemal and Koçak, 2018:43 (Turkey: in list of pterygot insects of Van Province); Lett, 2018:202 (France: Loir-et-Cher: Gièvres at 47°16'39"N 1°41'52"E); Nicolas and Vago, 2018:12 (France: Pas-de-Calais: Mont Saint-Frieux); Shorenko, 2018:127 (Crimea, including localities, habitats, and number of specimens); Gülmez, 2019:3 (Turkey: Ankara, Sivas, and Tokat provinces: no specific localities); Ruchin and Antropov, 2019a:13221 (Russia: Mordovia State Nature Reserve); Augul, 2019:499 (recorded from Iraq by Kaddou, 1967, as *Sphex maxillosus*); Shorenko, 2019:211 (among commonest species in Crimea); Weiser, 2019:10 (Germany: Baden-Württemberg: Schwetzinger Hardt: colonization of deforested area); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:317 (in list of Tunisian Sphecidae *sensu stricto*); Bodingbauer, Hörren, Jacobs, Kornmilch, Niehoff, Schweizer, Voigt, von der Heyde, Witt, and Wübbenhorst, 2020:58 (Germany: expansion in country northern parts, first records from Mecklenburg-Vorpommern, Niedersachsen, and Schleswig-Holstein); Cassar and Mifsud, 2020:164 (in checklist of Sphecidae s.s. of Malta); Danilov, 2020:320 (specimens from Kazakhstan, Kyrgyzstan, Mongolia, Russia: south of European part and Siberia, Tajikistan, and Ukraine in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); U. Frommer, 2020:152 (Germany: Hessen: Dillenburg and Gießen; history of recent expansion in Germany); Köhler, Hochstetter, Creutzburg, and Jessat, 2020:2 (Germany: Thuringen: Mönchsberg bei Göschwitz in vicinity of Jena); Maharramov, Mokrousov, and Proshchalykin, 2020:46 (Azarbaijan: Nakichivan Autonomous Republic); Saure, 2020:276 (Germany: Sachsen-Anhalt: sand dunes); Shorenko, 2020:47 (Crimea: Karadag Nature Reserve); Turrisi, Altadonna, Lo Cascio, Nobile, and Selis, 2020:728 (Italy: Aeolian Archipelago: island of Lipari); Verheyde, Waanders, and Theite, 2020:165 (Belgium: West-Vlaanderen Province: Ieper, and Netherlands: Limburg Province: Brunssum); Weiser, 2020:26 (morphology, prey and nesting behavior, range extension toward north); Antropov and Valuyev, 2021:5 (Russia: Bashkir Republic: three localities); Can and Gülmez, 2021b:313 (Turkey: Giresun, Gümüşhane, and Sivas provinces); Cross, Baldock, and Wood, 2021:19 (in catalog of Sphecidae *sensu lato* of Portugal); Ghaderipour, Khayrandish, Madjdzadeh, Ebrahimi, and Schmid-Egger, 2021:507 (Iran: Kerman Province); Olszewski, Wiśniowski, and Ljubomirov, 2021:104 (in commented list of Sphecidae *sensu lato* of Poland); Saure, 2021:81 (Germany: Brandenburg: Nature Reserve Ferbitzer Bruch near Potsdam); Embergenov, Élmurodova, Amirov and Kimyonazarov, 2022:47 (Uzbekistan: Oktosh in Tashkent Province); Nicolai, 2022:52 (Germany: Sachsen-Anhalt: between Hettstedt and Siersleben: mass occurrence); Embergenov, Akhmedov, and Medetov, 2023:24 (Uzbekistan: southern Lake Aral region); U. Frommer and Bahmer, 2023:195 (Germany: Hessen: Giessen University Botanical Garden); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey); Kochetkov, 2023:191 (Russia: Amur Oblast': Khingan Nature Reserve); Yildirim, Anlaş, and Tezcan, 2023:1944 (Turkey: İzmir: Bornova).

Sphex maxillosus mavromoustakisi de Beaumont, 1947b :383, ♀, ♂. Holotype: ♀, Cyprus: Polemidia Hills (Lausanne). Synonymized with *Sphex funerarius* by Menke and Pulawski, 2000:333. – Pittioni, 1950:20 (Cyprus).

As *Sphex flavipennis*: von Siebold, 1839:47 (Germany: Danzig, now Poland: Gdańsk), present correction based on geographic distribution; Fabre, 1856a:140 and 1879:81 (nesting habits), 1856a:162 (description of egg, larva, pupa), 166 (digestive tract), corrected to *Sphex maxillosus* by Berland, 1923a:172; Laboulbène, 1875:179 (reference to Fabre's observation on prey); Coulon, 1925:116 (France, Spain, Portugal, Morocco, treated as a synonym of *Sphex maxillosus*); Motaş, 1932:5 (nesting habits after Fabre); Evans, 1963c:51 (discussion of Fabre's experiments); Pagliano, 2008:529 (some specimens in M. Spinola collection, Torino, labeled as *flavipennis* are actually *Sphex funerarius*).

As *Sphex cinereorufocinctus*: Schenck, 1857:200 (in revision of fossorial wasps of Nassau Region, Germany), 1860:149 (Germany: Nassau Region), 1861:149 (Germany: Hessen: Mombach), conditionally corrected to *Sphex maxillosus* by Schenck, 1861:149; von Aichinger, 1870:320 (Austria: Tirol), corrected to *Sphex maxillosus* by Kohl, 1880:236.

As *Sphex rufocinctus* (misinterpretation, corrected to *Sphex funerarius* by Menke and Pulawski, 2000:333): Lomholdt, 1975c:68 (in Sphecid Fauna of Fennoscandia and Denmark); R. Bohart and Menke, 1976:116 (in checklist of world

Sphecidae, comments on nomenclatural problems); Guichard, 1978:270 (Greece); Richards, 1979:400 (British Channel Islands); Esenbekova and Kazenas, 2000:7 (southeastern Kazakhstan: seven localities); Pagliano, 1980:110 (Italy: Piemonte); Gayubo, 1981a:134 (northern Spain: Sierra de Béjar); Schmidt, 1981:219 (Germany: Baden-Württemberg); Gayubo, 1982f:245 (Spain: Cádiz Province); Dollfuss, 1983a:76 (Austria: endangered in Niederösterreich), 77 (Austria: endangered in Burgenland), 1983b:2 (in catalog of Sphecidae of Austria); Gayubo, 1983a:122 (prey: *Thyreonotus* sp., Tettigoniidae, and *Platycleis affinis* Fieber, Tettigoniidae), 1983c:230 (Spain: Salamanca Province); Mingo and Gayubo, 1983:146 (Spain); Schmidt and Westrich, 1983:120 (Greece); Gayubo, 1984c:356 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:8 (Spain: Valencia); Pagliano, 1984:367 (Italy); Chevin and Chevin, 1985:38 (France: Aude); Eiroa and Novoa, 1985:23 (Spain: Pontevedra: Barra beach near Cangas); Gayubo, 1985c:166 (Spain: Cantabria: Santoña); Józan, 1985b:55 (Hungary: Pécs area), 76 (floral records), 83 (ecological and zoogeographic characteristics); Pagliano, 1985:12 (Italy); Radović, 1985:64 (sting apparatus analyzed); Tormos and Jiménez, 1985:32 (Spain: Alicante Province); Westrich and Schmidt, 1985b:112 (Germany: endangered in Baden-Württemberg); Gayubo, 1986b:35 (Spain: Andalucía), 1986c:30 (Spain: Zamora Province); Gayubo and Heras, 1986:26 (Spain: Segovia and Valladolid Provinces; floral records); Gayubo and Sanza, 1986:27 (Spain: Burgos, Soria); Gayubo and Tormos, 1986a:8 (Spain: Castellón de la Plana), 1986b:4 (Spain: Valencia); Islamov, 1986:515 (Uzbekistan: Surkhandarya and Tashkent Oblast's); Asís and Jiménez, 1987:23 (Spain: Castellón Province); Gayubo, 1987:106 (Spain: Ciudad Real Province); Tormos and Jiménez, 1987a:122 (Spain: Valencia), 1987b:316 (Spain: Valencia Province: Dehesa de El Saler); Dollfuss, 1987:18 (latest Austrian specimens collected in 1952 and 1953); Andersson, Coulianos, Ehnström, Hammarstedt, Imby, Janzon, Lindelöw, and Waldén, 1987:72 (endangered in Sweden); Schmidt and Westrich, 1987:358 (Germany: Mainz area); Chevin, 1988:14 (France: La Manche Department); Dollfuss, 1988:20 (Austria: Niederösterreich: Oberweiden); Karsai, 1988:99 (Hungary: Kiskunság National Park); Islamov, 1989a:49 (nest and prey in Uzbekistan); Jacobs, 1989:3 (Germany: Mecklenburg-Vorpommern: no new records); Józan, 1989:100 (Hungary: Tihany Nature Reserve); Asís, Gayubo, and Tormos, 1990b:240 (description of mature larva); Gayubo, Asís, and Tormos, 1990a:9 (Spain); Jacobs and Oehlke, 1990:122 and 132 (not collected in Democratic Germany after 1960); Kuznetzova, 1990:17 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve); Pagliano, 1990:60 (in catalog of Italian Sphecidae); Day, 1991:xix (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:27 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:392 (Italy); Gayubo and Torres, 1991:Table I and p. 81 (Spain: Salamanca; effects of urban pressure); Hamon, Fonfria, and Tussac, 1991:128 and 131 (in key to French Sphecini), 132 (in France north to La Manche area and Brétagne); Józan, 1991:602 (Hungary: Bátorliget Nature Reserve); Kazenas and Nasyrova, 1991:38 (Kazakhstan: preying on *Tettigonia viridissima* L. and *Platycleis intermedia* (Aud.-Serv.), Tettigoniidae); Negrisolo, 1991:316 (Italy: Gorizia, Trieste, Udine, and Venezia Provinces); Schembri, 1991:177 (recorded from Malta by Valetta, 1971, and Erlandsson, 1974); Gayubo, Borsato, and Osella, 1992:275 (Greece, Turkey); Józan, 1992b:171 (Hungary: Boronka-melléki Protected Area); Kazenas, 1992c:25 (Turkmenistan: Repetek Nature Reserve); Kazenas and Tobias, 1992:29 (sleeping aggregations); K. Weber, 1992:88 (Germany: Bayern: Bamberg District); Gayubo, Tormos, and Asís, 1993b:308 (teratological specimen); Torregrosa, Gayubo, Tormos, and Asís, 1993:11 (Spain: Alicante Province); Luchetti, 1993:105 (Italy: Sardegna: Maddalena archipelago); Dollfuss, 1994:98 (endangered in Austria); Gayubo and Borsato, 1994:199 (Italy: Veneto, Toscana); Roche and Zalat, 1994:113 (Egypt: Sinai Peninsula); Tormos, Asís, and Gayubo, 1994:187, 193 (Spain: Albacete Province); Jansen and Kaluza, 1995:8 (Germany: extinct in Sachsen); Józan, 1995:104 (Hungary: projected Duna-Dráva National Park); Kazenas *in* Nemkov, Kazenas, Budrys, and Antropov, 1995:384 (in key to Sphecidae of Russian Far East); Krasnobayev et al., 1995:139 (Russia: Zhiguli Hills northwest of Samara); Negrisolo, 1995a:18 (visiting flowers of *Eryngium maritimum* L., Apiaceae, and *Echinophora 33anaden* L., Apiaceae), 22 (Italy: Veneto); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:2 (in catalog of Italian fauna); Pagliano and Pesarini, 1995:83 (Italy: Ferrara Province); Pagliano and Scaramozzino, 1995:731 (Italy: island of Lampedusa); Scharrer, 1995:23 (Germany: Bayern: Kahl; Croatia: Dalmatia, and Greece: Attica: no specific locality); Schmid-Egger, Risch, and Niehuis, 1995:208 (Germany: Rheinland-Pfalz); Vernier, 1995:176 (in key to Sphecini of

Switzerland); Gusenleitner, 1996b:809 (Austria: Kärnten), 1996c:818 (Croatia: Rovinj); Kuhlmann, 1996:220 (Portugal: Serra de Estrela); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Schmid-Egger, 1996a:19 (Germany: Baden: Campingplatz and Tuniberg near Nimburg); Schmid-Egger, Schmidt, and D. Doczkal, 1996:374, 378 (Gemany: endangered in Baden-Würtemberg); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:71 (in Sphecid Fauna of Western Europe); Celary, 1997:57 (in checklist of Animals of Poland); Schmidt and Schmid-Egger, 1997:27 (in checklist of German Sphecidae); F. Burger, Saure, and Oehlke, 1998:29 (Germany: in list of Sphecidae of Brandenburg), 33 (extinct); Dollfuss, Gusenleitner, and Bregant, 1998:509 (Austria: summary of collecting records from Burgenland); González, Gayubo, and Torres, 1998:72, 73 (Spain: Valladolid Province); Józan, 1998:310 (Hungary: Duna-Dráva National Park); Kazenas, 1998b:94 (in Sphecid Fauna of Kazakhstan); Shkuratov, 1998b:149 (nesting habits); Gayubo, García, Torres, and González, 1999:89 (Spain: Soria Province); González, Gayubo, and Torres, 1999:354 (Spain: Valladolid: Viana de Cega); Neumayer, Schwarz, and Bregant, 1999:225 (Austria: in checklist of Sphecidae of Land Kärnten); Shkuratov, 1999b:120 (2.6 and 2.75 nests per hectar in Rostovskiy Nature Reserve, Russia); Tüzün, Gülmez, and Bağriaçik, 1999:383 (Turkey: Aegean Region); Zehnder and Zettel, 1999:131 (Switzerland: recolonization of flooded area in Valais Canton); Blösch, 2000:137 (in Sphecid Fauna of Germany); Dressler, 2000:34 (Germany: Hessen: Darmstadt area); Gayubo, González, and Torres, 2000:184 (Spain: Salamanca Province); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:104 (Greece); Gusenleitner, 2000:954 (Austria: first record from Steiermark Province); Józan, 2000:104 (Hungary: Bakony Mountains); Schmid-Egger, 2000b:276, 280 (Germany: Baden-Württemberg: shores of Rhine River); Shkuratov, 2000:54 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Vicidomini, 2000b:27 (Italy: previously recorded from Campania); Basset, 2001:79 (France: Département de Gironde); Cungs and Jakubzik, 2001:122, 123, 125 (first record from Luxembourg); Budrys, 2001c:388 (first record from Lithuania: Varėna District: Puvočiai area); Józan, 2001:277 (Hungary: Somogy County); Kazenas and Esenbekova, 2001:133 (Kazakhstan: Almatinskiy Nature Reserve); Mazzucco, 2001:203 (Austria: Niederösterreich: Steinfeld); Shkuratov, 2001:16 (prey: *Platycleis intermedia* Serv., Tettigoniidae); Tüzün, 2001:44 (Turkey); Józan, 2002:53 (Hungary: Mecsek Mountains); Shkuratov, 2002a:383 (Russia: common in Rostov Oblast'), 2002b:138 (Russia: Rostov Oblast': Rostovskiy Nature Reserve at 46°27'N 42°41'E); Shlyakhtenok and Skibinska, 2002:32 (Belorussia: no specific locality); Drewes, 2003:142 (Croatia: Moščenicka Draga; France: Bretagne: Plouescat area; Spain: Tarragona); Józan, 2003: 226 (Hungary: Látrányi Puszta Nature Conservation Area); Lukáš, 2003:73 (Slovakia: Bratislava: old fruit orchard); Generani, Pagliano, Scaramozzino, and Strumia, 2003:64 (Italy: Arcipelago Toscano); Gorobchishin, 2004:34 (Ukraine: Zaporiz'ka Oblast': Obitichna Kosa Nature Reserve); Gorobchishin and Protsenko, 2004:40 (Ukraine: Kherson Oblast': Chernomorskiy Nature Reserve); Majzlan and Deván, 2004:30 (Slovakia: Sekule), 33 (Slovakia: Malacky-Široké); Gusenleitner, 2006:1358 (Austria: Tirol: Matrei); Protsenko, 2003:68, 69 (Ukraine: Odessa Oblast': island of Malyi Tataru in Danube delta at 45.21°N 29.00°E); Hellrigl, 2004a:174 (Italy: Trentino-Alto Adige, as Südtirol: Eisacktal, Mittewald; Vinschgau = Val Venosta: Brixen, Kortsch, Vahrn), 2004b:191 (Italy: Trentino-Alto Adige, as Südtirol: several localities; prey: *Pholidoptera griseoaptera* (De Geer), a tettigonid); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:358 (in catalog of Polish Sphecidae); Magdalou, 2006a:6, 9 (France: Pyrénées-Orientales: Réserve Naturelle de la Massane), 2006b:109 (France: Pyrénées-Orientales: Mas-Larrieu Nature Reserve near Argelès-sur-Mer), 2006c:7 (France: Pyrénées-Orientuyser and Vago, 2009:ales: Réserve Naturelle du Mas-Larrieu); Shlyakhtenok, 2006:110 (Belorussia: Polesye Radiological Nature Reserve); Józan, 2007:174, 179 (Hungary: Zselic hills); Vago, 2007:174 (France: département d'Aisne); G. Turrisi and R. Turrisi, 2007:115 (Italy: Sicilia: Mount Etna: Botanical Garden Nuova Gussonea and vicinity); Vicidomini and Pignataro, 2007:15 (Italy: Salerno Province: Paestum); Livory, Chevin, Lair, Sagot, and Baldock, 2008:27 (France: Département de la Manche); Baños-Picón, Asís, Gayubo, and Tormos, 2009:310 (Spain: frequency of specimens collected with hand nets and Malaise traps); Debuyser and Vago, 2009:2 (in list of Sphecidae *sensu lato* of northern France); Jozan, 2009:165 (Croatia); van der Smissen, 2010a:352 (Germany: Schleswig-Holstein: Söllingen), 2010b:387 (France: Ardèche: Saint-Maurice d'Ibie, Saint-

Thomé; Gard: Collias; Vaucluse: Bédoin); Józan, 2011:179 (in checklist of Sphecidae *sensu lato* of Hungary); Boillat, 2012:229 (Switzerland: in checklist of insects of Canton de Genève); Polidori, Crottini, Della Venezia, Selfa, Saino, and Rubolini, 2013:40 (animal protein as food for larva, unable to manipulate food load, flight muscle ratio, wing loading).

Le Sphex à ailes jaunes: Fabre, 1879:81 (nesting habits), 93 (stinging posture and sequence), 101 (description of egg and larva), corrected to *Sphex maxillosus* by Berland, 1923a:172.

53. *gaullei* Berland

Sphex gaullei Berland, 1927:151, ♀, ♂. Lectotype: ♀, Central African Republic: Fort-Crampel, now Kaga-Bandoro (MNHN), designated by Dörfel and Ohl, 2022:127. – Leclercq, 1955h:7 (reference to original description); Berland, 1956:1174 (in revision of African Sphecini); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Dörfel and Ohl, 2022:21 (in key to sub-Saharan *Sphex*), 127 (in revision of sub-Saharan *Sphex*).

Sphex rufiscutis laevigatus Arnold, 1951:145, ♂, junior primary homonym of *Sphex laevigatus* Rossi, 1794. Holotype: ♂, Mali: near Sofara (BMNH). Synonymized with *Sphex gaullei* by Dörfel and Ohl, 2020:127. – R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae).

54. *gisteli* Strand

Sphex aurulentus Gistel, 1857:38, sex not stated (as *aurulenta*, incorrect original termination), junior primary homonym of *Sphex aurulentus* Fabricius, 1787. Holotype or syntypes: "India occidentalis:" no specific locality (destroyed).

Sphex gisteli Strand, 1916c:98 (as *Gisteli*, incorrect original capitalization). Substitute name for *Sphex aurulentus* Gistel. – Strand, 1927:255 (in list of species described by author); Bohart and Menke, 1976:115 (in checklist of world Sphecidae).

55. *gilberti* R. Turner

Sphex gilberti R. Turner, 1908:468, ♀. Holotype or syntypes: ♀, Australia: Queensland: Mackay (BMNH). – R. Turner, 1910a:344 (in key to Australian Sphecini); not listed by Bohart and Menke, 1976; Cardale, 1985:224 (in catalog of Australian Sphecidae); Hensen, 1991a:22 (member of *Sphex resplendens* species group); Dörfel and Ohl, 2015:10 (in key to Australian *Sphex*), 42 (in revision of Australian *Sphex*).

56. *gracilis* Dörfel and Ohl

Sphex gracilis Dorfel and Ohl, 2015:42, ♀, ♂. Holotype: ♂, Australia: New South Wales: 35 km north of Menindee (Australian Museum Sydney). – Dörfel and Ohl, 2015:10, 15 (in key to Australian *Sphex*).

57. *guatemalensis* Cameron

Sphex guatemalensis Cameron, 1888a:32, ♀, ♂. Syntypes: Guatemala: San Gerónimo (BMNH). – R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Amarante, 2002:74 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae). – **As *Sphex flavipes* var. *guatemalensis***: Kohl in Dalla Torre, 1897:423 (new status, in catalog of world Hymenoptera). – **As *Chlorion flavitarsis guatemalensis***: Fernald, 1906:381 (new combination, new status, in revision of Sphecini of North America and West Indies). – **As *Sphex opacus guatemalensis***: W. Schulz, 1912:93 (new subspecific combination). – **As *Chlorion opacum guatemalensis***: Fernald, 1931a:442 (new subspecific combination).

58. *habenus* Say

Sphex habenus Say, 1832:14, sex not stated (as *habena*, incorrect original termination). Holotype or syntypes: USA: Louisiana: no specific locality (destroyed). – Le Conte, 1859a:308 (original description copied); Cresson, 1863:319 (in catalog of North American Hymenoptera); nec Cresson, 1873:211 (= *Sphex dorsalis*); Cresson, 1887:275 (in catalog of North American Hymenoptera); W. Fox, 1894c:103 (Mexico: Baja California Sur, as *habena*), 1895c:265 (Mexico: Baja California Sur, as *habena*); Kohl, 1895:70 (original description copied); Dalla Torre, 1897:424 (in

catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae, as *habena*); Murray *in* Muesebeck, Krombein, and Townes, 1951:971 (in catalog of North American Hymenoptera); R. Bohart and Menke, 1963:121 (in revision of Nearctic Sphecini), 1976:115 (in checklist of world Sphecidae); Ch. Porter, 1978:170 (Texas); Krombein, 1979b:1580 (in catalog of North American Hymenoptera); Ahlstrom, 1995:106 (in checklist of insects of North Carolina); Maes, 1989:92 (in catalog of Nicaraguan Sphecidae); Amarante, 2002:74 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Miller, Pearce, and O'Neill, 2009:3 (known to be parasitized by *Paraxenos westwoodi* (Templeton), Strepsiptera). – **As *Chlorion habenum***: Fernald, 1906:374 (new combination, in revision of Sphecini of North America and West Indies); Brimley, 1938:444 (North Carolina: Lumberton, Raleigh, Wilmington); Fernald, 1943a:288 (Florida), Strandtmann, 1953:51 (nesting habits); Krombein, 1958f:190 (in supplement to catalog of North American Hymenoptera: prey: nymphal Tettigoniidae).

Sphex lautus Cresson, 1873:212, ♀ (as *lauta*, incorrect original termination). Lectotype: ♀, USA: Texas: no specific locality (ANSP), designated by Cresson, 1916:94. Synonymized with *Sphex habenus* by Fernald, 1940:45. – Cresson, 1887:275 (in catalog of North American Hymenoptera); Kohl, 1890b:447 (original description copied); Dalla Torre, 1897:428 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae). – **As *Chlorion lautus***: Fernald, 1906:371 (new combination, in revision of Sphecini of North America and West Indies).

Sphex lauta var. *illustris* Cresson, 1872:212, ♀ (proposed conditionally). Lectotype: ♀, USA: Texas: no specific locality (ANSP), designated by Cresson, 1916:94. Synonymized with *Chlorion habenum* by Fernald, 1906:374. – **As *Sphex illustris***: Cresson, 1916:94 (new status).

Sphex princeps Kohl, 1890b:398, ♀. Syntypes: origin unknown, presumably Australia (NHMW). Synonymized with *Chlorion habenum* by Fernald, 1931a:442. – Dalla Torre, 1897:437 (in catalog of world Hymenoptera); Dollfuss, 1989:12 (type material in NHMW).

Sphex chrysophorus Kohl, 1890b:399, ♀. Holotype or syntypes: ♀, Mexico: no specific locality (TMB). Synonymized with *Chlorion lautum* by Fernald, 1906:371. – Dalla Torre, 1897:418 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae).

Sphex lanciger Kohl, 1895:55, ♂. Holotype: ♂, USA, Louisiana: New Orleans (ZMHU). Synonymized with *Chlorion lautum* by Fernald, 1906:371. – Dalla Torre, 1897:428 (in catalog of world Hymenoptera).

59. *haemorrhoidalis* Fabricius

Sphex haemorrhoidalis Fabricius, 1781:443, sex not stated. Holotype: ♀, tropical Africa, probably West Africa (BMNH, coll. Banks). – Fabricius, 1787:274 (redescription); Gmelin, 1790:2725 (redescription); Fabricius, 1793:200 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:484 (redescription); F. Smith, 1856:243 (in catalog of Hymenoptera in British Museum); Dalla Torre, 1897:425 (in catalog of world Hymenoptera); R. Turner, 1912g:369 (synonymy, coloration, excluding Sri Lankan specimens which = *Sphex subtruncatus krombeini*, incorrectly synonymized Oriental *Sphex nigripes*); Yasumatsu, 1938c:64 (in revision of Sphecini of Japanese Empire = Japan, Korea, part of China, Taiwan); Tsuneki, 1946a:46 (nesting habits); Arnold, 1951:145 (Ghana, Ethiopia); Berland, 1952b:275 (boundary of Ivory Coast, Guinea, and Liberia: Mount Nimba); Leclercq, 1955h:13 (bibliographic references, locality records from Zaire, key to subspecies); Berland, 1956:1177 (in revision of African Sphecini); Leclercq, 1961b:46 (Zaire), 1961i:325 (in key to *haemorrhoidalis* group), 326 (locality records); Tsuneki, 1963b:41 (Korea: nesting habits); Baltazar, 1966:343 (in catalog of Hymenoptera of Philippines, as *haemorrhoidalis haemorrhoidalis*); Tsuneki, 1967i:382 (Taiwan), 1967j:3 (Taiwan), 1963b:41 (nesting habits); Diniz, 1964c:100 (in key to Angolan *Sphex*), 101 (Angola: Lunda: Dundo); Tsuneki, 1968m:54 (Taiwan; nesting habits as in Korean populations); Leclercq, l969:1049 (Congo Brazzaville); I. Robertson, 1969:480 (Tanzania: Nyarumbugu); Tsuneki and Iida, 1969:1 (nesting habits); Haneda, 1971b:31 (Taiwan); Tsuneki, 1971f:1 (Taiwan; nomenclature); Fain, 1973:179 (parasite: *Crabrovidia 36anadens* Fain, a saproglyphid mite); Murota, 1973b:116 (Taiwan); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae, Oriental records are erroneous and pertain to *subtruncatus* Dahlbom or

some other species); Li and Yang, 1995b:573 (China: Zhejiang Province: Baishanzu Mountain); Wu and Zhou, 1996a:35 (in revision in Economic Insect Fauna of China); S. Gess and F. Gess, 2003:94 (Namibia: visiting flowers of *Hermbstaedtia odorata* (Burch.) T. Cooke, Amarantaceae); Wu, Zhou, Q. Li, and Yang, 2003:806 (China: Fujian Province); Q.Li and He, 2004:1129 (in hymenopterous fauna of Zhejiang Province, China); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Dollfuss, 2008b:1425 (locality records from Kenya, Malawi, Mozambique, Namibia, South Africa, Tanzania, Zambia, and Zimbabwe); Dörfel and Ohl, 2022:23 (in key to sub-Saharan *Sphex*), 66 (in revision od sub-Saharan *Sphex*). – **As *Pepsis haemorrhoidalis***: Fabricius, 1804:209 (new combination, redescription). – **As *Chlorion haemorrhoidalis***: Rohwer, 1922:669 (new combination, Philippines); Arnold, 1928c:364 (in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae); Scott *in* Arnold, 1933a:370 (Ethiopia: Maraquo, as *haemorrhoidale*); Arnold, 1947:146 (geographic variation).

Sphex nigripes var. *volubilis* Kohl, 1895 :64, ♀, ♂. Lectotype: ♂, Cameroon: Barombi Station (ZMHU), designated by Dörfel and Ohl, 2022:67. Synonymized with *Sphex haemorrhoidalis* by R. Turner, 1912g:369. – Dalla Torre, 1897:434 (in catalog of world Hymenoptera); Berland, 1928a:329 (Uganda, Zaire); Schouteden, 1930:95 (Zaire). – **As *Sphex volubilis***: Strand, 1916b:104 (new status, Cameroon). – **As *Chlorion haemorrhoidalis* var. *volubilis***: Arnold, 1928c:366 (new combination, in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae). – **As *Sphex haemorrhoidalis volubilis***: Leclercq, 1955h:16 (new status, summary of earlier locality records, Liberia: Kakatown); Bohart and Menke, 1976:115 (in checklist of world Sphecidae).

60. *hades* Dörfel and Ohl

Sphex hades Dörfel and Ohl, 2022:65, ♂. Holotype: ♂, Burkina Faso: Cascades Region: Tourni at 10°46' N 5°09' W (MNHN). – Dörfel and Ohl, 2022:21 (in key to sub-Saharan *Sphex*).

61. *ichneumoneus* (Linnaeus)

Apis ichneumonea Linnaeus, 1758:578, sex not stated. Lectotype: ♀, Surinam: no specific locality (NRS), designated by Bohart and Menke, 1963:123. – Day, 1979:65 (material in Linnaeus collection); Day and Fitton, 1978:195 (recuration of Linnean type material). – **As *Ammobia ichneumonea***: Faull, 1913:384 (new combination, Canada: Toronto region); Rohwer, 1917a:240 (Ohio or Texas, also California); E. Reinhardt, 1929:143 (experiments with prey dragging into nest, paralyzing prey); Hendrickson, 1930:159 (Iowa); Rau, 1933:158 (Panama: island of Barro Colorado, nesting habits); Frisch, 1937:1043 (nesting habits); Strickland, 1947:128 (Canada: Alberta: Lethbridge); Callan, 1950:205 (common in Trinidad); Wolcott, 1951:840 (in review of insects of Puerto Rico; as variety *auriflua* (Perty)); Piek and Spanjer, 1986:179 (in list of Sphecidae with known prey, as *ichneumoneta*). – **As *Chlorion ichneumoneum***: Dahlbom, 1845:XXII (new combination, specimens in collection Fabricius are *Sphex*); Fernald, 1906:399 (in revision of Sphecini of North America and West Indies); H. Smith, 1908b:334 (in revision of Nebraskan Sphecidae); J. Smith, 1910:677 (in new list of insects of New Jersey, as *ichneumonea*); Viereck, 1911:98 (*Chlorion ichneumonea* in H. Smith, 1910:677, should read *ichneumoneum*); Rohwer, 1916b:680 (in catalog of Hymenoptera of Connecticut); Mickel, 1918b:399 (in catalog of Nebraskan Sphecidae); Rau and Rau, 1918:193 (nest structure, prey: *Orchelimum vulgare* Harris and *O. calcaratum* Rehn and Hebard, Tettigoniidae); Washburn, 1919:222 (in list of Hymenoptera of Minnesota); Britton, 1920:340 (in checklist of insects of Connecticut); Rau, 1922:22 (USA: Missouri: Wesco); Rohwer *in* Viereck, 1925:680 (in key to Sphecidae of Connecticut; Branford, Hartford, New Haven, Stonington); Viereck, 1925: 11 (Barbados); Salt, 1927:182 (stylopized specimens; Illinois: Carlinville, Texas: Fedor); J.Ch. Bradley, 1928:1011 (in catalog of New York Sphecidae); Woodbury, 1930:135 (paralyzed prey, a katydid *Microcentrum* sp., survived for 17 days); Krombein, 1936:98 (New York: Buffalo; floral records); Brimley, 1938:444 (North Carolina: statewide); Fernald, 1942:31 (Guyana), 1943a:289 (Florida); Dreisbach, 1944:268 (in key to Sphecinae of Michigan), 273 (Michigan: locality records); Fernald, 1945:458 (nesting site and habits); Spencer and Wellington, 1948:10 (British Columbia); Willink, 1951:163 (in revision of Argentinean Sphecini); Ristich, 1953:374 (phenology, nesting habits, natural enemies); Krombein, 1958f:190 (in supplement to catalog of North American Hymenoptera: description of larva by Evans and Lin, 1956, recorded, as *icheumoneum ichneumoneum*), 1963f:275 (Maryland: Plummers

Island near Washington, D.C.); G. Bohart, Nye, and Hawthorn, 1970:18, 49 (Utah: Logan, onion pollinator). – **As *Proterosphex ichneumoneus***: Schrottky, 1913a:225 (new combination, Argentina, Paraguay). – **As *Sphex ichneumoneus***: Fabricius, 1775:348 (new combination, redescription), 1781:446 (redescription), 1787:275 (redescription); Gmelin, 1790:2727 (redescription); Fabricius, 1793:207 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:488 (redescription); Jurine, 1807:129 (in list of known *Sphex*); Lepeletier de Saint Fargeau and Audinet-Serville, 1828:462 (in list of known *Sphex*); Dahlbom, 1843:26 (in revision of Sphecidae and Pompilidae), 1845:438 (in key to world Sphecini); Lepeletier de Saint Fargeau, 1845:346 (in revision of world Hymenoptera); Erichson, 1849:589 (British Guyana); F. Smith, 1856:261 (in catalog of Hymenoptera in British Museum); Cresson, 1863:319 (in catalog of North American Hymenoptera); A. Costa, 1864a:60 (two specimens from Mexico in Museo Zoologico di Napoli), 1864b:112 (three specimens from New Orleans, Louisiana, in Museo Zoologico di Napoli); Taschenberg, 1869:419 (South America, Illinois); Cresson, 1873:213 (Texas), 1875:715 (Nevada, New Mexico), 1876:208 (Utah: Spring Lake); Riley, 1878:318 (quoting Packard's observations on nesting habits); Patton, 1879d:354 (USA: northwest Kansas), 1880a:382 (diagnostic characters); Snow, 1881:96 (in checklist of Hymenoptera of Kansas: Douglas and Wallace counties: no specific localities); Cresson, 1887:275 (in catalog of North American Hymenoptera); Cameron, 1889a:34 (Central America); Ashmead, 1890:33 (in checklist of Hymenoptera of Colorado); Kohl, 1890b:430 (in revision of world Sphecini); C. Robertson, 1892:106 (visiting flowers of *Pycnanthemum muticum* Pers., Lamiaceae, as *ichneumonea*), 108 (visiting flowers of *Pycnanthemum lanceolatum* (Willd.) Push. And *P. linifolium* Push., Lamiaceae, as *ichneumonea*), 1894:455 (visiting flowers of *Solidago missouriensis* Nutt. And *S. 38anadensis* Linnaeus, Asteraceae, as *ichneumonea*), 1896:73 (visiting flowers of *Polygonum hydropiperoides* Michx., Polygonaceae, as *ichneumonea*); Dalla Torre, 1897:425 (in catalog of world Hymenoptera); W. Fox, 1897b:377 (Brazil: Maruru and Santarém); G. Peckham and E. Peckham, 1898:33 (nesting habits); Ashmead, 1899d:353 (in checklist of North American Sphecidae); Bridwell, 1899:209 (Kansas: Baldwin, as *ichneumonea*); G. Peckham and E. Peckham, 1900: 88 (nest construction, prey); J. Smith, 1900:523 (in list of insects of New Jersey, as *ichneumonea*); Cockerell, 1901:40 (visiting flowers of *Cleome serrulata* Pursh., Capparaceae); Ducke, 1901:242 (Brazil: Pará: Belém); Schrottky, 1902a:315 (Brazil); Schrottky, 1903b:124 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay); W. Schulz, 1903:476 (Haiti, description of local population); Viereck, 1903d:120 (Maryland: Chestertown); G. Peckham and E. Peckham, 1905:56 (popular account of nesting habits); Snow, 1906:133 (Arizona: Baboquivari, Humphrey's Peak, Oak Creek 20 mi. southwest of Flagstaff, as *ichneumonea*); Hart, 1907:255 (Illinois); Barth, 1908a:134 (nest and prey); Schrottky, 1908:25, 51 (visiting flowers of *Mimosa asperata* L., Fabaceae), 1909c:210, 212 (occurring on dry sand); Strand, 1910b:15 (Peru: Lima); Jörgensen, 1912:286 (Argentina: Mendoza Province); Strand, 1916b:98 (Massachusetts, Pennsylvania); Bodkin, 1918:315 (British Guiana, nesting habits); Poulton, 1918:xxxvi (Brazil, prey); Berland, 1929b:311 (miscellaneous locality records); Cheesman, 1929:151 (Panama: island of Taboga); G. Carpenter, 1930b:290, 294 (nest closure); Liebermann, 1931:17 (in revision of Argentinean Sphecini); Abbott, 1932:257 (nesting habits); Murray *in* Muesebeck, Krombein, and Townes, 1951:972 (in catalog of North American Hymenoptera); K. Cooper, 1953:34 (Massachusetts: island of Penikese); Evans and Lin, 1956a:139 (description of larva); R. Bohart and Menke, 1963:123 (in revision of Nearctic Sphecini); Evans, 1963a:plate (photograph of female with prey), 1963c: fig. 5 after p. 38 (photograph of female with prey); Kurczewski and Kurczewski, 1963:147 (Pennsylvania: Presque Isle State Park); Menke, 1965a:208 (synonymy); Pilon and Steiner, 1966:481 (locality records from Massachusetts, Michigan, and Quebec); Horning and Barr, 1970:104 (USA: Idaho: Craters of the Moon National Monument); Evans, 1975a:263 (slow colonizer of new habitats); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Brockmann, 1979:211 (nest site selection); Sismondo, 1978:244 (prey: *Meconema thalassinum* (De Geer), a tettigoniid); Brockmann and Dawkins, 1979:14 (nesting habits, joint nesting as evolutionary preadaptation for sociality); Brockmann, Grafen, and Dawkins, 1979:473 (some females use abandoned conspecific nests, and some join an active nest; relationships with nest's owner are not amicable); Krombein, 1979b:1580 (in catalog of North American Hymenoptera); Brockmann, 1980a:426 (control of nest depth), 1980c:394 (kleptoparasitism by house sparrows); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection,

Torino); Dawkins and Brockmann, 1980:892 (competition for nest between females); Nascimento and Overal, 1980:10 (Brazil); Finnamore, 1982:13 (in Sphecid Fauna of southern Quebec); Brockmann, 1985a:631-655 (preying habits), 1985b:312 (nest closure summary); Radović, 1985:64 (sting apparatus analyzed, as *39anadensis*); Menke, 1986c:35 (Arizona: Navajo County: 18 mi. west of Kayenta), 36 (Arizona: Gila County: Carrizo); Parks, 1986:34 (California: Torrey Pines State Reserve; as *39anadensis*); Piek and Spanjer, 1986:189 (in list of Sphecidae with known prey, as *ichneumonea*); Steiner, 1986:95 (references to papers on nesting habits); Maes, 1989:93 (in catalog of Nicaraguan Sphecidae); O'Brien, 1989b:204 (distribution in Michigan); Spofford, Kurczewski, and Downes, 1989:256, 257, 260, 261 (nest parasites: *Hilarella hilarella (*Zetterstedt), *Metopia luggeri* Townsend, and *Senotainia vigilans* Allen, miltogrammine flies, and undetermined species of Miltogrammini, and summary of previous records for nest parasites *Metopia argyrocephala* (Meigen), *Metopia campestris* (Fallén), and *Senotainia trilineata* (Wulp), miltogrammine flies); Callan, 1990b:19 (in checklist of Trinidad Sphecidae); Kurczewski and Acciavatti, 1990:59 (New York: Cayuga County); Spofford and Kurczewski, 1990:745, 747, 749, 750 (nest parasites: *Hilarella hilarella* (Zetterstedt), *Metopia luggeri* (Townsend), *Senotainia trilineata* (Van der Wulp), *Senotainia vigilans* Allen, and unknown species of Miltogrammini, Sarcophagidae); Romel and Dykstra, 1991a:11 (Canada: Ontario, nesting in home lawns); Quicke, Ingram, Baillie, and Gattens, 1992:386 (sperm structure and ultrastructure, as *ichneumonium*); Snelling, 1992:14 (Virgin Islands: island of Mona); Spofford and Kurczewski, 1992:995 (species of miltogrammine parasites listed); nec Snelling, 1993a:18 (= *Sphex dorsalis*); Betz, Struven, Wall, and Heitler, 1994:48 (pollinating *Asclepias 39anadensi* L. and *A. sullivanti* Engelm., Apocynaceae), 49 (pollinating *Asclepias syriaca* L., *A. tuberosa* L., and *A. verticillata* L., Apocynaceae); Ahlstrom, 1995:106 (in checklist of insects of North Carolina); Hanson and Menke, 1995:637 (known from Costa Rica); Kurczewski, 1998d:250 (pine barrens in upstate New York); Coelho and Ladage, 1999:480 (flight muscle ratio highest among all Hymenoptera measured; females may carry prey up to twice their own weigth); Meagher and Mitchell, 1999:368 (collected in pheromone- and synthetic floral volatile-baited traps); Cambra and Santos, 2000:54 (Panama: Parque Nacional Coiba in Isla de Coiba, Pacific Ocean); Melo, 2000:104 (use of one nest by more than one female); Brockmann, 2011:22 (nesting strategies); Skevington et al., 2001:128 (Canada: Ontario: Lambton County); Amarante, 2002:74 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Ohl and Linde, 2003:149 (number of ovarioles); Starr and Hook, 2003:22 (in catalog of Aculeata of Trinidad, West Indies); Buck, 2004:24 (in checklist of Sphecidae of Ontario, Canada); Kephart and Theiss, 2004:270 (pollinating flowers of *Asclepias*, Apocynaceae); Amarante, 2005a:14 (correction to his 2002 catalog); Snelling, 2005:292 (British Virgin Islands: island of Guana); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007:48 (Mexico: Tamaulipas); Dollfuss, 2008b:1426 (locality records from Argentina, Dominican Republic, Ecuador, French Guiana, Jamaica, and Nicaragua); Perez-Gelabert, 2008:242 (in list of arthropods of island of Hispaniola); McCravy, Bara, Hessler, Luxmore, Stinebaker, and Jenkins, 2009:113 (Illinois: Hancock County: Alice L. Kibbe Life Science Station); Pagliano, 2008:529 (specimens in M. Spinola collection, Torino, are *Sphex sericeus fabricii*); Buys, 2009e:278 (Brazil: Rio de Janeiro: Itatiaia, Mangaratiba, Rio de Janeiro); Miller, Pearce, and O'Neill, 2009:1, 3 (25% of males and 7% of females were parasitized by *Paraxenos westwoodi* (Templeton), Strepsiptera, in southcentral Montana); Rasmussen and Asenjo, 2009:16 (in checklist of Crabronidae of Peru); Buys, 2011b:2 (Brazil: Rio de Janeiro: Itatiaia); Field, Ohl, and Kennedy, 2011:734 (in molecular 39anadensis analysis of Ammophilini); Rodrigues and Buys, 2013:214 (Brazil; Espírito Santo: Santa Teresa); Buys and Rodrigues, 2014:41 (Brazil: first record from State of Espírito Santo: Santa Teresa); Deshmukh, 2015:37 (India: Maharashtra: Koradi Region in Nagpur District); Ratzlaff, 2016:29 (Canada: British Columbia: from Buck, 2004); Abrego and Santos, 2018:107 (Panama; new prey record: *Viadana zetterstedti* (Stål), Tettigoniidae); Danilov, 2020:320 (specimens from Canada in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Field, Gonzalez-Voyer, and Boulton, 2020:7 (evolution of parental care); Lewis, 2020:52 (range extension into Canada: New Brunswick: Saint John County: Black Beach at 45.144285°N 66.236958°W).

