

Last updated: 16 April 2024

PODALONIA

Podalonia Spinola, 1853:53. Suppressed by International Commission on Zoological Nomenclature, 1968:88 (Opinion 857).

Psammophila Dahlbom, 1842:2, junior homonym of *Psammophila* Brown, 1827 (Mollusca). Type species: *Psammophila affinis* (W. Kirby, 1798) [= *Ammophila affinis* W. Kirby, 1798], designated by Fernald, 1927:11.

Podalonia Fernald, 1927:11. Validated by International Commission on Zoological Nomenclature, 1968:88 (Opinion 857). Type species: *Ammophila violaceipennis* Lepeletier de Saint Fargeau, 1845, designated by International Commission on Zoological Nomenclature, 1968:88 (Opinion 857).

Townes (1973) claimed that the "sphecid genus *Podalonia* .. should be called *Pompilus* ..", but he neglected to note that the International Commission on Zoological Nomenclature issued Opinion 166 in 1945 in which *Pompilus pulcher* Fabricius was designated as type species, thus placing the genus in the spider wasp family Pompilidae (Bohart and Menke, 1976:142).

Keys: Kohl, 1906b (Palearctic Ammophilini); Roth, 1928 (North African Ammophilini); W. Murray, 1940 (North American species); Dreisbach, 1944:271 (Michigan); Dollfuss, 2010 (Old World); Wang, Q. Li, and Ma, 2016 (China); Danilov, 2014b:516 (Siberia).

Review of biology: Kazenas, 2001b:89

1. *affinis* (W. Kirby)

Ammophila affinis W. Kirby, 1798:205, [♀]. Syntypes: ♀, Great Britain: Martlesham Heath near Woodbridge (depository unknown). – Turton, 1801:497 (redescription); Vander Linden, 1827:357 (redescription); Stephens, 1829a:361 (in catalog of British insects), 1829b:33 (in checklist of British insects); Shuckard, 1837a: 78 (in revision of British Aculeata); von Siebold, 1839:47 (Germany: Danzig, now Poland: Gdańsk); Herrich-Schaeffer, 1840:297 (Germany: Bayern: Regensburg area); Lepeletier de Saint Fargeau, 1845:369 (in revision of world Hymenoptera); von Kiesenwetter, 1849:87 (Germany: Kingdom of Saxony); Lucas, 1849:274 (Algeria: Oran, citation after Lepeletier de Saint Fargeau, 1845); P. Ivanov, 1872:152 (Ukraine: Khar'kiv Oblast': Kupyansk area); Martinez y Saez, 1874:31 (specimens from Spain: Madrid area, donated to Léon Dufour); Siebke, 1880:60 (Norway); Marquet, 1881:177 (southern France); Kohl, 1888b:729 (Austria: Tirol, now Italy: Alto Adige); F. Morawitz, 1891a:204 (Russia: Astrakhan Governorate); Marchal, 1892:23 (prey paralysis); Alfken, 1893:121 (Germany: Friesian Islands: Island of Juist); Kohl, 1893a:35 (Austria: Niederösterreich); Sickmann, 1893:95 (Germany: Niedersachsen: Iburg); Krieger, 1894:13 (Germany: Kingdom of Saxony); Acloque, 1897:96 (in Sphecida Fauna of France and Algeria); Dalla Torre, 1897:394 (in catalog of world Hymenoptera); Mocsáry, 1897:79 (Kingdom of Hungary, some localities are in today's Romania); O. Schneider, 1898:103 (Germany: Island of Borkum); Gadeau de Kerville, 1903:306 (France: Eure and Manche departments); Antiga and Bofill, 1904:4 (Spain: Cataluña Province); Aurivillius, 1904:255 (in revision of Swedish Sphecidae); W. Schulz, 1904b:92 (France, Germany, Turkestan); Kohl, 1905c:231 (Turkey: Kayseri: Erciyes Dağı); Kubes, 1905:83 (Czech Republic: Kolín, Sušice); W. Schulz, 1905b:33 (Algeria: Lambesa); Kohl, 1906b:292 (in revision of Palearctic Ammophilini); de Gaulle, 1908:104 (in catalog of French Hymenoptera); Kohl, 1913b:15 (Russia: Voronezh Oblast': Valuyki at 50°14'N 38°08'E); Alfken, 1914:283 (northwestern Germany); Dusmet y Alonso, 1915:86 (Spain: Aragón); Berland, 1921:533 (Greece); Dubois, 1922:214 (in key to Belgian Sphecidae); Berland, 1925d:31 (in Sphecida Fauna of France); Coulon, 1925:115 (France: Rouen, Oise); Picard, 1925b:161 (review of observations on stinging sequence), 163 (prey: subterranean caterpillars of *Agrotis*, nest construction follows hunting); Hémon, 1926:199 (France: Finistère: Fouesnant); Falcoz and Ferrière, 1927:123 (France: Mont Pilat in northern Cévennes); Kokujev, 1927:71 (Russia: Siberia: Lake Baikal); Wnukowski, 1927:32 (Russia: Western Siberia: village Kornilovo at 53°57'N 81°10'E); Benoist, 1928:408 (France: Basses-Alpes: Alot); Roth, 1928:177 (in revision of North African Ammophilini); Barovskij, 1929:148 (Russia: Sankt Petersburg); Roth, 1929:169 (in revision of Spanish Ammophilini), 188 (abnormal wing venation); Gussakovskij, 1930b:73 (Tajikistan: Pamir); Pulkkinen, 1931:53 (in revision of Sphecidae of Finland); Guiglia, 1932c:3 (Italy: Valle d'Aosta: Parco Nazionale del Gran