Nomada surinamensis Retzius, 1783:62, sex not stated (as *Surinamensis*, incorrect original capitalization). Substitute name for *Apis ichneumonea* Linnaeus, 1758.

Sphex aurifluus Perty, 1833:142, sex not stated. Holotype or syntypes: Brazil: Rio Negro: near Rio Negro river (destroyed: Diller, 1990:75). Synonymized with *Sphex ichneumoneus* by Kohl, 1890b:430. – F. Smith, 1856:256 (in catalog of Hymenoptera in British Museum); Cresson, 1865a:137 (Cuba); Dewitz, 1881:203 (Puerto Rico); Ashmead, 1900:308 (in checklist of Caribbean Hymenoptera). – **As *Sceliphron aurifluus***: Ashmead, 1900:308 (new combination, in checklist of Caribbean Hymenoptera, listed for second time under different generic name). – **As *Sphex ichneumoneus* var. *aurifluus***: Dalla Torre, 1897:426 (new status, in catalog of world Hymenoptera); Berland, 1929b:311 (miscellaneous locality records). – **As *Sphex ichneumoneus aurifluus***: Murray *in* Muesebeck, Krombein, and Townes, 1951:972 (new status, in catalog of North American Hymenoptera). – **As *Chlorion ichneumoneum aurifluum***: Fernald, 1906:403 (new combination, in revision of Sphecini of North America and West Indies); Cameron, 1912a:426 (Guyana); Fernald, 1943a:289 (Florida). – **As *Ammobia auriflua***: Holland, 1917:295 (new combination, Cuba: Isla de Pinos, now Isla de la Juventud: Nueva Gerona).

Sphex aurocapillus Templeton, 1841:56, sex not stated. Holotype: sex unknown, Brazil: Rio de Janeiro (depository unknown). Synonymized with *Sphex ichneumoneus* by Kohl, 1890:430. – von Heyden, 1867:398 (as *auricapillus*, reference to Templeton, 1841, as host of *Xenos westwoodi* Templeton, Strepsiptera, in Rio de Janeiro).

Sphex croesus Lepeletier de Saint Fargeau, 1845 :351, ♀ (as *Croesus*, incorrect original capitalization). Holotype or syntypes: ♀, USA: Rocky Mountains: no specific locality (originally Audinet-Serville collection, now M. Spinola collection, Torino). Synonymized with *Sphex ichneumoneus* by Menke, 1965a:208. – F. Smith, 1856:262 (in catalog of Hymenoptera in British Museum); Cresson, 1863:319 (in catalog of North American Hymenoptera), 1887:275 (in catalog of North American Hymenoptera); Dalla Torre, 1897:420 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae); Fernald, 1906:417 (unidentified species); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection, Torino); Pagliano, 2008:529 (specimens in M. Spinola collection, Torino, including unpublished lectotype).

Sphex dimidiatus Lepeletier de Saint Fargeau, 1845:352, ♀ (as *Dimidiata*, incorrect original capitalization and termination), junior primary homonym of *Sphex dimidiatus* De Geer, 1773, *Sphex dimidiatus* Christ, 1791, and *Sphex dimidiatus* Fabricius, 1794. Holotype or syntypes: ♀, North America: no specific locality (originally Audinet-Serville collection, now M. Spinola collection, Torino). – F. Smith, 1856:262 (in catalog of Hymenoptera in British Museum); Cresson, 1863:319 (in catalog of North American Hymenoptera), 1887:275 (in catalog of North American Hymenoptera); Kohl, 1890b:442 (original description copied); Dalla Torre, 1897:421 (in catalog of world Hymenoptera); Fernald, 1906:417 (unidentified species); Bradley, 1957:40 (type in M. Spinola collection, Turin); Casolari and Casolari Moreno, 1980:102 (specimen in M. Spinola collection, Torino); Pagliano, 2008:527 (probable holotype in M. Spinola collection, Torino).

Sphex sumptuosus A. Costa, 1862a:16 and 1862b:66, ♂ (as *sumptuosa*, incorrect original termination). Holotype: ♂, Brazil: no specific locality (Napoli). Synonymized with *Sphex ichneumoneus* by Kohl, 1890b:430. – **As *Sphex ichneumoneus* var. *sumptuosus***: Dalla Torre, 1897:427 (new status, in catalog of world Hymenoptera); Schrottky, 1902a:315 (Brazil), 1904:344 (first record from Paraguay); Strand, 1910a:133 (Paraguay), 1916b:99 (Brazil: Minas Gerais); Jörgensen, 1912:286 (Argentina: Mendoza Province); Poulton, 1918:xxxvii (Brazil, prey); Bischoff and von Schulthess, 1937:168 (Argentina); Richards, 1937a:105 (Guyana).

Sphex ichneumoneus var. *ignotus* Strand, 1916b:99, ♀ (as *ignota*, incorrect original termination). Holotype: ♀, Colombia: no specific locality (DEI). Synonymized with *Sphex ichneumoneus* by Menke, 1965a:209. – Strand, 1927:254 (in list of species described by author); Oehlke and Wudowenz, 1974:423 (holotype and one paratype in DEI).

62. *imporcatus* Dörfel and Ohl

Sphex imporcatus Dörfel and Ohl, 2015:46, ♀. Holotype: ♀, Australia: South Australia: no specific locality (BMNH). – Dörfel and Ohl, 2015:10 (in key to Australian *Sphex*).

63. *incomptus* Gerstaecker

Sphex incomptus Gerstaecker, 1871:352, ♂ (as *incompta*, incorrect original termination). Holotype or syntypes: ♂, Tanzania: Wanga (ZMHU). – Kohl, 1890b:445 (original description copied), 1895:66 (redescription, relationship to *Sphex nigrohirtus*); Dalla Torre, 1897:427 (in catalog of world Hymenoptera); Berland, 1927:154 (miscellaneous locality records); Arnold, 1951:145 (Ghana, Ethiopia); Leclercq, 1955h:11 (bibliographic references, comments on variation), 1961i:326 (in key to *Sphex haemorrhoidalis* species group, locality records), l969:1050 (Congo Brazzaville); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Rodgers and Homewood, 1982:233 (Tanzania: Usambara Mountains); Dollfuss, 2008b:1427 (locality records from Kenya, Malawi, Mozambique, South Africa, Tanzania, Uganda, Zambia, and Zimbabwe); Dörfel and Ohl, 2022:17 (in key to sub-Saharan *Sphex*), 89 (in revision of sub-Saharan *Sphex*). – **As *Chlorion incomptum***: Arnold, 1928c:368 (in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae).

Sphex incomptus Gerstaecker, 1873:333, ♂. Objective synonym of *Sphex incomptus* Gerstaecker, 1871.

Chlorion nyanzae R. Turner, 1918b:358, ♀, ♂. Syntypes: Uganda: Entebbe; northwestern shores of Lake Victoria; Tanzania: Bukoba (BMNH). Synonymized with *Chlorion incomptus* by Arnold, 1928c:368.

64. *ingens* F. Smith

Sphex ingens F. Smith, 1856:257, ♀, ♂. Lectotype: ♂, Brazil: no specific locality (BMNH), designated by Menke *in* R. Bohart and Menke, 1976:115. – A. Costa, 1864b:112 (specimen from Brazil in Museo Zoologico di Napoli); Taschenberg, 1869:411 (present in Halle University collection); Kohl, 1890b:402 (in revision of world Sphecini); Dalla Torre, 1897:427 (in catalog of world Hymenoptera); W. Fox, 1897b:376 (Brazil: no specific locality), 1899:200 (Brazil: Rio Grande do Sul); Schrottky, 1902a:315 (Brazil); Berland, 1929b:309 (Brazil, Argentina, largest *Sphex* and one of largest Hymenoptera); Liebermann, 1931:20 (in revision of Argentinean Sphecini); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Nascimento and Overal, 1980:11 (Brazil); Amarante, 2002:74 (in catalog of Neotropical Sphecidae); Suhogusoff, Meira, Piliackas, Rossi, and Badio, 2007:1 (Brazil: São Paulo: Parque Estadual da Ilha Anchieta near Ubatuba); Buys, 2009e:278 (Brazil: Rio de Janeiro: Angra dos Reis, Nova Iguaçú, Itaipuaçu, Reserva Biologica de Poco das Antas, nesting habits), 2011b:2 (Brazil: Rio de Janeiro: Angra dos Reis, Parati); Rodrigues and Buys, 2013:214 (Brazil; Espírito Santo: from Amarante, 2002); Buys and Rodrigues, 2014:41 (Brazil: State of Espírito Santo: Conceição de Barra, Guarapari, Linhares); Silvestre, Demétrio, Trad, de Oliveira Lima, Auko, and de Souza, 2014:70 (Brazil: Mato Grosso do Sul: dry forests in Bodoquena Mountain Range and Brazilian Chaco); Souza, Prezoto, Lima, and Pederassi, 2015:107 (mating behavior), 1016:1 (successful males touched the female with their antennae more in a shorter courtships duration); Trad and Silvestre, 2017:4 (Brazil: Mato Grosso do Sul); dos Santos Souza, Queiroz, Cruz Souza Lima, and Pederassi, 2018:1 (Brazil; Rio de Janeiro: Angra dos Reis: Aventureiro Beach on Ilha Grande; preying exclusively on tettigoniids *Pleminia vicina* Brunner von Wattenwyl and *Meroncidius* sp.). – **As *Chlorion ingens***: Willink, 1951:161 (new combination, in revision of Argentinean Sphecini).

65. *inusitatus* Yasumatsu

Sphex inusitatus Yasumatsu, 1935a:5 and 22, ♀. Holotype: ♀, Japan: Kyushu: Chikuzen: Sefuriyama (Kyushu Imperial University). – Tsuneki, 1967e:2 (China: Manchuria); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Tsuneki, 1982b:1 (Korea; not a synonym of *subtruncatus*); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Nagase, 2006b:2 (specimen collected by First Scientific Expedition to Manchoukou, 1933, now part of eastern China); Terayama and Tano, 2006:5, 14, 17 (in key to Japanese Ampulicidae and Sphecidae); Haneda, 2007:1 (data on holotype); N. Yamamoto, 2011:11 (Japan: Kyūshyū: mainland Nagasaki Prefecture).

ssp. *fukuianus* Tsuneki

Sphex fukuianus Tsuneki, 1957b:46, ♀, ♂. Holotype: ♀, Japan: Fukui Prefecture: Yashirodani (originally K. Tsuneki coll., now Hyogo Mus.). – Tsuneki, 1957c:35 (nesting habits), 1963b:38, 77 (nesting habits). – **As *Sphex inusitatus fukuianus***: T. Iida, 1967:2 (new status, description of larva); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae, as *fukuiensis*); Tano, 1994a:4 (holotype in K. Tsuneki collection, as *fukuiensis*); Hashimoto and Nakanishi, 1997:29 (holotype transferred to Hyogo Mus.); Haneda, Inoue, Nozaka, Tano, Kurokawa, H. Murota, and T. Murota, 2005:63 (Japan: Fukui Prefecture: Mount Monju); Haneda, Nozaka, Tano, Kurokawa and Murota, 2006a:18 (Japan: Toyama Prefecture); Nakamura, Moriyama, and Uebayashi, 2006:31 (nesting habits in Hiroshima Prefecture, Japan); Haneda, 2007:2 (status of name).

66. *jamaicensis* (Drury)

Vespa jamaicensis Drury, 1773:index to First Volume, ♀. Holotype or syntypes: ♀, Jamaica: no specific locality (destroyed). – **As *Sphex jamaicensis***: Turton, 1801:486 (new combination, redescription); F. Smith, 1856:260 (in catalog of Hymenoptera in British Museum); Cresson, 1863:319 (in catalog of North American Hymenoptera, as *jamaicensis* Fabricius); Alayo Dalmau, 1976:26 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1963:125 (in revision of Nearctic Sphecini); Alayo Dalmau, 1973:183 (in catalog of Cuban Hymenoptera), 1976:11 (in key to Cuban *Sphex*); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Elliott, Kurczewski, Claflin, and Salbert, 1979:357 (Bahama Islands: Island of San Salvador); de Zayas, 1981:78 (Cuba); Alayo Soto, 1982:4 (nesting habits); Elliott, 1992:45 (in list of wasps of Bahama islands: occurring on islands of Bimini, Long Island, and San Salvador); Sánchez and Genaro, 1992b:150 (Cuba: La Habana: Güines); E. Nielsen, 1993:9 (progressive provisioning); Genaro, 1998:239 (nesting habits); Fernández, Saríol, Vega, Ricardo, González, and Portuondo, 2002:46 (Cuba: Provincia Granma); Portuondo and Fernández, 2004:135 (Cuba: Sierra Maestra and Nipe-Sagua-Baracoa mountains); Genaro, 2006:51 (in Catalog of Cuban Sphecidae and Crabronidae; other countries: USA: Florida; Isla de la Juventud, Little Cayman, Bahamas, Jamaica); Dollfuss, 2008b:1426 (may be a synonym of *Sphex ichneumoneus*); Perez-Gelabert, 2008:242 (in list of arthropods of island of Hispaniola).

Sphex 42anaden Christ, 1791:292. Emendation of *Vespa jamaicensis* Drury.

Sphex aurulentus Guérin-Méneville, 1835:pl. 70, Fig. 2, [♀], illustration of habitus (as *aurulenta*, incorrect original termination), junior primary homonym of *Sphex aurulentus* Fabricius, 1787 (now in *Liris*) and of *Sphex aurulentus* Fabricius, 1793. Syntypes: ♀, Cuba: no specific locality (MSNG). Synonymized with *Sphex ichneumoneus* by Kohl, 1890b:430

Sphex lanierii Guérin-Méneville, 1844 :433 (as *Lanierii*, incorrect original capitalization). Substitute name for *Sphex aurulentus* Guérin-Méneville, 1835. – F. Smith, 1856:256 (in catalog of Hymenoptera in British Museum); nec F. Smith, 1859b:55 (= *Isodontia costipennis*); Cresson, 1863:320 (in catalog of North American Hymenoptera), nec 1865a:137 (= *Sphex cubensis*); Girard, 1879:964 (color and distribution); Guiglia, 1948b:180 (type in Genova); van der Vecht, 1954:147 (probable type material in RMNH), 1957a:27 (syntype in RMNH); Guiglia and Pasteels, 1961:19 (type material in Genova Mus.). – **As *Sceliphron lanierii***: Ashmead, 1900:309 (new combination, in checklist of Caribbean Hymenoptera).

Sphex ornatus Lepeletier de Saint Fargeau, 1845 :344, ♀, ♂ (as *ornata*, incorrect original termination). Syntypes: Cuba: no specific locality (originally Audinet-Serville coll., now?). Synonymized with *Sphex aurifluus* by F. Smith, 1856:256 and with *Sphex jamaicensis* by Kohl, 1890b:430. – Cresson, 1863:320 (in catalog of North American Hymenoptera).

Sphex ichneumoneus var. *fulviventris* Kohl, 1890b:155, 175, 431, ♀, ♂ (authorship attributed to Guérin-Ménville). Lectotype: ♂, Cuba: no specific locality (NHMW), designated by R. Bohart and Menke, 1976:126. Synonymized with *Sphex jamaicensis* by R. Bohart and Menke, 1976:126. – W. Fox, 1891d:341 (Jamaica); Ashmead, 1896b:31 (Bahama Islands, as *fulvihirta*); Dalla Torre, 1897:426 (in catalog of world Hymenoptera); Ashmead, 1900:308 (in checklist of Caribbean Hymenoptera); van der Vecht, 1957a:27 (type material in RMNH). – **As *Sphex ichneumoneus***

fulviventris: Murray *in* Muesebeck, Krombein, and Townes, 1951:972 (new status, in catalog of North American Hymenoptera). – **As *Chlorion ichneumoneum fulviventre***: Fernald, 1906:403 (new combination, in revision of Sphecini of North America and West Indies; as *fulviventris*), 1943a:289 (Florida); Krombein, 1953c:16 (Bahama Islands: Bimini Islands); Krombein and Evans, 1954:233 (Florida), 1955:232 (Florida).

67. *jansei* Cameron

Sphex jansei Cameron, 1910b:139, ♂. Holotype or syntypes: ♂, South Africa: Gauteng: Pretoria (TMP). – Brauns, 1917:242 (type in TMP, is a member of *Isodontia*); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Dörfel and Ohl, 2022:21 (in key to sub-Saharan *Sphex*), 129 (in revision of sub-Saharan *Sphex*). – **As *Chlorion janseni***: Arnold, 1928c:375 (new combination, unrecognizeable from the description, certainly a member of *Proterosphex* = *Sphex* s. s.).

Chlorion rufiscute R. Turner, 1918b:359, ♀, ♂ (as *rufiscutis*, incorrect original termination). Syntypes: Zambia: Sinapunge; Malawi: Karonga in northern Rukuru valley (BMNH). Synonymized with *Sphex janseni* by Dörfel and Ohl, 2022:129. – Arnold, 1928c:373 (in revision of southern *Sphex* African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae). – **As *Sphex rufiscutis***: Leclercq, 1962h:8 (new combination, bibliographic references); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Guichard, 1988a:119 (South Yemen); Dollfuss, 2008b:1431 (South Africa: Mpumalanga: 40 km southwest of Komalipoor; Tanzania: Morogoro: 50 km east-northeast of Al Hudaidah at 14°52'S 43°24'E; Zimbabwe: 10-20 km south of Birchenough Bridge); Gadallah, 2020d:87 (in list of aculeate wasps of Arabian Peninsula).

Sphex mochii Giordani Soika, 1942:197, ♀ (as *Mochii*, incorrect original capitalization). Holotype: ♀, Ethiopia: km 46 on Harar–Dire Dawa road (depository?). Synonymized with *Sphex janseni* by Dörfel and Ohl, 2022:129. – Leclercq, 1955h:7 (reference to original description, may be a synonym of *Sphex gaullei*); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae, as tentative synonym of *Sphex gaullei*).

68. *jucundus* Dörfel and Ohl

Sphex jucundus Dörfel and Ohl, 2015:85, ♀, ♂. Holotype: ♂, Australia: Western Australia: 6 km north of Winning Homestead at 23°06'S 114°33'E (ANIC). – Dörfel and Ohl, 2015:11, 18 (in key to Australian *Sphex*).

69. *kolthoffi* Gussakovskij

Sphex kolthoffi Gussakovskij, 1938:2, ♂. Holotype: ♂, China: Kansu Province: no specific locality (Mus. Stockholm). – R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Hua, 2006:276 (in list of Chinese insects, geographic distribution).

70. *lanatus* Mocsáry

Sphex lanatus Mocsáry, 1883:34, ♂. Holotype: ♂, South Africa: Transvaal, may be Gauteng, Limpopo, or Mpumalanga Province: no specific locality (TMB). – R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Dollfuss, 1990:122 (Central African Republic); S. Gess and F. Gess, 2003:94 (Namibia and South Africa: visiting flowers of *Deverra denudate* (Viv.) Pfeisterer and Podl., Apiaceae, and *Geigeria* sp., Asteraceae); Roche, 2007a:50 (in checklist of Egyptian Sphecidae, redescription, identification tentative), 2007b:3 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae, identification tentative); Dörfel and Ohl, 2022:15 (in key to sub-Saharan *Sphex*), 43 *(in revision of sub-Saharan Sphex)*. – **As *Sphex umbrosus* var. *lanatus***: Kohl, 1890b:408 (new status, in revision of world Sphecini); Dalla Torre, 1897:445 (in catalog of world Hymenoptera); Brauns, 1911a:117 (sleeping on grass); Strand, 1916b:103 (Zimbabwe); Diniz, 1964c:101 (Angola: Lunda: Andrada, Dundo, Muíta-Luembe). – **As *Sphex umbrosus lanatus***: Leclercq, 1955h:21 (new status, summary of locality records from Africa, new locality records), 1961b:46 (Zaire). – **As *Chlorion umbrosum* var. *lanatum***: Arnold, 1928c:362 (new combination, in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:95 (Zaire, as *lanatus*); Arnold,

1935a:503 (South Africa: Kalahari); Guiglia, 1939a:201 (Somalia, Uganda); 1940b:288 (Somalia). – **As *Chlorion umbrosum lanatum***: Arnold, 1943:79 (new combination, Zaire).

71. *latilobus* Dörfel and Ohl

Sphex latilobus Dörfel and Ohl, 2015:88, ♂. Holotype: ♂, Australia: Western Australia: Bolgart (BMNH). – Dörfel and Ohl, 2015:19 (in key to Australian *Sphex*).

72. *latreillei* Lepeletier de Saint Fargeau

Sphex latreillei Lepeletier de Saint Fargeau, 1831 :33, ♂ (as *Latreillei*, incorrect original capitalization). Holotype or syntypes: ♂, Chile: no specific locality (M. Spinola collection, Torino). – Haliday, 1836:325 (Chile: Concepción and Valparaiso), 331 (listed); Dahlbom, 1843:27 (in revision of Sphecidae and Pompilidae), 1845:438 (in key to world Sphecini); Lepeletier de Saint Fargeau, 1845:361 (in revision of world Hymenoptera); Spinola, 1851a:397 (in revision of Chilean Hymenoptera, as *latreillii*); F. Smith, 1856:260 (in catalog of Hymenoptera in British Museum); A. Costa, 1864b:112 (two specimens from Chile in Museo Zoologico di Napoli); Taschenberg, 1869:418 (diagnostic characters); Holmberg, 1884:226 (Uruguay); Kohl, 1890b:403 (in revision of world Sphecini); Gribodo, 1895:211 (Chile, correspondence of sexes); E. Reed, 1894:624 (in revision of Chilean Pompilidae and Sphecidae); Dalla Torre, 1897:428 (in catalog of world Hymenoptera); Holmberg, 1903:504 (Argentina, Uruguay); Delfin, 1904:21 (Chile: Departamento de Talcahuano); Herbst, 1921a:107 (*Sphex thunbergi* is ♀ of *Sphex latreillei*); Ruiz Pereira, 1924:101 (Chile: Cerro San Cristóbal); Janvier, 1926:7 (nesting habits), 1928:179 (nesting habits, sleeping aggregations) 1929:420 (nocturnal aggregations of males); C. Reed, 1928:317 (resembling the dipteron *Erax 44anadens* Phil., Asilidae, in coloration); Berland, 1929b:309 (Chile); G. Carpenter, 1930b:290 (nest closure); Ruiz Pereira, 1934:167 (Chile: Pahuano); Gazulla and Ruiz Pereira, 1929:299 (Chile: Hacienda de "Las Mercedes"); Ruiz Pereira, 1937:163 (Chile: Coquimbo Province); Fraga, 1938:200 (Chile: Hacienda Mauro); Ruíz Pereira, 1942:29 (male sleeping aggregations, 44anaden habits, common to Chile and Argentina); Menke, 1965a:213 (synonymy); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Casolari and Casolari Moreno, 1980:103 (specimens in M. Spinola collection, Torino); Toro and Magunacelaya, 1980:245 (mating habits); Sielfeld, 1980b:72 (in checklist of Chilean Sphecidae); Piek and Spanjer, 1986:189 (in list of Sphecidae with known prey); Steiner, 1986:95 (references to papers on nesting habits); Chiappa and Toro, 1995:7 (stealing prey from other females in dense aggregations); Toro and Chiappa, 1995:13 (smaller males occupy peripheral positions in nesting aggregations); Chiappa, 1996:19 (male reproductive habits); Chiappa, Alfaro, and Toro, 1996:83 (nesting habits); Chiappa, Lizana, and Toro, 1996:5 (preimaginal stages); Chiappa and Joffré, 1998:23 (male and female behavior); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Dollfuss, 2008b:1427 (locality records from Chile); Pagliano, 2008:534 (specimens in M. Spinola collection, Torino); Chiappa, 2012:8 (Chile: Región de Valparaíso: no specific locality); Zamorano and Chiappa, 2015:266 (intra- and inter-population allometry of genitalia and external parts); Mandujano, Flores-Prado, and Chiappa, 2016:369 (mating behavior). – **As *Proterosphex latreillei***: Schrottky, 1913a:225 (new combination, Argentina, Uruguay). – **As *Chlorion latreillei***: Bradley, 1921:55 (new combination, Chile); Willink, 1951:151 (in revision of Argentinean Sphecini); Toro and Gallardo, 1965:19 (study of morphology), 1966:45 (individual variation); Zapata, 1974:37 (Chile: Lampa near Santiago).

Sphex thunbergi Lepeletier de Saint Fargeau, 1831:34, ♀ (as *Thunbergi*, incorrect original capitalization). Holotype or syntypes: ♀, Chile: no specific locality (depository?). Synonymized with *Sphex latreillei* by Haliday, 1837:325. – Lepeletier de Saint Fargeau, 1845:362 (in revision of world Hymenoptera).

Sphex chiliensis Lepeletier de Saint Fargeau, 1845 :341, ♀ (as *Chiliensis*, incorrect original capitalization). Holotype or syntypes: ♀, Chile: no specific locality (originally Audinet-Serville coll., now?). – Synonymized with *Sphex latreillei* by Kohl, 1890b:403. – F. Smith, 1856:259 (in catalog of Hymenoptera in British Museum); Kohl, 1890b:440 (original description copied); Dalla Torre, 1897:418 (in catalog of world Hymenoptera).

73. *latro* Erichson

Sphex latro Erichson, 1849:588, sex not stated. Lectotype: ♂, British Guyana: no specific locality (ZMHU), designated by Menke, 1965a:211. – F. Smith, 1856:261 (in catalog of Hymenoptera in British Museum); Kohl, 1890b:446 (original description copied); Dalla Torre, 1897:428 (in catalog of world Hymenoptera); W. Fox, 1897b:376 (as synonym of *Sphex servillei*, as *latior*); Strand, 1910a:132 (Paraguay); Menke, 1965a:211 (synonymy); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Nascimento and Overal, 1980:11 (Brazil); Amarante, 1993:19 (northeastern Brazil); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Buys, 2009e:278 (Brazil: Rio de Janeiro: Rio de Janeiro); Rasmussen and Asenjo, 2009:16 (in checklist of Crabronidae of Peru); Trad and Silvestre, 2017:4 (Brazil: Mato Grosso do Sul). – **As *Chlorion latro***: Fernald, 1931a:444 (new combination, study of type series); Willink, 1951:139 (in revision of Argentinean Sphecini).

Sphex clypeatus F. Smith, 1856:257, ♂ (as *clypeata*, incorrect original termination). Holotype or syntypes: ♂, Brazil: no specific locality (BMNH). Synonymized with *Sphex latro* by Menke, 1965a:211. – Kohl, 1890b:440 (original description copied); Dalla Torre, 1897:419 (in catalog of world Hymenoptera).

Sphex roratus Kohl, 1890b:417, ♀, ♂. Syntypes: Brazil: Bahia, and Cayenne (depository?). Synonymized with *Sphex servillei* by W. Fox, 1897b:376 and with *Sphex latro* by Kohl, 1895:58 and Fernald, 1931a:444. – Ducke, 1908b:82 (Brazil: Ceará State); Berland, 1929b:311 (miscellaneous locality records).

74. *leuconotus* Brullé

Sphex leuconotus Brullé, 1833a :366, ♀ (as *leuconota*, incorrect original termination). Holotype or syntypes: ♀, Greece: Morée: Pétalidi, now Peloponnesus: Koroni (originally MNHN, now destroyed). Neotype: holotype of *Sphex triangulum* Brullé, designated by Menke and Pulawski, 2000:336. – Kirchner, 1867:218 (in catalog of European Hymenoptera); Menke and Pulawski, 2000:336 (in revision of *Sphex flavipennis* species group); Ivanov and Ljubomirov, 2001:210 (Bulgaria: Kresna Gorge at 41°48'N 23°10'E); Kazenas, 2001b:13 (in checklist of Sphecidae of Kazakhstan and Central Asia), 77 (nesting habits), 2002a:25 (geographic distribution, collecting localities in Kazakhstan), 2004b:98 (Kazakhstan: western Tien Shan Mountains), 2004d:26 (Kazakhstan: northern Caspian region); Gayubo and Özbek, 2005:6 (Turkey: seven localities); Gülmez and Tüzün, 2005:45 (Turkey: Ankara Province); Pagliano and Negrisolo, 2005:57 (in Sphecid Fauna of Italy); Yildirim and Ljubomirov, 2005:1786 (Turkey: Erzurum: Şenkaya: Gezenek; and Konya: Çumra: Kuzucu); Ljubomirov, 2006:536 (Bulgaria: earlier records from Rhodope Mountains summarized); Yildirim and Ljubomirov, 2007:116 (Turkey: Erzurum: Oltu); Ghahari, Hayat, Tabari, Ostovan, and Imani, 2008:740 (Iran: Guilan: Rasht); Dollfuss, 2008b:1427 (locality records from Azerbaijan, Greece, Jordan, Kazakhstan, Kyrgyzstan, Syria, Tajikistan, Turkey, Turkmenistan, and Uzbekistan); Gayubo, González, Tormos, and Asís, 2008:136 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Kazenas, 2008c:255 (Kazakhstan: village Koktum south of Lake Alakol'); Ljubomirov and Yildirim, 2008:20 (in catalog of Sphecidae of Turkey); Gayubo, González, Tormos, and Asís, 2009:362 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); González, Gayubo, Asís, and Tormos, 2009:622 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Guéorguiev and Ljubomirov, 2009:261 (Bulgaria: Maleshevska Planina); Shorenko, 2009:366 (in list of Sphecidae *sensu lato* of Crimea); Bitsch, 2010:106 (in supplement to vol. II of Faune de France, 1997: valid name for *Sphex leuconotus* and *triangulum*); Danilov, 2010b:44 (distribution of western Palearctic type); Cruz-Sánchez, Asís, Gayubo, Tormos, and González, 2011:497 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park: effects of wildfire); Murai and Amr, 2011:120 (recorded from Syria by Dollfuss, 2008b); Protsenko, Fateryga, Ivanov, and Puzanov, 2012:59 (Ukraine: Crimea, island of Kuyuk-Tuk in Kherson Oblast'); Yildirim, 2012:74 (Turkey: Erzurum: Oltu); Kazenas, 2013a:15 (color photograph of adult male, short information on geographic distribution and nesting habits); Danilov, 2014b:513, 514 (in key to Sphecidae s.s. of Siberia, not yet found in Siberia); Dunford, Turbyville, and Leavengood, 2014:11 (listed as medically important in Afghanistan); Ghahari, Hayat, Lavigne, and Ostovan, 2014:1410 (prey of asilid *Choerades 45anade* (Loew)); Kazenas, 2014a:131 (Kazakhstan: Karatau Mountain Range); Yildirim, 2014:29 (Turkey: distribution by biogeographic provinces); Koçak

and Kemal, 2015:279 (in checklist of Hymenoptera of Turkey); Shorenko, 2015:319 (in list of Sphecidae *sensu lato* of Crimea); Levărdă and Matache, 2016:44 (in catalog of Sphecidae s.s. of Romania); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:5 (Turkey: Şanlıurfa: Bozova: Yalak); Arens, 2017a:633 (Greece: Peloponnesus); Danilov, 2017b:216 (in catalog of Sphecidae s.s. of Russia); Danilov and Mokrousov, 2017a:108 (Astrakhan Oblast', Dagestan, Kalmykia, Krasnodarskiy Kray, Volgograd Oblast'); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:29 (Iran: known from Ardabil, Guilan, and Sistan-o Baluchestan provinces); Shorenko, 2017:76 (in Crimea collected in May through August), 2018:127 (Crimea, including localities, habitats, and number of specimens); Augul, 2019:499 (recorded from Iraq by de Beaumont, 1961e, as *Sphex sordidus*); Gülmez, 2019:3 (Turkey: Ankara Provinces: no specific locality); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:317 (in list of Tunisian Sphecidae *sensu stricto*); Danilov, 2020:320 (specimens from Kazakhstan, Kyrgyzstan, and Russia: Astrakhan' Oblast', Dagestan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Maharramov, Mokrousov, and Proshchalykin, 2020:46 (Azarbaijan: Nakichivan Autonomous Republic); Cross, Baldock, and Wood, 2021:20 (in catalog of Sphecidae *sensu lato* of Portugal); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey).

Sphex triangulum Brullé, 1833a:365, ♀, junior primary homonym of *Sphex triangulum* de Villers, 1789. Holotype: ♀, Greece: Morée: Pétalidi, now Peloponnesus: Koroni (MNHN). Synonymized with *Sphex maxillosus* Fabricius by Kohl, 1890b:433, and with *Sphex leuconotus* by Menke and Pulawski, 2000:336.

Sphex sordidus Dahlbom, 1845:436, sex not stated (as *sordida*, incorrect original termination). Holotype or syntypes: sex not stated, Greece: Island of Rhodes (Stockholm?). Synonymized with *Sphex tristis* by W. Schulz, 1912a:94 and with *Sphex leuconotus* by Menke and Pulawski, 2000:336. – F. Smith, 1856:243 (in catalog of Hymenoptera in British Museum); Kohl, 1885b:206 (original description copied), 1890b:435 (as tentative synonym of *Sphex tristis*); Dalla Torre, 1897:441 (in catalog of world Hymenoptera); Morel, Nouvel, and Ribaut, 1956:337 (France: Département des Pyrénées-Orientales). – **As *Sphex afer sordidus***: de Beaumont, 1953h:195 (new status; study of type specimen); Atanassov, 1955:204 (first records from Bulgaria: Krichim near Plovdiv, Krupnik in Malashev Mountains, Lovech, Pirin); de Beaumont and Bytinski-Salz, 1955:42 (Israel); Ceballos, 1956:362 (in catalog of Hymenoptera of Spain); de Beaumont, 1957b:131 (northern Iran); Ceballos, 1959:228 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1961e:2 (Iraq); Atanassov, 1965:91 (Greece: island of Thasos); de Beaumont, 1965a:14 (Greece), 1970a:394 (Afghanistan; diagnostic characters); Myartseva, 1972a:83 (Turkmenistan); Mingo and Gayubo, 1983:146 (Spain); Gayubo and Tormos, 1984:8 (Spain: Valencia); Gayubo, 1987:106 (Spain: Ciudad Real Province); Gayubo, Borsato, and Osella, 1991:392 (Italy: Veneto, Calabria); Hamon, Fonfria, and Tussac, 1991:128 and 131 (in key to French Sphecini), 131 (in France known only from one site in Pyrénées-Orientales); Gayubo, Borsato, and Osella, 1992:275 (Greece, Turkey); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:2 (in catalog of Italian fauna); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:68 (in Sphecid Fauna of Western Europe); Shorenko, 2003:96 (Ukraine: nine localities).

Sphex tristis Kohl, 1885b:200, ♂. Syntypes: Spain: no specific locality (NHMW). Synonymized with *Sphex afer* by Roth, 1925:395, and with *Sphex afer sordidus* by de Beaumont, 1953h:105. – Ed. André, 1888:147 (in revision of Sphecidae of Europe and Algeria), 8* (bibliographic references); Kohl, 1890b:435 (in revision of world Sphecini); Radoszkowski, 1893a:58 (Turkmenistan); Dalla Torre, 1897:444 (in catalog of world Hymenoptera); Dusmet and Mercet, 1906:510 (in key to Spanish Sphecini); Coulon, 1925:116 (Spain: El Escorial, Montario; Algeria: Biskra); Maidl, 1934:65 (Greece: Aegean Islands: Milos); Zavadil *in* Zavadil and Šnoflák, 1948:168 (in key to Sphecidae of Czechoslovakia, not yet found in Czechoslovakia); Ceballos, 1949:101 (Spain); Myartseva, 1963b:59 (Turkmenistan: lower Murgab River); Balthasar, 1972:421 (in Sphecid Fauna of Czechoslovakia: not yet found in the country); Dollfuss, 1989:12 (type material in NHMW).

Sphex plumipes Radoszkowski, 1886a:25, ♂, junior primary homonym of *Sphex plumipes* Drury, 1773. Holotype or syntypes: ♂, Turkmenistan: Askhabad (Kraków). Synonymized tentatively with *Sphex pachysoma* by Kohl, 1890b:436, synonymy confirmed by Menke and Pulawski, 2000:336. – Ed. André, 1888:149 (in revision of Sphecidae

of Europe and Algeria), 9* (bibliographic references); Kohl and Handlirsch, 1889:275 (Turkmenistan: Chuli); Kohl, 1890b:436, footnote (original description copied).