Paradiso); Gussakovskij, 1933b:274 (Iran); Nadig, 1933:100 (Morocco: Around: Ifrane); Guiglia, 1934b:291 (Libya: bibliography and summary of locality records); Gussakovskij, 1934a:5 (China: Kansu Province); Jansson, 1934:290 (Sweden); Marchand and Dulac, 1935:61 (France: Saône-et-Loire: Saint Laurent d'Andenay); Vergne, 1935:117 (France: Auvergne: Billom, Pont-du-Chateau); Dulac, 1937:7 (France: Saône-et-Loire: Marcigny, Saint-Laurent d'Andenay); Richards, 1937b:104 (in checklist of British aculeates); Guiglia, 1939c:185 (variety; Libya Fezzan: Hon; redescription); Móczár, 1939:5 (Hungary: Jászberény); Yasumatsu, 1940:31 (China: Nei Mongol: Kunshan-tagh Desert); Guiglia, 1942b:229 (variety; Libya); Giner Marí, 1943a:68 (in Sphecid Fauna of Spain); Guiglia, 1944b:6 (Italy); Alfieri, 1946:119 (in revision of Egyptian *Ammophila*); Carl and de Beaumont, 1947:67 (Switzerland: Graubünden = Grisons Canton: Swiss National Park); Guiglia, 1947a:28 (Italy: Piano Maiuri); de Beaumont, 1950f:395 (Algeria), 1951h:32 (Switzerland: Neuchâtel area); Caruel, 1952a:62 (France: Marne Department); Cleu, 1953:50 (France: Ardèche River basin); Nouvel and Ribaut, 1953:176 (France: Hautes-Pyrénées: Cauterets); de Beaumont, 1954e:86 (Italy); Diederichs, 1953:411 (nest construction and prey); Grandi, 1954:235 (Italy); de Beaumont and Bytinski-Salz, 1955:35 (Israel); Steiner, 1955:133 (France: Dordogne); Bytinski-Salz, 1956:223 (Turkey: Uludagh); Ceballos, 1956:358 (in catalog of Hymenoptera of Spain); Bajári, 1957a:14 (in key to Hungarian Sphecidae); de Beaumont, 1957b:129 (northern Iran); Grandi, 1957:341 (carrying caterpillar of a noctuid), 386 (Italy); Zirngiebl, 1957:184 (Germany: Rheinland-Pfalz: Pfalz region); de Beaumont, 1958a:290 (illustration of male genitalia), 1958c:202 (Swiss National Park), 1959a:6 (Italy: Alto Adige: Renon; Abruzzo: Rivisondoli); Grandi, 1959a:6 (Italy); Giner Marí, 1959:387 (Morocco); Suárez in Giner Marí, 1959:400 (*Podalonia* is the correct subgeneric name); Čingovski, 1960:5 (Macedonia: Luboten); Noskiewicz and Puławski, 1960:39 (in key to Polish Sphecidae); Scobiola, 1960b:235 (Romania: several localities); Grandi, 1961:141 (nesting habits); de Beaumont, 1962b:18 (Spain); Tsuneki, 1962b:25 (in key to *Ammophila* of Japan and Korea), 1962c:29 (Korea); Erlandsson, 1963:66 (Denmark: Island of Bornholm); Ceballos, 1964:86 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:27 (in Sphecid Fauna of Switzerland), 1965a:65 (Greece: Island of Crete: Omalos), 1967a:263 (Turkey); Gauss, 1967:551 (Germany: Baden-Württemberg); Scobiola-Palade, 1967b:37 (Romania); Tsuneki, 1967j:9 (in key to *Ammophilini* of East Asia); Benedek, 1968:70 (Hungary, floral records); Kazenas, 1968b:342 (Kazakhstan: Alma Ata and Chimkent oblast's); Parré, 1968:122 (Germany: Sachsen-Anhalt: Staßfurt); Suárez, 1969:27 (Spain: Almería Province); Gauss and Perraudin, 1970:360 (Germany: Baden-Württemberg: Bodensee area); Tumšs, 1970:71 (Latvia); Schmidt, 1971b:23 (Germany: Rheinland-Pfalz: Mainzer Sand, Mombacher Feld), 1971c:73 (Germany: Schleswig-Holstein); Haeseler, 1972:154, 175 (Germany: Schleswig-Holstein; anthropogenic habitats); Levi, Sysoletina, and Shernin, 1974:269 (Russia: Kirov Oblast: Kotel'nich, Poroshino); Tsuneki, 1976d:292 China: Manchuria: Ertsentientze 61 km east of Harbin); Marion, 1978:85 (France: Nièvre Department); Pulawski, 1978:180 (in key to Sphecidae of European part of USSR); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection, Torino); Józán, 1981:304 (Hungary: Hortobágy National Park); Skibińska, 1981:357 (Poland: Warszawa-Białoleka), 1982:122 (Poland: Warszawa area); Kuznetzova, 1990:17 (Russia: Voronezh Oblast: Galich'ya Gora Nature Reserve); Pádr, 1990:67 (Czech Republic: Praha area); Kowalczyk, 1988a:44 (Poland: Rogów), 1988b:63 (Poland: environs of Łódź); Delarze, 1992:67 (Switzerland: Valais: Les Follatères); Pagliano, 2008:517 (specimens in M. Spinola collection, Torino). – *As Psammophila affinis*: Dahlbom, 1942a:8 (new combination, in review of Scandinavian aculeates), 1843:16 (in revision of Sphecidae and Pompilidae), 1845:432 (in key to world *Psammophila*); Eversmann, 1849:365 (Russia: Astrakhan, Kazan', Orenburg, and Saratov provinces); Wissmann, 1849:10 (Germany: Kingdom of Hannover: sandy habitats); Tischbein, 1850:7 (Germany: Rheinland-Pfalz: Herrstein in Fürstenthum Birkenfeld); Wesmael, 1852:83 (Belgium); Kirchner, 1854:311 (Czechoslovakia: Kaplitz in Budweiser District, now České Budějovice); Kawall, 1857:23 (Kurland, now Latvia); Ruthe and Stein, 1857:312 (Germany: Berlin area); A. Costa, 1858a:19 (Italy: Campania: Monti Partenii in Benevento Region), 1858b:14 (in revision of Sphecidae of Kingdom of Naples); Taschenberg, 1858:61 (in key to Sphecidae of Germany); Assmuss, 1859:606 (Russia: Moscow Governorate); Funk, 1859:59 (Germany: Bayern: Bamberg); Brischke, 1862:98 (Germany: Preussen Province, now Poland: Pomorze Region); Taschenberg, 1866:207 (in revision of Hymenoptera of Germany); A. Costa, 1867b:73 and 1867c:17 (in revision of Italian Sphecidae); Jaennicke, 1867:147 (Germany: Hessen: Frankfurt area); Kirchner, 1867:267 (in catalog of European Hymenoptera); Schenck, 1867a:357 (known from Germany: Sachsen); Jaennicke, 1868:9 (Germany: Hessen: Frankfurter Wald, Mombach); Taschenberg, 1869:429 (Germany: Halle); von Aichinger, 1870:321 (Austria: Tirol); Thomson, 1870:230