Sphex pachysoma Kohl, 1890b:436, ♀. Syntypes: ♀, Caucasus area: Kilasi and Kuba Breku, now perhaps Azerbaijan: Kilyazi and Kuba; Cyprus; and Syra, now Greece: island of Syros (NHMW). Synonymized with *Sphex tristis by* Dusmet and Mercet, 1906:516, with *Sphex afer* by W. Schulz, 1911:68 and Roth, 1925:395, and with *Sphex afer sordidus* by de Beaumont, 1953:195. – Dalla Torre, 1897:435 (in catalog of world Hymenoptera); Dusmet and Mercet, 1906:516 (in key to Spanish Sphecini); Fahringer and Friese, 1921:160 (Turkey: Erzurum: Iyaribashi in Amanus Mountains = Gavur Dağlari); Fahringer, 1922:177 (Turkey); Fahringer, 1923:101 (nest, prey, description of larva); Bischoff, 1933:5 (Morocco); Gussakovskij, 1933b:273 (Iran), 1935:413 (Tajikistan); Myartseva, 1963b:59 (Turkmenistan: lower Murgab River); Islamov, 1970:63, 64 (Uzbekistan: Chirchik Basin); Dollfuss, 1989:12 (type material in NHMW).

75. *libycus* de Beaumont

Sphex libycus de Beaumont, 1956a :182, ♀, ♂. Holotype: ♀, Libya: Cyrenaica: Porto Bardia (Zürich). – de Beaumont, 1960b:227 (Libya, Egypt; variation), 228 (male antenna); Menke and Pulawski, 2000:338 (in revision of *Sphex flavipennis* species group); Roche, 2007a:51 (in checklist of Egyptian Sphecidae, redescription), 2007b:3 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Schmid-Egger, 2017b: 461 (in key to *Sphex flavipennis* species group of northwestern Africa),464 (in revision of *Sphex flavipennis* species group of northwestern Africa; first record from Tunisia: Chenini).

76. *lucae* de Saussure

Sphex lucae de Saussure, 1867:41,♀. Holotype or syntypes: ♀, Mexico: Baja California Sur: Cabo San Lucas (MHNG). – Kohl, 1890b:387 (in revision of world Sphecini); W. Fox, 1894c:103 (Mexico: Baja California); Dalla Torre, 1897:430 (in catalog of world Hymenoptera); Snow, 1906:133 (Arizona: Oak Creek 20 mi. southwest of Flagstaff, Tucson); Murray *in* Muesebeck, Krombein, and Townes, 1951:972 (in catalog of North American Hymenoptera); Evans and Linsley, 1960:32 (Arizona: casual member of sleeping aggregation at Southwest Research Station); Linsley, 1962:156 (sleeping aggregations); G. Bohart, Nye, and Hawthorn, 1970:49 (Utah: Logan, onion pollinator); Hurd and Linsley, 1975:116 (Arizona: Cochise County: Douglas and Pima County: Tucson; New Mexico: Sierra County: 5 mi. west of Elephant Butte; on flowers of *Larrea 47anadensis* (De Candolle) Coville, Zygophyllaceae); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae, in subgenus *Fernaldina*); Porter, 1978:171 (Texas); Krombein, 1979b:1581 (in catalog of North American Hymenoptera); Menke, 1983b:20 (Nebraska: Thomas County: Halsey area); Rust, Menke, and Miller, 1985:46 (California: Channel Islands); Brockmann, 1985b:312 (nest closure summary); Menke, 1986c:36 (New Mexico: Hidalgo: 18 mi. north of Rodeo); Parks, 1986:34 (California: Torrey Pines State Reserve); Spofford, Kurczewski, and Downes, 1989:259 (summary of records for nest parasites *Senotainia trilineata* (Wulp) and *Senotainia* sp. near *trilineata* (Wulp), miltogrammine flies); Blades and Maier, 1996:71 (Canada: British Columbia: Osoyoos – Mount Kobau area at 119°40'W 49°05'N); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Ohl and Linde, 2003:149 (number of ovarioles); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007:48 (Mexico: Tamaulipas); Ratzlaff, 2016:29 (Canada: British Columbia: from Spencer and Wellington, 1948); Willsch, Friedrich, Baum, Jurisch, and Ohl, 2020:53 (mesothoracic musculature). – **As *Isodontia lucae***: Ashmead, 1899d:353 (new combination, in checklist of North American Sphecidae). – **As *Chlorion lucae***: Fernald, 1906:365 (new combination, in revision of Sphecini of North America and West Indies); H. Smith, 1908b:333 (in revision of Nebraskan Sphecidae); Mickel, 1918b:399 (in catalog of Nebraskan Sphecidae); Krombein and Evans, 1955:232 (Florida). – **As *Fernaldina lucae***: R. Bohart and Menke, 1963:130 (new combination, in revision of Nearctic Sphecini); Cazier and Mortenson, 1965a:34 (nesting habits); Horning and Barr, 1970:104 (USA: Idaho: Craters of the Moon National Monument); Frommer, 1988:93 (California: Riverside County: Deep Canyon).

Sphex belfragei Cresson, 1873:212, ♀, ♂ (as *Belfragei*, incorrect original capitalization). Lectotype: ♀, USA: Texas: Bosque County: no specific locality (ANSP), designated by Cresson, 1916:93. Synonymized with *Chlorion lucae* by Fernald, 1906:365. – Cresson, 1887:275 (in catalog of North American Hymenoptera); Kohl, 1890b:439 (original description copied); Dalla Torre, 1897:417 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae).

77. *luctuosus* F. Smith

Sphex luctuosus F. Smith, 1856:250, ♀, ♂ (as *luctuosa*, incorrect original termination). Syntypes: Australia: Western Australia: Swan River (BMNH). – Kohl, 1890b:413 (in revision of world Sphecini); Froggatt, 1892:210 (in catalog of Australian Hymenoptera); Dalla Torre, 1897:430 (in catalog of world Hymenoptera); R. Turner, 1910a:344 (in key to Australian Sphecini); Berland, 1928a:330 (Australia); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Cardale, 1985:224 (in catalog of Australian Sphecidae); Hensen, 1991a:22 (member of *resplendens* group); Dörfel and Ohl, 2015:10, 15 (in key to Australian *Sphex*), 48 (in revision of Australian *Sphex*).

78. *madasummae* van der Vecht

Sphex caerulescens Le Guillou, 1841:324, sex not stated, junior primary homonym of *Sphex caerulescens* Reich, 1795. Holotype or syntypes: Borneo: no specific locality (MNHN). – Dalla Torre, 1897:417 (in catalog of world Hymenoptera); Berland, 1928a:329 (study of type, Philippines, Indonesia: Sulawesi, Maluku, New Guinea).

Sphex caerulescens Le Guillou, 1842:320, sex not stated, junior primary homonym of *Sphex caerulescens* Reich, 1795. Objective synonym of *Sphex caerulescens* Le Guillou, 1841.

Sphex maurus F. Smith, 1856:255, ♀, ♂, junior primary homonym of *Sphex maurus* Fabricius, 1787 (now in *Larra*). Syntypes: Indonensia: Sulawesi: no specific locality (BMNH). Synonymized with *Sphex caerulescens* by Berland, 1928a:329 and van der Vecht, 1973:345. – A. Costa, 1864a:60 (one specimen from Sulawesi in Napoli Museum); W.F. Kirby, 1884a:408 (Philippines: Zamboanga); Kohl, 1885b:199 (in revision of Palearctic *Sphex*), 1890b:411 (in revision of world Sphecini); Bingham, 1895:443 (Philippines: Luzon), 1897:247 (in revision of wasps and bees of British India, now India and Pakistan); Dalla Torre, 1897:431 (in catalog of world Hymenoptera); Ashmead, 1904a:6 (Philippines: Luzon); von Schulthess, 1932:41 (Indonesia: Sulawesi: Bantimoerang); Haupt, 1933:5 (Philippines: Mindanao: Santa Maria Zamboanga, Palawan: Backuit, and Samar: Mauo); Baltazar, 1966:344 (in catalog of Hymenoptera of Philippines); Tsuneki, 1967j:3 (Taiwan); van Vondel, 1995:29 (specimens from Indonesia: Ambon and Sulawesi islands in Natuurmuseum Rotterdam). – As ***Chlorion maura***: Rohwer, 1922:667 (new combination, Philippines, diagnostic characters).

Sphex nigerrimus A. Costa, 1864b:112, sex not stated (as *nigerrima*, incorrect original termination), junior primary homonym of *Sphex nigerrimus* Scopoli, 1763. Holotype: Philippines: Luzon: no specific locality (Napoli). Synonymized with *Sphex caerulescens* by van der Vecht, 1973:345. – Kohl, 1890b:407 (as synonym of *Sphex umbrosus*).

As *Sphex 48anadensis*: Bingham, 1890:241 (Myanmar: Tenasserim: Mergui, description of ♀), corrected to *Sphex maurus* by Bingham, 1897:247.

Sphex madasummae van der Vecht, 1973:345. Substitute name for *Sphex maurus* F. Smith (based on the gryllid prey's name *Madasumma helvolus* Serville). – R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Tsuneki, 1977c:2 (island of Botel Tobago); Hensen, 1991a:21 (member of *Sphex argentatus* species group), 22 (in revision of Malesian Sphecina); Tano, Nozaka, Kurokawa, and Murota, 1994:54 (Philippines); Porter, Stange, and Wang, 1999:5 (in checklist of Sphecidae of Taiwan); Dollfuss, 2008b:1428 (Malaysia: Port Dickson at 2°31'N 10148'E; Indonesia: Sulawesi: Toli Toli, Bua-Kraeng, as *madrasummae*); Haneda, 2011:43 (Philippines: Palawan: near Narra).

79. *malagassus* de Saussure

Sphex malagassus de Saussure, 1890 :pl. 18, fig. 38, ♀. Holotype: ♀, illustrated specimen (available name: Article 12.2.7of the Code), Madagascar: no specific locality (MHNG). – Dalla Torre, 1897:430 (in catalog of world Hymenoptera, as *madegassus*); Berland, 1927:153 (Madagascar); Leclercq, 1953b:211 (Madagascar); R. Bohart and

Menke, 1976:115 (in checklist of world Sphecidae); Pulawski, 2003b:795 (in checklist of Malagasy Sphecidae); Madl, 2014a:1021 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records), 2014b:24 (Madagascar: no specific locality, specimens collected by F. Sikora in NHMW); Dörfel and Ohl, 2022:21 (in key to sub-Saharan *Sphex*), 151 (in revision of sub-Saharan *Sphex*).

Sphex malagassus de Saussure, 1891 :259, ♀, ♂. Objective synonym of *Sphex malagassus* de Saussure, 1890 . – Kohl, 1895 :67 (original description copied, additional description).

Sphex malagassus de Sausure, 1892 :427, ♀, ♂. Objective synonym of *Sphex malagassus* de Saussure, 1890. – Leclercq, 1961d :108 (Madagascar) ; Madl, 1997 :820 (Madagascar : island of Nosy Boraha), 821 (in checklist of Nosy Boraha Sphecidae). – **As *Chlorion malagassum*** : Arnold, 1945 :89 (new combination, Madagascar, redescription).

80. *mandibularis* Cresson

Sphex mandibularis Cresson, 1869:293, ♀. Holotype: ♀, Cuba: no specific locality (ANSP). – Kohl, 1890b:447 (original description copied); Dalla Torre, 1897:430 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae); Cresson, 1916:94 (holotype in ANSP); Alayo Dalmau, 1973:184 (in catalog of Cuban Hymenoptera), 1976:11 (in key to Cuban *Sphex*), 27 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); de Zayas, 1981:78 (Cuba); Genaro, 1998:241 (nesting habits); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Portuondo and Fernández, 2004:135 (Cuba: Sierra Maestra); Genaro, 2006:51 (in Catalog of Cuban Sphecidae and Crabronidae; other country: Hispaniola); Perez-Gelabert, 2008:242 (in list of arthropods of island of Hispaniola). – **As *Chlorion mandibularis***: Fernald, 1906:410 (new combination, in revision of Sphecini of North America and West Indies), 1912:257 (redescription, Dominican Republic).

81. *maroccanus* Schmid-Egger

Sphex maroccanus Schmid-Egger, 2019b:464, ♀, ♂. Holotype: ♂, Morocco: 15 km southeast of Ait Baha: Seisit at 30.04°N 9.08°W (Zoologische Staaatssammlung, Münich, Germany). – Schmid-Egger, 2019b:461 (in key to *Sphex flavipennis* species group of northwestern Africa).

82. *maximiliani* Kohl

Sphex maximiliani Kohl, 1890b:429, ♀, ♂. Lectotype: ♂, Mexico: no specific locality (NHMW), designated by Menke *in* R. Bohart and Menke, 1976:115. – Dalla Torre, 1897:432 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Dollfuss, 1989:12 (type material in NHMW); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae). – **As *Chlorion maximiliani***: Fernald, 1906:397 (new combination, in revision of Sphecini of North America and West Indies).

83. *melanocnemis* Kohl

Sphex melanocnemis Kohl, 1885b:200, ♀. Holotype: ♀, Turkey: Brussa, now Bursa (NHMW). – Ed. André, 1888:140 (in revision of Sphecidae of Europe and Algeria), 8* (bibliographic references); Kohl, 1890b:388 (in revision of world Sphecini); Dalla Torre, 1897:432 (in catalog of world Hymenoptera); Berland, 1928a:331 (Turkey: Angora, now Ankara); de Beaumont and Bytinski-Salz, 1955:43 (Israel, description of ♂); de Beaumont, 1967a:275 (Turkey; subgenus *Fernaldina*), 1969:81 (Turkey); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae, in subgenus *Fernaldina*); Dollfuss, 1989:12 (type material in NHMW); Dollfuss, 2008b:1428 (first record from China: Tientsin, now Tianjin; locality records form Jordan, Syria, and Turkey); Ljubomirov and Yildirim, 2008:17 (in catalog of Sphecidae of Turkey); Murai and Amr, 2011:120 (recorded from Syria by Dollfuss, 2008b); Yildirim, 2014:29 (Turkey: distribution by biogeographic provinces); Koçak and Kemal, 2015:279 (in checklist of Hymenoptera of Turkey); Gülmez, 2019:3 (Turkey: Ankara Province: no specific locality); Can and Gülmez, 2021b:313 (Turkey: Sivas: three localities); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey).

84. *melanopus* Dahlbom

Sphex melanopus Dahlbom, 1843:27, ♂ (as *melanopa*, incorrect original termination). Holotype: ♂, Brazil: no specific locality (Lund). – Dahlbom, 1845:438 (in key to world Sphecini); F. Smith, 1856:257 (in catalog of Hymenoptera in British Museum); Kohl, 1890b:394 (original description copied); W. Fox, 1897b:376 (Brazil: Corumbá, Uacarizal); Ducke, 1901:242 (Brazil: Pará: Belém), 1910:109 (Brazil: Ceará State); Menke, 1963b:229 (synonymy, geographic variation), 1965a:212 (synonymy, holotype in Lund); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Nascimento and Overal, 1980:11 (Brazil); Callan, 1990b:19 (in checklist of Trinidad Sphecidae); Hanson and Menke, 1995:637 (known from Costa Rica); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Starr and Hook, 2003:22 (in catalog of Aculeata of Trinidad, West Indies); Dollfuss, 2008b:1428 (locality records from Ecuador and French Guyana); Buys, 2009e:278 (Brazil: Rio de Janeiro: Duque de Caxias, Niterói, Rio de Janeiro, Seropédica), 2011b:2 (Brazil: Rio de Janeiro: Angra dos Reis, Itatiaia, Teresópolis). – **As *Chlorion melanopum***: Fernald, 1931a:444 (new combination, study of specimens in ZMHU considered type material), 1942:31 (Guyana); Willink, 1951:130 (in revision of Argentinean Sphecini).

Sphex difficilis Spinola, 1851b :38, ♀. Holotype : ♀, Brazil : Pará : Belém (Torino). Synonymized with *Sphex melanopus* by Menke *in* R. Bohart and Menke, 1976:115. – F. Smith, 1856:258 (in catalog of Hymenoptera in British Museum); de Saussure, 1867:41 (Surinam); Kohl, 1890b:441 (original description copied); Dalla Torre, 1897:421 (in catalog of world Hymenoptera); Menke, 1965a:212 (synonymy); Casolari and Casolari Moreno, 1980:102 (specimen in M. Spinola collection, Torino); Pagliano, 2008:527 (specimen in M. Spinola collection, Torino).

Sphex difficilis Spinola, 1853 :54. Objective synonym of *Sphex difficilis* Spinola, 1851.

Sphex proximus F. Smith, 1856:258, ♀ (as *proxima*, incorrect original termination). Holotype or syntypes: ♀, Brazil: no specific locality (BMNH). Synonymized with *Sphex melanopus* by Fernald, 1931a:444 and with *Sphex difficilis* by Menke, 1965a:213 and *in* R. Bohart and Menke, 1976:115 (as new synonym). – Kohl, 1890b:394, footnote (original description copied; Richards, 1937a:103 (Guyana).

Sphex ruficauda Taschenberg, 1869:418, ♂. Holotype or syntypes: ♂, South America: no specific locality (Halle). Synonymized with *Sphex melanopus* by Kohl, 1895:55, synonymy confirmed by W. Schulz, 1906:194, and Fernald, 1931a:444. – Kohl, 1890b:394 (in revision of world Sphecini); Dalla Torre, 1897:439 (in catalog of world Hymenoptera, as *50anadensis*); W. Fox, 1899:200 (Brazil: Rio Grande do Sul, as *50anadensis*); Berland, 1929b:312 (French Guyana, Brazil).

Sphex funestus Kohl, 1890b:397, ♀. Syntypes: Brazil: Bahia: no specific locality, Surinam: no specific locality, and Guyana: Demerara River (NHMW). Synonymized with *Sphex melanopus* by Ducke, 1901:242 and with *Sphex difficilis* by Menke, 1965a:213 and by Menke *in* R. Bohart and Menke, 1976:115 (as new synonym). – W. Fox, 1897b:376 (Brazil: Chapada, Corumbá, and Santarém); Dalla Torre, 1897:424 (in catalog of world Hymenoptera); Dollfuss, 1989:12 (type material in NHMW); Richards, 1937a:103 (Guyana). – **As *Sphex ruficauda* var. *funesta***: Berland, 1929b:312 (new status, Argentina, Brazil, French Guyana). – **As *Chlorion funestum***: Fernald, 1942:31 (new combination, Guyana: Kartabo).

85. *melas* Gussakovskij

Sphex melas Gussakovskij, 1930c:207, ♀, ♂. Syntypes: Turkmenistan: Repetek at 38°34'N 63°10'E (ZIN). – Myartseva; 1971b:179 (occurs only in deserts of Turkmenistan); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Krivokhatskiy, 1985:37 (Turkmenistan: listed from Repetek); Kazenas, 1992c:25 (Turkmenistan: Repetek Nature Reserve); Menke and Pulawski, 2000:338 (in revision of *Sphex flavipennis* species group); Kazenas, 2001b:13 (in checklist of Sphecidae of Kazakhstan and Central Asia); Ebrahimi, 2014:27 (Iran: Gorgān, Kermān, Khorāsān-e Razavi, Markazi, and Sistān-Baluchestān provinces); Danilov, 2016:353 (syntypes preserved in Zoological Institute, Sankt Petersburg, Russia); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:29 (Iran: known from Golestan, Kerman, Khorasan-e Razavi, and Sistan-o Baluchestan provinces); Danilov, 2020:320 (specimens from Turkmenistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia).

86. *mendozanus* Brèthes

Sphex mendozanus Brèthes, 1909c:104, ♀, ♂. Syntypes: Argentina: Mendoza: Puente del Inca and Cacheuta (MACN). – Jörgensen, 1912:286 (Argentina: Mendoza Province); Liebermann, 1931:22 (in revision of Argentinean Sphecini); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Genise, 1984:22 (nesting habits), 1990:27 (type material in MACN); Amarante, 2002:75 (in catalog of Neotropical Sphecidae). – **As *Proterosphex mendozanus***: Schrottky, 1913a:225 (new combination, Argentina). – **As *Chlorion mendozanum***: Willink, 1951:127 (new combination, in revision of Argentinean Sphecini).

87. *meridionalis* (Arnold)

Chlorion decipiens meridionalis Arnold, 1947:145, ♀. Syntypes: Zambia: Northern Province: Mupulungu (SAM). – **As *Sphex decipiens meridionalis***: R. Bohart and Menke, 1976:114 (new combination, in checklist of world Sphecidae). – **As *Sphex meridionalis***: Dörfel and Ohl, 2022:23 (in key to sub-Saharan *Sphex*), 152 (full species status, in revision of sub-Saharan *Sphex*).

88. *mimulus* R. Turner

Sphex mimulus R. Turner, 1910b :419, ♀. Holotype or syntypes: ♀, Australia: Queensland: Cairns (BMNH). – R. Bohart and Menke, 1976:114 (in checklist of world Sphecidae); Cardale, 1985:225 (in catalog of Australian Sphecidae); Hensen, 1991a:22 (member of *Sphex resplendens* species group), 23 (in revision of Malesian Sphecina); Dörfel and Ohl, 2015:7, 10, 15 (in key to Australian *Sphex*), 50 (in revision of Australian *Sphex*).

89. *modestus* F. Smith

Sphex modestus F. Smith, 1856:248, ♀ (as *modesta*, incorrect original termination). Holotype or syntypes: ♀, Australia: no specific locality (BMNH). – Kohl, 1890b:448 (original description copied); Froggatt, 1892:210 (in catalog of Australian Hymenoptera); Dalla Torre, 1897:432 (in catalog of world Hymenoptera); R. Turner, 1910a:344 (in key to Australian Sphecini), 346 (Australia: Northern Territory and Western Australia); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Cardale, 1985:225 (in catalog of Australian Sphecidae); Hensen, 1991a:21 (member of *Sphex argentatus* species group); Dörfel and Ohl, 2015:13, 14, 18, 20 (in key to Australian *Sphex*), 31 (in revision of Australian *Sphex*).

Sphex dolichocerus Kohl, 1890b:390, ♂. Holotype or syntypes: ♂, Australia: no specific locality (TMB). Synonymized with *Sphex modestus* by R. Turner, 1910a:346. – Dalla Torre, 1897:421 (in catalog of world Hymenoptera).

Sphex bannitus Kohl, 1890b:62, ♀. Holotype: ♀, New Holland, now Australia: no specific locality (ZMHU). Synonymized with *Sphex modestus* by R. Turner, 1910a:346. – Dalla Torre, 1897:417 (in catalog of world Hymenoptera).

90. *mweruensis* (Arnold)

Chlorion haemorrhoidalis var. *mweruensis* Arnold, 1947:146, ♀, ♂. Lectotype: ♀, Zambia: Lake Mweru area (IRSM), designated by Dörfel and Ohl, 2022:70. – **As *Sphex haemorrhoidalis* var. *mweruensis***: Leclercq, 1961b:46 (new combination, Zaire), l969:1049 (Congo Brazzaville, as *haemorrhoidalis* f. *mweruensis*). – **As *Sphex haemorrhoidalis mweruensis***: Leclercq, 1955h:16 (new status, locality records from Zaire); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Dollfuss, 2008b:1426 (Benin: Borquou Kandi: Saa; Nigeria: Plateau State; Uganda: 20 km northeast of Gulu Patiko; Zambia: 60 km west of Chingola, Mkushi). – **As *Sphex mweruensis***: Dörfel and Ohl, 2022:21 (in key to sub-Saharan *Sphex*), 70 (full species status, in revision of sub-Saharan *Sphex*).

91. *muticus* Kohl

Sphex muticus Kohl, 1885b:199, ♀, ♂ (♀ = undescribed species, see van der Vecht, 1973). Lectotype: ♂, Indonesia: Maluku: Ambon: no specific locality (NHMW), designated by van der Vecht, 1973:347. – Matsumura, 1911:116 (in Thousand insects of Japan); Masuda, 1930:174 (nesting habits); Masaki, 1937:83 (Japan: Honsu: islands off Izu Peninsula); van der Vecht, 1973:346 (taxonomic history); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Brockmann, 1985b:312 (nest closure summary); Dollfuss, 1989:12 (type material in NHMW); Hensen, 1991a:22 (member of *Sphex resplendens* species group), 23 (in revision of Malesian Sphecina). – **As *Sphex nigripes***

forma *mutica*: Strand, 1913a:82 (new status, color characteristics). – **As *Sphex nigripes* var. *muticus***: Dalla Torre, 1897:433 (new status, in catalog of world Hymenoptera); Tullgren, 1904:444 (Cameroon); Brauns, 1911:118 (South Africa: Transvaal); Strand, 1915:89 (relationship to *Sphex 52anadensis* and *S. erythropoda*), 90 (Sri Lanka, relationship to *Sphex morosus*); Matsumura and Uchida, 1926:39 (Okinawa); Berland, 1928a:329 (Malay Peninsula, Borneo, as *mutica*). – **As *Sphex haemorrhoidalis muticus***: Baltazar, 1966:344 (new status, in catalog of Hymenoptera of Philippines). – **As *Chlorion haemorrhoidalis* var. *mutica***: Rohwer, 1922:669 (new combination, Philippines). – **As *Chlorion haemorrhoidalis muticus***: Bibby, 1947:79 (Philippines: Samar group of islands: Island of Calicoan). – **As *Ammobia mutica***: F. Williams, 1919d:128 (new combination, Philippines: Luzon: Los Baños: nesting habits); G. Carpenter, 1930b:295 (nest closure).

92. *nefrens* Dörfel and Ohl

Sphex nefrens Dörfel and Ohl, 2022:155, ♀, ♂. Holotype: ♀, Kenya: Taita-Taveta County: Voi at 3°24'S 38°33.2'E (CAS). – Dörfel and Ohl, 2022:23 (in key to sub-Saharan *Sphex*).

93. *neoumbrosus* Jha and Farooqi

Sphex neoumbrosus Jha and Farooqi, 1996:13, ♀. Holotype: ♀, India: Karnataka: South Coorg District: Polibetta (depository?). – Anagha, Girish Kumar, and Hegde, 2021:453 (in revision of Indian *Sphex*), 461 (in key to Indian *Sphex*).

94. *nigrohirtus* Kohl

Sphex nigrohirtus Kohl, 1895:66, ♂. Lectotype: ♂, Tanzania: Usambara (ZMHU), designated by Dörfel and Ohl, 2022:94. – Kohl, 1895:67 (relationship to *Sphex incomptus*); Dalla Torre, 1897:434 (in catalog of world Hymenoptera); Brauns, 1911a:118 (South Africa); Arnold, 1951:145 (Ghana: Aburi); Berland, 1952b:275 (boundary of Ivory Coast, Guinea, and Liberia: Mount Nimba); Leclercq, 1955h:10 (bibliographic references, locality records from Zaire); Berland, 1956:1178 (in revision of African Sphecini); Leclercq, 1961i:326 (in key to *Sphex haemorrhoidalis* species group, locality records); Diniz, 1964c:100 (in key to Angolan *Sphex*), 101 (Angola: Lunda: Dundo); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Dollfuss, 2008b:1429 (Uganda: 20-50 km east-northeast of Fort Portal; Zimbabwe: Mount Selinda in Chirinda Forest); Dörfel and Ohl, 2022:17 (in key to sub-Saharan *Sphex*), 93 (in revision of sub-Saharan *Sphex*). – **As *Chlorion nigrohirtum***: Arnold, 1928c:368 (new combination, in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae).

Sphex incomptus anonymus Leclercq, 1955h :12, ♂. Holotype: ♂, Zaire: Upemba National Park: Kankunda (MRAC); paratype: Zambia: Abercorn, now Mbala. Synonymized with *Sphex nigrohirtus* be Dörfel and Ohl, 2022:93. – Leclercq, 1955i:405 (Burundi); Bohart and Menke, 1976:115 (in checklist of world Sphecidae).

95. *nitidiventris* Spinola

Sphex nitidiventris Spinola, 1851b:37, ♀. Lectotype: ♀, Brazil: Pará: Belém (M. Spinola collection, Torino), designated by Menke, 1965a:209. – F. Smith, 1856:258 (in catalog of Hymenoptera in British Museum); A. Costa, 1864a:60 (one specimen from Brazil in Napoli Museum); F. Smith, 1871a:362 (in catalog of Oriental Aculeata); Kohl, 1890b:449 (original description copied); Dalla Torre, 1897:434 (in catalog of world Hymenoptera); Poulton, 1918:xxxvi (Brazil, prey); Menke, 1965a:209 (synonymy); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection, Torino); Nascimento and Overal, 1980:11 (Brazil); Hanson and Menke, 1995:637 (known from Costa Rica); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Dollfuss, 2008b:1429 (Ecuador: Napo: Puerto Napo 8 km south of Tena); Pagliano, 2008:527 (lectotype in M. Spinola collection, Torino); Buys, 2009e:279 (Brazil: Rio de Janeiro: Rio de Janeiro); Rodrigues and Buys, 2013:214 (Brazil; Espírito Santo: from Amarante, 2002); Buys and Rodrigues, 2014:42 (Brazil: State of Espírito Santo: Conceição de Barra); dos Santos, Grandinete, and Noll, 2015:37 (first record from Peru: Ucayali: Pucallpa).

Sphex nitidiventris Spinola, 1853 :53. Objective synonym of *Sphex nitidiventris* Spinola, 1851.

Sphex beatus Cameron, 1888a:31, ♀, ♂ (as *beata*, incorrect original termination). Lectotype: ♀, Guatemala: Pantaleón (BMNH), designated by Menke, 1965a:209. Synonymized with *Sphex nitidiventris* by Menke, 1965a:209. – Kohl, 1890b:424 (in revision of world Sphecini); Dalla Torre, 1897:417 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae). – **As *Chlorion beatum***: Fernald, 1906:411 (new combination, in revision of Sphecini of North America and West Indies).

Sphex neotropicus Kohl, 1890b:420, ♂. Syntypes: Brazil: Rio Grande do Sul (NHMW). Synonymized with *Sphex nitidiventris* by Menke, 1965a:209. – Kohl, 1895:63 (leg color variation); Dalla Torre, 1897:433 (in catalog of world Hymenoptera); W. Fox, 1897b:376 (Brazil: Chapada and Santarém); Ducke, 1901:242 (Brazil: Pará: Belém); Schrottky, 1902a:315 (Brazil); Bertoni, 1911:133 (prey); Cameron, 1912a:426 (Guyana); Berland, 1929b:311 (Argentina, Brazil, French Guyana: locality records); Liebermann, 1931:19 (in revision of Argentinean Sphecini); Richards, 1937a:104 (Guyana); Dollfuss, 1989:12 (type material in NHMW). – **As *Proterosphex neotropicus***: Schrottky, 1913a:225 (new combination, Paraguay). – **As *Chlorion neotropicum***: Fernald, 1942:31 (new combination, Guyana; determination tentative); Willink, 1951:141 (in revision of Argentinean Sphecini).

96. *nudus* Fernald

Sphex nudus Fernald, 1903b:201, ♂. Lectotype: ♂, Tennessee: no specific locality (USNM), designated by R. Bohart and Menke, 1963:126. – Murray *in* Muesebeck, Krombein, and Townes, 1951:972 (in catalog of North American Hymenoptera); R. Bohart and Menke, 1963:126 (in revision of Nearctic Sphecini), 1976:115 (in checklist of world Sphecidae); Krombein, 1979b:1581 (in catalog of North American Hymenoptera); Ahlstrom, 1995:107 (in checklist of insects of North Carolina); Hook, 1998:249 (first record from Texas); McCravy, Bara, Hessler, Luxmore, Stinebaker, and Jenkins, 2009:113 (Illinois: Hancock County: Alice L. Kibbe Life Science Station). – **As *Chlorion nudum***: Fernald, 1906:382 (new combination, in revision of Sphecini of North America and West Indies), 1931a:443 (South Carolina, Virginia); Brimley, 1938:444 (North Carolina: Bogue, Bushnell, Elizabeth City, McCullers, Wilmintgon).

Sphex bridwelli Fernald, 1903b:202, ♀. Lectotype: ♀, USA: Maryland: Indian Head (USNM), designated by Bohart and Menke, 1963:126. Synonymized with *Sphex nudatus* by R. Bohart and Menke, 1963:126. – **As *Chlorion bridwelli***: Fernald, 1906:384 (new combination, in revision of Sphecini of North America and West Indies); J. Smith, 1910:677 (in new list of insects of New Jersey); Fernald, 1912:259 (Illinois: Union County), 1931a (Mississipi, probably a female of *Chlorion nudum*). – **As *Ammobia bridwelli***: Rau and Rau, 1918:206 (new combination, prey: katydid *Camptonotus carolinensis* Gerst.).

97. *obscurus* (Fabricius)

? *Sphex hirtipes* Fabricius, 1793:307, sex not stated. Holotype or syntypes: Guinea: no specific locality (depository). – Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:488 (redescription); Kohl, 1890b:351 (as tentative synonym of *Sphex aegyptius* = *Prionyx crudelis*), 445 (original description copied); Dalla Torre, 1897:425 (in catalog of world Hymenoptera); van der Vecht, 1961a:32 (as tentative synonym of *Sphex obscurus*); R. Bohart and Menke, 1976:115 (as tentative synonym of *Sphex obscurus*); Krombein, 1984a:9 (cannot be synonym of *Sphex obscurus*); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection, Torino). – **As *Pepsis hirtipes***: Fabricius, 1804:212 (new combination, redescription).

Pepsis obscura Fabricius, 1804:213, sex not stated, junior secondary homonym of *Sphex obscurus* Schrank, 1802 (now in Pompilidae), valid under Article 59.2 of the Code. Lectotype: ♂, India: no specific locality (ZMUC), designated by van der Vecht, 1961a:31. – **As *Sphex obscurus***: Dalla Torre, 1897:419 (new combination, in catalog of world Hymenoptera); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae, comments on type localities of synonyms); Krombein, 1984a:9 (Sri Lanka, nesting habits); Hensen, 1991a:26 (member of *Sphex subtruncatus* species group); Jha and Farooqi, 1994:15 (description and illustration of male genitalia); Kazenas, 2001b:13 (in checklist of Sphecidae of Kazakhstan and Central Asia: may occur in Tajikistan); Gadallah, 2020d:87 (in list of aculeate wasps

of Arabian Peninsula); Anagha, Girish Kumar, and Hegde, 2021:453 (in revision of Indian *Sphex*), 461 (in key to Indian *Sphex*); Dörfel and Ohl, 2022:13 (in key to sub-Saharan *Sphex*).

Sphex xanthopterus Cameron, 1889c:113, ♀, ♂ (as *xanthoptera*, incorrect original termination). Syntypes: India: Barrackpore, Mussoorie (OXUM). Synonymized with *Sphex cinerascens* by Kohl, 1895:52. – Cameron, 1889a:109 (listed, as *zanthoptera*); Kohl, 1890b:389 (in revision of world Sphecini); Bingham, 1897:246 (in revision of wasps and bees of British India, now India and Pakistan); Cameron, 1898b:24 (synonymy with *Sphex cinerascens* reported); Iwata and Yoshikawa, 1961:398 (Thailand, determination tentative).

Sphex zubaidiyacus Augul, 2013a:476, ♀, ♂, misspelled *zubaidiyanis* in Abstract. Holotype: ♂, Iraq: Wasit Province: center of Al-Zubaidiya region (Iraq Natural History Research Center and Museum, University of Baghdad). Synonymized with *Sphex obscurus* by Anagha, Girish Kumar, and Hegde, 2021:453. – Augul, Abdul-Rassoul, and Kaddou, 2015:113 (in key to Sphecini of Iraq, locality records), 114, 115 (illustrations); Augul, 2019:499 (Iraq: Baghdad Province: Bab Al Muadham).

As *Sphex chrysopterus* (misspelling of *Sphex xanthopterus*): Gussakovskij, 1930c:209 (Turkmenistan: Mary, as Merv; northwest Iran: Ungyut Mugan: village Altan); Myartseva, 1971b:80 (Turanian species, ranging to Kashmir and tropical Africa).

98. *occidentalis* Dörfel and Ohl

Sphex occidentalis Dörfel and Ohl, 2022:157, ♀, ♂. Holotype: ♀, Burkina Faso: Hauts-Bassins Region: Soumousso at 11°00'51.9"N 4°02'42.9"W (MNHN). – Dörfel and Ohl, 2022:23 (in key to sub-Saharan *Sphex*).

99. *opacus* Dahlbom

Sphex opacus Dahlbom, 1845:437, sex not stated (as *opaca*, incorrect original termination). Holotype or syntypes: South America: no specific locality (Lund). – F. Smith, 1856:260 (in catalog of Hymenoptera in British Museum); Taschenberg, 1869:413 (Brazil, redescription); Burmeister, 1872:239 (Argentina: Buenos Aires, Rosario; Paraná; Lagoa Santa; preying on acridids); Kohl, 1890b:406 (as synonym of *Sphex flavipes*); Dalla Torre, 1897:435 (in catalog of world Hymenoptera); Schrottky, 1903b:123 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay); Fernald, 1906:417 (unidentified species, possibly a synonym of *Sphex flavitarsis*); Schrottky, 1907:273 (first record from Paraguay: Villa Encarnación); W. Schulz, 1912:93 (study of type); Bristowe, 1925a:494 (mimicry with a synthomid moth, *Isanthrene incendiaria* Hübner); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Maes, 1989:93 (in catalog of Nicaraguan Sphecidae); F. Fernández, 1990:24 (Colombia: Meta: Parque Nacional Natural La Macarena); Amarante, 1993:19 (northeastern Brazil); Hanson and Menke, 1995:637 (known from Costa Rica); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Buys, 2005b:709 (nesting habits, larval habits); Dollfuss, 2008b:1429 (Argentina: Catamarca: Tinogasta); Buys, 2009e:279 (Brazil: Rio de Janeiro: Araruama, Duque de Caxias, Maricá, Rio de Janeiro, Seropédica, Silva Jardim), 2011b:2 (Brazil: Rio de Janeiro: Cabo Frio, Itatiaia, Seropédica); Rodrigues and Buys, 2013:214 (Brazil; Espírito Santo: Santa Teresa); Buys and Rodrigues, 2014:42 (Brazil: State of Espírito Santo: several localities); Trad and Silvestre, 2017:4 (Brazil: Mato Grosso do Sul); Buys, 2020b:80 (in 54anadensis analysis of larvae of Sphecidae s.s.), 2020c:262 (description of mature larva). – **As *Chlorion opacum***: Fernald, 1931a:442 (new combination, synonymy); Willink, 1951:146 (in revision of Argentinean Sphecini). – **As *Proterosphex opacus***: Schrottky, 1913a:225 (new combination, Argentina, Paraguay).

Sphex flavipes var. *iheringi* Kohl, 1890b:405, ♀, ♂ (as *Iheringi*, incorrect original capitalization. Syntypes: Brazil: Rio Grande do Sul and Pernambuco; Argentina: no specific locality (NHMW?). Synonymized with *Sphex opacus* by W. Schulz, 1912:93 and with *Chlorion opacum* by Fernald, 1931a:442. – Dalla Torre, 1897:423 (in catalog of world Hymenoptera); W. Fox, 1897b:377 (Brazil: Chapada); Schrottky, 1902a:315 (Brazil); Strand, 1910a:133 (Paraguay); Jörgensen, 1912:285 (Argentina: Mendoza Province); Richards, 1937a:104 (Guyana); Dollfuss, 1989:12 (paratype in NHMW). –**As *Chlorion flavitarsis iheringi***: Fernald, 1906:381 (new combination, new status, in revision of Sphecini of North America and West Indies).