(in revision of Swedish wasps); Radoszkowski, 1871:195 (Himalayas: no specific locality); Schlechtendal, 1872:37 (Germany: Sachsen: Zwickau); Thomson, 1874:176 (in revision of Hymenoptera of Scandinavia); Beuthin, 1879:240 (Germany: Hamburg area); Yaroshevskiy, 1881:127 (Ukraine: Khar'kiv Oblast': Kupyansk); Gribodo and Emery, 1882:82 (Italy: Vetta del Catria); Friese, 1883:203 (Germany: Sachsen-Anhalt: Weissenfels); von Heyden, 1884:115 (Germany: Frankfurt am Main); Wüstnei, 1886:43 (Germany: Schleswig-Holstein: Flensburg); Brischke, 1888b:94 (Germany: Preussen Province, now Poland: Pomorze Region); C. Verhoeff, 1890a:334 (comparison with *Psammophila arenaria*, now *Podalonia luffii*); Assmuss, 1892:52 (Russia: earlier record from Moscow Governorate repeated); Borries, 1897:99 (nesting habits unknown); Lüderwaldt, 1897b:30 (Germany: Gollnow, now Poland: Pomorze Region: Goleniów); Strand, 1898b:92 (Norway); Honoré, 1919:268 (France: Seine-et-Oise: Bouray); N. Arnold, 1902:90 (Russia: Mohilev Province, now Belorussia); Schmiedeknecht, 1907:246 (in key to Hymenoptera of Central Europe); Dittrich, 1911b:26 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Geyer, 1912:378 (structure of compound eyes); Schirmer, 1912:168 (Germany: Berlin area); Birula, 1913:545 (Ukraine: Zhytomyr Oblast': Radomyshl'); Torka, 1913:35 (Germany: Provinz Posen, now Poland: Poznań Region); Noskiewicz, 1918:137 (Galicia, now western Ukraine: Lwów area: Hołosko Kleparów, Pohulanka, and Snopków); Kerenskiy, 1919:36 (Russia: Penza Governorate); O. Meyer, 1919:156 (Germany: Posen Province, now Poland: Poznań Region); A. Wagner, 1920:35 (Germany: Lower Elbe region); Forsius, 1921:120 (Finland); Strand, 1921:33 (Germany: Bayern: Kulmbach); Hedicke, 1922:272 (Germany: Brandenburg: Gross Machnower Weinberg); Jansson, 1922:23 (Sweden: Island of Öland); Strand, 1922:197 (Germany: Bayern: Kulmbach), 198 (Austria: Niederösterreich: Guntramsdorf); Alfken, 1924:425 (Germany: Island of Memmert); Bischoff, 1925:301 (Latvia: Wezkukkul; Poland: Białowieża and Grajewo area); Forsius, 1925:120 (Finland); Schütze, 1925:114 (Germany: Lausitz Region); K. Strohm, 1925:212 (Germany: Baden-Württemberg: Heidelberg); Bouwman, 1926:280 (in list of Sphecidae of Netherlands); Friese, 1926:169 (in key to Sphecidae of Central Europe, short morphological and biological characteristics); Hellén, 1926:93 (recorded from Finland); K. Strohm, 1926:74 (reference to Leininger, 1922); Bouwman, 1927:114 (in revision of Sphecidae of Netherlands); Schmiedeknecht, 1930:707 (in keys to Hymenoptera of North and Central Europe); Bondroit, 1932:33 (Belgium: Campine, Mont-Saint-Guibert); Guiglia, 1932b:99 (Libya: Fezzan: Brak); Minkiewicz, 1933:107 (nesting habits); Strohm, 1933:338 (Germany: Baden: Württemberg: Kaiserstuhl); Bischoff, 1935:259 (Kashmir); Forsius *in* Forsius and Hellén, 1935:12 (in checklist of Hymenoptera of Finland); Minkiewicz, 1935:213 (Poland: Piaski-Gardzienice at 51°05'N 22°50'E); Zimmermann, 1935:282 (Germany: Island of Sylt: Kampen); Crèvecoeur and Maréchal, 1936:249 (in catalog of Belgian Hymenoptera); Drogoszewski, 1936:130 (Poland: Łowicz); Minkiewicz, 1936:11 (male of inspecteur à la ronde type); Pattri, 1936:113 (Germany: Hessen: Darmstadt area, on sandy habitats); Roller, 1936:315 (Austria: loess cliffs at Bisamberg near Vienna); Goebel, 1937:47 (Poland: Poznań District: nine localities); Zavdil, Šustera, and Bat'a, 1937:214 (in catalog of Sphecidae of Czechoslovakia); Poll, 1938 (Belgium: Campthout); Soenen, 1938:312 (Belgium: Torgny); A. Wagner, 1938a:123 (north-western Germany); Maréchal, 1939:341 (Belgium: Eben and Lanaye); Leclercq, 1941b:8 (Belgium: Liège area); Paul, 1941:48 (Germany: Pommern: Stettin area, now Poland: Województwo Zachodniopomorskie: Szczecin area); Benno, 1943:68 (Netherlands); Šnoflák, 1944a:144 (Czech Republic: serpentine steppe near Mohelno); Aerts, 1950a:51 (Germany: Nordrhein-Westfalen: Rheidter Wertchens near Köln); Szulczewski, 1950:109 (Poland: Wielkopolski National Park 15 km south of Poznań); Diederichs, 1953:411 (prey carrying and nest construction); Głowacki, 1953:521 (Poland: Podkowa Leśna near Warszawa); Móczár, 1953:309 (Hungary); Tjeder, 1954:68 (Sweden: eastern Skåne: Simrishamn, Ystad); Teschner, 1955:57 (Germany: Nordrhein-Westfalen: Hohe Ward near Münster); Vogrin, 1955:31 (Yugoslavia); Lundblad, 1958:48 (Sweden: Gotland); Hamann, 1960:197 (Austria: Oberösterreich: Mönchgraben at 48°13'N 14°21'E); Hüsing and Jäger, 1964:192 (Germany: Sachsen-Anhalt: Nietleben near Halle); Plavil'shchikov, 1964:122 (Russia: *Mordovian State Nature Reserve*); Benedek, 1979:227 (Hungary: Bakony Hills); Pádr *in* Šedivý, 1989a:166 (in checklist of Czechoslovakian Sphecidae). – *As Sphex affinis*: Bischoff, 1931:8 (new combination, Spain); Palmer and Stelfox, 1931:130 (Ireland: eastern side from Wexford Harbor to Newcastle in Wicklow County, nesting habits); Stelfox, 1933:51 (Ireland); Valkeila, 1962b:67 (southwestern Finland). – *As Podalonia affinis*: Guichard, 1938:72 (new combination, Great Britain: Norfolk coast); Schneid, 1941:1050 (Germany: Bayern: Bamberg area); J. Perkins, 1942:197 (Sweden: Skåne: Kivik); Spooner, 1943:71 (Great Britain: probably Liverpool District, collected ca 1840); Balthasar, 1948:144 (Slovakia: Kovačov, Parkan);