100. *optimus* F. Smith

Sphex optimus F. Smith, 1856:245, ♀ (as *optima*, incorrect original termination). Holotype or syntypes: ♀, Gambia: no specific locality, but probably South America (BMNH). – Kohl, 1890b:450 (original description copied); Dalla Torre, 1897:435 (in catalog of world Hymenoptera); Leclercq, 1955h:38 (listed as species incertae sedis); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Dörfel and Ohl 2022:1 (probably a South American species). – **As *Chlorion optimum***: Arnold, 1928c:375 (new combination, original description copied), 1930:18 (in checklist of Afrotropical Sphecidae).

101. *oxianus* Gussakovskij

Sphex oxianus Gussakovskij, 1928a:3, ♂. Syntypes: ♂, Uzbekistan: Kara Tau Mountains near Khiva (ZIN), but Kazakhstan: Kara Tau Mountains according to Danilov, 216:353. – Gussakovskij, 1930c:208 (description of ♀; Turkmenistan: Krasnovodsk, now Türkmenbaşy , and Uzbekistan: Santo), 1933b:273 (Iran), 1935:413 (Tajikistan); de Beaumont, 1960c:170 (Afghanistan), 1967a:276 (Turkey), 1968b:156 (redescription), 1969:81 (Turkey), 1970a:393 (Afghanistan), 1970c:4 (Iran: Khorassan); Islamov, 1970:63, 64 (Uzbekistan: Chirchik Basin); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Menke and Pulawski, 2000:339 (in revision of *Sphex flavipennis* species group); Kazenas, 2001b:13 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:26 (geographic distribution, collecting localities in Kazakhstan); Gülmez and Tüzün, 2005:45 (Turkey: Ankara Province); Ghahari, Hayat, Tabari, Ostovan, and Imani, 2008:740 (Iran: Mazandaran: Savadkooh); Dollfuss, 2008b:1429 (locality records from Armenia, Kazakhstan, Kyrghyzstan, Syria, Tajikistan, and Turkmenistan); Ljubomirov and Yildirim, 2008:20 (in catalog of Sphecidae of Turkey); Danilov, 2010b:44 (distribution of Tethyan type); Murai and Amr, 2011:110 (Syria: Al Thawrah Nature Reserve at 35°51'N 28°38'E), 120 (recorded from Syria by Dollfuss, 2008b); Dunford, Turbyville, and Leavengood, 2014:11 (listed as medically important in Afghanistan); Ghahari, Hayat, Lavigne, and Ostovan, 2014:139t (prey of asilid *Eutolmus parricida* (Loew)); Yildirim, 2014:29 (Turkey: distribution by biogeographic provinces); Koçak and Kemal, 2015:279 (in checklist of Hymenoptera of Turkey); Samin and Bagriacik, 2015:70 (Iran: Mazandaran: Babol at 36°30'N 52°35'E); Danilov, 2016:353 (syntypes preserved in Zoological Institute, Sankt Petersburg, Russia); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:29 (Iran: known from Mazandaran, South Khorasan, and Sistan-o Baluchestan provinces); Gülmez, 2019:3 (Turkey: Ankara Provinces: no specific locality); Danilov, 2020:320 (specimens from Kyrgyzstan, Tajikistan, and Turkmenistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey).

Sphex oxianus forma *nubila* de Beaumont, 1968b :156. ♀. Holotype: ♀, Israel: Ein Geddi (W. Schlaeffle coll.). Not available originally but validated by R. Bohart and Menke, 1976:116 under Article 45.6.4.1 of the Code. Synonymized with *Sphex oxianus* by Menke and Pulawski, 2000:339. – **As *Sphex oxianus nubilus***: R. Bohart and Menke, 1976:116 (new status, in checklist of world Sphecidae).

102. *paulinierii* Guérin-Méneville

Sphex paulinierii Guérin-Méneville, 1843:8, ♀. Holotype: ♀, Senegal: no specific locality (RMNH). – F. Smith, 1856:246 (in catalog of Hymenoptera in British Museum); Kohl, 1890b:193 (original description copied); Dalla Torre, 1897:436 (in catalog of world Hymenoptera); Berland, 1927:150 (Senegal, Congo, no new material in the preceding 75 years); van der Vecht, 1954:147 (holotype in Leiden Mus.); Leclercq, 1955h:8 (bibliographic references, Senegal: M'Bambey, additional description); Berland, 1956:1173 (in revision of African Sphecini); van der Vecht, 1957a:28 (type material in RMNH); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Dörfel and Ohl, 2022:12 (in key to sub-Saharan *Sphex*), 23 (in revision of sub-Saharan *Sphex*). – **As *Chlorion paulinieri***: R. Turner, 1919c:397 (new combination, relationships, synonymy); Arnold, 1928c:360 (in revision of southern African Sphecini), 1930:17 (in checklist of Afrotropical Sphecidae).

Sphex eximius Lepeletier de Saint Fargeau, 1845 :360, ♂. Holotype or syntypes: ♂, Senegal: no specific locality (originally Audinet-Serville coll., now ?). Synonymized with *Chlorion paulinieri* by R. Turner, 1919c:397. – F. Smith,

1856:246 (in catalog of Hymenoptera in British Museum); Kohl, 1890b:443 (original description copied); Dalla Torre, 1897:422 (in catalog of world Hymenoptera).

103. *pensylvanicus* Linnaeus

Sphex pensylvanicus Linnaeus, 1763:412, sex not stated (as *pensylvanica*, incorrect original termination). Lectotype: ♀, USA: Pensylvania: no specific locality (NRS), designated by Day, 1979:69. – Forster, 1971b:31 (in catalog of North American animals); De Geer, 1773:586 (redescription); Fabricius, 1775:346 (redescription); Retzius, 1783:66 (redescription); Fabricius, 1781:443 (redescription), 1787:274 (redescription); Gmelin, 1790:2725 (redescription); Christ, 1791:288 (redescription); Thunberg, 1791:126 (specimens donated to Academia Upsaliensis); Fabricius, 1793:201 (redescription), 1796:156 (in Index to his Entomologia Systematica, 1793); Lichtenstein, 1796:197 (in auction catalog); Turton, 1801:485 (redescription); Lepeletier de Saint Fargeau and Audinet-Serville, 1828:462 (in list of known *Sphex*); Guérin-Méneville, 1829a:562 (is a member of *Sphex*); Dahlbom, 1843:25 (in revision of Sphecidae and Pompilidae), 1845:XXI (specimens in collection Fabricius), 436 (in key to world Sphecini); Lepeletier de Saint Fargeau, 1845:334 (in revision of world Hymenoptera); F. Smith, 1856:261 (in catalog of Hymenoptera in British Museum, as *Pennsylvanica*); Cresson, 1863:320 (in catalog of North American Hymenoptera); Taschenberg, 1869:413 (Brazil: Nova Friburgo); Cresson, 1873:211 (Texas, as *pennsylvanica*); Patton, 1880a:383 (diagnostic characters); Snow, 1881:96 (in checklist of Hymenoptera of Kansas: Douglas County: no specific locality, as *pennsylvanica*); Cresson, 1887:275 (in catalog of North American Hymenoptera, as *pennsylvanica*); D. Holland, 1887:58 (nesting habits); Ashmead, 1890:33 (in checklist of Hymenoptera of Colorado, as *pennsylvanica*); Kohl, 1890b:418 (in revision of world Sphecini); C. Robertson, 1892:108 (visiting flowers of *Pycnanthemum lanceolatum* (Willd.) Push. And *P. linifolium* Push., Lamiaceae, as *pennsylvanica*); W. Fox, 1894c:103 (Mexico: Baja California, as *pennsylvanicus*); C. Robertson, 1894:455 (visiting flowers of *Solidago missouriensis* Nutt. And *S. 56anadensis* Linnaeus, Asteraceae, as *pennsylvanica*); Dalla Torre, 1897:436 (in catalog of world Hymenoptera, as *pennsylvanicus*); Ashmead, 1899d:353 (in checklist of North American Sphecidae); Bridwell, 1899:209 (Kansas: no specific locality, as *pennsylvanica*); J. Smith, 1900:523 (in list of insects of New Jersey, as *pennsylvanica*); Viereck, 1903d:120 (Maryland: Chestertown); Snow, 1906:133 (Arizona: Oak Creek 20 mi. southwest of Flagstaff, as *pennsylvanica*); Hart, 1907:255 (Illinois, as *pennsylvanicus*); Strand, 1910b:15 (Texas, as *pennsylvanicus*), 1916b:100 (Massachusetts); Berland, 1929b:311 (North America); Murray *in* Muesebeck, Krombein, and Townes, 1951:972 (in catalog of North American Hymenoptera); Evans and Lin, 1956a:140 (description of larva); Evans, 1963c:49 (observations by J. Bartram, 1749, and nesting habits discussed); Kurczewski and Kurczewski, 1963:147 (Pennsylvania: Presque Isle State Park); R. Bohart and Menke, 1963:129 (in revision of Nearctic Sphecini); Menke, 1965a:211 (synonymy); Pilon and Steiner, 1966:482 (locality records from Massachusetts and Michigan); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Rigley and Hayes, 1977:32 (acoustic habits); Day and Fitton, 1978:193 (recuration of Linnean type material); Krombein, 1979b:1581 (in catalog of North American Hymenoptera); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection, Torino); Finnamore, 1982:15 (in Sphecid Fauna of southern Quebec); Brockmann, 1985b:312 (nest closure summary); Steiner, 1986:96 (references to papers on nesting habits); O'Brien, 1989b:205 (distribution in Michigan); Spofford, Kurczewski, and Downes, 1989:259 (summary of previous records for nest parasite *Senotainia trilineata* (Wulp), a miltogrammine fly); Kurczewski and Acciavatti, 1990:59 (New York: Cayuga County);); Betz, Struven, Wall, and Heitler, 1994:48 (pollinating *Asclepias verticillata* L., Apocynaceae, as *pennsylvanicus*), 49 (pollinating *Asclepias verticillata* L.); Ahlstrom, 1995:107 (in checklist of insects of North Carolina); Kurczewski, 1997:231(activity pattern in a nesting aggregation). 1998b:74 (territoriality and mating habits), 1998d:250 (pine barrens in upstate New York); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Buck, 2004:24 (Canada: in checklist of Sphecidae of Ontario), 29 (distribution within Ontario), 32 (first record from Ontario: list of localities); Kephart and Theiss, 2004:270 (pollinating flowers of *Asclepias*, Apocynaceae); Pagliano, 2008:526 (specimens in M. Spinola collection, Torino); Benntinen and Preisser, 2009:604 (Rhode Island: birds *Passer*

domesticus (L.) and to a lesser degree *Dumetella carolinensis* (L.) were stealing up to one third of prey from females returning to nesting colony in Foster); McCravy, Bara, Hessler, Luxmore, Stinebaker, and Jenkins, 2009:113 (Illinois: Hancock County: Alice L. Kibbe Life Science Station); Miller, Pearce, and O'Neill, 2009:3 (known to be parasitized by *Paraxenos westwoodi* (Templeton), Strepsiptera); Lechner, 2011:302 (a sparrow stealing prey from a female carrying it), 2015:149 (homing), 2016:27 (stinging behavior), 2017:115 (new prey record: *Orchelimum gladiator* Bruner, Tettigoniidae); Danilov, 2020:320 (specimen from Canada in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Lewis, 2020:52 (range extension into Canada: New Brunswick: Kings County: along Nerepis River at 45.390972°N, 66.285265°W); Lechner, 2022a:1 (life span), 2022b (experiments with females carrying katydid prey). – **As *Ammobia pensylvanica***: Rohwer, 1917a:240 (new combination, Ohio or Texas); Rau, 1922:23 (USA: Missouri: Wickes); E. Reinhard, 1929:165 (nesting habits, reference to Bartram observations of 1749); Frisch, 1938:673 (nesting habits); Piek and Spanjer, 1986:179 (in list of Sphecidae with known prey). – **As *Chlorion pensylvanicum***: Fernald, 1906:405 (new combination, in revision of Sphecini of North America and West Indies); H. Smith, 1908b:334 (in revision of Nebraskan Sphecidae), 677 (in new list of insects of New Jersey, as *pennsylvanicum*); Rohwer, 1916b:680 (in catalog of Hymenoptera of Connecticut); Mickel, 1918b:400 (in catalog of Nebraskan Sphecidae); Washburn, 1919:222 (in list of Hymenoptera of Minnesota, as *pennsylvanicum*); Britton, 1920:340 (in checklist of insects of Connecticut, as *pennsylvanicum*); Rohwer *in* Viereck, 1925:680 (in key to Sphecidae of Connecticut, as *pennsylvanicum*; New Haven); Salt, 1927:182 (stylopized specimen: North Carolina: Southern Pines); J.Ch. Bradley, 1928:1011 (in catalog of New York Sphecidae), as *pennsylvanicum*; Dow, 1930a:98 (J. Bartram observations of nesting habits refer to *Chlorion pennsylvanicum* [sic]); Brimley, 1938:444 (North Carolina: statewide, as *pennsylvanicum*); Fernald, 1943a:290 (Florida); Dreisbach, 1944:268 (in key to Sphecinae of Michigan, as *pennsylvanicum*), 273 (Michigan: locality records); Rau, 1944b:439 (nesting habits); Krombein, 1953a:298 (visiting flowers of *Cephalanthus occidentalis* L., Rubiaceae, as *pennsylvanicum*), 1953b:124 (visiting flowers of *Pluchea* sp., Asteraceae, as *pennsylvanicum*), 132 (North Carolina: Kill Devil Hills, as *pennsylvanicum*), 1955a: 16 (nesting in perpendicular cliff, prey, as *pennsylvanicum*), 331 (North Carolina, as *pennsylvanicum*), 1958f:191 (in supplement to catalog of North American Hymenoptera: description of larva by Evans and Lin, 1956, recorded), 1963f:275 (Maryland: Plummers Island near Washington, D.C.; as *pennsylvanicum*); L. Davis, 1978:216 (North Carolina: Kill Devil Hills, data from Krombein, 1953a; as *pennsylvanicum*).

Sphex pensylvanicus var. *robustisoma* Strand, 1916b:101, ♀, proposed conditionally. Holotype: ♀, origin unknown (DEI). Synonymized with *Sphex pensylvanicus* by Menke, 1965a:211. – Strand, 1927:254 (in list of species described by author); Oehlke and Wudowenz, 1974:425 (holotype in DEI).

104. *permagnus* (Willink)

Chlorion permagnum Willink, 1951:154, ♀, ♂. Holotype: ♂, Argentina: Buenos Aires: Tandil (IML). – **As *Sphex permagnus***: R. Bohart and Menke, 1976:116 (new combination, in checklist of world Sphecidae); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Vardy, 2017:14 (Argentina: Río Negro: General Roca INTA station and Paso Córdoba).

105. *peruanus* Kohl

Sphex peruanus Kohl, 1890b:424, ♀. Holotype or syntypes: ♀, Peru: Lima (NHMW). – Kohl, 1895:58 (description of ♂); Dalla Torre, 1897:437 (in catalog of world Hymenoptera); Brèthes, 1918a:124 (Peru: Arequipa; description of ♂); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Sielfeld, 1980b:72 (in checklist of Chilean Sphecidae); Ch. Porter, 1987:43 (Chile: Tarapacá Region); Dollfuss, 1989:12 (type material in NHMW); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Rasmussen and Asenjo, 2009:16 (in checklist of Crabronidae of Peru). – **As *Chlorion peruanum***: Soukup, 1943:265 (Peru); Willink, 1951:150 (new combination, in revision of Argentinean Sphecini); Aguilar, 1966:95 (Peru: hills in vicinity of Lima), 1976:69 (Peru: coastal hills).

106. *praedator* F. Smith

Sphex praedator F. Smith, 1858b:14, ♂. Holotype or syntypes: ♂, Indonesia: Sulawesi: no specific locality (OXUM). – F. Smith, 1863b:134 (known from Sulawesi), 1871a:362 (in catalog of Oriental Aculeata); Kohl, 1890b:450 (original description copied); Dalla Torre, 1897:437 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Hensen, 1991a:26 (member of *Sphex subtruncatus* species group); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Dollfuss, 2008b:1429 (locality records from India, Indonesia, Malaysia, and also South Africa, Zambia, and Zimbabwe; African specimens must be a different species); Anagha, Girish Kumar, and Hegde, 2021:454 (in revision of Indian *Sphex*), 461 (in key to Indian *Sphex*).

Sphex tyrannicus F. Smith, 1860b:122, ♀ (as *Tyrannica*, incorrect original capitalization). Syntypes: ♀, Indonesia: northern Maluku: Bachian, now Batjan and Kaisaa: no specific localities (type destroyed: van der Vecht, 1973:348). Synonymized with *Sphex praedator* by Hensen, 1991a:26. – F. Smith, 1862:55 (Indonesia), 1863a:33 (Indonesia), 1863b:134 (known from Gilolo (now Halmahera), Batjan, Misool, and Kaisaa), 1865a:84 (Sumatra, Sula), 1871a:362 (in catalog of Oriental Aculeata); nec Bingham, 1890:241 (= *Sphex madasummae*); Bingham, 1896a:440 (good species, not a synonym of *Sphex nigripes*). – **As *Sphex nigripes* var. *tyrannicus***: Dalla Torre, 1897:434 (new status, in catalog of world Hymenoptera). – **As *Sphex praedator tyrannicus***: van der Vecht, 1973:348 (new status); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae).

Sphex luteipennis Mocsáry, 1883:33, ♀. Lectotype: ♀, Indonesia: Maluku: island of Ambon: no specific locality (TMB), designated by van der Vecht, 1973:348. Synonymized with *Sphex praedator* by Hensen, 1991a:26. – Kohl, 1890b:423 (in revision of world Sphecini); Dalla Torre, 1897:430 (in catalog of world Hymenoptera); Kohl, 1890b:423 (in revision of world Sphecini); Bingham, 1896a:440 (bibliographic references), 1897:247 (in revision of wasps and bees of British India, now India and Pakistan); Rothney, 1903:105 (India: West Bengal: Barrackpore), 112 (fairly common about jungle ground round Pulta); Paiva, 1907:15 (Nepal: Katmandu); Cameron, 1908a:262 (Tanzania: Kilimanjaro), 1910:137 (South Africa: Gauteng: Pretoria); Strand, 1910c:49 (India); F. Williams, 1919d:127 (Philippines: Luzon: Los Baños: nesting habits); Bristowe, 1925b:279 (carrying prey, *Anacridium maestum* Audinet-Serville, Acrididae, almost six times its own weight); von Schulthess, 1926b:210 (Libya); Berland, 1927:153 (miscellaneous locality records); Schouteden, 1930:95 (Zaire); Sonan, 1927:131 (Taiwan); Guiglia, 1934b:294 (Libya: bibliography and summary of locality records); Leclercq, 1955h:9 (bibliographic references, miscellaneous locality records); Berland, 1956:1176 (in revision of African Sphecini); Leclercq, 1961i:324 (in key to *Sphex haemorrhoidalis* species group), 326 (locality records); Iwata, 1964b:354 (nesting habits in Thailand); Baltazar, 1966:344 (in catalog of Hymenoptera of Philippines); de Beaumont, 1967b:503 (South Africa: Cape Province); Murota, 1973b:116 (Taiwan); Tsuneki, 1973f:39 (Taiwan); van Vondel, 1995:29 (specimens from Indonesia: Island of Ambon in Natuurmuseum Rotterdam); Roche, 2007a:139 (recorded from Egypt, but not occurring there). – **As *Sphex praedator luteipennis***: van der Vecht, 1973:348 (new status, records from Africa are all misidentifications); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae; African records pertain to a different and probably undescribed species); Tsuneki, 1977c:2 (Taiwan: Pingtung Prefecture: Kentin Park); Tano, Nozaka, Kurokawa, and Murota, 1994:53 (Philippines). – **As *Chlorion luteipennis***: Rohwer, 1922:669 (new combination, Philippines); Arnold, 1928c:363 (in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae); Bibby, 1947:79 (Philippines: Samar group of Islands: island of Calicoan).

As *Sphex fuliginosus* Dahlbom, 1843:25 (females from India: Tranquebar), corrected to *Sphex luteipennis* by Menke, 1965a:211. – Dahlbom, 1845:436 (in key to world Sphecini); W. Schulz, 1912:94 (specimens from Tranquebar cannot be conspecific with those from Brazil).

Sphex nigripes var. *calopterus* Kohl, 1890b:168 (in key to world Sphecini) and 422 (var. no. 5), ♂. Holotype or syntypes: ♂, Indonesia: Sulawesi: no specific locality (NHMW). Synonymized with *Sphex praedator* by van der Vecht, 1973:347. – not listed by Dalla Torre, 1897; Dollfuss, 1989:12 (type material in NHMW).

Sphex nigripes f. *celebesianus* Strand, 1913:81, sex not stated. Holotype or syntypes: Indonesia: Sulawesi: no specific locality (depository unknown). New name for *Sphex praedator* var. 2 of Kohl, 1890b:422. Synonymized with *Sphex*

praedator by van der Vecht, 1973:347. – Strand, 1916b:107 (China: Tsingtau, now Qingdao), 1927:255 (in list of species described by author).

Sphex nigripes f. *kohlianus* Strand, 1913a:82, ♂. Holotype or syntypes: ♂, Indonesia: Sulawesi: no specific locality (depository unknown). New name for *Sphex praedator* var. 5 of Kohl, 1890b:422. Synonymized with *Sphex praedator* by van der Vecht, 1973:347. – Strand, 1927:255 (in list of species described by author).

Sphex melanopodus Strand, 1915:89, ♀ (as *melanopoda*, incorrect original termination). Lectotype: ♀: Sri Lanka: Nalanda (NHMW), designated by van der Vecht, 1973:347. Synonymized with .. – Strand, 1927:255 (in list of species described by author). – **As *Sphex praedator melanopoda***: van der Vecht, 1973:347 (new status); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); S. Gupta, 1995:85 (India: Uttar Pradesh).

As *Sphex rufipennis*: Kohl, 1885b:198 (redescription), corrected to *Sphex luteipennis* by Cameron, 1889c:112.

107. *pretiosus* Dörfel and Ohl

Sphex pretiosus Dörfel and Ohl, 2015:90, ♀, ♂. Holotype: ♂, Australia: New South Wales: 56 mi. west of Cobar: Baznatos Tank (BMNH). – Dörfel and Ohl, 2015:13, 14, 19 (in key to Australian *Sphex*)

108. *prosper* Kohl

Sphex prosper Kohl, 1890b:426, ♀, ♂. Lectotype: ♂, Venezuela: no specific locality (NHMW), designated by Menke, 1965a:210. – Dalla Torre, 1897:438 (in catalog of world Hymenoptera); Menke, 1965a:210 (recognition characters); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Dollfuss, 1989:12 (lectotype in NHMW); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Dollfuss, 2008b:1430 (Argentina: Catamarca: Tinogasta; French Guiana: Camp Caiman on Mount de Kaw, Relais de Patawa 35 km south of Roura).

109. *pruinosus* Germar

Sphex pruinosus Germar, 1817:261, ♂ (as *pruinosa*, incorrect original termination). Holotype or syntypes: Dalmatia: Spalatro, now Croatia: Split (depository?). – Vander Linden, 1827:364 (listed, probably male of *Sphex paludosa*); nec *Pelopaeus pruinosus*: Dahlbom, 1845:433 (= *Chalybion omissum*); Lepeletier de Saint Fargeau, 1845:339 (in revision of world Hymenoptera); F. Smith, 1856:242 (in catalog of Hymenoptera in British Museum); von Frauenfeld, 1861:103 (Croatia: Dalmatia: no specific locality); A. Costa, 1864b:112 (specimen from France in Museo Zoologico di Napoli); Dours, 1874:146 (in catalog of Hymenoptera of France: Hyères, Montpellier); Kohl, 1885b:196 (in revision of Palearctic *Sphex*); Gasperini, 1887:18 (Dalmatia: Brusije, Spalato, now Croatia: Brusje on island of Hvar, Split); Ed. André, 1888:142, 144 (in revision of Sphecidae of Europe and Algeria), 8* (bibliographic references); Radoszkowski, 1888b:342 (Turkmenistan: Askhabad); Kohl, 1889a:24 (critique of André's description), 1890b:391 (in revision of world Sphecini); Radoszkowski, 1892:575 (male genitalia); Acloque, 1897:96 (in Sphecid Fauna of France and Algeria); Dalla Torre, 1897:438 (in catalog of world Hymenoptera); Mocsáry, 1900:79 (Hungary: Fiume, now Croatia: Rijeka, identification tentative); Kokujev, 1902:10 (Turkmenistan: Merv, now Mary); Rothney, 1903:105 (India: West Bengal: Barrackpore, as *pruiosus*); Zavattari, 1905b:4 (Lebanon: Bekfeiya); Dusmet and Mercet, 1906:510, 515 (in key to Spanish Sphecini); Kohl, 1906a:199 (Yemen: Aden); de Gaulle, 1908:104 (in catalog of French Hymenoptera); Storey, 1916:107 (Egypt: Ghiza, Suez); Berland, 1921:533 (Greece); Fahringer, 1922:178 (Turkey: Konya); Maidl, 1922:67 (Dalmatia); Berland, 1925d:39 (in Sphecid Fauna of France); Roth, 1925:390 (in revision of North African Sphecini); Berland, 1927:150 (miscellaneous locality records); von Schulthess, 1926b:210 (Tunisia); Gussakovskij, 1933b:273 (Iran), 1935:413 (Tajikistan); Giner Marí, 1934a:130 (Spain); Maidl, 1934:65 (Greece: Island of Lesbos: Mytilene); Giner Marí, 1943a:84 (in Sphecid Fauna of Spain); Honoré, 1944a:73 (in revision of Egyptian Sphecini); Giner Marí, 1945b:359 (eastern Morocco: Muley Ali); de Beaumont, 1947b:383 (Cyprus); Giner Marí, 1947:19 (Western Sahara); Berland and Bernard, 1949:3 (in revision of French *Sphex sensu lato*); de Beaumont, 1950f:396 (Algeria); Pittioni, 1950:20 (Cyprus); de Beaumont and Bytinski-Salz, 1955:42 (Israel); Leclercq, 1955h:7 (selected records from Africa); Vogrin, 1955:31 (Yugoslavia); Ceballos, 1956:364 (in catalog of Hymenoptera of Spain); de Beaumont, 1956a:181

(Libya); Bytinski-Salz, 1956:224 (Turkey: Balaban Bridge, Fethiye, İzmir, Kemer, Konya); Grandi, 1957:387 (Libya: Tripolitania: Wadi Kaam); Pulawski, 1958a:164 (Bulgaria: Sandanski); Suárez, 1959:53 (Spain: Almería Province); Čingovski, 1960:7 (Macedonia: Pchinya); de Beaumont, 1960a:6 (Greece: island of Rhodes), 1960b:227 (Libya), 1961c:45 (Greece: island of Crete), 1962b:19 (Spain); Ceballos, 1964:87 (in supplement to catalog of Spanish Sphecidae); Pulawski, 1964:65 (Egypt: Kom Osheim); de Beaumont, 1965a:14 (Greece); Diniz, 1965:4 (Portugal: Évora, Soalheira); de Beaumont, 1967a:276 (Turkey), 1970a:393 (Afghanistan), 1970c:4 (Iran: Khorassan); Balthasar, 1972:421 (in Sphecid Fauna of Czechoslovakia: may be expected in the country); Erlandsson, 1974:59 (Greece, Malta); Esmaili and Rastegar, 1974:45 (Iran, determination tentative); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Georghiou, 1977:192 (Cyprus); Guichard, 1977:270 (Greece); Kazenas, 1978b:39 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:182, 183 (in key to Sphecidae of European part of USSR); Esenbekova and Kazenas, 2000:7 (southeastern Kazakhstan: near Chilik, near Kapchagay); Guichard, 1980:224 (Oman); Pagliano, 1980:110 (Italy: Calabria, Puglia); Mingo and Gayubo, 1983:145 (Spain); Schmidt and Westrich, 1983:120 (Greece); Gayubo, 1984c:355 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:8 (Spain: Valencia); Pagliano, 1984:367 (Italy), 1985:11 (Italy); Radović, 1985:64 (sting apparatus analyzed); Gayubo, 1986b:35 (Spain: Andalucía); Islamov, 1986:515 (Uzbekistan: Surkhandarya and Tashkent Oblast's); Tormos and Jiménez, 1987a:122 (Spain: Valencia); Guichard, 1988a:118 (Arabian Peninsula); Islamov, 1989b:40 (Uzbekistan: Surkhandarya and Tashkent Oblast's); Gayubo, Asís, and Tormos, 1990a:9 (Spain); Pagliano, 1990:59 (in catalog of Italian Sphecidae); Hamon, Fonfria, and Tussac, 1991:128 and 130 (in key to French Sphecini), 132 (in France recently collected in Bouche-du-Rhône Department); Schembri, 1991:177 (Malta); Torregrosa, Gayubo, Tormos, and Asís, 1993:11 (Spain: Alicante Province); Jha and Farooqi, 1994:15 (description and illustration of male genitalia); Roche and Zalat, 1994:113 (Egypt: Sinai Peninsula); Tormos, Asís, and Gayubo, 1994:187, 192 (Spain: Albacete Province); S. Gupta, 1995:85 (India: Uttar Pradesh); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:2 (in catalog of Italian fauna); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:70 (in Sphecid Fauna of Western Europe); Kazenas, 1998b:93 (in Sphecid Fauna of Kazakhstan), 2002a:26 (geographic distribution, collecting localities in Kazakhstan), 2004b:98 (Kazakhstan: western Tien Shan Mountains), 2004d:26 (Kazakhstan: northern Caspian region); Gadallah and Assery, 2004a:221 (in catalog of Sphecidae of Saudi Arabia); Gayubo and Özbek, 2005:7 (Turkey: many localities); Gülmez and Tüzün, 2005:45 (Turkey: Ankara Province); Pagliano and Negrisolo, 2005:62 (in Sphecid Fauna of Italy); Yildirim and Ljubomirov, 2005:1786 (Turkey: Adana, İçel, and Kahramanmaraş provinces); Standfuss and Standfuss, 2006c:307 (Greece: Thessalia: Magnisia Peninsula at 39°N 23°E); Roche, 2007a:51 (in checklist of Egyptian Sphecidae, redescription), 2007b:3 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Yildirim and Ljubomirov, 2007:116 (Turkey: İçel: Aydıncık); Dollfuss, 2008b:1430 (locality records from Albania, Bulgaria, Croatia, Egypt, Ethiopia, Greece, Morocco, Kyrghyzstan, Pakistan, Syria, Tajikistan, Turkey, and Tajikistan); Kazenas, 2008a:98 (southeastern Kazakhstan: lower course of Charyn River); Ljubomirov and Yildirim, 2008:20 (in catalog of Sphecidae of Turkey); Pagliano, 2009:175 (Italy: Basilicata: Maratea); Danilov, 2010b:44 (distribution of Palearctic-Ethiopian type); Ghazi-Soltani, Ebrahimi, Iranipour, and Pour Abad, 2010:797 (Iran: East Azarbaijan: county of Tabriz); Tüzün and Yüksel, 2010:4467 (Turkey: Niğde Province); Murai and Amr, 2011:110, 120 (first record from Syria: Al Thawrah Nature Reserve at 35°51'N 28°38'E); Schmid-Egger, 2011b:605 (recorded from United Arab Emirates by Guichard, 1988a); Yildirim, 2012:74 (Turkey: Erzurum: Çat, Oltu, Sarısaz); Bayındır, Gürbüz, Ljubomirov, and Pohl, 2013:146 (Turkey: Isparta: Kasnak Oak Forest Nature Reserve); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:362 (in new catalog of Sphecidae of Saudi Arabia); Dunford, Turbyville, and Leavengood, 2014:11 (listed as medically important in Afghanistan); Ebrahimi, 2014:28 (Iran: Āzarbāijān-e Sharghi, Āzarbāijān-e Gharbi, and Markazi provinces); Kazenas, 2014a:131 (Kazakhstan: Karatau Mountain Range); Yildirim, 2014:29 (Turkey: distribution by biogeographic provinces); Augul, Abdul-Rassoul, and Kaddou, 2015:113 (in key to Sphecini of Iraq), 114, 115 (Iraq: locality records, illustrations); Koçak and Kemal, 2015:280 (in checklist of Hymenoptera of Turkey); Samin, Bagriacik, and Monaem, 2015:195 (Iran: West

Azarbaijan: Ourmieh); Gülmez and Dizer, 2016:58 (Turkey: Tokat Province); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:5 (Turkey: Ankara, Antalya, Denizli, Iğdır, Isparta, and Tunceli provinces); Arens, 2017a:632 (Greece: Peloponnesus); Danilov, 2017b:216 (in catalog of Sphecidae s.s. of Russia); Habib, Rustamani, Khatri, Dhiloo, Yaseen, Dhiloo, and Mastoi, 2017:468 (Pakistan: Sindh: Tando Jam); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:29 (Iran: known from East Azerbaijan, Markazi, Sistan-o Baluchestan, South Khorasan, and West Azerbaijan provinces); Madl, 2018:945 (in catalog of Hymenoptera of Djibouti); Augul, 2019:499 (Iran: Sulaymaniyah and Wasit provinces); Gülmez, 2019:3 (Turkey: Ankara, Sivas, and Tokat provinces: no specific localities); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:317 (in list of Tunisian Sphecidae *sensu stricto*; new locality records); Cassar and Mifsud, 2020:164 (in checklist of Sphecidae s.s. of Malta); Danilov, 2020:320 (specimens from Croatia, Russia: Astrakhan' Oblast', Dagestan, and Turkey in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Gadallah, 2020d:87 (in list of aculeate wasps of Arabian Peninsula); Maharramov, Mokrousov, and Proshchalykin, 2020:46 (Azarbaijan: Nakichivan Autonomous Republic); Anagha, Girish Kumar, and Hegde, 2021:454 (in revision of Indian *Sphex*), 461 (in key to Indian *Sphex*); Can and Gülmez, 2021b:313 (Turkey: Sivas: two localities); Cross, Baldock, and Wood, 2021:20 (in catalog of Sphecidae *sensu lato* of Portugal); Dörfel and Ohl, 2022:21 (in key to sub-Saharan *Sphex*), 133 (in revision of sub-Saharan *Sphex*); Embergenov, Élmurodova, Amirov and Kimyonazarov, 2022:46 (Uzbekistan: Yangiyul Province, as *pruinnesus*); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey).

Sphex vicinus Lepeletier de Saint Fargeau, 1845:343, ♀ (as *vicina*, incorrect original capitalization). Holotype: ♀, India: no specific locality (M. Spinola collection, Torino). Synonymized with *Sphex pruinosus* by Rothney, 1903:105. – F. Smith, 1856:253 (in catalog of Hymenoptera in British Museum), 1871a:361 (in catalog of Oriental Aculeata); Cameron, 1889c:108 (in list of Sphecidae of Oriental Region); Kohl, 1890b:454 (original description copied); Bingham, 1897:245 (in revision of wasps and bees of British India, now India and Pakistan); Dalla Torre, 1897:446 (in catalog of world Hymenoptera); Casolari and Casolari Moreno, 1980:103 (specimens in M. Spinola collection, Torino); Pagliano, 2008:535 (holotype in M. Spinola collection, Torino).

Sphex scioensis Gribodo, 1879:343, ♀ (as *Scioensis*, incorrect original capitalization). Holotype: ♀, Ethiopia: kingdom of Scioa = Schoa: Mahal-Uonz according to Gribodo, 1881b:243 (MSNG). Synonymized with *Sphex pruinosus* by Kohl, 1890b:391. – Gribodo, 1881b:243 (redescription); Penati and Mariotti, 2015:112 (in list of Hymenoptera described by G. Gribodo). – **As *Sphex pruinosus* var. *scioensis***: Kohl, 1890b:391 (new status); Dalla Torre, 1897:438 (in catalog of world Hymenoptera); Berland, 1927:150 (Djibouti).

Sphex rothneyi Cameron, 1889c:112, ♀, ♂ (as *Rothneyi*, incorrect original capitalization). Syntypes: India: Uttar Pradesh: Allahabad and Mussoorie (OXUM). Synonymized with *Sphex pruinosus* by Kohl, 1895:54. – Cameron, 1889c:108 (in list of Sphecidae of Oriental Region), 1898b:24 (probably a local form of *Sphex pruinosus*). – **As *Sphex pruinosus* 'var. *rothneyi***: Kohl in Dalla Torre, 1897:438 (new status, in catalog of world Hymenoptera).

Sphex retractus Nurse, 1903b :11, ♂. Syntypes: Pakistan : Baluchistan: Quetta (BMNH). Synonymized with .. by .. – Ramakrishna Aiyar, 1916:554 (in catalog of Indian aculeates described after Bingham, 1897).

110. *pseudopraedator* Dörfel and Ohl

Sphex pseudopraedator Dörfel and Ohl, 2022:109, ♀, ♂. Holotype: ♀, Zambia: Copperbelt Province: 50 km west of Chingola at 12°25'06.3'S 27°23'50.9"E (OÖLM). – Dörfel and Ohl, 2022:17, 19 (in key to sub-Saharan *Sphex*).

111. *pseudosatanas* Dörfel and Ohl

Sphex pseudosatanas Dorfel and Ohl, 2022:137, ♀, ♂. Holotype: ♀, Kenya: Laikipia County: Mpala Research Centre at 0°17'33"N 36°53'53"E (BMNH). – Dörfel and Ohl, 2022:19 (in key to sub-Saharan *Sphex*).

112. *pulawskii* Dörfel and Ohl

Sphex pulawskii Dörfel and Ohl, 2022:98, ♀, ♂. Holotype: ♂, Benin: Atakora Department: Niaro at 10°12'02.2"N 1°36'59.9"E (MNHN). – Dörfel and Ohl, 2022:16 (in key to sub-Saharan *Sphex*).

113. *resinipes* (Fernald)

Sphex rufipes Lepeletier de Saint Fargeau, 1845:343, ♀, junior primary homonym of *Sphex rufipes* Linnaeus, 1758. Holotype or syntypes: ♀, Haiti: Port-au-Prince (depository?). Lectotype: ♀, West Indies: Guadeloupe (M. Spinola collection, Torino), designated by Menke *in* R. Bohart and Menke, 1976:116. – Cresson, 1863:320 (in catalog of North American Hymenoptera); Radoszkowski, 1871:196 (China: Zheizhang Province: Ning-Po, obviously ins error, as *rufipes* Dahlbom); Dalla Torre, 1897:439 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae), 1900:308 (in checklist of Caribbean Hymenoptera); Pagliano, 2008:532 (specimens in M. Spinola collection, Torino, including unpublished lectotype.

Chlorion resinipes Fernald, 1906:386. Substitute name for *Sphex rufipes* Lepeletier de Saint Fargeau. – Fernald, 1906:386 (in revision of Sphecini of North America and West Indies). – Fernald, 1912:258 (description of ♂), 1931a:443 (identity of one of specimens described as *Pepsis fervens* by Fabricius, 1775). – **As *Sphex resinipes***: R. Bohart and Menke, 1976:116 (new combination, in checklist of world Sphecidae); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Perez-Gelabert, 2008:242 (in list of arthropods of island of Hispaniola).

114. *resplendens* Kohl

Sphex nitidiventris F. Smith, 1859a:158, ♀, junior primary homonym of *Sphex nitidiventris* Spinola, 1853. Holotype or syntypes: ♀, Indonesia: Maluku: island of Aru (OXUM). Synonymized with *Sphex gratiosissimus* by R. Turner, 1910a:346, and with *Sphex refulgens* by R. Turner, 1919b:238. – F. Smith, 1863b:134 (known from Aru); Vachal, 1907:114 and 1908:23 (New Caledonia).

Sphex gratiosus F. Smith, 1859a:158, ♂ (as *gratiosa*, incorrect original termination), junior primary homonym of *Sphex gratiosus* F. Smith, 1856. Holotype or syntypes: ♂, Indonesia: island of Aru: no specific locality (OXUM). Synonymized with *Sphex nitidiventris* F. Smith by Turner, 1910a:346. – F. Smith, 1863b:134 (known from Aru), 1871a:362 (in catalog of Oriental Aculeata); Kohl, 1890b:445 (original description copied).