Zavadil in Zavadil and Šnoflák, 1948:168 (in key to Sphecidae of Czechoslovakia); Cavro, 1950:31 (France: Département du Nord); Graham, 1950a:37 (Great Britain: Lincolnshire: Woodhall Spa); Guiglia, 1953b:11 (Italy: Lucania-Calabria: Serra del Prete); Bischoff and Stadler, 1954:126 (Germany: Bayern: Romberg); Kjellander, 1954b:247 (Sweden); Valkeila, 1954:87 (Finland: Lappeenranta); Aerts, 1955:65 (Germany: Rheinland); Leclercq, 1955h:69 (bibliographic references); Benno, 1958b:10 (in review of Dutch Sphecidae); Olberg, 1959:312 (photograph of female carrying prey and of caterpillar prey), 313 and 316-318 (photograph of females digging nests), 319 (photograph of female entering prey into nest and of female closing nest), 321 (photograph of female closing nest and of caterpillar prey with wasp's egg); Teschner, 1959:417 (feeding), 427 (nesting sites), 431 (nest structure), 436 (nest closure), 441 (nest number and location), 446 (preying on caterpillars of *Agrotis*), 447 (prey paralyzing), 459 (entering prey into nest); Wolf, 1959b:228 (Germany: Nassau); Hoop, 1961:66 (Germany: Schleswig-Holstein: Ihlkate, Levensau); Grandi, 1962:97 (Italy); Wengris, 1962:203 (Lithuania: Vilnius area); Felton, 1963:177 (Great Britain: Kent County); Hoop, 1963b:8 (Germany: Schleswig-Holstein: Lehmrade); Babiy, 1964:116 (Austria: Land Salzburg); Diniz, 1965:3 (Portugal: Aljustrel, Coimbra, Mira); Fæster, 1965:192 (Denmark: Hansted Nature Reserve); Roberti, Frilli, and Pizzaghi, 1965:109 (Italy: Emilia-Romagna: Piacenza, Pescarolo in Cremona Province); Bonelli, 1966c:217 (Italy: Trentino-Alto Adige: Cavalese, Castello di Fiemme, Piazzòl); Benno, 1967:33 (in checklist of Sphecidae of Netherlands); J. Heinrich, 1967:70 (Germany: Bayern: Unterfranken District); Niedl and Deneš, 1967:85 (Czech Republic: Třeboň area); Benedek, 1969a:83 (Hungary: marshy meadow); Lefeber, 1969c:232 (Netherlands: Sint-Pietersberg = Montagne Saint Pierre); Lefeber and Petit, 1970:130 (Belgium: Plombières); Oehlke, 1970:675 (Democratic Germany); Dathe, 1971:234 (Germany: Berlin Zoological Garden; phenology); Hoop, 1970:61 (Germany: Schleswig-Holstein: Bottsand, Hochwacht, Weißenhaus, Wendtorfer sluice); Bonelli, 1971:70 (nesting habits); Dathe, 1971:237 (Germany: Berlin); Lefeber, 1971a:17 (Belgium: Plombières); Balthasar, 1972:433 (in Sphecid Fauna of Czechoslovakia); Olberg, 1972:60 (photograph of female); Kazenas, 1972b:106 (Kazakhstan); Niedl and Deneš, 1972:153 (Czech Republic: Třeboň area); Oehlke, 1972:135 (Germany: Island of Hiddensee); Simon Thomas, 1972:175 (France: Gironde); Kazenas, 1974b:111 (feeding on flowers of *Spiraea hypericifolia* L., Rosaceae, in Kazakhstan), 112 (feeding on flowers of *Primula* sp., Primulaceae, in Kazakhstan); Burn, 1975:144 (Great Britain: Yorkshire: Doncaster District); Lomholdt, 1975c:73 (in Sphecid Fauna of Fennoscandia and Denmark); R. 