Sphex resplendens Kohl, 1885:200. Substitute name for *Sphex nitidiventris* F. Smith. – Kohl, 1890b:409 (in revision of world Sphecini); Dalla Torre, 1897:439 (in catalog of world Hymenoptera); Kohl, 1908b:310 (Papua New Guinea: Bougainville Province: island of Buka); Berland, 1928a:331 (Australia, Maluku); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Cardale, 1985:225 (in catalog of Australian Sphecidae); Dollfuss, 1989:12 (type material in NHMW); Hensen, 1991a:22 (member of *Sphex resplendens* species group), 23 (in revision of Malesian Sphecina); van Vondel, 1995:29 (specimens from Indonesia: island of Ambon in Natuurmuseum Rotterdam); Dörfel and Ohl, 2015:10, 15 (in key to Australian *Sphex*), 52 (in revision of Australian *Sphex*).

Sphex gratiosissimus Dalla Torre, 1897:424. Substitute name for *Sphex gratiosus* F. Smith, 1859. – R. Turner, 1910a:344 (in key to Australian Sphecini).

Sphex wallacei R. Turner, 1908:467. Substitute name for *Sphex nitidiventris* F. Smith. – R. Turner, 1908:468 (Australia: Queensland: Mackay to Cape York); Berland, 1928a:331 (Maluku, Solomon Islands).

Sphex lanceiventris Vachal, 1908:23. Substitute name for *Sphex nitidiventris* F. Smith. – R. Turner, 1919b:238 (Vachal's record from New Caledonia is almost certainly in error).

Sphex mertoni Strand, 1911b:231, ♀. Holotype: ♀, Indonesia: Maluku: Aru Islands: island of Kobroor: Seltutti. (Senckenberg Mus.). Synonymized with *Sphex resplendens* by van der Vecht, 1973:349. – Strand, 1927:255 (in list of species described by author).

115. *rex* Hensen

Sphex rex Hensen, 1991a:27, ♀, ♂. Holotype: ♀, Papua New Guinea: Milne Bay: K.B. Mission (USNM). – Hensen, 1991a:26 (member of *Sphex subtruncatus* species group).

116. *rhodosoma* (R. Turner)

Chlorion rhodosoma R. Turner, 1915a:65, ♀. Syntypes: ♀, Australia: Western Australia: Cue and Cunderdin (BMNH). – **As *Sphex rhodosoma***: R. Bohart and Menke, 1976:116 (new combination, in checklist of world Sphecidae); Cardale, 1985:225 (in catalog of Australian Sphecidae); Dörfel and Ohl, 2015:10 (in key to Australian *Sphex*), 54 (in revision of Australian *Sphex*).

117. *rufinervis* Pérez

Sphex rufinervis Pérez, 1895b:209, ♀, ♂. Lectotype: ♀, Seychelles islands: Mahé (MNHN), designated by Menke *in* R. Bohart and Menke, 1976:116. – Dalla Torre, 1897:439 (in catalog of world Hymenoptera); R. Turner, 1911b:370 (as new synonym of *Sphex umbrosus*); Berland, 1927:153 (type specimens in MNHN, may be synonym of *Sphex umbrosus metallicus*); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Madl, Matyot, and Schödl, 1996:832 (Seychelles Islands); Madl, 2014a:1022 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Malagasy subregion, with synonymy and locality records); Dörfel and Ohl, 2022:15 (in key to sub-Saharan *Sphex*), 47 (in revision of sub-Saharan *Sphex*).

118. *rufoclypeatus* Dörfel and Ohl

Sphex rufoclypeatus Dörfel and Ohl, 2022:139, ♀, ♂. Holotype: ♀, Central African Republic: Bamingui-Bangoran: Koukourou Bamingui Reserve at 7°15'N 20°03'E (OÖLM). — Dörfel and Ohl, 2022:19 (in key to sub-Saharan *Sphex*).

119. *rugifer* Kohl

Sphex rugifer Kohl, 1890b:393, ♀. Syntypes: Australia: no specific locality (ZMHU) and Western Australia: Swan River (NHMW). – Dalla Torre, 1897:439 (in catalog of world Hymenoptera); R. Turner, 1910a:344 (in key to Australian Sphecini); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Cardale, 1985:225 (in catalog of Australian Sphecidae); Dörfel and Ohl, 2015:10, 15 (in key to Australian *Sphex*), 54 (in revision of Australian *Sphex*).

120. *satanas* Kohl

Sphex satanas Kohl, 1898a:339, ♀, ♂. Lectotype: ♀, Zaire: Congo Central: Boma (IRSN), designated by Dörfel and Ohl, 2022:141. – Schouteden, 1930:95 (Zaire); Leclercq, 1955h:7 (bibliographic references, study of types, earlier and new locality records); Berland, 1956:1173 (in revision of African Sphecini); Diniz, 1964c:100 (in key to Angolan *Sphex*, Angola: Lunda: Andrada); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Guichard, 1988a:118 (South Yemen: Aden); Dollfuss, 1989:12 (type material in NHMW), 2008b:1431 (locality records from Kenya, Mozambique, Tanzania, Zambia, and Zimbabwe); Gadallah, 2020d:86 (in list of aculeate wasps of Arabian Peninsula); Gadallah, 2020d:87 (in list of aculeate wasps of Arabian Peninsula); Dörfel and Ohl, 2022:19 (in key to sub-Saharan *Sphex*), 141 (in revision of sub-Saharan *Sphex*, as *satanas satanas*).

Sphex gorgon Kohl, 1913a:204, ♀. Holotype: ♀, Zaire: Lukafu (MRAC). Synonymized with *Sphex satanas* by Leclercq, 1955h:7 – Berland, 1927:151 (Mozambique); Schouteden, 1930:95 (Zaire); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae). – **As *Chlorion gorgon***: Arnold, 1928c:374 (new combination, in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae).

ssp. *memnon* Dörfel and Ohl

Sphex satanas memnon Dörfel and Ohl, 2022:114, ♀. Holotype: Ethiopia: "Abbai Gorge" = Blue Nile Gorge (BMNH). – Dörfel and Ohl, 2022:19 (in key to sub-Saharan *Sphex*).

121. *schlaeflei* Schmid-Egger

Sphex schlaeflei Schmid-Egger, 2019b:465, ♀, ♂. Holotype: ♂, Morocco: 30 km north-northwest of Tazenakht at 30.830°N 7.288°W (Zoologische Staaatssammlung, Münich, Germany). – Schmid-Egger, 2019b:461 (in key to *Sphex flavipennis* species group of northwestern Africa).

122. *schmideggeri* Dörfel and Ohl

Sphex schmideggeri Dörfel and Ohl, 2929:135, ♀, ♂. Holotype: ♀, Yemen: Dhale Governorate: Jebel Jihaf at 13°45'38"N 44°40'35"E (BMNH). – Dörfel and Ohl, 2022:21 (in key to sub-Saharan *Sphex*).

123. *schoutedeni* Kohl

Sphex schoutedeni Kohl, 1913a:205, ♂ (as *Schoutedeni*, incorrect original capitalization). Holotype: ♂, Zaire: Mpika (MRAC). – Schouteden, 1930:95 (Zaire); Leclercq, 1955h:12 (bibliographic references), 1961i:326 (in key to *Sphex haemorrhoidalis* species group), 327 (locality records); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Dörfel and Ohl, 2022:17, 19 (in key to sub-Saharan *Sphex*, as *schoutedeni schoutedeni*), 114 (in revision of sub-Saharan *Sphex*,). – **As *Chlorion schoutedeni***: R. Turner, 1918b:361 (new combination, Malawi); Arnold, 1928c:371 (in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae).

ssp. *malawicus* Dörfel and Ohl

Sphex schoutedeni malawicus Dörfel and Ohl, 2022:116, ♀, ♂. Holotype: ♂, Zimbabwe: Manicaland: Vumba Mountain at 19°07'S 32°47'E (ZMHU). – Dörfel and Ohl, 2022:17 (in key to sub-Saharan *Sphex*).

124. *schrottkyi* (Bertoni)

Proterosphex schrottkyi Bertoni, 1918:209 (October), ♂. Holotype or syntypes: ♂, Argentina: La Rioja (depository?). – Bertoni, 1921:78 (preying on tettigoniids *Granadera* and *Hyperphora*). – **As *Chlorion schrottkyi***: Willink, 1951:158 (new combination, in revision of Argentinean Sphecini). – **As *Sphex schrottkyi***: Berland, 1929b:309 (new combination, redescription); Liebermann, 1931:19 (in revision of Argentinean Sphecini); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Amarante, 2002:75 (in catalog of Neotropical Sphecidae).

Sphex luciati Brèthes, 1918:347 (December), ♀, ♂ (as *Luciati*, incorrect original capitalization). Lectotype: ♂, Argentina: La Rioja: no specific locality (MACN), designated by Menke *in* R. Bohart and Menke, 1976:116. Synonymized with *Chlorion schrottkyi* by Willink, 1951:158 and 160. – Liebermann, 1931:21 (in revision of Argentinean Sphecini); Genise, 1990:27 (type material in MACN).

As *Sphex nigeus* Giacomelli, 1928:53 (habits of adults, misspelling of *Sphex ingens*), corrected to *Chlorion schrottkyi* by Willink, 1951:158.

125. *semifossulatus* van der Vecht

Sphex argentifrons F. Smith, 1868b:248, ♀, actually ♂ (see van der Vecht, 1973:349), junior primary homonym of *Sphex argentifrons* Lepeletier de Saint Fargeau, 1845. Holotype or syntypes: ♀, Australia: Western Australia: Champion Bay, now Geraldton (BMNH). – Kohl, 1890b:439 (original description copied); Froggatt, 1892:209 (in catalog of Australian Hymenoptera); Dalla Torre, 1897:415 (in catalog of world Hymenoptera); R. Turner, 1910a:344 (in key to Australian Sphecini).

Sphex semifossulatus van der Vecht, 1973:349. Substitute name for *Sphex argentifrons* F. Smith, 1868. – R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Hensen, 1991a:26 (member of *Sphex subtruncatus* species group); Dörfel and Ohl, 2015:19 (in key to Australian *Sphex*), 92 (in revision of Australian *Sphex*).

126. *sericeus* (Fabricius)

Sphex aurulentus Fabricius, 1793:201, sex not stated, junior primary homonym of *Sphex aurulentus* Fabricius, 1787 (now in *Liris*). Holotype or syntypes: India: Tranquebar (depository unknown: van der Vecht, 1961a:30). – Turton, 1801:485 (redescription); Fabricius, 1804:219 (as new synonym of *Chlorion ichneumoneum*); de Saussure, 1867:41 (Philippines: Manila; redescription); W.F. Kirby, 1884a:408 (Indonesia: Amboina, now island of Ambon); Kohl, 1885b:194 (in revision of Palearctic *Sphex*); Cameron, 1889c:107 (in list of Sphecidae of Oriental Region), 110 (variation); Kohl, 1890b:392 (in revision of world Sphecini); de Saussure, 1892:429 (Madagascar, redescription, record questioned by Arnold, 1845:188); Bingham, 1896a:439 (Sri Lanka: Colombo, Pundaluoya), 1897:250 (in revision of wasps and bees of British India, now India and Pakistan); Dalla Torre, 1897:416 (in catalog of world

Hymenoptera); Bingham, 1898a:105 (Yemen: Aden), Ashmead, 1899d:353 (in checklist of North American Sphecidae, obviously in error), 1900:178 (preying on Acrididae); Cameron, 1901a:24 (Malaysia; prey: young grasshoppers); Rothney, 1903:105 (India: West Bengal: Barrackpore), 112 (fairly common about jungle ground round Pulta); Ashmead, 1904a:6 (Philippines: Manila), 1904d:150 (Philippines); Bingham, 1905:46 (Malaysia: Bidor, south Perak); Cameron, 1905k:65 (Borneo, Amboina); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); Cameron, 1906b:56 (New Guinea: Irian Jaya); Fernald, 1906:417 (Dalla Torre's 1897 reference to North America is questionable); Strand, 1910c:49 (Java); R. Turner, 1910a:344 (in key to Australian Sphecini); Matsumura, 1911:117 (in Thousand insects of Japan); Cameron, 1913b:80 (Indonesia: Maluku: Waigeo); Strand, 1913a:81 (Taiwan), 1914b:136 (Indonesia: Island of Ceram, now Seram), 1915:89 (Sri Lanka), 1916a:19 (additional specimen from Taiwan: Kosempo), 1916b:108 (specimen from Colombia in DEI must be mislabeled); Dover, 1926:234 (China: Hong Kong); Matsumura and Uchida, 1926:39 (Okinawa); Berland, 1927:152 (miscellaneous locality records); Yasumatsu, 1937a:127 (China: island of Botel Tobago southeast of Taiwan, now island of Lang Hsu); Gussakovskij, 1938:2 (China: Kiangsu Province); Yasumatsu, 1938c:69 (in revision of Sphecini of Japanese Empire = Japan, Korea, part of China, Taiwan); Hua, 1989:117 (China); Tano, Nozaka, Kurokawa, and Murota, 1994:52 (Philippines); van Vondel, 1995:29 (specimens from India and Sri Lankain Natuurmuseum Rotterdam); Wu and Zhou, 1996a:36 (in revision in Economic Insect Fauna of China); Wu, Zhou, Q. Li, and Yang, 2003:806 (China: Fujian Province); Pagliano, 2008:527 (specimens in M. Spinola collection, Torino).– **As *Chlorion aurulenta***: Rohwer, 1922:668 (new combination, Philippines, nomenclature); Piek and Spanjer, 1986:182 (in list of Sphecidae with known prey, as *aurulentus*).

Pepsis sericeus Fabricius, 1804:211, sex not stated (as *sericea*, incorrect original termination). Lectotype: ♀, "in maris pacifici Insulis" [in islands of Pacific Ocean] (ZMUC), designated by van der Vecht, 1961a:30. Synonymized with *Sphex aurulentus* Fabricius, 1793 by Kohl, 1890b:392. – **As *Ammobia sericea***: Billberg, 1820:105 (new combination, specimens in collection Billberg); Rohwer, 1911c:153 (discussion of name). – **As *Pepsis sericea***: Dahlbom, 1845:XXI (new combination, specimens in collection Fabricius). – **As *Chlorion aurulenta* var. *sericea***: Rohwer, 1922:668 (new combination, Philippines).– **As *Chlorion aurulentus sericeus***: Bibby, 1947:78 (new status, Philippines: Samar group of Islands: island of Calicoan). – **As *Sphex aurulentus* var. *sericeus***: Kohl, 1890b:393 (new status, in revision of world Sphecini); Dalla Torre, 1897:416 (in catalog of world Hymenoptera); Berland, 1927:152 (miscellaneous locality records); von Schulthess, 1932:41 (Indonesia: Java: Buitenzorg, now Bogor), 1935:304 (Indonesia: Java: Buitenzorg, now Bogor; Timor: Koepang). – **As *Sphex sericeus***: Dahlbom, 1843:26 (new combination, in revision of Sphecidae and Pompilidae), 1845:437 (in key to world Sphecini); Lepeletier de Saint Fargeau, 1845:341 (in revision of world Hymenoptera); F. Smith, 1856:255 (in catalog of Hymenoptera in British Museum), 1858a:100 (Sarawak, Maluku), 1859a:157 (Indonesia: Maluku: island of Aru), 1860b:122 (Indonesia), 1862:55 (Indonesia), 1863a:33 (Indonesia), 1863b:134 (known from Philippines, Muluccas, Borneo, Ternate, Java, Waigeo, Batjan, Ceram, Aru, and Timor); A. Costa, 1864a:60 (two specimens from Philippines in Museo Zoologico di Napoli); F. Smith, 1865a:83 (Sumatra); A. Costa, 1866:24 (specimen from Philippines in Museo Zoologico di Napoli); F. Smith, 1871a:361 (in catalog of Oriental Aculeata); Casto de Elera, 1895:245 (in catalog of fauna of Philippines); Ashmead, 1904a:6 (Philippines: Manila), 1904d:150 (Philippines); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); van der Vecht and Krombein, 1955:33 (taxonomic history), 35 (key to subspecies), 41 (as *sericeus sericeus*, in revision of subspecies of *Sphex sericeus*); van der Vecht, 1957c:363 (bibliographic references, locality records); Baltazar, 1966:345 (in catalog of Hymenoptera of Philippines, as *sericeus sericeus*); R. Bohart and Menke, 1976:116 (i in checklist of world Sphecidae); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection, Torino); Sk. Yamane, 1983:85 (Indonesia: Krakatau islands); Cardale, 1985:226 (in catalog of Australian Sphecidae); Hensen, 1991a:21 (member of *Sphex argentatus* species group), 22 (in revision of Malesian Sphecina); Barnett and Emms, 1998:49 (Chagos Archipelago: Island of Chagos); Naumann, 1998:182 (Australia: northwestern Queensland: Musselbrook area, approximately 18°40'S 138°23'E); Yamane, Ikudome, and Terayama, 1999:475 (Japan: in Identification Guide to Sphecidae of Nansei = Ryukyu Islands); Hua, 2006:277 (in list of Chinese insects, geographic distribution); Terayama and Tano, 2006:3, 14, 17 (in key to Japanese Ampulicidae and Sphecidae); Dollfuss,

20008b:1431 (locality records from Burma, China, India, Indonesia, Laos, Malaysia, and Thailand); Barthélémy, 2012:8 (nest structure, prey, life history), 2014:8 (China: Hong Kong); Job and Olakkengil, 2014:15 (India: Kerala: Thrissur District); Deshmukh, 2015:37 (India: Maharashtra: Koradi Region in Nagpur District); Dörfel and Ohl, 2015:14, 20 (in key to Australian *Sphex*), 34 (in revision of Australian *Sphex*); Pham, Kumar and Danilov, 2015:1589 (in list of Sphecidae *sensu lato* of Vietnam); Pham, Truong, Th.T. Nguyen, Th.H. Nguyen, Q. Nguen, and Th.M. Nguyen, 2019:73 (Vietnam: Hanoi and vicinity); Danilov, 2020:320 (specimens from Thailand in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Pham and Antropov, 2021:317 (recorded from Vietnam by Tano and Kurokawa, 2015; new records from Ninh Binh, Hoa Binh, and Vinh Phuc provinces); Anagha, Girish Kumar, and Hegde, 2021:455 (in revision of Indian *Sphex*), 460 (in key to Indian *Sphex*).

Sphex fabricii Dahlbom, 1843:27, ♀ (as *Fabricii*, incorrect original capitalization). Syntypes: ♀, India: Tamil Nadu: Tranquebar (depository unknown: Hensen, 1991a:22). Synonymized with *Sphex sericeus* by Kohl, 1885b:194 and 1885c:164. – Dahlbom, 1845:438 (in key to world Sphecini); F. Smith, 1856:253 (in catalog of Hymenoptera in British Museum), 1871a:361 (in catalog of Oriental Aculeata). – **As *Sphex sericeus fabricii***: van der Vecht and Krombein, 1955:36 (new status, in revision of subspecies of *Sphex sericeus*); van der Vecht, 1961a:30 (type depository of *Sphex aurulenta* is uncertain); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Krombein, 1984a:13 (Sri Lanka, nesting habits); S. Gupta, 1995:85 (India: Uttar Pradesh); Jonathan, Ray, and Kundu, 2000:183 (India: Meghalaya: East Garo Hills: Dainadubi); Li and He, 2004:1129 (China: in hymenopterous fauna of Zhejiang Province); Hua, 2006:277 (in list of Chinese insects, geographic distribution).

Sphex lineolus Lepeletier de Saint Fargeau, 1845:353, ♂ (as *lineola*, incorrect original termination). Holotype or syntypes: ♂, Indonesia: Java: no specific locality (originally Audinet-Serville coll., now M. Spinola collection, Torino), origin probably erroneous (Hensen, 1991a:22). Synonymized with *Sphex sericeus* by Kohl, 1885b:195, and 1885c:165. – F. Smith, 1856:254 (in catalog of Hymenoptera in British Museum), 1871a:361 (in catalog of Oriental Aculeata); Bradley, 1957:40 (Lepeletier de Saint Fargeau's specimens in M. Spinola collection, Turin); Casolari and Casolari Moreno, 1980:103 (specimen in M. Spinola collection, Torino); Pagliano, 2008:535 (specimen in M. Spinola collection, Torino). – **As *Sphex aurulentus* var. *lineolus***: Ashmead, 1904d:150 (new status, Philippines); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); Berland, 1927:152 (miscellaneous locality records). – **As *Sphex sericeus lineolus***: van der Vecht and Krombein, 1955:37 (new status, in revision of subspecies of *Sphex sericeus*); Iwata and Yoshikawa, 1961:398 (Thailand); Tsuneki, 1963c:19 (Thailand); Baltazar, 1966:345 (in catalog of Hymenoptera of Philippines); Tsuneki, 1967i:383 (Taiwan), 1967j:3 (Taiwan); Tsuneki and Iida, 1969:3 (nesting habits); Haneda, 1971b:31 (Taiwan); Tsuneki, 1971f:2 (Taiwan); Haneda, 1972a:5 (Taiwan); Murota, 1973b:116 (Taiwan); Tsuneki, 1974b:586 (Thailand); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Tsuneki, 1982d:6 (Taiwan), 1982f:46 (Ryukyu Islands: Okinawa), 1982g:55 (know from Ryukyu archipelago); Sk. Yamane and Ikudome, 1990:99 (Japan: distribution in Ryukyu Islands); Porter, Stange, and Wang, 1999:5 (in checklist of Sphecidae of Taiwan); Hua, 2006:277 (in list of Chinese insects, geographic distribution); Tano and Kurokawa, 2015:26 (central Vietnam: My Son).

Sphex ferrugineus Lepeletier de Saint Fargeau, 1845:345, ♀ (as *ferruginea*, incorrect original termination). Holotype or syntypes: ♀, "sans patrie mais exotique" [= with no fatherland but exotic] (originally Audinet-Serville coll., now?). Synonymized with *Sphex sericeus* by Kohl, 1885b:194, and 1885c:165. – F. Smith, 1856:253 (in catalog of Hymenoptera in British Museum), 1865a:83 (Indonesia: West Papua (= New Guinea): Island of Salawati); de Motschoulsky, 1863:24 (Sri Lanka, listed); F. Smith, 1871a:361 (in catalog of Oriental Aculeata); Pagliano, 2008:529 (specimens in M. Spinola collection, Torino, including unpublished lectotype). – **As *Sphex aurulentus* var. *ferrugineus***: Bingham, 1900:178 (new status, India: Mandalay; prey: immature Acrididae); Ashmead, 1904d:150 (Philippines); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); F. Williams, 1919d:124 (Philippines: Luzon: Los Baños: nesting habits). – **As *Chlorion aurulentus ferrugineus***: Steiner, 1986:94 (new combination, references to papers on nesting habits).

Sphex ferox F. Smith, 1862:55, ♂, junior primary homonym of *Sphex ferox* Westwood, 1837. Syntypes: Indonesia: Ambon and Sulawesi: no specific localities (BMNH and OXUM). Synonymized with *Sphex aurulentus* by Kohl, 1885b:195. – F. Smith, 1863a:33 (Indonesia), 1863b:134 (known from Waigeo, Sulawesi, and Ambon), 1871a:362 (in catalog of Oriental Aculeata).

Sphex lepeletierii de Saussure, 1867:40, ♀. Holotype or syntypes: ♀, Indonesia: Java: Batavia, now Djakarta (NHMW), origin probably erroneous (Hensen, 1991a:22). Synonymized with *Sphex sericeus* by Kohl, 1885b:195, and 1885c:165. – **As *Sphex aurulentus* var. *lepeletieri***: Kohl, 1890b:393 (new status, in revision of world Sphecini); Dalla Torre, 1897:416 (in catalog of world Hymenoptera); Piel, 1935:293 (nesting habits); von Schulthess, 1932:41 (Indonesia: Sumatra: Medan); Yasumatsu, 1935c:58 (Philippines: Island of Basilan: Maloong), 1937a:127 (China: Botel Tobago Island southeast of Taiwan, now Lang Hsu Island). – **As *Chlorion aurulenta* var. *lepeletieri***: Rohwer, 1922:668 (new combination, Philippines).

Sphex godeffroyi de Saussure, 1869:57, ♀ (as *Godeffroyi*, incorrect original capitalization). Holotype or syntypes: ♀, Australia (as La Nouvelle Hollande): Queensland: Cape York: no specific locality (Mus. Hamburg, destroyed in World War II). Synonymized with *Sphex sericeus* by Kohl, 1885b:195, and 1885c:165. – Froggatt, 1892:210 (in catalog of Australian Hymenoptera). – **As *Sphex sericeus godeffroyi***: van der Vecht and Krombein, 1955:43 (new status, in revision of subspecies of *Sphex sericeus*); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Cardale, 1985:226 (in catalog of Australian Sphecidae).

Sphex aurifex F. Smith, 1873d:460, [♀]. Holotype: ♀, Australia: Western Austalia: Champion Bay (BMNH). Synonymized with *Sphex aurulentus* by Kohl, 1890b:392.

Sphex aurulentus var. *pallidehirtus* Kohl, 1890b:393, ♂. Syntypes: Papua New Guinea: Port Moresby and Indonesia: Island of Ambon (NHMW). Synonymized with *Sphex sericeus* by Hensen, 1991a:22. – Dalla Torre, 1897:416 (in catalog of world Hymenoptera).

Sphex rugosus Matsumura, 1912:176, 177. Junior primary homonym of *Sphex rugosus* De Geer, 1773 (an ichneumonid). Holotype or syntypes: Taiwan: Horisha, Koshun (depository?). Synonymized with *Isodontia auripygata* by Sonan, 1931:7, and with *Sphex sericeus* by Hensen, 1991a:22. − Sonan, 1931:7 (Pescadores Islands).

Sphex lineolus wegneri van der Vecht and Krombein, 1955:39, ♀, ♂. Holotype: ♂, Indonesia: Kalimanatan: Samarinda: Muara Kaman (RMNH). Synonymized with *Sphex sericeus* by Hensen, 1991a:22. – Tsuneki, 1974b:586 (Borneo); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae).

Sphex sericeus nigrescens van der Vecht and Krombein, 1955:39, ♀, ♂. Holotype: ♀, Philippines: Luzon: Los Baños (USNM). Synonymized with *Sphex sericeus* by Hensen, 1991a:22. – R. Bohart and Menke, 1976:116 (i in checklist of world Sphecidae); Tano, Nozaka, Kurokawa, and Murota, 1994:55 (Philippines).

Sphex sericeus ferocior van der Vecht and Krombein, 1955:40. Substitute name for *Sphex ferox* F. Smith. Synonymized with *Sphex sericeus* by Hensen, 1991a:22. – R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); van Vondel, 1995:29 (specimens from Indonesia: island of Ambon in Natuurmuseum Rotterdam);.

Sphex stueberi van der Vecht and Krombein, 1955:42, ♀, ♂ (as *stüberi*, incorrect original diacritic mark). Holotype: ♀, Indonesia: Papua (= Indonesian New Guinea): Hollandia, now Jayapura (RMNH). Synonymized with *Sphex sericeus* by Hensen, 1991a:22. – R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae).

127. *servillei* Lepeletier de Saint Fargeau

Sphex fuliginosus Dahlbom, 1843:25, ♀ (as *fuliginosa*, incorrect original termination; authorship attributed to Klug), junior primary homonym of *Sphex fuliginosus* Scopoli, 1763. Lectotype: ♀, Brazil: no specific locality (ZMHU). – F. Smith, 1856:257 (in catalog of Hymenoptera in British Museum); Kohl, 1890b:444 (original description copied), 1895:58 (identity of species, description of ♂); Dalla Torre, 1897:423 (in catalog of world Hymenoptera); W. Fox, 1897b:376 (Brazil: Chapada), 1899:200 (Brazil: Rio Grande do Sul); Ducke, 1901:242 (Brazil: Pará: Belém); W. Schulz, 1906:193 (Argentina: Tucumán); Strand, 1910a:132 (Paraguay); Menke, 1965a:211 (synonymy, diag-

nostic characters); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection, Torino). – **As *Chlorion fuliginosum***: Fernald, 1931a:444 (new combination, study of type series); Willink, 1951:135 (in revision of Argentinean Sphecini).

Sphex servillei Lepeletier de Saint Fargeau, 1845:336, ♂ (as *Servillei*, incorrect original capitalization). Holotype: ♂, Brazil: no specific locality (originally Audinet-Serville coll., now M. Spinola collection, Torino). Synonymized with *Sphex fuliginosus* by Menke, 1965a:211. – F. Smith, 1856:260 (in catalog of Hymenoptera in British Museum, as new synonym of *Sphex pensylvanicus*); Kohl, 1890b:452 (original description copied); Dalla Torre, 1897:440 (in catalog of world Hymenoptera); Bradley, 1957:40 (Lepeletier de Saint Fargeau's type in Turin); W. Fox, 1897b:376 (Brazil: Chapada and Santarém); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Krombein, 1979b:1581 (in catalog of North American Hymenoptera); Casolari and Casolari Moreno, 1980:103 (specimens in M. Spinola collection, Torino); Nascimento and Overal, 1980:11 (Brazil); Ch. Porter, 1978:170 (Texas); Hanson and Menke, 1995:637 (known from Costa Rica); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Pagliano, 2008:533 (holotype in M. Spinola collection, Torino); Perez-Gelabert, 2008:242 (in list of arthropods of island of Hispaniola); Buys, 2009e:279 (Brazil: Rio de Janeiro: Nova Friburgo, Rio de Janeiro), 2011b:2 (Brazil: Rio de Janeiro: Itatiaia); Silvestre, Demétrio, Trad, de Oliveira Lima, Auko, and de Souza, 2014:70 (Brazil: Mato Grosso do Sul: dry forests in Bodoquena Mountain Range and Brazilian Chaco); Trad and Silvestre, 2017:4 (Brazil: Mato Grosso do Sul).

Sphex chichimecus Saussure, 1867:40, ♂. Lectotype: ♂, Mexico: Veracruz: Orizaba (MHNG). Synonymized with *Sphex fuliginosus* by Menke, 1965a:211. – Cameron, 1889a:33 (Honduras, Mexico; as *chichimeca*); Kohl, 1890b:420 (in revision of world Sphecini); Dalla Torre, 1897:418 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae); Berland, 1929b:311 (Mexico: Orizaba). – **As *Chlorion chichimecum***: Fernald, 1906:407 (new combination, in revision of Sphecini of North America and West Indies), 1912:259 (Costa Rica: Turrialba).

Sphex congener Kohl, 1890b:418, ♀. Syntypes: Brazil: Bahia and Rio Grande do Sul (NHMW, ZMHU). Synonymized with *Sphex fuliginosus* by Kohl, 1895:58 and Fernald, 1931a:444. – Berland, 1929b:310 (miscellaneous locality records); Fernald, 1931a:444 (one syntype in ZMHU).

Sphex Jörjenseni Brèthes: Jörgensen, 1912:286 (Argentina: Mendoza Province), nomen nudum.

Sphex joergenseni Brèthes, 1913:120, ♂ (as *Jörgenseni*, incorrect original capitalization and diacritic mark). Holotype: ♂, Argentina: Mendoza (MACN). Synonymized with *Chlorion fuliginosum* by Willink, 1951:135 and 137. – Liebermann, 1931:18 (in revision of Argentinean Sphecini); Genise, 1990:27 (type material in MACN).

128. *socotrensis* Dörfel and Ohl

Sphex socotrensis Dörfel and Ohl, 2022:146. ♀, ♂. Holotype: ♀, Yemen: Island of Socotra: Hadibo Plain at 12°39'N 54°01'10"E (BMNH). Paratype: Aden Governorate. – Dörfel and Ohl, 2022:19 (in key to sub-Saharan *Sphex*).

129. *solomon* Hensen

Sphex solomon Hensen, 1991a:25, ♀, ♂. Holotype: ♂, Solomon Islands: Guadalcanal: Lunga (RMNH). – Hensen, 1991a:22 (member of *Sphex resplendens* species group).

130. *stadelmanni* Kohl

Sphex stadelmanni Kohl, 1895:67, ♂. Holotype: ♂: Mozambique: Delagoa Bay, now Maputo Bay (ZMHU). – Dalla Torre, 1897:442 (in catalog of world Hymenoptera); Leclercq, 1955h:10 (bibliographic references); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Dörfel and Ohl, 2022:17, 19 (in key to sub-Saharan *Sphex*, as *stadelmanni stadelmanni*). – **As *Chlorion stadelmanni***: Arnold, 1928c:371 (new combination, original description translated into English), 1930:18 (in checklist of Afrotropical Sphecidae).

Chlorion stadelmanni var. *integrum* Arnold, 1928c:372, ♀, ♂ (as *Stadelmanni* var. *integrum*, incorrect original capitalization). Syntypes: South Africa: KwaZulu-Natal: Scottsburg; Zimbabwe: Chirinda Forest; Mozambique: Rikatla

(R. Stevenson coll., SAM, TMP). Synonymized with *Sphex stadelmanni stadelmanni* by Dörfel and Ohl, 2020:117. – Arnold, 1930:18 (in checklist of Afrotropical Sphecidae). – **As *Sphex stadelmanni integer***: R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae, as *integrus*); Dollfuss, 20008b:1432 (diagnostic characters, locality records from Kenya, Malawi, and South Africa).

ssp. *stadelmanni rufus* Dörfel and Ohl

Sphex stadelmanni rufus Dörfel and Ohl, 2022:120, ♀, ♂. Holotype: ♂, Kenya: Taita-Taveta County: Wundanyi at 3°23'54"S, 38°21'37"E (OÖLM). – Dörfel and Ohl, 2022:17, 19 (in key to sub-Saharan *Sphex*).

131. *staudingeri* Gribodo

Sphex staudingeri Gribodo, 1894a:3, ♂ (as *Staudingeri*, incorrect original capitalization). Holotype or syntypes: ♂, New Guinea: no specific locality (MSNG). – Kohl, 1895:69 (original description copied, redescription); Dalla Torre, 1897:442 (in catalog of world Hymenoptera); R. Turner, 1912a:197 (Indonesia: Papua: Wataikwa River); R. Turner *in* R. Turner, Meade-Waldo, and Morley, 1915:3 (Indonesia: Papua: Wataikwa River); Berland, 1928a:331 (Australia: Port Jackson); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Cardale, 1985:226 (in catalog of Australian Sphecidae); Hensen, 1991a:26 (member of *Sphex subtruncatus* species group), 27 (in revision of Malesian Sphecina); Dörfel and Ohl, 2015:13, 19 (in key to Australian *Sphex*), 94 (in revision of Australian *Sphex*); Penati and Mariotti, 2015:117 (in list of Hymenoptera described by G. Gribodo).

132. *subhyalinus* W. Fox

Sphex subhyalinus W. Fox, 1899:199, ♀. Holotype: ♀, Brazil: São Paulo: Ipiranga (Mus. Zool. Univ. São Paulo). – R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Menezes de Jesus, Onody, dos Santos Ramos, de Oliveira Andrade, Doria dos Santos, and Ferreira Brandão, 2019:4 (holotype in Mus. Zool. Univ. São Paulo).

133. *subtruncatus* Dahlbom

Sphex subtruncatus Dahlbom, 1843:25, ♀ (as *subtruncata*, incorrect original termination). Lectotype: ♀, "Africa": no specific locality but actually Oriental Region according to W. Schulz, 1912:94 (Lund), designated by van der Vecht, 1973:350. – Dahlbom, 1845:437 (in key to world Sphecini); F. Smith, 1856:244 (in catalog of Hymenoptera in British Museum); Kohl, 1890b:453 (original description copied); Dalla Torre, 1897:443 (in catalog of world Hymenoptera); Leclercq, 1955h:38 (listed as species incertae sedis); van der Vecht, 1957c:364 (nomenclatorical and taxonomic problems, Lesser Sunda Islands), 1973:350 (taxonomic history, redescription of lectotype); R. Bohart and Menke, 1976:116 (in checklist of world Sphecidae); Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection, Torino); Tsuneki, 1982b:1 (Korea; good species; *inusitatus* is not a synonym of *subtruncatus*), 14 (known from Korea); Brockmann, 1985b:312 (nest closure summary); Paik, 1985:197 (in list of Sphecidae of Korea); Hensen, 1991a:26 (member of *Sphex subtruncatus* species group, exists in number of geographic forms); Zhou and Wu, 1993a:670 (China: Wuling Mountains); Jha and Farooqi, 1994:15 (description and illustration of male genitalia); S. Gupta, 1995:85 (India: Uttar Pradesh); Porter, Stange, and Wang, 1999:5 (in checklist of Sphecidae of Taiwan); Jonathan, Ray, and Kundu, 2000:183 (India: Meghalaya: East Garo Hills: Darugiri, and Khasi Hills); Hua, 2006:277 (in list of Chinese insects, geographic distribution); Terayama and Tano, 2006:17 (as synonym of *Sphex sericeus*); Dollfuss, 20008b:1432 (locality records from India and Laos); Pagliano, 2008:527 (specimens in M. Spinola collection, Torino); Barthélémy, 2014:9 (China: Hong Kong); J.-K. Kim, 2014:420 (in catalog of Sphecidae *sensu lato* of Korean Peninsula); Kim, Yeo, and Kim, 2014:288 (in key to *Sphex* of South Korea), 289 (in revision of Sphecidae sensu stricto of South Korea); Pham, Kumar and Danilov, 2015:1590 (in list of Sphecidae *sensu lato* of Vietnam); Pham, Truong, Th.T. Nguyen, Th.H. Nguyen, Q. Nguen, and Th.M. Nguyen, 2019:73 (Vietnam: Hanoi and vicinity); Anagha, Girish Kumar, and Hegde, 2021:459 (in revision of Indian *Sphex*), 461 (in key to Indian *Sphex*).

Sphex nigripes F. Smith, 1856:254, ♀, junior primary homonym of *Sphex nigripes* Fabricius, 1793 (now in *Larra*). Syntypes: Indonesia: Sumatra: no specific locality; China: Shanghai (BMNH). Synonymized with *Sphex subtruncatus*

by W. Schulz, 1912:94. – F. Smith, 1858a:100 (Singapore, Sumatra), 1862:55 (Indonesia), 1863b:134 (known from China, Singapore, Gilolo (now Halmahera), Sumatra, and Sulawesi), 1865:83 (Sumatra), 1871a:361 (in catalog of Oriental Aculeata); Kohl, 1885b:198 (in revision of Palearctic *Sphex*; Hong Kong); Cameron, 1889c:108 (in list of Sphecidae of Oriental Region); Kohl, 1890b:422 (in revision of world Sphecini); nec Bingham, 1896a:440 (= *Sphex subtruncatus krombeini*); Bingham, 1897:248 (in revision of wasps and bees of British India, now India and Pakistan; female from Sri Lanka = *Sphex subtruncatus krombeini*); Dalla Torre, 1897:433 (in catalog of world Hymenoptera); Bingham, 1902:216 (South Africa, Malawi); Paiva, 1907:15 (Nepal: Soondrijal); R. Turner, 1912g:369 (*Sphex nigripes* is a subspecies of *haemorrhoidalis*); Strand, 1913a:81 (Taiwan, geographic variation in color); Matsumura and Uchida, 1926:39 (Okinawa); Berland, 1928a:329 (China, Vietnam, Bhutan); von Schulthess, 1932:42 (Indonesia: Sumatra: Harau Kloof); Gussakovskij, 1938:4 (China: Kiangsu Province); nec Henry, 1932:232 (= *Sphex subtruncatus krombeini*); Hua, 1989:117 (China). – **As *Proterosphex nigripes***: Rohwer, 1911a:482 (new combination, Taiwan). – **As *Sphex haemorrhoidalis* var. *nigripes***: Piel, 1935:289 (new status, nesting habits). – **As *Chlorion haemorrhoide*** [sic] ***nigripes***: Ma, 1936b:66 (new combination, new status, nesting habits).

Sphex siamensis Taschenberg, 1869:413, ♀. Holotype or syntypes: ♀, "Siam": no specific locality, but probably Philippines, see Hensen, 1991a:28 (Halle). Synonymized with *Sphex subtruncatus* by Hensen, 1991a:28. – **As *Sphex nigripes* var. *siamensis***: Dalla Torre, 1897:433 (new status, in catalog of world Hymenoptera); Strand, 1915:89 (Sri Lanka, relationship to *Sphex nigripes*; except Sri Lankan specimens which = *Sphex subtruncatus krombeini*); von Schulthess, 1935:305 (Indonesia: Flores: Kelimotoe). – **As *Chlorion haemorrhoidealis* var. *siamensis***: Rohwer, 1922:669 (new combination, Philippines). – **As *Chlorion haemorrhoidalis siamensis***: Bibby, 1947:79 (new status, Philippines: Samar group of Islands: Island of Calicoan). – **As *Sphex haemorrhoidalis siamensis***: Baltazar, 1966:344 (new status, in catalog of Hymenoptera of Philippines); Tsuneki, 1974b:586 (Thailand). – **As *Sphex subtruncatus siamensis***: R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

Sphex erythropoda Cameron, 1889c:110, ♀. Syntypes: India: no specific locality (Calcutta Museum). Synonymized with *Sphex nigripes* by Kohl, 1890b:421. – Cameron, 1889c:108 (in list of Sphecidae of Oriental Region); nec Berland, 1928:329 (= *Sphex subtruncatus krombeini*). – **As *Sphex nigripes* var. *erythropoda***: Dalla Torre, 1897:433 (new status, in catalog of world Hymenoptera, as *erythropodus*); Strand, 1913a:81 (color characteristics); Berland, 1928a:329 (Sri Lanka: Kandy); von Schulthess, 1932:42 (Sri Lanka: Kandy).

Sphex sulciscutus Gribodo, 1894a:2, ♀ (as *sulciscuta*, incorrect original termination). Holotype or syntypes: ♀, Philippines: Mindoro: no specific locality (MSNG). Synonymized with … by … – Kohl, 1895:69 (original description copied); Dalla Torre, 1897:443 (in catalog of world Hymenoptera); Ashmead, 1904d:150 (Philippines); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera); W. Schulz, 1911b:167 (as new synonym of *Sphex nigripes muticus*); Yasumatsu, 1935c:58 (Philippines: island of Basilan: Maloong), 1937a:127 (China: island of Botel Tobago southeast of Taiwan, now island of Lang Hsu), 1938:75 (island of Botel Tobago, in revision of Sphecini of Japanese Empire = Japan, Korea, part of China, Taiwan); Penati and Mariotti, 2015:119 (in list of Hymenoptera described by G. Gribodo). – **As *Chlorion sulciscuta***: Rohwer, 1922:668 (new combination, Philippines). – **As *Sphex subtruncatus sulciscutus***: R. Bohart and Menke, 1976:117 (new status, in checklist of world Sphecidae); Tano, Nozaka, Kurokawa, and Murota, 1994:53 (Philippines, as *sulciscuta*).

Sphex nigripes var. *tsingtauensis* Strand, 1916b:108, ♂, proposed conditionally. Holotype: ♂, China: Tsingtau, now Qingdao (DEI). – Strand, 1927:254 (in list of species described by author).

Sphex subtruncatus xuthus van der Vecht, 1957c:364, ♂. Holotype: ♂, Indonesia: Sumba: Bondo Kodi (MHNB). Synonymized with *Sphex subtruncatus* by Hensen, 1991a:28. – R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

Sphex subtruncatus coraxus van der Vecht, 1957c:365, ♀. Holotype: ♀, Indonesia: Sumba: Pogobina (MHNB). Synonymized with *Sphex subtruncatus* by Hensen, 1991a:28. – R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

Sphex subtruncatus orius van der Vecht, 1957c:366, ♀, ♂. Holotype: ♂, Indonesia: Flores: Rana Mese (MHNB). Synonymized with *Sphex subtruncatus* by Hensen, 1991a:28. – R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

Sphex subtruncatus krombeini van der Vecht *in* Krombein, 1984a:28, ♀, ♂. Holotype: ♀, Sri Lanka: Galle District: Kanneliya Jungle (USNM). Synonymized with *Sphex subtruncatus* by Hensen, 1991a:28. – Krombein, 1984a:16 (Sr Lanka, nesting habits).

As *Sphex cyanescens*: Gribodo, 1884:301 (Ethiopia: kingdom of Scioa = Schoa), corrected to *Sphex nigripes* var. *muticus* by W. Schulz, 1911b:168.

As *Sphex nigripes*: Bingham, 1896 (Sri Lanka: Pundaluoya), corrected to *Sphex subtruncatus krombeini* by van der Vecht *in* Krombein, 1984a:28; Bingham, 1900:178 (India: Mandalay; prey: Locustidae).

As *Sphex haemorrhoidalis*: Turner, 1912g:369 (Sri Lankan specimens only), corrected to *Sphex subtruncatus krombeini* by van der Vecht *in* Krombein, 1984b:28.

As *Sphex nigripes* var. *siamensis*: Strand, 1915:89 (Sri Lanka), corrected to *Sphex subtruncatus krombeini* by van der Vecht *in* Krombein, 1984a:28.

As *Sphex nigripes* var. *erythropoda*: Berland, 1928:329 (Sri Lanka), corrected to *Sphex subtruncatus krombeini* by van der Vecht *in* Krombein, 1984a:28.

134. *tanoi* Tsuneki

Sphex tanoi Tsuneki, 1974b:587, ♂, ♀. Holotype: ♀, Thailand: Pattaya (coll. T. Tano, Fukui). – R. Bohart and Menke, 1976:630 (in checklist of world Sphecidae).

135. *taschenbergi* Magretti

Sphex taschenbergi Magretti, 1884c:581, ♀. Syntypes: Ethiopia: Metemma (MSNG). – R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae); Roche, 2007a:52 (in checklist of Egyptian Sphecidae, redescription), 2007b:3 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Schmid-Egger, 2014:625 (in key to *Sphex argentatus* species group), 628 (United Arab Emirates, also Namibia); Gadallah, 2020d:87 (in list of aculeate wasps of Arabian Peninsula); Dörfel and Ohl, 2022:15 (in key to sub-Saharan *Sphex*), 48 (in revision of sub-Saharan *Sphex*). – **As *Sphex umbrosus* var. *taschenbergi***: Kohl, 1890b:408 (new status, in revision of world Sphecini); Dalla Torre, 1897:446 (in catalog of world Hymenoptera). – **As *Sphex umbrosus taschenbergi***: de Beaumont, 1956a:182 (new status, Chad: Tibesti).

As *Sphex argentatus*: Schmid-Egger, 2011b:603 (United Arab Emirates: Dubai/al-Awir, recognition characters), corrected to *Sphex taschenbergi* by Schmid-Egger, 2014:628.

136. *tepanecus* de Saussure

Sphex tepanecus de Saussure, 1867:41, ♂. Holotype or syntypes: ♂, Mexico: Mextitlán (NHMW). – Cameron, 1889a:33 (Mexico); Kohl, 1890b:401 (in revision of world Sphecini); Dalla Torre, 1897:443 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae); Berland, 1929b:310 (Mexico: locality records, description of ♀); Murray *in* Muesebeck, Krombein, and Townes, 1951:972 (in catalog of North American Hymenoptera); Gillaspy, 1962:15 (nesting habits); Menke, 1963b:229 (synonymy, geographic variation); R. Bohart and Menke, 1963:130 (in revision of Nearctic Sphecini); Evans, 1964b:237 (description of larva); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae); Krombein, 1979b:1581 (in catalog of North American Hymenoptera); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007:48 (Mexico: Tamaulipas). – **As *Chlorion tepanecum***: Fernald, 1906:377 (new combination, in revision of Sphecini of North America and West Indies).

Sphex mexicanus Taschenberg, 1869:416, ♂ (as *mexicana*, incorrect original termination), junior primary homonym of *Sphex mexicanus* de Saussure, 1867. Holotype or syntypes: ♂, Mexico: no specific locality (Halle). Synonymized

with *Sphex tepanecus* by Kohl, 1890b:401, synonymy confirmed by Menke, 1963b:229. – Cameron, 1889a:34 (Mexico).

137. *texanus* Cresson

Sphex texanus Cresson, 1873:212, ♀, ♂ (as *texana*, incorrect original termination). Lectotype: ♀, USA: Texas: Comal County: no specific locality (ANSP), designated by Cresson, 1916:94. – Cresson, 1887:276 (in catalog of North American Hymenoptera); Kohl, 1890b:427 (in revision of world Sphecini); Dalla Torre, 1897:443 (in catalog of world Hymenoptera); Ashmead, 1899d:353 (in checklist of North American Sphecidae); Strand, 1916b:101 (comparison with *Sphex brasilianus*); Murray *in* Muesebeck, Krombein, and Townes, 1951:972 (in catalog of North American Hymenoptera); R. Bohart and Menke, 1963:130 (in checklist of world Sphecidae), 1976:117 (in catalog of world Hymenoptera); Ch. Porter, 1978:171 (Texas); Krombein, 1979b:1581 (in catalog of North American Hymenoptera); Menke, 1986c:37 (Arizona: Cochise County: west of Naco). – **As *Chlorion texanum***: Fernald, 1906:414 (new combination, in revision of Sphecini of North America and West Indies), 1912:259 (Mexico: Meadow Valley). – **As *Sceliphron texanum***: Snow, 1906:7 (new combination, Arizona: 20 mi. southwest of Flagstaff).

138. *tinctipennis* Cameron

Sphex tinctipennis Cameron, 1888a:32, ♀. Lectotype: ♀, Guatemala: El Tumbador (BMNH), designated by Menke, 1965a:209. – Kohl, 1890b:426 (as new synonym of *Sphex brasilianus*); Fernald, 1931a:443 (is a variety of *Chlorion brasilianum*); Menke, 1965a:209 (raised to full species); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae); Callan, 1990b:19 (in checklist of Trinidad Sphecidae); Hanson and Menke, 1995:637 (known from Costa Rica); Amarante, 2002:75 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:670 (in checklist of Mexican Sphecidae); Starr and Hook, 2003:22 (in catalog of Aculeata of Trinidad, West Indies); dos Santos, Grandinete, and Noll, 2015:37 (first record from Peru: Ucayali: Pucallpa). – **As *Sphex brasiliensis* var. *tinctipennis***: Richards, 1937a:104 (new status, Guyana).

139. *tomentosus* Fabricius

Sphex tomentosus Fabricius, 1787:274 (as *tomentosa*, incorrect original termination). Holotype: ♂, Sierra Leone: no specific locality (ZMUC). – Gmelin, 1790:2734 (redescription); Fabricius, 1793:202 (redescription), 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:485 and 496 (redescription); van der Vecht, 1961a:29 (study of holotype); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae); Dollfuss, 1990:122 (Central African Republic); Weaving, 1990:72 (nesting habits); Rodgers and Homewood, 1982:233 (Tanzania: Usambara Mountains); Dörfel and Ohl, 2022:15 (in key to sub-Saharan *Sphex*), 50 (in revision of sub-Saharan *Sphex*). – **As *Pepsis tomentosa***: Fabricius, 1804:211 (new combination, redescription); Dalla Torre, 1897:264 (in catalog of world Hymenoptera).

Sphex tuberculatus F. Smith, 1873c:291, ♀ (as *tuberculata*, incorrect original termination), junior primary homonym of *Sphex tuberculatus* de Villers, 1789 (now in *Cerceris*). Holotype or syntypes: ♀, Sierra Leone: no specific locality (BMNH). Synonymized with *Sphex tomentosus* by van der Vecht, 1961a:29. – Kohl, 1894:342 (good species, Congo or Zaire: no specific locality), 1895:56 (good species, redescription); Dalla Torre, 1897:444 (in catalog of world Hymenoptera); Tullgren, 1904:443 (Cameroon); Cameron, 1908a:262 (Tanzania: Kilimanjaro); Brauns, 1911a:118 (South Africa); Berland, 1927:152 (miscellaneous locality records); Guiglia, 1943c:76 (Ethiopia: Gamo Gofa: Sagan–Omo region), 1950:249 (Ethiopia: Gondaraba at 4°58'N 36°49'E); Berland, 1952b:275 (boundary of Ivory Coast, Guinea, and Liberia: Mount Nimba); Leclercq, 1955h:17 (bibliographic references, summary of locality records from Africa, new records from Zaire and Sierra Leone); Berland, 1956:1176 (in revision of African Sphecini); Leclercq, 1961b:45 (Zaire); Diniz, 1964c:100 (in key to Angolan *Sphex*), 101 (Angola: Lunda: Dundo); de Beaumont, 1967b:503 (Zimbabwe). – **As *Sphex umbrosus* var. *tuberculata***: Kohl, 1890b:408 (new status, in revision of world Sphecini); Strand, 1916b:103 (Cameroon); Schouteden, 1930:95 (Zaire). – **As *Chlorion tuberculatum***: Arnold,

1928c:362 (new combination, in revision of southern African Sphecini), 1930:18 (in checklist of Afrotropical Sphecidae).

Sphex luteifrons Radoszkowski, 1881:208, ♀. Holotype or syntypes: ♀, Angola: no specific locality (Kraków). Synonymized with *Sphex umbrosus* by Kohl, 1890b:407 and with *Sphex umbrosus* var. *tuberculatus* by Kohl, 1890b:408. – Gribodo, 1884c:300 (Ethiopia: kingdom of Scioa = Schoa); W. Schulz, 1911b:166 (Gribodo's specimens are *Sphex tuberculatus*). – **As *Sphex umbrosus* var. *luteifrons***: Bischoff, 1912:222 (new status, Zaire: west of Lake Albert).

140. *torridus* F. Smith

Sphex torridus F. Smith, 1873c:291, ♀ (as *torrida*, incorrect original termination). Syntypes: ♀, Madagascar: no specific locality (BMNH). – Kohl, 1890b:411 (in revision of world Sphecini); de Saussure, 1892:426 (Madagascar, redescription); Kohl, 1895:56 (good species, diagnostic characters); Dalla Torre, 1897:444 (in catalog of world Hymenoptera); Friese, 1900:266 (Aldabra); Kohl, 1909:370 (Comoros, Madagascar, Mozambique Channel); R. Turner, 1911b:369 (Seychelles Islands); von Schulthess *in* Friederichs, 1918:48 (Madagascar: Antananarivo); Berland, 1927:153 (Madagascar); Leclercq, 1953b:211 (Madagascar); Vesey-Fitzgerald, 1956b:362 (Seychelles); Leclercq, 1961d:108 (Madagascar); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae); Nilsson, Jonsson, Rason, and Randrianjohany, 1986:412 (Madagascar: Toamasina: 4 km south of Mahavelona, as Foulpointe), 416 (pollinator of the orchid *Cymbidiella flabellata* (Thou.) Rolfe in Madagascar); Madl, 1997:820 (Madagascar: Island of Nosy Boraha), 821 (in checklist of Nosy Boraha Sphecidae), 2001:1109 (Island of Aldabra group); Pulawski, 2003b:795 (in checklist of Malagasy Sphecidae); Dollfuss, 20008b:1432 (locality records from Madagascar); Parnaudeau and Madl, 2009:460 (western Indian Ocean: islands of Europa and Glorieuses,); Madl, 2014a:1022 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records), 2014b:24 (Madagascar: locality records); Dörfel and Ohl, 2022:15 (in key to sub-Saharan *Sphex*), 56 (in revision of sub-Saharan *Sphex*: Comoros, Island of Europa, Madagascar, Mayotte, Seychelles). – **As *Chlorion torridum***: Arnold, 1945:90 (new combination, Madagascar; redescription).

141. *umtalicus* Strand

Sphex umtalicus Strand, 1916b:105, ♂. Holotype: ♂, Zimbabwe: Umtali, now Mutare (DEI). – Strand, 1927:254 (in list of species described by author); Arnold, 1928c:364 (as stadelsynonym of *Chlorion haemorrhoidalis*); Oehlke and Wudowenz, 1974:426 (holotype in DEI); Dörfel and Ohl, 2022:23 (in key to sub-Saharan *Sphex*), 72 (full species status, in revision of sub-Saharan *Sphex*). – **As *Sphex haemorrhoidalis umtalicus***: van der Vecht, 1961a:31 (new status, as valid name for *Sphex haemorrhoidalis volubilis*); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae).

Sphex nigripes var. *pachyderma* Strand, 1916b:106, ♀. Lectotype: ♀, German East Africa, now Tanzania: Kigonsera (DEI), designated by Oehlke and Wudowenz, 1974:424. Synonymized with *Sphex haemorrhoidalis* by ... and with *Sphex umtalicus* by Dörfel and Ohl, 2022:72. – Strand, 1927:254 (in list of species described by author).

Chlorion haemorrhoidalis var. *kobrowi* Arnold, 1928c:367, ♀ (as *Kobrowi*, incorrect original capitalization). Holotype: ♀, South Africa: Gauteng: Johannesburg (TMP). Synonymized with *Sphex umtalicus* by Dörfel and Ohl, 2022:72. – Arnold, 1930:18 (in checklist of Afrotropical Sphecidae), 1947:146 (diagnostic characters). – **As *Sphex haemorrhoidalis kobrowi***: Leclercq, 1955h:17 (new combination, new status, locality records from Zaire); R. Bohart and Menke, 1976:115 (in checklist of world Sphecidae).

Chlorion haemorrhoidalis var. *basuto* Arnold, 1947:146, sex not stated. Holotype or syntypes: Lesotho: Mamathes (SAM). Synonymized with *Sphex umtalicus* by Dörfel and Ohl, 2022:72. – **As *Sphex haemorrhoidalis basuto***: R. Bohart and Menke, 1976:115 (new combination, new status, in checklist of world Sphecidae).

142. *vestitus* F. Smith

Sphex vestitus F. Smith, 1856:248, ♀ (as *vestita*, incorrect original termination). Holotype or syntypes: ♀, Australia: no specific locality (BMNH). – Kohl, 1890b:453 (original description copied); Froggatt, 1892:210 (in catalog of Australian Hymenoptera); Dalla Torre, 1897:446 (in catalog of world Hymenoptera); R. Turner, 1910a:344 (in key to Australian Sphecini); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae); Cardale, 1985:226 (in catalog of Australian Sphecidae); McCorquodale and Thomson, 1989:94 (prey: Gryllacrididae); Hensen, 1991a:26 (member of *Sphex subtruncatus* species group); Dörfel and Ohl, 2015:11, 13, 18, (in key to Australian *Sphex*), 96 (in revision of Australian *Sphex*).

Sphex praetextus F. Smith, 1873d:461, ♀ (as *praetexta*, incorrect original termination). Holotype or syntypes: ♀, Australia: Queensland: Moreton Bay (BMNH). Synonymized with *Sphex formosus* by Kohl, 1890b:405 and with *Sphex vestitus* by R. Turner, 1910a:345. – Froggatt, 1892:210 (in catalog of Australian Hymenoptera).

Sphex imperialis Kohl, 1890b:398, ♀. Holotype or syntypes: ♀, Australia: Queensland: Gayndah (NHMW). Synonymized with *Sphex vestitus* by R. Turner, 1910a:345. – Dalla Torre, 1897:427 (in catalog of world Hymenoptera); Berland, 1928a:331 (Australia); Dollfuss, 1989:12 (type material in NHMW).

143. *victoria* Dörfel and Ohl

Sphex victoria Dörfel and Ohl, 2022:80, ♀, ♂. Holotype: ♀, Uganda: Kampala at 0°18'58"N 32°34'55"E (BMNH). – Dörfel and Ohl, 2022:23 (in key to sub-Saharan *Sphex*).

144. *voeltzkowii* Kohl

Sphex umbrosus var. *voeltzkowii* Kohl, 1909:370, ♀ (as *Voeltzkowii*, incorrect original capitalization). Lectotype: ♀, Madagascar: Tamatave, now Toamasina (ZMHU), designated by Dörfel and Ohl, 2022:58. – **As *Chlorion umbrosum* var. *Voeltzkowi***: Arnold, 1945:89 (new combination, Madagascar; redescription). – **As *Sphex umbrosus voeltzkowi***: Leclercq, 1961d:108 (new status, Madagascar). – **As *Sphex fumicatus voeltzkowii***: R. Bohart and Menke, 1976:115 (new subspecific combination, in checklist of world Sphecidae); Pulawski, 2003b:795 (in checklist of Malagasy Sphecidae); Parnaudeau and Madl, 2009:460 (western Indian Ocean: island of Europa,); Madl, 2014a:1021 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records). – **As *Sphex voeltzkowi***: Dörfel and Ohl, 2022:15 (in key to sub-Saharan *Sphex*), 58 (full species status, in revision of sub-Saharan *Sphex*).

145. *walshae* Hensen

Sphex walshae Hensen, 1991a:28, ♀, ♂. Holotype: ♀, Indonesia: Sumatra: Bengkulu, Muara Tenam (RMNH). – Hensen, 1991a:26 (member of *Sphex subtruncatus* species group).

146. *wilsoni* Hensen

Sphex wilsoni Hensen, 1991a:25, ♀. Holotype: ♀, Papua New Guinea: Huon Peninsula: Mongi-Mape Watersheds, Nganduo to Yunzain (MCZ). – Hensen, 1991a:22 (member of *Sphex resplendens* species group).

sp.

Marchal, 1893b:LXVIII (aerial nest, prey: *Oecanthus pellucens* (Scopoli).Gryllidae, apparently an *Isodontia*); Grossbeck, 1912b:325 (Mexico: Baja California Sur); Storey, 1916:107 (Egypt); J.Ch. Bradley, 1926:175 (New York: Lloyd-Cornell Reservation near McLean); Myartseva, 1965:82 (Turkmenistan: Akibay, Krasnovodsk, now Türkmenbaşy), 84 (Akibay); de Beaumont, 1967b:503 (Namibia); Esmaili and Rastegar, 1974:45 (Iran); R. Bohart and Menke, 1976:116, footnote (as *Sphex luteipennis* auctorum: African records pertain to a different and probably undescribed species); Al-Ali, 1977:100 (Iraq: no specific locality); Rodgers and Homewood, 1982:233 (Tanzania: Usambara Mountains); Bernhardt, 1987:48 (visiting flowers of *Acacia*, Fabaceae); Kingsley, Bailowitz, and Smith, 1987:19 (Arizona: Organ Pipe Cactus National Monument: Quitobaquito Springs area); Maes, 1989:90 and 93 (in catalog of Nicaraguan Sphecidae); Dollfuss, 1990:122 (Central African Republic); Cambra, 1993:16 (Peru: Pakitza at 11°57'S 71°17'W); Naumann, 1998:183 (Australia: northwestern Queensland: Musselbrook area, approximately

18°40'S 138°23'E); Meagher, 2001b:291: Florida: Alachua County: collected in traps baited with pheromone and synthetic floral volatile compound); Starr and Hook, 2003:22 (in catalog of Aculeata of Trinidad, West Indies, possibly *habenus*, possibly *tepanecus*); Ruíz Cancino, Coronado Blanco, and Horta Vega, 2005:170 (Mexico: recorded from Tamaulipas State); Dollfuss, 2008b:1432 (Benin, Morocco, Turkmenistan, USA, Zambia); Villemant, 2011:133 (Vanuatu: island of Espiritu Santo); Kundu, Ghosh, and Tiwari, 2012:152 (India: Andaman and Nicobar Islands); Deshmukh, 2015:37 (India: Maharashtra: Koradi Region in Nagpur District); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:29 (Iran: Markazi Province); Cope, Campbell, Grodsky, and Ellis, 2019:6 (Florida: collected in emergence traps); Brizio, Pagliano and Buzzetti, 2020:280 (analyzis of buzzing emitted by *Sphex* probably *funerarius* during nest excavation).

.

FOSSIL *SPHEX*

bischoffi Zeuner

Sphex bischoffi Zeuner, 1931:286, ♀. Holotype: ♀, Germany: Baden-Württemberg: Münsingen (Naturaliensammlung Stuttgart). Age: Miocen. – R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

giganteus Heer

Sphex giganteus Heer, 1867:33, sex not stated (as *gigantea*, incorrect original termination). Holotype: body without wings, Croatia: Radoboj (Wiener Geologische Bundesanstalt, Wien, Austria). – Dalla Torre, 1897:424 (in catalog of world Hymenoptera); Pongrácz, 1928:154 (redescription and illustration); Haris, 2016:14 (in list of species described by O. Heer from Carpathian Basin). – **As *Sphex giganteus***: R. Bohart and Menke, 1976:117 (in checklist of world Hymenoptera).

obscurus Statz (preoccupied)

Sphex obscurus Statz, 1936:284 (as *obscura*, incorrect original termination), junior secondary homonym of *Sphex obscurus* (Fabricius, 1804) = *Sphex cinerascens* (Dahlbom), junior primary homonym of *Sphex obscurus* Fischer-Waldheim, 1843. Holotype: forewing, Germany: Rheinland-Pfalz: Siebengebirge (Geolog.-Mineral. Inst., Köln Univ., Germany, but LACM according to Sphon, 1973). Age: Oligocene.

Sphex ramburi: Casolari and Casolari Moreno, 1980:103 (specimens in M. Spinola collection, Torino); Pagliano, 2008:530 (specimens in M. Spinola collection, Torino).

Sphex suciventris: Casolari and Casolari Moreno, 1980:102 (specimen in M. Spinola collection, Torino); Pagliano, 2008:526 (specimens in M. Spinola collection, Torino, is an *Isodontia*).

Sphex synoecodes Pérez: Campos, 1922:68 (Ecuador: Durán). – R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

Sphex tarsatus: Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection, Torino, as *tarsata*, incorrect original termination).

Sphex tiphia Gistel, 1837:15 (as *Tiphia*, incorrect original capitalization). Sex not stated, Germany: Bavaria (= Bayern), no specific locality. – Dalla Torre, 1897:444 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

Sphex transverses Walker: Innes Bey, 1912:111 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected at Annesley Bay).

Sphex vetustus: Casolari and Casolari Moreno, 1980:103 (specimens in M. Spinola collection, Torino, as *vetusta*, incorrect original termination); Pagliano, 2008:532 (specimens in M. Spinola collection, Torino, are *Prionyx kirbii*).

SPECIES DESCRIBED IN *SPHEX* BUT PROBABLY BELONGING ELSEWHERE, POSSIBLY NOT IN SPHECIDAE

***abdominalis* Fabricius**

Sphex abdominalis Fabricius, 1775:351, sex not stated. Holotype or syntypes: Brazil: no specific locality (BMNH, coll. Banks). – Fabricius, 1781:449 (redescription), 1787:27 (redescription); Gmelin, 1790:2732 (redescription); Christ, 1791:300 (redescription); Fabricius, 1793:216 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:492 (redescription); not listed by R. Bohart and Menke, 1976.

***admirabilis* Christ**

Sphex admirabilis Christ, 1791:298, sex not stated. Holotype or syntypes: Carniolia, now part of Slovenia: no specific locality (destroyed). – Rogenhofer and Dalla Torre, 1892:599 (unrecognizable species); not listed by R. Bohart and Menke, 1976.

***aequinoctialis* Scopoli**

Sphex aequinoctialis Scopoli, 1763:292, sex not stated. Holotype or syntypes: Carniolia, now part of Slovenia (destroyed). – Christ, 1791:304 (redescription); Rogenhofer and Dalla Torre, 1882:599 (unrecognizable species); Dalla Torre, 1897:413 (in catalog of world Sphecidae, is not a *Sphex*); not listed by R. Bohart and Menke, 1976.

***albifrons* de Villers**

Sphex albifrons de Villers, 1789:228, sex not stated. Holotype or syntypes: Europa: in montibus Gebenenis, now: France: Cévennes Mountains: no specific locality (destroyed). – Lepeletier de Saint Fargeau and Audinet-Serville, 1828:462 (in list of known *Sphex*); Guérin-Méneville, 1829a:562 (is a member of *Sphex*); Dalla Torre, 1897:413 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***albomaculatus* Schrank**

Sphex albomaculatus Schrank, 1776:91, sex not stated. Holotype or syntypes: origin unknown, but probably Austria (destroyed). – Schrank, 1781:380 (in revision of insects of Austria: Linz); de Villers, 1789:249 (redescription); Gmelin, 1790:2734 (redescription); Turton, 1801:496 (redescription); Schrank, 1802:324(Germany: in revision of insects of Bayern = Bavaria); not listed by R. Bohart and Menke, 1976.

***analis* Fabricius**

Sphex analis Fabricius, 1781:447, sex not stated. Holotype or syntypes: India: no specific locality (BMNH, coll. Banks). – Fabricius, 1787:276 (redescription); Gmelin, 1790:2729 (redescription); Fabricius, 1793:209 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:489 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus analis***: Fabricius, 1798:246 (new combination, redescription).

***annularis* Poda**

Sphex annularis Poda, 1761:.. Italy. – R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***annulatus* Fabricius**

Sphex annulatus Fabricius, 1798:245, sex not indicted (as *annulata*, incorrect original termination). Holotype or syntypes: Italy: no specific locality (depository?). – Fabricius, 1799:45 (in Index to his Supplementum, 1798); Panzer, 1806:132 (in revision of German insects, as *Prosopis annulata*); not listed by R. Bohart and Menke, 1976

***antarcticus* Linnaeus**

Sphex antarcticus Linnaeus, 1767:944, …. – Gmelin, 1790:2729 (redescription); Christ, 1791:264 (redescription); Turton, 1801:494 (redescription); Dalla Torre, 1897:414 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***apiarius* Scopoli**

Sphex apiarius Scopoli, 1763:294, sex not stated. Holotype or syntypes: Carniolia, now part of Slovenia: no specific locality (destroyed). – de Villers, 1789:247 (redescription, France: Lugdunum = Lyon); Christ, 1791:273 (redescription); Rogenhofer and Dalla Torre, 1882:599 (may be a *Tiphia*); Dalla Torre, 1897:414 (in catalog of world Sphecidae, is not a *Sphex*); not listed by R. Bohart and Menke, 1976.

***arenosus* Gmelin**

Sphex arenosus Gmelin, 1790:2724, sex not stated. Holotype or syntypes: Kilonii, now Germany: Schleswig-Hollstein: Kiel (destroyed). "*sabulosae* affinis" = near to *Ammophila sabulosa.* Not listed by R. Bohart and Menke, 1976.

***arietis* (Fabricius)**

Vespa arietis Fabricius, 1775:373, sex not stated. Holotype or syntypes: America: no specific locality (depository?). – **As *Sphex arietis*:** Christ, 1791:321 (new combination, redescription); Dalla Torre, 1897:415 (authorship attributed to Christ, in catalog of world Sphecidae, is not a *Sphex*, probably a *Zethus*); not listed by R. Bohart and Menke, 1976.

***argyrometopus* de Villers**

Sphex argyrometopus de Villers, 1789:250, sex not stated (as *argurometopa*). Holotype or syntypes: Europe: Bressia, now Italy: Brescia (destroyed). – Dalla Torre, 1897:415 (in catalog of world Sphecidae, is not *Sphex*, may be a pompilid); not listed by R. Bohart and Menke, 1976.

***armiger* Christ**

Sphex armiger Christ, 1791:255, sex not stated. Holotype or syntypes: origin unknown (destroyed). – Dalla Torre, 1897:415 (in catalog of world Sphecidae, is not a *Sphex*, also listed in Vespidae); not listed by R. Bohart and Menke, 1976.

***auripennis* De Geer**

Sphex auripennis De Geer, 1773:585, sex not stated. Holotype or syntypes: Surinam: no specific locality (destroyed). Not listed by R. Bohart and Menke, 1976. – Retzius, 1783:65 (brief redescription).

***australis* Gmelin**

Sphex australis Gmelin, 1790:2728, sex not stated, authorship attributed to Fabricius. Holotype or syntypes: Nova Hollandia, now Australia: no specific locality (destroyed). Not listed by R. Bohart and Menke, 1976

***austriacus* Schrank**

Sphex austriacus Schrank, 1781:380, sex not stated (as *austriaca*, incorrect original termination). Holotype or syntypes: Austria: Wien (destroyed). – de Villers, 1789:227 (redescription); Gmelin, 1790:2728 (redescription); Turton, 1801:488 (redescription); Dalla Torre, 1897:416 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae); Haris, 2016:11 (in list of species described by F. Paula von Schrank from Carpathian Basin).

***bidens* Linnaeus**

Sphex bidens Linnaeus, 1767:943 sex not stated. Holotype or syntypes: Mauritania: no specific locality (destroyed). – Sulzer, 1776a:191 (Cape and Sicily; redescription); Gmelin, 1790:2728 (redescription); Christ, 1791:253 (redescription); Turton, 1801:488 (redescription); Guiglia and Betrem, 1958:94 (the species illustrated by Christ, 1791, on pl. 24 is *Scolia flavifrons flavifrons* Fabricius); not listed by R. Bohart and Menke, 1976.

***bifasciatus* Fabricius**

Sphex bifasciatus Fabricius, 1793:212, sex not stated (as *bifasciata*, incorrect original termination). Holotype or syntypes: France: in agro Parisino = Paris area (MNHN, Bosc coll.). – Fabricius, 1796:155 (in Index to his Entomologia

Systematica, 1793); Turton, 1801:491 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus bifasciatus***: Fabricius, 1798:248 (new combination, redescription).

bifasciatus O. Müller

Sphex bifasciatus O. Müller, 1776:162, sex not stated (as *bifasciata*, incorrect original termination). Holotype or syntypes: Denmark and/or Norway: no specific locality (destroyed). – Dalla Torre, 1897:417 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

bipunctatus Fabricius

Sphex bipunctatus Fabricius, 1793:214, sex not stated (as *2-punctata*, incorrect original hyphenation and termination). Holotype or syntypes: Europa: no specific locality (depository?). – Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:492 (redescription). – **As *Pompilus bipunctatus***: Fabricius, 1798:251 (new combination, redescription).

bispinosus Reich

Sphex bispinosus Reich, 1793:131, sex not stated (as *bispinosa*, incorrect original termination). Holotype or syntypes: French Guiana: Cayenne (lost). – Dalla Torre, 1897:417 (in catalog of world Sphecidae); not listed by R. Bohart and Menke, 1976

brevipennis Fabricius

Sphex brevipennis Fabricius, 1793:218, sex not stated. Holotype or syntypes: Barbaria, now northwestern Africa: no specific locality (depository?). – Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:494 (redescription); not listed by R. Bohart and Menke, 1976

caerulea Drury

Sphex caerulea Drury, 1773:75, sex not stated. Holotype or syntypes: USA: New York (destroyed). Misidentification of Linnaeus, 1767:947 = Linnaeus, 1758:571 (No. 22), which is a pompilid. – Cresson, 1863:319 (in catalog of North American Hymenoptera); not listed by R. Bohart and Menke, 1976; Pagliano, 2008:525 (specimen in M. Spinola collection, Torino, is an *Isodontia*.

cinctus Fabricius (preoccupied)

Sphex cinctus Fabricius, 1793:205, sex not stated, junior primary homonym of *Sphex cinctus* Scopoli, 1763 and *Sphex cinctus* de Villers, 1789. Holotype or syntypes: Guinea: no specific locality (depository unknown: van der Vecht, 1961a:32). – Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:487 (redescription); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae). – **As *Pepsis cincta***: Fabricius, 1804:212 (new combination, redescription); Dalla Torre, 1897:249 (in catalog of world Hymenoptera).

cinctus Scopoli

Sphex cinctus Scopoli, 1763:292, sex not stated. Holotype or syntypes: Carniolia, now part of Slovenia (destroyed). – de Villers, 1789:248 (redescription); Christ, 1791:296 (redescription); Dalla Torre, 1897:419 (in catalog of world Sphecidae, is not a *Sphex*, as *cinctus* de Villers); not listed by R. Bohart and Menke, 1976.

cinereus Fabricius

Sphex cinereus Fabricius, 1775:350, sex not stated (as *cinerea*, incorrect original termination). Holotype or syntypes: Nova Hollandia, now Australia: no specific locality (BMNH, coll. Banks). – Fabricius, 1781:449 (redescription), 1787:276 (redescription); Gmelin, 1790:2732 (redescription); Christ, 1791:274 (redescription); Fabricius, 1793:213 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:491 (redescription); not

listed by R. Bohart and Menke, 1976. – **As *Pompilus cinereus***: Fabricius, 1798:250 (new combination, redescription).

cingulatus Fabricius

Sphex cingulatus Fabricius, 1775:350, sex not stated (as *cingulata*, incorrect original termination). Holotype or syntypes: Nova Hollandia, now Australia (BMNH, coll. Banks). – Fabricius, 1781:448 (redescription), 1787:276 (redescription); Gmelin, 1790:2729 (redescription); Fabricius, 1793:210 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:490 (redescription). – **As *Pompilus cingulatus***: Fabricius, 1798:247 (new combination, redescription). – **As *Liris cingulata***: Fabricius, 1804:230 (new combination, redescription).

coarctatus de Villers

Sphex coarctatus de Villers, 1789:224, sex not stated (as *coarctata*, incorrect original termination). Holotype or syntypes: Europa: Bressia, now: Italy: Brescia (destroyed).

coccineus Gmelin

Sphex coccineus Gmelin, 1790:2734, sex not stated (as *coccinea*, incorrect original termination). Holotype or syntypes: extra Europam = outside Europe (Museum Leskeanum, now Royal Dublin Socieity). – Turton, 1801:496 (redescription); Dalla Torre, 1897:419 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

coerulescens Reich

Sphex coerulescens Reich, 1793:131, sex not stated. Holotype or syntypes: French Guiana: Cayenne (lost). – not listed by R. Bohart and Menke, 1976.

colibri Christ

Sphex colibri Christ, 1791:318, sex not stated. Holotype or syntypes: origin unknown (destroyed). – Dalla Torre, 1897:419 (in catalog of world Sphecidae, is not a *Sphex*, may be a vespid); not listed by R. Bohart and Menke, 1976.

collaris Fabricius (preoccupied)

Sphex collaris Fabricius, 1775:349, sex not stated, junior primary homonym of *Sphex collaris* Linnaeus, 1767 (now in *Dryinus*). Holotype or syntypes: Nova Hollandia, now Australia: no specific locality (BMNH, coll. Banks).

conicus de Villers

Sphex conicus de Villers, 1789:228, sex not stated (as *conica*, incorrect original termination. Holotype or syntypes: Gallia australis, now southern France: no specific locality (destroyed). – Dalla Torre, 1897:419 (in catalog of world Hymenoptera, is not a *Sphex*); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

conicus Radoszkowski (preoccupied)

Sphex conicus Radoszkowski, 1877:9, ♀, ♂, junior primary homonym of *Sphex conicus* de Villers, 1789. Syntypes: country unknown: Obburden; and Uzbekistan: Samarkand (ZMMU). – Kohl, 1885b:204 (original description copied); Ed. André, 1888:125, 143 (in revision of Sphecidae of Europe and Algeria), 8* (bibliographic references); Dalla Torre, 1897:419 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

cruciatus Christ

Sphex cruciatus Christ, 1791:317, sex not stated (as *cruciata*, incorrect original termination). Holotype or syntypes: origin unknown (destroyed). – not listed by R. Bohart and Menke, 1976.

curvus de Villers

Sphex curvus de Villers, 1789:252, sex not stated (as *curva*, incorrect original termination). Holotype or syntypes: Europe: no specific locality (destroyed). – Dalla Torre, 1897:420 (in catalog of world Sphecidae, is not a *Sphex*); not listed by R.Bohart and Menke, 1976.

dimidiatus Christ (preoccupied)

Sphex dimidiatus Christ, 1791:313, sex not stated (as *dimidiata*, incorrect original termination), junior primary homonym of *Sphex dimidiatus* De Geer, 1773. Holotype or syntypes: origin unknown (destroyed). – Gimmerthal, 1836:448 (comparison with *Sphex lutarius*, now *Mimesa lutaria*); Dalla Torre, 1897:421 (in catalog of world Sphecidae, authorship incorrectly attributed to Gimmerthal); not listed by R. Bohart and Menke, 1976.

dimidiatus Fabricius (preoccupied)

Sphex dimidiatus Fabricius, 1793:sex not stated (as *dimidiata*, incorrect original termination), junior primary homonym of *Sphex dimidiatus* De Geer, 1773, and of *Sphex dimidiatus* Christ, 1791. Holotype or syntypes: Barbaria, now northwestern Africa: no specific locality (depository?). – Turton, 1801:489 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus dimidiatus***: Fabricius, 1804:189 (new combination, redescription).

discolor Fabricius

Sphex discolor Fabricius, 1793:217, sex not stated. Holotype or syntypes: Barbaria, now northwestern Africa: no specific locality (depository?). – Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:493 (redescription); not listed by R. Bohart and Menke, 1976

domesticus Christ

Sphex domesticus Christ, 1791:273, sex not stated. Holotype or syntypes: Germany: no specific locality (destroyed) – Dalla Torre, 1897:421 (in catalog of world Sphecidae, is not a *Sphex*, may be an *Odynerus*); not listed by R. Bohart and Menke, 1976.

dromedaries Christ

Sphex dromedarius Christ, 1791:290, ♀, ♂. Holotype or syntypes: origin unknown (destroyed) – not listed by R. Bohart and Menke, 1976.

elongatus de Villers

Sphex elongatus de Villers, 1789:250 (as *elongata*, incorrect original termination). Holotype or syntypes: Gallia australis = southern France (destroyed). – Dalla Torre, 1897:421 (in catalog of world Hymenoptera); Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

emarginatus de Villers

Sphex emarginatus de Villers, 1789:250, sex not stated. Holotype or syntypes: Gallia australis = southern France: no specific locality (destroyed). – Dalla Torre, 1897:421 (in catalog of world Sphecidae, is a *Cerceris*); not listed by R. Bohart and Menke, 1976.

erythraeus Pallas

Sphex erythraeus Pallas, 1773:… – Christ, 1791:263 (redescription); Dalla Torre, 1897:421 (in catalog of world Sphecidae: is a *Sphex*; not listed by R. Bohart and Menke, 1976.

exaltatus Fabricius

Sphex exaltatus Fabricius, 1775:351, sex not stated (as *exaltata*, incorrect original termination). Holotype or syntypes: Europe: no specific locality (depository?). – Fabricius, 1781:449 (redescription), 1787:277 (redescription); de Villers, 1789:239 (redescription, common in southern France); Gmelin, 1790:2731 (redescription); Fabricius, 1793:214

(redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Schrank, 1802:324 (Germany: in revision of insects of Bayern = Bavaria). – **As *Pompilus exaltatus***: Fabricius, 1798:251 (new combination, redescription).

extensus Christ

Sphex extensus Christ, 1791:321, sex not stated (as *extensa*, incorrect original termination, authorship attributed to Drury). Holotype or syntypes: Jamaica: no specific locality (destroyed). – not listed by R. Bohart and Menke, 1976.

fasciatus Fabricius

Sphex fasciatus Fabricius, 1775:350, sex not stated (as *fasciata*, incorrect original termination). Holotype or syntypes: Nova Hollandia, now Australia: no specific locality (BMNH, Banks coll.). – Fabricius, 1781:448 (redescription), 1787:276 (redescription); Gmelin, 1790:2732 (redescription); Fabricius, 1793:213 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:491 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus fasciatus***: Fabricius, 1798:249 (new combination, redescription).

fasciatus de Villers (preoccupied)

Sphex fasciatus de Villers, 1789:253, sex not stated (as *fasciata*, incorrect original termination), junior primary homonym of *Sphex fasciatus* Fabricius, 1775. Holotype or syntypes: Europa: in Bressiae sylvis, now Italy: woods near Brescia (destroyed). – Turton, 1801:483 (redescription); not listed by R. Bohart and Menke, 1976.

flavicornis de Villers (preoccupied)

Sphex flavicornis de Villers, 1789:254, sex not stated, junior primary homonym of *Sphex flavicornis* Fabricius, 1781. Holotype or syntypes: Gallia australis: prope Nemausum, now southern France: near Nîmes (destroyed). – Dalla Torre, 1897:422 (in catalog of world Hymenoptera, is not a *Sphex*); R. Bohart and Menke, 1976:117 (i in checklist of world Sphecidae).

flavipunctatus Christ

Sphex flavipunctatus Christ, 1791:301, sex not stated (as *flavipunctata*, incorrect original termination, authorship attributed to Drury). Syntypes: Antigua, Jamaica, and Saint Christoph. – not listed by R. Bohart and Menke, 1976.

formicarius Christ

Sphex formicarius Christ, 179:273, sex not stated. Holotype or syntypes: origin unknown (destroyed). – not listed by R. Bohart and Menke, 1976.

frontalis Fabricius

Sphex frontalis Fabricius, 1775:349, sex not stated. Holotype or syntypes: Nova Hollandia, now Australia: no specific locality (BMNH, Banks coll.). – Christ, 1781:299 (redescription); Fabricius, 1781:447 (redescription), 1787:276 (redescription); Gmelin, 1790:2729 (redescription); Fabricius, 1793:209 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:489 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus frontalis***: Fabricius, 1804:188 (new combination, redescription).

fugax Fabricius

Sphex fugax Fabricius, 1775:350, sex not stated. Holotype or syntypes: New Zealand: no specific locality (depository?). – Fabricius, 1781:449 (redescription, Nova Hollandia, now Australia), 1787:276 (redescription); Gmelin, 1790:2731 (redescription); Fabricius, 1793:213 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:491 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus fugax***: Fabricius, 1798:250 (new combination, redescription).

fuliginosus Scopoli

Sphex fuliginosus Scopoli, 1763:292, sex not stated. Holotype or syntypes: Carniolia, now part of Slovenia (destroyed). – de Villers, 1789:223 (redescription); Christ, 1791:316 (redescription); not listed by R. Bohart and Menke, 1976.

fulvipennis Fabricius

Sphex fulvipennis Fabricius, 1793:218, sex not stated. Holotype or syntypes: India: no specific locality (depository?). – Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:493 (redescription); not listed by R. Bohart and Menke, 1976.

fuscatus Fabricius

Sphex fuscatus Fabricius, 1793:212, sex not stated (as *fuscata*, incorrect original termination). Holotype or syntypes: Germany: Halae Saxonum, now Sachsen-Anhalt: Halle (depository?). – Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793); not listed by R. Bohart and Menke, 1976. – **As *Pompilus fuscatus***: Fabricius, 1798:247 (new combination, redescription).

gibbus Rossi (preoccupied)

Sphex gibbus Rossi, 1790:63, sex not stated, junior primary homonym of *Sphex gibbus* Linnaeus, 1758, *Sphex gibbus* Scopoli, 1763, and of *Sphex gibbus* de Villers, 1789. Holotype or syntypes: Italy: Etruria, now Toscana: no specific locality (destroyed). – R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae, as *gibbosus*).

gregarius Scopoli

Sphex gregarius Scopoli, 1763:293, sex not stated. Holotype or syntypes: Carniolia, now part of Slovenia: no specific locality (destroyed). – Christ, 1791:306 (redescription); Rogenhofer and Dalla Torre, 1882:599 (unrecognizable species); Dalla Torre, 1897:424 (in catalog of world Hymenoptera, is not a *Sphex*); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

guttatus Gmelin

Sphex guttatus Gmelin, 1790:2734, sex not stated (as *guttata*, incorrect original termination). Holotype or syntypes: origin unknown (Museum Leskeanum, now Royal Dublin Society). – Turton, 1801:492 and 496 (redescription); Dalla Torre, 1897:424 (in catalog of world Hymenoptera, is not a *Sphex*); Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

hesperus Christ

Sphex hesperus Christ, 1791:311, sex not stated. Holotype or syntypes: origin unknown (destroyed). – not listed by R. Bohart and Menke, 1976.

interruptefasciatus Retzius

Sphex interruptefasciatus Retzius:1783:64, sex not stated (as *interrupte-fasciata*, incorrect original hyphenation and termination). Holotype or syntypes: origin unknown (destroyed). – not listed by R. Bohart and Menke, 1976.

jamaicensis Fabricius

Sphex jamaicensis Fabricius, 1775:347, sex not stated, junior secondary homonym of *Sphex jamaicensis* (Drury, 1773). Holotype or syntypes: Jamaica (depository?). – Fabricius, 1781:444 (redescription), 1787:275 (redescription); Gmelin, 1790:2726 (redescription); Fabricius, 1793:203 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); not listed by R. Bohart and Menke, 1976.

labiatus Fabricius

Sphex labiatus Fabricius, 1793:211, sex not stated (as *labiata*, incorrect original termination). Holotype or syntypes: South America: no specific locality (depository?). – Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:490 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus labiatus***: Fabricius, 1798:247 (new combination, redescription). – **As *Tachytes labiatus***: Patton, 1880b:392 (new combination, in checklist of North American Larrini).

***laevigatus* Rossi**

Sphex laevigatus Rossi, 1794:118, sex not stated (as *laevigata*, incorrect original termination). Holotype or syntypes: Italy: Etruria, now Toscana: no specific locality (destroyed). – not listed by R. Bohart and Menke, 1976.

***lapicida* Christ**

Sphex lapicida Christ, 1791:318, sex not stated. Holotype or syntypes: Germany: no specific locality (destroyed). – not listed by R. Bohart and Menke, 1976.

***leucomellis* Gmelin**

Sphex leucomellis Gmelin, 1790:2735, sex not stated. Holotype or syntypes: origin unknown (Museum Leskeanum, now Royal Dublin Society). – Turton, 1801:496 (redescription); Dalla Torre, 1897:428 (in catalog of world Sphecidae, is not a *Sphex*; not listed by R. Bohart and Menke, 1976.

***leucopterus* Pallas**

Sphex leucopterus Pallas, 1771:.. Russia. – Dalla Torre, 1897:428 (in catalog of world Hymenoptera, is not a *Sphex*); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***lineatus* de Villers**

Sphex lineatus de Villers, 1789:254, sex not stated (as *lineata*, incorrect original termination). Holotype or syntypes: Gallia australis, now southern France: no specific locality (destroyed). – Dalla Torre, 1897:429 (in catalog of world Hymenoptera, is not a *Sphex*); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***lucidus* de Villers**

Sphex lucidus de Villers, 1789:252, sex not stated (as *lucida*, incorrect original termination). Holotype or syntypes: Gallia australis, now southern France: no specific locality (destroyed). – Dalla Torre, 1897:430 (in catalog of world Hymenoptera, is not a *Sphex*); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***lugubris* Christ**

Sphex lugubris Christ, 1791:306, sex not stated, junior primary homonym of *Sphex lugubris* de Villers, 1789. Holotype or syntypes: San Domingo, now Dominican Republic (destroyed). – not listed by R. Bohart and Menke, 1976.

***lugubris* de Villers**

Sphex lugubris de Villers, 1789:252, sex not stated. Holotype or syntypes: Gallia australis, now southern France: no specific locality (destroyed). – Dalla Torre, 1897:430 (in catalog of world Hymenoptera, is not a *Sphex*); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***mauritanicus* Linnaeus**

Sphex mauritanicus Linnaeus, 1767:.. Holotype or syntypes: … – Gmelin, 1790:2731 (redescription); Christ, 1791:294 (redescription, as *mauritanica*); Turton, 1801:495 (redescription); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***mauritianus* Linnaeus**

Sphex mauritianus Linnaeus, 1767:945, … – Christ, 1791:294 (redescription); Dalla Torre, 1897:430 (in catalog of world Sphecidae, is not a *Sphex*); Ceballos, 1956:363 (in catalog of Hymenoptera of Spain); not listed by R. Bohart and Menke, 1976.

***melanochlorus* Gmelin**

Sphex melanochlorus Gmelin, 1790:2735, sex not stated (as *melanochlora*, incorrect original termination). Holotype or syntypes: Europe: no specific locality (Museum Leskeanum, now Royal Dublin Society). – Turton, 1801:496 (redescription); Dalla Torre, 1897:432 (in catalog of world Hymenoptera, is not a *Sphex*); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

militaris O. Müller

Sphex militaris O. Müller, 1776:161, sex not stated. Holotype or syntypes: Denmark and/or Norway: no specific locality (destroyed). – Dalla Torre, 1897:432 (in catalog of world Hymenoptera, is not a *Sphex*); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

minutus Turton

Sphex minutus Turton, 1801:484, sex not stated (as *minuta*, incorrect original termination). Holotype or syntypes: France: no specific locality (destroyed). – not listed by R. Bohart and Menke, 1976.

mirifex Fabricius

Sphex mirifex Fabricius, …: … Holotype or syntypes: … (depository?). – Christ, 1791:300 (redescription); not listed by R. Bohart and Menke, 1976.

myrifex Sulzer

Sphex myrifex Sulzer, 1776a:191, sex not stated. Holorype or syntypes: Switzerland: Winterthur (destroyed). – Sulzer, 1776b:plate XXII, Fig. 1 (color illustration of imago); Schrank, 1802:321 (Germany: in revision of insects of Bavaria); not listed by R. Bohart and Menke, 1976.

mixtus Fabricius

Sphex mixtus Fabricius, 1794:457, sex not stated. Holotype or syntypes: in Americae insulis, now Caribbean Islands. – Fabricius, 1796:156 (in Index to his Entomologia Systematica, 1794); Turton, 1801:490 (redescription); Dalla Torre, 1897:432 (in catalog of world Hymenoptera, is not a *Sphex*); Ashmead, 1899d:353 (in checklist of North American Sphecidae); Fernald, 1906:417 (unidentified species); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

monstrosus de Villers

Sphex monstrosus de Villers, 1789:252. Substitute name for *Chalcis clavipes* Fabricius, 1787.

morio Fabricius

Sphex morio Fabricius, 1775:349, sex not indicate. Holotype or syntypes: Nova Hollandia, now Australia: no specific locality (BMNH, coll. Banks). – Fabricius, 1781:447 (redescription), 1787:275 (redescription); Gmelin, 1790:2728 (redescription); Fabricius, 1793:208 (redescription), 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:489 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus morio***: Fabricius, 1804:187 (new combination, redescription)

naviculatus de Villers

Sphex naviculatus de Villers, 1789:253, sex not stated (as *naviculata*, incorrect original termination). Holotype or syntypes: Europa: prope Massiliam, now France: near Marseille (destroyed). – Dalla Torre, 1897:432 (in catalog of world Hymenoptera, is not a *Sphex*); R. Bohart and Menke, 1976117 (in checklist of world Sphecidae).

niger Fabricius

Sphex niger Fabricius, 1775:350, sex not stated (as *nigra*, incorrect original termination). Holotype or syntypes: Europe: no specific locality (depository?). – Fabricius, 1781:448 (redescription), 1787:276 (redescription); de Villers, 1789:238 (redescription, Gallia australi prope Lugdunum, now southern France: near Lyon); Gmelin, 1790:2730 (redescription); Christ, 1791:264 (redescription); Fabricius, 1793:211 (redescription), 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:490 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus niger***: Fabricius, 1798:247 (new combination, redescription).

niger O. Müller (preoccupied)

Sphex niger O. Müller, 1775:99, .. , junior primary homonym of *Sphex niger* Fabricius, 1775. Holotype or syntypes: Denmark: no specific locality (destroyed). – Dalla Torre, 1897:433 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

niger Scopoli (preoccupied)

Sphex niger Scopoli, 1786:58, sex not stated (as *nigra*, incorrect original termination), junior primary homonym of *Sphex niger* Fabricius, 1775, and of *Sphex niger* O. Müller, 1775. Holotype or syntypes: Insubria Austriaca, now Italy: Milano region (destroyed), – Dalla Torre, 1897:432 (in catalog of world Hymenoptera, is not a *Sphex*); not listed by R. Bohart and Menke, 1976.

nigerrimus Schrank

Sphex nigerimus Schrank, 1802:325, sex not stated, junior primary homonym of *Sphex nigerrimus* Scopoli, 1763. Holotype or syntypes: Germany: Bavaria (= Bayern): Gern (destroyed). – Dalla Torre, 1897:433 (in catalog of world Hymenoptera, is not a *Sphex*); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

nigricornis Fabricius

Sphex nigricornis Fabricius, 1775:351, sex not stated. Holotype or syntypes: Nova Hollandia, now Australia: no specific locality (BMNH, coll. Banks). – Fabricius, 1781:449 (redescription), 1787:277 (redescription); Gmelin, 1790:2731 (redescription); Fabricius, 1793:214 (redescription), 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:492 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus nigricornis***: Fabricius, 1798:251 (new combination, redescription).

nitidus Fabricius

Sphex nitidus Fabricius, 1775:351, sex not stated (as *nitida*, incorrect original termination). Holotype or syntypes: Nova Hollandia, now Australia: no specific locality (BMNH, coll. Banks). – Fabricius, 1781:449 (redescription), 1787:277 (redescription); Gmelin, 1790:2731 (redescription); Christ, 1791:291 (redescription); Fabricius, 1793:214 (redescription), 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:491 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus nitidus***: Fabricius, 1798:250 (new combination, redescription).

nobilis Fabricius (preoccupied)

Sphex nobilis Fabricius, 1787:277, sex not stated, junior primary homonym of *Sphex nobilis* Scopoli, 1763, and of *Sphex nobilis* O. Müller, 1776. Holotype or syntypes: French Guiana: Cayenne (depository). – Gmelin, 1790:2733 (redescription); Fabricius, 1793:218 (redescription), 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:493 (redescription); not listed by R. Bohart and Menke, 1976.

nobilis O. Müller (preoccupied)

Sphex nobilis Müller, 1776:161, sex not stated, junior primary homonym of *Sphex nobilis* Scopoli, 1763. Holotype or syntypes: Denmark and/or Norway: no specific locality (destroyed). – Dalla Torre, 1897:434 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

notatus Rossi

Sphex notatus Rossi, 1792:127, sex not stated. Holotype or syntypes: Italy: Toscana: near Pisa (destroyed). – **As *Crabro notatus***: Dalla Torre, 1897:612 (new combination, in catalog of world Hymenoptera); not listed by R. Bohart and Menke, 1976.

ocellatus Fabricius

Sphex ocellatus Fabricius, 1781:450, sex not incicated (as *ocellata*, incorrect original termination). Holotype or syntypes: equatorial Africa (depository?). – Fabricius 1787:278 (redescription); Gmelin, 1790:2733 (redescription); Fabricius,

1793:219 (redescription), 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:494 (redescription); not listed by R. Bohart and Menke, 1976.

olivieri Reich

Sphex olivieri Reich, 1793:131, sex not stated (as *Olivieri*, incorrect original capitalization). Holotype or syntypes: French Guiana: Cayenne (lost). – Dalla Torre, 1897:435 (in catalog of world Hymenoptera); not listed by Bohart and Menke, 1976.

papillarius Christ

Sphex papillarius Christ, 1791:325, sex not stated (as *papillaria*, incorrect original termination). Holotype or syntypes: origin unknown (destroyed). – not listed by R. Bohart and Menke, 1976.

punctatus de Villers (preoccupied)

Sphex punctatus de Villers, 1789:225, sex not stated (as *punctata*, incorrect original termination), junior primary homonym of *Sphex punctatus* Fabricius, 1787. Holotype or syntypes: Europe: no specific locality (destroyed). – Dalla Torre, 1897:438 (in catalog of world Hymenoptera); not listed by R. Bohart and Menke, 1976.

punctatus Fabricius

Sphex punctatus Fabricius, 1781:446, sex not stated (as *punctata*, incorrect original termination). Holotype or syntypes: Europe: no specific locality (depository?). – Fabricius, 1787:278 (redescription, Spain), 1793:214 (redescription); not listed by R. Bohart and Menke, 1976.

punctum Fabricius

Sphex punctum Fabricius, 1781:448, sex not stated. Holotype or syntypes: Italy: no specific locality (depository?). – Fabricius, 1787:276 (redescription); de Villers, 1789:238 (redescription; Italy: no specific locality, and Gallia australis prope Nemausum, now southern France: near Nîmes); Gmelin, 1790:2730 (redescription); Turton, 1801:484 (redescription); Schrank, 1802:326(in revision of insects of Bayern (= Bavaria), Germany); not listed by R. Bohart and Menke, 1976. – **As *Ceropales punctum***: Fabricius, 1804:187 (new combination, redescription).

pygmaeus Schrank

Sphex pygmaeus Schrank, 1785:.. Holotype or syntypes: Austria: …. – Dalla Torre, 1897:437 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

quadrifasciatus de Villers

Sphex quadrifasciatus de Villers, 1789:229, sex not stated (as *4.Fasciata*, incorrect original abbreviation and termination). Holotype or syntypes: Gallia australis, now southern France: no specific locality (destroyed). – Dalla Torre, 1897:438 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

quadrifasciatus O. Müller (preoccupied)

Sphex quadrifasciatus O. Müller, 1776:. , junior primary homonym of *Sphex quadrifasciatus* Villers, 1789. Holotype or syntypes: Denmark and/or Norway: no specific locality (destroyed). – R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae). [**this name cannot be found in O. Müller's work**]

quadrimaculatus O. Müller

Sphex quadrimaculatus O. Müller, 1776:162, sex not stated (as *IV-maculata*, incorrect original spelling including termination). Holotype or syntypes: Denmark and/or Norway: no specific locality (destroyed). – Dalla Torre, 1897:438 (in catalog of world Hymenoptera); not listed by Bohart and Menke, 1976.

quadripunctatus Fabricius (preoccupied)

Sphex quadripunctatus Fabricius, 1787:178, sex not stated (as *4.punctata*, incorrect original abbreviation and termination), junior primary homonym of *Sphex quadripunctatus* Scopoli, 1786. Holotype or syntypes: Spain: no specific

locality (ZMUC?). – de Villers, 1789:241 (redescription); Gmelin, 1790:2733 (redescription); Fabricius, 1793:219 (redescription), 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:494 (redescription); not listed by Bohart and Menke, 1976.

quadripunctatus Rossi (preoccupied)

Sphex quadripunctatus Rossi, 1790:65, sex not stated (as *quadripunctata*, incorrect original termination), junior primary homonym of *Sphex quadripunctatus* Scopoli, 1786, and of *Sphex quadripunctatus* Fabricius, 1787. Holotype or syntypes: Italy: Etruria, now Toscana: no specific locality (destroyed). – not listed by R. Bohart and Menke, 1976.

rhombicus Christ

Sphex rhombicus Christ, 1791:269, sex not stated (as *rhombica*, incorrect original termination). Holotype or syntypes: Europe: no specific locality (destroyed). – not listed by R. Bohart and Menke, 1976.

rubicundus Christ

Sphex rubicundus Christ, 1791:316, sex not stated (as *rubicunda*, O. Müller, 1776:161 (redescription; Denmark and Norway); origin unknown (destroyed). – not listed by R. Bohart and Menke, 1976.

rufipennis De Geer

Sphex rufipennis De Geer, 1778:611, sex not stated. Holotype or syntypes: South Africa: Cape of Good Hope (destroyed). – not listed by R. Bohart and Menke, 1976.

rusticus O. Müller

Sphex rusticus O. Müller, 1776, sex not stated (as *rustica*, incorrect original termination). Holotype or syntypes: Denmark and/or Norway: no specific locality (destroyed). – not listed by R. Bohart and Menke, 1976.

sanguiguttatus Christ

Sphex sanguiguttatus Christ, 1791:293, sex not stated (as *sanguiguttata*, incorrect original termination). Holotype or syntypes: origin unknown (destroyed). – not listed by R. Bohart and Menke, 1976.

sanguineus Christ

Sphex sanguineus Christ, 1791:291, sex not stated (as *sanguinea*, incorrect original termination). Holotype or syntypes: origin unknown (destroyed). – not listed by R. Bohart and Menke, 1976.

sanguinolentus Fabricius

Sphex sanguinolentus Fabricius, 1793:211, sex not stated (as *sanguinolenta*, incorrect original termination). Holotype or syntypes: Germany: no specific locality (depository?). – Fabricius, 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:490 (redescription); not listed by R. Bohart and Menke, 1976.

semicinctus de Villers

Sphex semicinctus de Villers, 1789:251, sex not stated (as *semi-cincta*, incorrect original hyphenantion and termination). Holotype or syntypes: Gallia australioris, now southern France: no specific locality (destroyed). – Dalla Torre, 1897:440 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

serotinus O. Müller

Sphex serotinus O. Müller, 1776:161, sex not stated (as *serotina*, incorrect original termination). Holotype or syntypes: Denmark and/or Norway: no specific locality (destroyed). – Dalla Torre, 1897:440 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

sessilis Turton

Sphex sessilis Turton, 1801:484, sex not stated. Holotype or syntypes: France: no specific locality (destroyed). – not listed by R. Bohart and Menke, 1976.

***sexpunctatus* Fabricius**

Sphex sexpunctatus Fabricius, 1794:457, sex not stated (as 6*punctata*, incorrect original spelling, including termination). Holotype or syntypes: Italy: no specific locality (depository unknown). – Fabricius, 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:491 (redecription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus sexpunctatus***: Fabricius, 1798:248 (new combination, redescription).

***similis* Fabricius**

Sphex similis Fabricius, 1781:447, sex not stated. Holotype or syntypes: equatorial Africa (BMNH, Banks coll.). – Fabricius, 1787:276 (redescription); Gmelin, 1790:2729 (redescription); Fabricius, 1793:209 (redescription); Turton, 1801:489 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus similis***: Fabricius, 1798:246 (new combination, redescription), 1804:189 (redescription).

***speciosus* Fabricius (preoccupied)**

Sphex speciosus Fabricius, 1793:217, sex not stated (as *speciosa* incorrect original termination), junior primary homonym of *Sphex speciosus* Drury, 1773. Holotype or syntypes: origin unknown (BMNH, coll. Banks). – Fabricius, 1796:156 (in Index to his Entomologia Systematica, 1793); not listed by R. Bohart and Menke, 1976.

***spinipes* Gmelin**

Sphex spinipes Gmelin, 1790:2734, sex not stated. Holotype or syntypes: origin unknown (Museum Leskeanum, now Royal Dublin Society). – Turton, 1801:496 (redescription); Dalla Torre, 1897:441 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***splendidus* O. Müller**

Sphex splendidus O. Müller, 1776:161, sex not stated. Holotype or syntypes: Denmark and/or Norway: no specific locality (destroyed). – Dalla Torre, 1897:441 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***splendidus* Reich (preoccupied)**

Sphex splendidus Reich, 1795:131, sex not stated (as *splendida*, incorrect original termination), junior primary homonym of *Sphex splendidus* O. Müller, 1776. Holotype or syntypes: French Guiana: Cayenne (lost). – R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***stellatus* Fabricius**

Sphex stellatus Fabricius, 1793:219, sex not stated (as *stellata*, incorrect original termination). Holotype or syntypes: South America: no specific locality (depository?). – Fabricius, 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:494 (redescription); Cresson, 1863:320 (in catalog of North American Hymenoptera); not listed by R. Bohart and Menke, 1976.

***stigma* Linnaeus**

Sphex stigma Linnaeus, 1767:945, sex not stated. Holotype or syntypes: South Africa: Cape of Good Hope (destroyed?). – Gmelin, 1790:2730 (redescription); Turton, 1801:495 (redescription); Dalla Torre, 1897:442 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae); Day, 1979:73 (type presumably destroyed); Day and Fitton, 1978:193 (recuration of Linnean type material; no specimens).

***tenthredinoides* Scopoli**

Sphex tenthredinoides Scopoli, 1763:274, sex not stated. Holotype or syntypes: Carniolia, now part of Slovenia: no specific locality (destroyed). – Christ, 1791:274 (redescription); Rogenhofer and Dalla Torre, 1882:601 (unrecognizable species); Dalla Torre, 1897:443 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***testaceus* Gmelin**

Sphex testaceus Gmelin, 1790:2735, sex not stated. Holotype or syntypes: Europe: no specific locality (Museum Leskeanum, now Royal Dublin Society). – Turton, 1801:497 (redescription); Dalla Torre, 1897:443 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***thoracicus* Christ**

Sphex thoracicus Christ, 1791:324, sex not stated (as *thoracica*, incorrect original termination). Holotype or syntypes: origin unknown (destroyed). – not listed by R. Bohart and Menke, 1976.

***thoracicus* Rossi (preoccupied)**

Sphex thoracicus Rossi, 1794:118, sex not stated (as *thoracica*, incorrect original termination), junior primary homonym of *Sphex thoracicus* Christ, 1791. Holotype of syntypes: Italy: Etruria, now Toscana: no specific locality (destroyed). – not listed by R. Bohart and Menke, 1976

***tinctor* Christ**

Sphex tinctor Christ, 1791:311, sex not stated. Holotype or syntypes: origin unknown (destroyed). – not listed by R. Bohart and Menke, 1976.

***tomentosus* Gmelin (preoccupied)**

Sphex tomentosus Gmelin, 1790:2734, sex not stated, junior primary homonym of *Sphex tomentosus* Fabricius, 1787. Holotype or syntypes: Europe: no specific locality (Museum Leskeanum, now Royal Dublin Society). – Dalla Torre, 1897:444 (in catalog of world Hymenoptera, is not a *Sphex*); R Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***triangulum* de Villers**.

Sphex triangulum de Villers, 1789:251, sex not stated. Holotype or syntypes: Europe: no specific locality (destroyed). – Dalla Torre, 1897:444 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae, as *triangulus*).

***tricolor* de Villers (preoccupied)**

Sphex tricolor de Villers, 1789:249, sex not stated, junior primary homonym of *Sphex tricolor* Schrank, 1781. Holotype or syntypes: Viennae = Austria: Wien (destroyed). [may be a citation of an earlier author, perhaps Schrank]. – Turton, 1801:496 (redescription). – not listed by R. Bohart and Menke, 1976.

***tricolor* Reich (preoccupied)**

Sphex tricolor Reich, 1795:131, sex not stated, junior primary homonym of *Sphex tricolor* Schrank, 1781, *Sphex tricolor* de Villers, 1789, and *Sphex tricolor* Fabricius, 1793. Holotype or syntypes: French Guiana: Cayenne (lost). – Dalla Torre, 1897:444 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

***tricolor* Schrank**

Sphex tricolor Schrank, 1781:383, sex not stated. Holotype or syntypes: Austria: Wien (destroyed). – Gmelin, 1790:2734 (redescription); not listed by R. Bohart and Menke, 1976.

***trifasciatus* O. Müller**

Sphex trifasciatus O. Müller, 1776:161, sex not stated (as *trifasciata*, incorrect original termination). Holotype or syntypes: Denmark and/or Norway: no specific locality (destroyed). – Dalla Torre, 1897:444 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

trimarginatus O. Müller

Sphex trimarginatus O. Müller, 1776:161, sex not stated (as *trimarginata*, incorrect original termination). Holotype or syntypes: Denmark and/or Norway: no specific locality (destroyed). – Dalla Torre, 1897:444 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

tripunctatus Christ

Sphex tripunctatus Christ, 1791:317, sex not stated (as *tripunctata*, incorrect original termination). Holotype or syntypes: origin unknown (destroyed). – not listed by R. Bohart and Menke, 1976.

turcicus Fabricius

Sphex turcicus Fabricius, 1775:351, sex not stated (as *turcica*, incorrect original termination). Holotype or syntypes: Brazil: no specific locality (BMNH, coll. Banks). – Fabricius, 1781:450 (redescription), 1787:276 (redescription); Gmelin, 1790:2732 (redescription); Fabricius, 1793:216 (redescription), 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:493 (redescription); not listed by R. Bohart and Menke, 1976.

turrimurarius Christ

Sphex turrimurarius Christ, 1791:321, sex not stated. Holotype or syntypes: origin unknown (destroyed). – not listed by R. Bohart and Menke, 1976.

vagus Linnaeus

Sphex vagus Linnaeus, 1758:571 (as *vaga*, incorrect original termination), sex not stated. Holotype or syntypes: Europe: no specific country or locality (destroyed?). – Scopoli, 1763:295 (redescription; Slovenia: Idria, now Idrija); Christ, 1791:262 (redescription, authorship attributed to Drury); Gistel, 1837:15 (Germany: Bayern: Gern); Dalla Torre, 1897:446 (in catalog of world Hymenoptera, is not a *Sphex*); Ashmead, 1899d:353 (in checklist of North American Sphecidae, authorship attributed to Drury); not listed by R. Bohart and Menke, 1976

vespiformis Schrank (preoccupied)

Sphex vespiformis Schrank, 1781:381, sex not stated, junior primary homonym of *Sphex vespiformis* Fabricius, 1775, now in *Stizus*. Holotype or syntypes: Austria: Wien (destroyed). – de Villers, 1789:227 (redescription); Dalla Torre, 1897:446 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

villosus Fabricius

Sphex villosus Fabricius, 1775:352, sex not stated (as *villosa*, incorrect original termination). Holotype or syntypes: India: Kerala: Malabar District: no specific locality (depository?). – Fabricius, 1781:450 (redescription), 1787:276 (redescription); Gmelin, 1790:2732 (redescription); Fabricius, 1793:216 (redescription), 1796:156 (in Index to his Entomologia Systematica, 1793); Turton, 1801:493 (redescription); not listed by R. Bohart and Menke, 1976. – **As *Pompilus villosus***: Fabricius, 1798:252 (new combination, redescription).

NOMINA NUDA IN *SPHEX*

Ammobia praetiosa Billberg, 1820:105, sex not stated, origin unknown. – Rohwer, 1911c:153 (discussion of name).

Sphex brevis: Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection, Torino); Pagliano, 2008:526 (specimens in M. Spinola collection, Torino, are *Prionyx* sp.).

Sphex bruguierii: Casolari and Casolari Moreno, 1980:103 (specimen in M. Spinola collection, Torino); Pagliano, 2008:535 (specimen in M. Spinola collection, Torino).

Sphex cahirensis André: Honoré, 1942:71 (as *Cahirensis*, incorrect original capitalization. – Roche, 2007a:139 (is a nomen nudum).

Sphex cairensis Kollar, 1851:201 (Egypt: Cairo). – André, 1888:153 (history of name); Dalla Torre, 1897:418 (in catalog of world Hymenoptera); Leclercq, 1955h:38 (species incertae sedis).

Sphex continis: Casolari and Casolari Moreno, 1980:103 (specimens in M. Spinola collection, Torino); Pagliano, 2008:530 (specimens in M. Spinola collection, Torino are actually *Palmodes strigulosus*).

Sphex cyanogaster Billberg, 1820:105, sex not stated, Sweden: no specific locality.

Sphex decoloratus Blake (as *decolorata*, incorrect original termination): Snow, 1906:133 (Arizona: Baboquivari and Oak Creek 20 mi. southwest of Flagstaff).

Sphex decoloratus var. *baboquivari*: Snow, 1906:133 (Arizona: no specific locality).

Sphex distinctus: Casolari and Casolari Moreno, 1980:102 (specimen in M. Spinola collection, Torino, as *distincta*); Pagliano, 2008:526 (specimen in M. Spinola collection, Torino, is a *Prionyx* sp.).

Sphex erythropoda Billberg, 1820:105, sex not stated, origin unknown.

Sphex formicaroides Gistel, 1837:15, sex not stated, Germany: Bavaria (= Bayern), no specific locality. – Dalla Torre, 1897:423 (in catalog of world Hymenoptera); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae).

Sphex gagates Klug *in* Waltl, 1835:88 (in list of Hymenoptera of Andalusia).

Sphex hirtus Fabricius, 1796:155 (in Index to his Entomologia Systematica, 1793).

Sphex labrosus Harris, 1835. Catalogue of the insects of Massachusetts, 2nd edition. – Cresson, 1863:320 (in catalog of North American Hymenoptera).

Sphex lebouli Roth, 1924:124, ♀, Algeria: Nemours, now Ghazaouet (as *Lebouli*, incorrect original capitalization).

Sphex lefroyi Bingham: Ramakrishna Aiyar, 1916:554 (India: Pusa, manuscript name).

Sphex nigritarsus: Casolari and Casolari Moreno, 1980:102 (specimens in M. Spinola collection, Torino, as *nigritarsa*, incorrect original termination); Pagliano, 2008:527 (specimens in M. Spinola collection, Torino).

Sphex praedator planetus van der Vecht: Dollfuss, 1989:12 (paratype in NHMW).

UNRECOGNIZABLE MISSPELLING

Sphex fulvipectus Guérin-Méneville: Ashmead, 1900:308 (in checklist of Caribbean Hymenoptera).

Sphex nigeus Smith: Giacomelli, 1928:53 (Argentina: phenology, habitat).

NAMES PUBLISHED IN AUCTION CATALOGS

See R. Bohart and Menke, 1976:117 and Evenhuis, 1997:457 for further information.

annulatus Lichtenstein, 1796:200, sex not stated (as *annulata*, incorrect original termination). Holotype or syntypes: Asia: no specific locality (destroyed). – R. Bohart and Menke, 1976:117.

antaeus Lichtenstein, 1796:197, sex not stated (as *Antaeus*, incorrect original capitalization). Holotype or syntypes: origin unknown (destroyed). – R. Bohart and Menke, 1976:117.

antaeus Holthusius (Schneider), 1800. Origin unknown. – R. Bohart and Menke, 1976:117.

argyrostictus Lichtenstein, 1796:199, sex not stated (as *argyrosticta*, incorrect original termination). Holotype or syntypes: origin unknown (destroyed). – R. Bohart and Menke, 1976:117.

argyrostoma Lichtenstein, 1796:200, sex not stated. Holotype or syntypes: India: no specific locality (destroyed). – R. Bohart and Menke, 1976:117.

aselenos Lichtenstein, 1796:197, sex not stated. Holotype or syntypes: "in insulis maris pacifici"[= in islands of Pacific ocean]: no specific locality (destroyed). – R. Bohart and Menke, 1976:117.

auronitens Lichtenstein, 1796:198, sex not stated. Holotype or syntypes: Surinam: no specific locality (destroyed). – R. Bohart and Menke, 1976:117.

brachypterus Lichtenstein, 1796:200, sex not stated (as *brachyptera*, incorrect original termination). Holotype or syntypes: India: no specific locality (destroyed). – R. Bohart and Menke, 1976:117.

chilon Lichtenstein, 1796:200, sex not stated (as *Chilon*, incorrect original capitalization). Holotype or syntypes: India: no specific locality (destroyed). – R. Bohart and Menke, 1976:119.

chrysostictus Lichtenstein, 1796:199, sex not stated (as *chrysosticta*, incorrect original termination). Holotype or syntypes: "America": no specific locality (destroyed). – R. Bohart and Menke, 1976:119.

chrysostoma Lichtenstein, 1796:200, sex not stated. Holotype or syntypes: India: no specific locality (destroyed). – R. Bohart and Menke, 1976:119.

corynetes Lichtenstein, 1796:199, sex not stated (as *Corynetes*, incorrect original capitalization). Holotype or syntypes: "Cap. bon. spei." = Cape of Good Hope (destroyed). – R. Bohart and Menke, 1976:119.

gigas Lichtenstein, 1796:197, sex not stated. Holotype or syntypes: Surinam: no specific locality (destroyed). – R. Bohart and Menke, 1976:119.

gnatho Lichtenstein, 1796:199, sex not stated. Holotype or syntypes: "Cap. bon. spei." = Cape of Good Hope (destroyed). – R. Bohart and Menke, 1976:119.

lineatus Lichtenstein, 1796:198, sex not stated, junior primary homonym of *Sphex lineatus* de Villers, 1789. Holotype or syntypes: India: no specific locality (destroyed). – R. Bohart and Menke, 1976:119.

manduco Lichtenstein, 1796:199, sex not stated. Holotype or syntypes: Surinam: no specific locality (destroyed). – R. Bohart and Menke, 1976:119.

manicatus Lichtenstein, 1796:199, sex not stated (as *manicata*, incorrect original termination). Holotype or syntypes: origin unknown (destroyed). – R. Bohart and Menke, 1976:119.

mesomelaenus Lichtenstein, 1796:198, sex not stated (as *mesomelaena*, incorrect original termination). Holotype or syntypes: India (destroyed). – R. Bohart and Menke, 1976:119.

nigellus Lichtenstein, 1796:200, sex not stated (as *nigella*, incorrect original termination). Holotype or syntypes: "America": no specific locality (destroyed). – R. Bohart and Menke, 1976:119.

nigripes Lichtenstein, 1796:197, sex not stated. Holotype or syntypes: Origin unknown (destroyed). – R. Bohart and Menke, 1976:119.

nigripes Holthusius (Schneider), 1800. Origin unknown. – R. Bohart and Menke, 1976:119.

pumilus Lichtenstein, 1796:200, sex not stated (as *pumila*, incorrect original termination). Holotype or syntypes: origin unknown (destroyed). – R. Bohart and Menke, 1976:119.

quinqueguttatus Lichtenstein, 1796:198, sex not stated (as *5 guttata*, incorrect original spelling including termination). Holotype or syntypes: origin unknown (destroyed). – R. Bohart and Menke, 1976:119.

ruficollis Lichtenstein, 1796:199, sex not stated. Holotype or syntypes: origin unknown (destroyed). – R. Bohart and Menke, 1976:119.

rufilumbis Lichtenstein, 1796:199, sex not stated. Holotype or syntypes: Surinam: no specific locality (destroyed). – R. Bohart and Menke, 1976:119.

serpentinus Lichtenstein, 1796:199, sex not stated (as *serpentinus*, incorrect original termination). Holotype or syntypes: origin unknown (destroyed). – R. Bohart and Menke, 1976:119.

sinensis Lichtenstein, 1796:198, sex not stated (as *Sinensis*, incorrect original capitalization). Holotype or syntypes: China: no specific locality (destroyed). – R. Bohart and Menke, 1976:119.

SPECIES DESCRIBED IN *SPHEX* AND TRANSFERRED TO OTHER GENERA

abditus Kohl, 1895 = *Isodontia aurifrons* (F. Smith, 1859)

abdominalis Cresson, 1872 = *Palmodes dimidiatus* (De Geeer, 1773)

abdominalis Drury, 1773:Index to First Volume = a eumenid

abietinus Scopoli, 1763 = *Orussus*, Orussidae, according to Rogenhofer and Dalla Torre, 1882:600. – de Villers, 1789:248 (redescription).

aculeatus Fernald, 1934 = *Ammophila azteca* Cameron, 1888

acutus Fernald, 1934 = *Ammophila*

aegyptius Lepeletier de Saint Fargeau, 1845 = *Prionyx crudelis* F. Smith, 1856

aegyptius Linnaeus, 1758 = *Sceliphron spirifex* Linnaeus, 1758
aequinoctialis Scopoli, 1763 = not recognizeable according to Rogenhofer and Dalla Torre, 1882:599
affinis Fabricius, 1793 = *Sceliphton caementarium* (Drury, 1773)
affinis Lucas, 1849 = ? *Isodontia splendidula* (A. Costa, 1858)
africanus niger Christ, 1791:254 (as *africana nigra*, incorrect original spelling), published as synonym of *Sphex severus* Drury, 1782, which is a pompilid
albicollis Christ, 1791 = *Campsomeris collaris* (Fabricius, 1775), see Guiglia and Betrem, 1958:97.
amethystinus Fabricius, 1793:210 = *Pepsis melanarius* (Mocsáry, 1883), Pompilidae.
anatolicus Kohl, 1888 = *Palmodes*
annularis Christ, 1791 = *Mellinus arvensis* (Linnaeus, 1758).
annularis Poda, 1761 = apparently an ichneumonid
anomalipes Panzer, 1798 = *Helorus anomalipes* (Panzer, 1798) (Heloridae, Proctotrupoidea)
anthracinus Scopoli, 1763 = *Trogus lapidator lapidator* Fabricius, 1787, Ichneumonidae, according to Rogenhofer and Dalla Torre, 1882:599, synonymy confirmed by Horstmann, 2002.
apakensis Tsuneki, 1971 = *Prionyx lividocinctus apakensis* Tsuneki
apiarius Scopoli, 1763 = probably *Pseudotiphia villosa* (Fabricius, 1793) according to Rogenhofer and Dalla Torre, 1882:599.
apicalis F. Smith, 1856:262 = *Isodontia apicalis* (F. Smith, 1856).
apicalis F. Smith, 1856:253 = *Isodontia chrysorrhoea* (Kohl, 1890).
apifalco Christ, 1791 = *Philanthus triangulum* (Fabricius, 1775).
appendigaster Linnaeus, 1767 = *Evania*.
arenarius Linnaeus, 1758 = *Cerceris*.
arenarius Fabricius, 1787 = *Podalonia hirsuta* (Scopoli, 1763).
argillaceus Linnaues, 1758:566 = *Eumenes canaliculatus* (Olivier), see van der Vecht, 1959b:128 = *argillosus* Linnaeus, 1767.
argus Christ, 1791 = *Crabro cribrarius* (Linnaeus, 1758).
argyrius Brullé, 1833 = *Chilosphex*.
armatus Illiger, 1807 = *Hoplammophila*.
asiaticus Linnaeus, 1758 = *Sceliphron*.
asper Christ, 1791:292, sex not stated (as *aspera*, incorrect original termination). Holotype or syntypes: origin unknown (destroyed). – Dalla Torre, 1897:415 (in catalog of world Sphecidae, is not a *Sphex*, probably a *Podalonia*); not listed by R. Bohart and Menke, 1976.
assimilis Fabricius, 1787 = *Stizoides*.
ater Fabricius, 1794 = *Psen ater* (Olivier, 1792).
aterrimus Rossi, 1790 = *Anoplius samariensis* (Pallas, 1771), a pompilid
atratus Lepeletier de Saint Fargeau, 1845 = *Prionyx*
atripennis De Geer, 1773 = objective synonym of *Sphex caeruleus* Linnaeus, 1758 (see van der Vecht, 1959b:131).
atrox Drury, 1782 = *Hemipepsis* (Pompilidae)
auratus Linnaeus, 1758 = *Omalus* (Chrysididae)
auratus Fabricius, 1787, junior primary homonym of *Sphex auratus* Linnaeus, 1758 (a chrysidid) = *Liris aurulentus* (Fabricius, 1787)
aurifrons F. Smith, 1859 = *Isodontia*
auripeennis De Geer, 1773 = a pompilid; W. Schulz, 1912:61 (is a *Cryptochilus*)
auripygatus Strand, 1913 = *Isodontia*
aurulentus Fabricius, 1787 = *Liris*

azureus Christ, 1791 = *Scolia rubiginosa* Fabricius, 1793 (see Guiglia and Betrem, 1958)
aztecus de Saussure, 1867 = *Isodontia*
bakeri Rohwer, 1922 = *Parapsammophila*
barbarus Roth, 1963 = *Palmodes occitanicus* Lepeletier de Saint Fargeau and Audinet-Serville, 1828
bechuana R. Turner, 1929 = *Ammophila*
beniniensis Palisot de Beauvois, 1806 = *Ammophila*
bicolor Fabricius, 1775 = an Australian pompilid
bicoloratus Turton, 1801:493. Objective synonym of *Sphex bicolor* Fabricius, 1775. Synonymy by van der Vecht, 1960:6.
bifoveolatus Taschenberg, 1869 = *Prionyx*
bilocularis Scopoli, 1763 = probably an ichneumonid according to Rogenhofer and Dalla Torrre, 1882:600. – de Villers, 1789:248 (redescription); Christ, 1791:308 (redescription); Dalla Torre, 1897:417 (in catalog of world Sphecidae, is not a *Sphex*); not listed by R. Bohart and Menke, 1976
bimaculatus Fueßlin, 1775 = a scoliid
bimaculatus Panzer, 1798 = *Alysson spinosus* (Panzer, 1801)
binodis Fabricius, 1798 = *Eremnophila*
boninensis Tsuneki, 1973 = *Isodontia*
boops Schrank, 1781 = *Astata*
bucephalus Christ, 1791 = *Ectemnius fossorius* (Linnaeus, 1758p)
caementarius Drury, 1770 = *Sceliphron*
caeruleus Linnaeus, 1758 = *Entypus* (Pompilidae) – De Geer, 1773:585 (redescription); Drury, 1773:75, pl. XXXIX, fig. 8 (specimen from New York, obviously a sphecid); Fabricius, 1781:450 (redescription); Gmelin, 1790:2733 (redescription); Fabricius, 1793:219 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:494 (redescription); Casolari and Casolari Moreno, 1980:102, 103 (specimens in M. Spinola collection, Torino).
caeruleus Linnaeus, 1763, junior primary homonym of *Sphex caeruleus* Linnaeus, 1758 = *Chalybion californicum* (de Saussure, 1867)
canescens Scopoli, 1786 = *Campsoscolia sexmaculata* (Fabricius); see Guiglia, 1949:34. – Froggatt, 1892:209 (in catalog of Australian Hymenoptera); Dalla Torre, 1897:418 (in catalog of world Hymenoptera).
capensis Linnaeus, 1764 = *Hemipepsis* – Fabricius, 1775:347 (redescription); De Geer, 1778:610 (redescription); Fabricius, 1781:449 (redescription), Christ, 1791:297 (redescription); Fabricius, 1793:217 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Lichtenstein, 1796:197, 199 (in auction catalog); Turton, 1801:492 (redescription); Dalla Torre, 1897:418 (in catalog of world Hymenoptera); W. Schulz, 1912:56 (is a *Mynigmia*); Leclercq, 1955h:38 (species incertae sedis); van der Vecht, 1959c:212 (nomenclatural history); Day, 1979: 55 (study of holotype).
carbonarius Scopoli, 1763 = *Agenia carbonaria* (Scopoli), Pompilidae, according to Dahlbom, 1843:90 and Rogenhofer and Dalla Torre, 1882:600) – de Villers, 1789:248 (redescription; Gallia australis: prope Lugdunum = southern France: near Lyon); Schrank, 1802:325(in revision of insects of Bayern = Bavaria, Germany).
caspius Gmelin, 1790 = *Cerceris tuberculata* (de Villers, 1789)
chrysis Christ, 1791 = *Chlorion lobatum* (Fabricius, 1775)
chrysobaptus F. Smith, 1856 = *Isodontia fuscipennis* (Fabricius, 1804)
chrysoclypeatus Christ, 1791:293, sex not stated (as *chrysoclypeata*, incorrect original termination). Holotype or syntypes: origin unknown (destroyed). – Dalla Torre, 1897:418 (in catalog of world Sphecidae, is a *Salius*, now *Cyphononyx*, Pompilidae); not listed by R. Bohart and Menke, 1976

ciliatus Fabricius, 1787 = *Chlorion maxillosum ciliatum* (Fabricius)
cinctus Scopoli, 1763:292 = *Tryphon cinctus* (Scopoli), Ichneumonidae, according to Rogenhofer and Dalla Torre, 1892:599.
claviger F. Smith, 1856 = *Isodontia paludosa* (Rossi, 1790).
clavipes Linnaeus, 1758 = *Rhopalum*
clavus Fabricius, 1775 = *Ammophila*
clypearius Schreber, 1784 = *Lestica clypeata* (Schreber, 1759)
coarctatus Scopoli, 1763:293 = *Rhopalum*
conchaceus Christ, 1791 = *Polybia squamosa* (Drury, 1773), Vespidae
concinnus Rossi, 1790 = *Oryttus*
confinis Dahlbom, 1845 = *Palmodes occitanicus* Lepeletier de Saint Fargeau and Audinet-Serville, 1828
contiguus de Villers, 1789 = *Cerceris*
coronatus Thunberg, 1784 = *Philanthus*
costipennis Spinola, 1851 = *Isodontia*
collaris Linnaeus, 1767 = *Dryinus*, new combination by Day, 1979:60. – Fabricius, 1781:447 (redescription), 1787:275 (redescription); de Villers, 1789:237 (redescription); Gmelin, 1790:2732 (redescription); Christ, 1791:299 (redescriptionn); Fabricius, 1793:208 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Turton, 1801:489 (redescription); Dalla Torre, 1897:419 (in catalog of world Hymenoptera, is not a *Sphex*); R. Bohart and Menke, 1976:117 (in checklist of world Sphecidae). – **As *Pompilus collaris***: Fabricius, 1804:188 (new combination, redescription).
colon Linnaeus, 1758 = *Dinotiscus*, a pteromalid
compressus Fabricius, 1781 = *Ampulex*
cornutus Linnaeus, 1764 = *Synagris craspedotus* Fernald, 1934 = *Ammopila nasalis* Provancher, 1895.
crassicornis Scopoli, 1763:291 = *Trogus crassicornis* (Scopoli), Ichneumonidae according to Rogenhofer and Dalla Torre, 1982:598.
cribrarius Linnaeus, 1758 = *Crabro*
crucis Fabricius, 1804 (*Pepsis*) = *Prionyx thome* (Fabricius, 1775)
cruentus Fabricius, 1798 = *Harpactus laevis* (Latreille, 1792)
cyaneus Fabricius, 1775 = *Chalybion californicum* (de Saussure, 1867)
cyaneus Linnaeus, 1758 = *Chrysis* – Cresson, 1863:319 (in catalog of North American Hymenoptera).
cyanescens Radoszkowski, 1881 = ? *Chlorion maxillosum ciliatum* (Fabricius, 1787)
cyanipennis Fabricius, 1793 = *Isodontia*
cyrenaicus Gribodo, 1924 = *Palmodes occitanicus* Lepeletier de Saint Fargeau and Audinet-Serville, 1828
depressus De Geer, 1773:590 (Surinam) = a trigonalid – Dalla Torre, 1897:420 (in catalog of world Sphecidae, is not a *Sphex*, may be a *Trigonalys*); W. Schulz, 1912:61 (is a trigonalid).
dimidiatus De Geer, 1773 = *Palmodes*
diodon Kohl, 1890 = *Isodontia*
disparis Poda, 1761 = *Lymantrichneumon disparis* (Poda, 1761), Ichneumonidae
dives Lepeletier de Saint Fargeau, 1845 = ? *Prionyx nigropectinatus* (Taschenberg, 1869)
dolichoderus Kohl, 1890 = ? *Prionyx pumilio* (Taschenberg, 1869)
dolosus Kohl, 1895 = *Isodontia*
doumerci Lepeletier de Saint Fargeau, 1845 = *Prionyx fervens* Linnaeus, 1758
dubius Fernald, 1934 = *Ammophila strenua* Cresson, 1865
eatoni E. Saunders, = *Prionyx macula* (Fabricius, 1804)
economicus Curtis, 1938 = *Sceliphron caementarium* (Drury, 1773)
elegans F. Smith, 1856 = *Isodontia*

emarginatus Brullé, 1833 = *Chilosphex argyrius* (Brullé, 1833)
englebegi Brauns, 1899 = *Prionyx tyrannus* (F. Smith, 1856)
ephippica Turton, 1801:495. Lapsus or emendation of *Sphex ephippius* Linnaeus, 1767, now in *Sphecodes* (van der Vecht, 1960:6)
ephippius Linnaeus, 1758 = *Sphecodes*, a bee
erythrocephalus Fabricius, 1781 = *Parapsammophila*
excisus Kohl, 1890 = *Prionyx canadensis* (Provancher, 1887)
eximius Kohl, 1885 = *Chlorion funereum* Gribodo, 1879
eximius Strand, 1910 = *Chlorion hemiprasinus* (Sichel, 1863)
femoratus Fabricius, 1781 = *Chalybion*
fernaldi Murray, 1938 = *Ammophila*
ferox Westwood, 1837 = ? *Chalybion bengalense* (Dahlbom, 1845)
ferrugineus W. Fox, 1892 = *Prionyx foxi* Bohart and Menke, 1963
ferus Dahlbom, 1843 = *Palmodes strigulosus* A. Costa, 1858
ferus Drury, 1782 = ? *Chlorion lobatum* (Fabricius, 1775) or *Chalybion bengalense* (Dahlbom, 1845)
fervens Linnaeus, 1758 = *Prionyx*
figulus Linnaeus, 1758 = *Trypoxylon*
flavicornis Fabricius, 1781 = *Cyphononyx* (Pompilidae)
flavifrons Christ, 1791 = *Campsomeris thoracia* (Fabricius, 1798), see Guiglia and Betrem, 1958:98.
flavifrons Scopoli, 1786 = *Triscolia maculata flavifrons* Fabricius, see Guiglia, 1949:32.
flavipes Christ, 1791 = *Sceliphron destillatorium* (Illiger, 1807).
flavipes Fabricius, 1781:444 = *Sceliphron caementarium* (Drury, 1773).
flavomaculatus De Geer, 1773 = *Sceliphron caementarium* (Drury, 1773).
flavipunctatus Christ, 1791 = *Sceliphron caementarium* (Drury, 1773).
flavus Fabricius, 1793 = a pompilid.
floridensis Fernald, 1934 = *Ammophila urnaria* Dahlbom, 1843.
formosicola Strand, 1913 = *Isodontia*.
fossorius Linnaeus, 1758 = *Ectemnius*.
fragilis Nurse, 1903 = *Prionyx*.
franzi Cameron, 1902 = *Isodontia*.
fuciformis Scopoli, 1786 = *Scolia insubrica* (Scopoli, 1786), a scoliid; see Guiglia, 1949:29. – Dalla Torre, 1897:427 (in catalog of world Hymenoptera).
fuliginosus Scopoli, 1763 = *Trypoxylon figulus* (Linnaeus, 1758).
furcatus Scopoli, 1763:293 = *Eucharis cyniformis* Latreille, Chalcidoidea, according to Rogenhofer and Dalla Torre, 1882:599. – de Villers, 1789:223 (redescription); Christ, 1791:301 (redescription); Dalla Torre, 1897:424 (in catalog of world Sphecidae, is not a *Sphex*); not listed by R. Bohart and Menke, 1976.
fuscatus Dahlbom, 1843 = *Isodontia paludosa* Rossi, 1790.
fuscus Linnaeus, 1758 = *Anoplius*, Pompilidae. – O. Müller, 1776:160 (redescription; Danmark and Norway); Turton, 1801:489 (redescription); Pagliano, 2008:526 (specimen in M. Spinola collection, Torino, is an *Isodontia*).
gaetulus Roth, 1963 = *Palmodes occitanicus* Lepeletier de Saint Fargeau and Audinet-Serville, 1828
gibbus de Villers, 1789 = ? *Mellinus arvensis* (Linnaeus, 1758)
gibbus Linnaeus, 1758 = *Sphecodes*, a bee
gibbus Scopoli, 1763 = *Pompilus exaltatus* (Fabricius, 1775) according to Rogenhofer and Dalla Torrre, 1882:600.

gigas africanus Christ, 1791:289, [♂] (as *gigas africana*, incorrect original spelling). As synonym of *Sphex atrox* Drury, 1782 = *Hemipepsis*
globosus F. Smith, 1856 = *Prionyx*
goliath Christ, 1791 = *Megascolia maculata* (Drury, 1773), see Guiglia and Betrem, 1958:92
granti W.F. Kirby, 1900 = *Prionyx viduatus* (Christ, 1791)
grandis Radoszkowski, 1876 = *Prionyx crudelis* (F. Smith, 1856)
gratiosus F. Smith, 1856 = *Chlorion*
gregarius Scopoli, 1763 = not recognizeable according to Rogenhofer and Dalla Torre, 1882:599
grossus Fabricius, 1798:245 = *Pepsis grossa* (Fabricius); see Vardy, 2002. Zoologische Verhandelingen 338:58.
guttatus Fabricius, 1793 = *Dinetus pictus* (Fabricius, 1793)
haberhaueri Radoszkowski, 1872 = *Prionyx*
harmandi Pérez, 1905 = *Isodontia*
hemiprasinus Sichel, 1863 = *Chlorion*
hemipterus Fabricius, 1798 = *Sceliphron fuscum* Klug, 1801
hemipterus Scopoli, 1772, "Cremnitzium in Hungaria", now Slovakia: Kremnica (as *Sphaex hemiptera*) = *Scolia sexmaculata sexmaculata* (O.F. Müller, 1766). – Christ, 1791:272 (redescription); Haris , 2016:10 (in list of species described by G. Scopoli from Carpathian Basin).
hemipyrrhus Sichel, 1863 = *Chlorion*
heros Fabricius, 1798 = a pompilid
hevitti Cameron, 1906 = *Isodontia*
hirsutus Scopoli, 1763 = *Podalonia*
hirtipes Fabricius, 1793, nec De Geer, 1778 = ? *Prionyx crudelis* F. Smith, 1856
hirtus Kohl, 1985 = *Chlorion*
hispidus F. Morawitz, 1890 = *Prionyx persicus* (Mocsáry, 1883)
holosericeus Fabricius, 1793 = *Ammophila*
hortensis Poda, 1761 = probably a variety of *Ammophila sabulosa* (Linnaeus, 1758) according to Poda, 1761:106.
hungaricus Christ, 1791 = *Megascolia maculata* (Drury, 1773), see Guiglia and Betrem, 1958:97; Haris, 2016:11 (in list of species described by J.L. Christ from Carpathian Basin).
hyalinatus Fabricius, 1793 = *Calicurgus* (Pompilidae)
hyalipennis Kohl, 1895 = *Prionyx stschurowskii hyalipennis* Kohl, 1895
ibericus Roth, 1963 = *Palmodes occitanicus* Lepeletier de Saint Fargeau and Audinet-Serville, 1828
ignitus Linnaeus, 1758 = *Chrysis*
indicus Linnaeus, 1758 = *Hemipepsis* – Linnaeus, 1764:408 (in museum of Queen Ludovica Ulrica, redescription); De Geer, 1773:587 (redescription); Retzius, 1783:66 (redescription); Lichtenstein, 1796:198 (in auction catalog); Christ, 1791:264 (redescription); Turton, 1801:495 (redescription); Dalla Torre, 1897:427 (in catalog of world Hymenoptera); W. Schulz, 1912:56 (is a *Mynigmia*).
indostanus Linnaeus, 1764 = *Prionyx indus* Linnaeus, 1758
indus Linnaeus, 1758 = *Prionyx*
insignis Kohl, 1885 = *Prionyx*
instabilis F. Smith, 1856 = ? *Isodontia exornata* Fernald, 1903 – Krombein, 1979b:1586 (in catalog of North American Hymenoptera).
insubricus Scopoli, 1786 = *Scolia* (see Guiglia, 1949:28)
interruptus Scopoli, 1786 = *Triscolia maculata flavifrons* Fabricius (see Guiglia, 1949:30). – Dalla Torre, 1897:427 (in catalog of world Hymenoptera, is not a *Sphex*)

jaculator F. Smith, 1860 = *Isodontia*
johannis (Fabricius, 1804) = *Prionyx fervens* (Linnaeus, 1758)
kennedyi Murray, 1938 = *Ammophila*
kigonseranus Strand, 1916 = *Chlorion maxillosum ciliatum* (Fabricius, 1787)
lacerticida Pallas, 1771 = ?*Batazonus* (a pompilid) – Dalla Torre, 1897:428 (in catalog of world Sphecidae, is not a *Sphex*); not listed by R. Bohart and Menke, 1976
laevipes W. Fox, 1897 = *Isodontia*
laeviventris Cresson, 1865 = *Palmodes*
leoninus de Saussure, 1891 = *Isodontia*
leopardus Fernald, 1934 = *Ammophila*
lepidus Strand, 1910 = *Chlorion hemipyrrhum* (Sichel, 1863)
leuconotus F. Morawitz, 1890 = *Prionyx*
leucosoma Kohl, 1890 = *Prionyx trichargyrus* (Spinola, 1839)
leucostoma Linnaeus, 1758 = *Crossocerus*
lividocinctus A. Costa, 1861 = *Prionyx*
lobatus Fabricius, 1775 = *Chlorion*
longicornis Rossi, 1790 = *Argogorytes mystaceus* (Linnaeus, 1762)
longiventris de Saussure, 1867 = *Isodontia*
longus Christ, 1791 = *Crabro cribrarius* (Linnaeus, 1758)
lugens Kohl, 1890 = *Prionyx macula lugens*
lunatus Christ, 1791 = *Crabro cribrarius* (Linnaeus, 1758)
lunatus Fabricius, 1775 = *Sceliphron caementarium* (Drury, 1773)
lutarius Fabricius, 1787 = *Mimesa*
maculatus Christ, 1791= *Philanthus triangulum* (Fabricius, 1775)
maculatus Drury, 1775 = ?
maculatus Fabricius, 1787 = *Nysson maculosus* (Gmelin, 1790)
maculosus Gmelin, 1790 = *Nysson*
madraspatanus Fabricius, 1781 = *Sceliphron*
mahatma R. Turner, 1917 = *Podalonia*
maia Bingham, 1893 = *Isodontia*
maidli Yasumatsu, 1938 = *Isodontia*
malayanus Cameron, 1902 = *Isodontia severini* (Kohl, 1898)
mandarinius F. Smith, 1856 = *Palmodes*
massaicus Cameron, 1908 = *Chlorion maxillosum ciliatum* Fabricius, 1787
maurus Fabricius, 1787 = *Larra maura* (Fabricius, 1787)
melaenus Spinola, 1851 = ? *Prionyx neoxenus* (Kohl, 1890)
melanarius Mocsáry, 1883 = *Palmodes*
melanagaster Brèthes, 1910 = *Prionyx neoxenus* (Kohl, 1890)
melanotus F. Morawitz, 1890 = *Prionyx*
meruensis Cameron, 1908 = *Isodontia longiventris* (de Saussure, 1867)
mexicanus de Saussure, 1867 = *Isodontia*
micans Eversmann, 1849 = *Prionyx viduatus* (Christ, 1791)
minor F. Morawitz, 1890 = *Palmodes*
mirandus Kohl, 1890 = *Chlorion*
mocsaryi Kohl, 1885 = *Prionyx viduatus argentatus* (Mocsáry, 1883)
montanus F. Morawitz, 1889 = *Palmodes mandarinius* (F. Smith, 1856)

morio Kohl, 1890 = *Palmodes*
morosus F. Smith, 1860 = *Isodontia aurifrons* (F. Smith, 1859)
mucronatus Jurine, 1807 = *Ammophila sabulosa* (Linnaeus, 1758)
mutilliformis Drury, 1773 = Scoliidae
mystaceus Linnaeus, 1761 = *Argogorytes*
nankumiensis Laidlaw, 1929 = *Prionyx*
nearcticus Kohl, 1890 = *Chlorion aerarium* Patton, 1879
neoxenus Kohl, 1890 = *Prionyx*
nigelloides Strand, 1915 = *Isodontia*
nigellus F. Smith, 1856 = *Isodontia*
nigerrimus Scopoli, 1763 = *Anoplius*, Pompilidae, according to Rogenhofer and Dalla Torre, 1882:600.
nigratus Gmelin, 1790 = an evaniid *incertae sedis*
nigripes Fabricius, 1793 = *Larra*
nigritus Fabricius, 1781 = *Java nigrita* (Fabricius), a pompilid
nigritus Lucas, 1849 = *Prionyx subfuscatus* (Dahlbom, 1845)
nigritus Turton, 1801:484. Lapsus or emendation of *Sphex nigrata* Gmelin, 1790, a European evaniid (van der Vecht, 1960:6).
nigrocinctus Fernald, 1907 = *Eremnophila eximia* (Lepeletier de Saint Fargeau, 1845)
nigrocoeruleus Taschenberg, 1869 = *Isodontia*
nitidulus Christ, 1791 = ? *Chalybion bengalense* (Dahlbom, 1845)
niveatus Dufour, 1854 = *Prionyx*
nobilis Scopoli, 1763 = *Hedychrum*, Chrysididae, according to Rogenhofer and Dala Torre, 1882:601.
novitus Fernald, 1934 = *Ammophila*
nudatus Kohl, 1885 = *Prionyx*
nudus Murray, 1938, junior primary homonym of *Sphex nudus* Fernald, 1903 = *Ammophila azteca* Cameron, 1888a
obscurellus F. Smith, 1856 = *Isodontia*
obscurus Schrank, 1802 = a pompilid – Dalla Torre, 1897:432 (in catalog of world Hymenoptera: is not a *Sphex*); Bohart and Menke, 1976, refer to it as *Pepsis obscura* Schrank (in reference to *Pepsis obscura* Fabricius, 1804, a senior synonym of *Sphex cinerascens*).
occitanicus Lepeletier de Saint Fargeau, 1825 = *Palmodes*
occultus Kohl, 1890 = *Chlorion cyaneum* Dahlbom, 1843
ochropterus Kohl, 1890 = *Isodontia*
octomaculatus Rossi, 1790 = *Cryptocheilus* (Pompilidae)
ommissus Kohl, 1890 = *Prionyx neoxenus* Kohl, 1890
orientalis Mocsáry, 1883 = *Palmodes*
ovatus Christ, 1791 = *Lestica clypeata* (Schreber, 1759)
pallipes Panzer, 1798 = *Psenulus*
palmarius Schreber, 1784 = *Crossocerus palmipes* (Linnaeus, 1767)
palmetorum Roth, 1963 = *Palmodes occitanicus* Lepeletier de Saint Fargeau and Audinet-Serville, 1828
palmipes Linnaeus, 1767 = *Crossocerus*
paludosus Rossi, 1790 = *Isodontia*
papiliopennis Christ, 1791:297 = a pompilid
parthenius A. Costa = *Isodontia paludosa* Rossi, 1790
patellarius Schreber, 1784 = *Crabro cribrarius* (Linnaeus, 1758)
pectinipes Linnaeus, 1758 = *Evagetes*, Pompilidae

peckhami Fernald, 1934 = *Ammophila*
pelopoeiformis Dahlbom, 1845 = *Isodontia*
peltarius Schreber, 1784 = *Crabro*
pempuchi Tsuneki, 1971 = *Isodontia*
peringueyi Arnold, 1928 = *Ammophila*
permutans R. Turner, 1912 = *Isodontia*
perplexus F. Smith, 1856 = *Palmodes occitanicus* Lepeletier de Saint Fargeau and Audinet-Serville, 1828
persicus Mocsáry, 1883 = *Prionyx*
peruvianus Rohwer, 1913 = *Ammophila lampei* Strand, 1910
philadelphicus Lepeletier de Saint Fargeau, 1845 = *Isodontia*
petiolatus Drury, 1773 = *Isodontia*
petiolatus F. Smith, 1856 = *Isodontia fuscipennis* (Fabricius, 1804)
picicornis F. Morawitz, 1890 = *Palmodes melanarius* (Mocsáry, 1883)
pilosus Fernald, 1934 = *Ammophila azteca* Cameron, 1888
platynotus Matsumura, 1912 = *Prionyx viduatus* (Christ, 1791)
plumbeus Fabricius, 1787 = *Pompilus*
plumipes Drury, 1773 = *Campsomeris* (Scoliidae). – Christ, 1781:289 (redescription)
pollens Kohl, 1885 = *Prionyx viduatus pollens*
praestans Kohl, 1890 = *Isodontia*
praslinius Guérin Méneville, 1831 = *Isodontia*
proditor Lepeletier de Saint Fargeau, 1845 = *Palmodes occitanicus* Lepeletier de Saint Fargeau and Audinet-Serville, 1828
profuga Scopoli, 1763:293 = *Ichneumon* sp., Ichneumonidae, according to Rogenhofer and Dalla Torre, 1892:599. – de Villers, 1789:224 (redescription); Christ, 1791:301 (redescription); Dalla Torre, 1897:437 (in catalog of world Hymenoptera); not listed by Bohart and Menke, 1976.
pubescens Fabricius, 1793 = *Prionyx viduatus* (Christ, 1791)
pulcher Lepeletier de Saint Fargeau, 1845 = *Chlorion splendidum* Fabricius, 1804
praslinius Guérin-Méneville, 1831 = *Isodontia*
pumilio Taschenberg, 1869 = *Prionyx*
puncticollis Kohl, 1888 = *Palmodes occitanicus* Lepeletier de Saint Fargeau and Audinet-Serville, 1828
punctulatus Schellenberg, 1802 – Dalla Torre, 1897:438 (in catalog of world Hymenoptera, is an ichneumonid); not listed by Bohart and Menke, 1976.
quadricinctus Scopoli, 1786 = *Scolia bifasciata* Rossi, 1792 (see Guiglia, 1939:32)
quadripunctatus Scopoli, 1786 = *Scolia sexmaculata* (Müller); see Guiglia, 1949:33
quatuormaculatus Christ, 1791:286 = *Crabro scutellatus* (von Scheven, 1781)
radoszkowskyi Kohl, 1888 = *Prionyx*
robustus Cameron, 1888 = *Isodontia azteca* (de Saussure, 1867)
ruber Drury, 1773 = *Pepsis* – Cresson, 1863:320 (in catalog of North American Hymenoptera).
rubripennis Drury, 1773 = a pompilid
ruficornis Fabricius, 1775 = a pompilid – Cresson, 1863:320 (in catalog of North American Hymenoptera)
ruficornis de Villers, 1789 = *Mellinus crabroneus* Thunberg, 1791
rufipennis De Geer, 1778:611 (Cape of Good Hope) = a pompilid (W. Schulz, 1912:62: is a *Cryptochilus*)
rufipennis Fabricius, 1793 = *Prionyx* (F. Smith, 1856)
rufipes Linnaeus, 1758 = *Episyron*, Pompilidae
rufiventris Cresson, 1872 = *Palmodes dimidiatus* (De Geer, 1773)
rugosus De Geer, 1773 = an ichneumonid (W. Schulz, 1912:61)

rybyensis Linnaeus = *Cerceris*
sabulosus Linnaeus, 1758 = *Ammophila sabulosa* (Linnaeus)
sagax Kohl, 1890 = *Palmodes*
samariensis Pallas, 1771 = *Anoplius*, a pompilid
scutularius Schreber, 1784 = *Crabro peltarius* Schreber, 1784
semiauratus Linnaeus, 1758 = *Cleptes* (Chrysididae)
sennae Mantero, 1902 = *Prionyx*
sepicola F. Smith, 1859 = *Isodontia*
severus Drury, 1782 = a pompilid
sheffieldi R. Turner, 1918 = *Podalonia*
sibericus Christ, 1791 = *Megascolia maculata* (Drury, 1773), see Guiglia and Betrem, 1958:97
sibiricus Fabricius, 1793 = *Ampulex compressiventris* (Guérin-Méneville, 1835)
signatus Panzer, 1798 = *Hylaeus*, a bee
sirdariensis Radoszkowski, 1877 = *Prionyx*
sispes Linnaeus, 1758 = *Chalcis* (Chalcididae)
sjoestedti Cameron, 1908 = *Prionyx kirbii marginatus* (F. Smith, 1856)
smaragdinus Christ, 1791 = ? *Chalybion bengalense* (Dahlbom, 1845) or *Chlorion lobatum*
solieri Lepeletier de Saint Fargeau, 1845 = ? *Palmodes occitanicus* Lepeletier de Saint Fargeau and Audinet-Serville, 1828
sonani Yasumatsu, 1938 = *Isodontia*
songaricus Eversmann, 1849 = *Prionyx*
soror Dahlbom, 1845 = *Prionyx*
speciosus Drury, 1773 = a vespid; Cresson, 1863:320 (in catalog of North American Hymenoptera);
spinolae F. Smith, 1856 = *Prionyx*
spinosus Forster, 1771 = *Nysson*
spirifex Linnaeus, 1758 = *Sceliphron*
splendidulus A. Costa, 1858 = *Isodontia*
stanleyi Koh, 1891 = *Isodontia*
stschurowskii Radoszkowski, 1877 = *Prionyx*
striatulus Brèthes, 1908 = *Prionyx*
striatus F. Smith, 1856 = *Prionyx*
*strigulosus*A. Costa, 1858 = *Palmodes*
suavis F. Morawitz, 1893 = *Prionyx niveatus* (Dufour, 1854)
subfuscatus Dahlbom, 1845 = *Prionyx*
syriacus Mocsáry, 1881 = *Palmodes occitanicus* Lepeletier de Saint Fargeau and Audinet-Serville, 1828
tenthredoides Scopoli, 1763 = unrecognizeable species according to Rogenhofer and Dalla Torre, 1882:601.
tenuicornis F. Morawitz, 1890 = *Prionyx songaricus* (Eversmann, 1849)
tenuis Palisot de Beauvois, 1806 = *Ammophila beniniensis* (Palisot de Beauvois, 1806)
testaceipes R. Turner, 1918 = *Parapsammophila*
thomae Fabricius, 1775 = *Prionyx*
tibialis Fabricius, 1781 = *Chalybion*
tibialis Lepeletier de Saint Fargeau, 1845 = *Isodontia auripes* (Fernald, 1906)
tibialis Strand, 1910 = *Chlorion strandi* Willink, 1951
transversus Fernald, 1934 = *Ammophila aberti* Haldeman, 1852
trichargyrus Spinola, 1839 = *Prionyx*
tricolor Fabricius, 1793 = *Tachytes obsoletus tricoloratus* Turton, 1802.

tricoloratus Turton, 1801 = *Tachytes*
triodon Kohl, 1890 = *Isodontia*
tropicus Linnaeus, 1758 = *Vespa* – Sulzer, 1776a:1776a:192(redescription); Cresson, 1863:320 (in catalog of North American Hymenoptera).
truncatus Poda, 1761 = ?
tuberculatus de Villers, 1789 = *Cerceris*
tucumanensis Strand, 1910 = *Prionyx simillimum* (Fernald, 1907)
unicolor Panzer, 1798, Heft 52:24 (as *Crabro unicolor* in the legend for illustration) = *Pemphredon*. Junior primary homonym of *Sphex unicolor* Fabricius, 1787.
ursus Fabricius, 1793:210 = a mutillid (W. Schulz, 1912:78)
ustulatus Kohl, 1890 = *Isodontia*
vagus Christ, 1791 = ? *Isodontia petiolata* (Drury, 1773)
vagus Linnaeus, 1758 = *Mellinus arvensis* (Linnaeus, 1758)
vagus Radoszkowski, 1881 = *Prionyx indus* (Linnaeus, 1758)
variegatus Linnaeus, 1758 = *Dipogon*
varipennis Reiche and Fairmaire, 1850 = *Chlorion maxillosum ciliatum* (Fabricius, 1787)
versicolor Christ, 1791:317 (authorship attributed to Linnaeus) = *Megascolia maculata* (Drury, 1773), see Guiglia and Betrem, 1958:94. Junior primary homonym of *Sphex versicolor* Scopoli, 1763 – Haris, 2016:11 (in list of species described by J.L. Christ from Carpathian Basin)
versicolor Scopoli, 1763 (authorship attributed to Linnaeus, 1758:571) = *Episyron rufipes* (Linnaeus, 1758), Pompilidae
vespiformis Fabricius, 1775 = *Stizus.*
vespoides Scopoli, 1763 = *Metopius*, Ichneumonidae, according to Rogenhofer and Dalla Torre, 1882:600. – de Villers, 1789:248 (redescription) [probably an ichneumonid: "habitat in larvis phalaenarum" [= lives in moth larvae]
viaticus Linnaeus, 1758 = *Pompilus* (lectotype: Figure XIIIc of Plate I in volume II of J.L. Frisch, 1721. Beschreibung von allerley Insecten in Teutsch-Land, designated by van der Vecht, 1958:47 and International Commission on Zoological Nomenclature, 1980:96, Opinion 1157). – O. Müller, 1764:72 (Denmark: Zeeland: Fridrichsdal near Copenhagen), 1776:160 (redescription; Danmark and Norway); Schrank, 1781:382 (in revision of insects of Austria); Retzius, 1783:65 (redescription); Gmelin, 1790:2729 (redescription); Christ, 1791:315 (redescription); Turton, 1801:489 (redescription); Verhoeff, 1947:334 (is a member of *Anoplius*, Pompilidae); Day, 1979:76 (nomenclatural history).
violaceipennis Lepeletier de Saint Fargeau, 1845 = *Palmodes dimidiatus* (De Geer, 1773)
violaceus Fabricius, 1775 = *Chalybion bengalense* (Dahlbom, 1845)
violaceus Scopoli, 1763 = *Omalus*, Chrysididae, according to Rogenhofer and Dalla Torre, 1882:601.
viduatus Christ, 1791 = *Prionyx*
viduus F. Smith, 1856 = *Isodontia*
viridocoeruleus Lepeletier de Saint Fargeau and Audinet-Serville, 1828 = *Chlorion*
willistoni Fernald, 1934 = *Ammophila peckhami* Fernald, 1934
volatilis F. Smith, 1860 = *Isodontia aurifrons* (F. Smith, 1859)
xanthocephalus J. Forster, 1771 = *Cerceris arenaria* (Linnaeus, 1758)
xanthognathus Pérez, 1905 = *Isodontia nigella* (F. Smith)
xanthocerus Illiger, 1802 = *Chlorion*