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ley); Radović, 1985:64 (sting apparatus analyzed); Westrich and Schmidt, 1985b:111 (Germany: endangered in Baden Württemberg); Gayubo, 1986b:36 (Spain: Andalucía); Islamov, 1986:515 (Uzbekistan: Tashkent Oblast'); Józán, 1986:367 (Kiskunság National Park); Nemkov, 1986:92 (Russia: Irkutsk Oblast'); Gayubo and Tormos, 1986a:9 (Spain: Castellón de la Plana), 1986b:4 (Spain: Valencia); Skibińska, 1986b:153 (Poland: suburbs of Warszawa); Vikberg, 1986b:74 (Finland); Riemann, 1987b:44 (Germany: Niedersachsen: Nature Reserve Voßberge); Schmidt and Westrich, 1987:357 (Germany: Mainz area); Chevin, 1988:14 (France: La Manche Department); Dollfuss, 1988:8, 20 (Austria: Bisamberg near Vienna; Niederösterreich: Oberweiden); Guichard, 1988a:126 (Arabian Peninsula); Haeseler, 1988:211 (Germany: Friesian Islands); Karsai, 1988:99 (Hungary: Kiskunság National Park); Riemann, 1988:223 (Germany: Bremen area); Wolf, 1988b:139 (Germany: Nordrhein-Westfalen); Archer, 1989b:232 (Great Britain: Suffolk); Jacobs, 1989:4 (Germany: Mecklenburg-Vorpommern); Józán, 1989:100 (Hungary: Tihany Nature Reserve); Gayubo, Asís, and Tormos, 1990a:10 (Spain); Jacobs and Oehlke, 1990:133 (new records from Democratic Germany); Pagliano, 1990:62 (in catalog of Italian Sphecidae); Schwammberger and Priesner, 1990:532 (Austria: Kärnten); von der Heide and Witt, 1990:64 (Germany: Niedersachsen); Day, 1991:xviii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:30 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:395 (Italy); Guichard, 1991a:338 (Jordan); Józán, 1991:602 (Hungary: Bátorliget Nature Reserve); Kowalczyk, 1991a:89, 93, 96, 99, 101 (Poland: Łódź), 1991b:119 (Poland: Augustów Forest); Kuhlmann et al., 1991:92 (Germany: Senne Region); Budrys, 1992:22 (in list of Sphecidae of Lithuania); Haeseler, 1992:355 (overwintering as adults); Hamon, Tussac, and Fonfria, 1992:409, 411 (in key to French Ammophilini), 413 (distribution in France); K. 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Scholz and Liebig, 2013:26 (Germany: Sachsen: in list of Sphecidae *sensu lato*); Shlyakhtenok, 2013:134 (in annotated catalog of aculeate wasps of Belorussia); Vieira, Oliveira, Brewster, and Gayubo, 2013:15 (Portugal: Douro International Natural Park); Wiśniowski and Piotrowski, 2013:20 (Poland: Poleski National Park); Wiśniowski and Szczepko, 2013:22 (Poland: Kampinos National Park near Warszawa); Danilov, 2014a:425 (Russia: Siberia: many records), 2014b:516, 518 (in key to Sphecidae s.s. of Siberia); Ebrahimi, 2014:10 (Iran: Ardebil: Meshgin-Shahr: Sabalān); Flügel, 2014:255 (Brandenburg: Hangelsberger Heide); U. Frommer, 2014:28 (Germany: Hessen: Lorch); Hellqvist, Abenius, and Norén, 2014:90 (in catalog of Ampulicidae, Sphecidae, and Crabronidae of Sweden, by provinces); Kazenas, 2014a:132 (Kazakhstan: Karatau Mountain Range); J.-K. Kim, 2014:418 (in catalog of Sphecidae *sensu lato* of Korean Peninsula); Kim, Yeo, and Kim, 2014:281 (in revision of Sphecidae *sensu stricto* of South Korea); Mokrousov and Vafin, 2014:54 (Russia: Republic of Tatarstan); Yildirim, 2014:30 (Turkey: distribution by biogeographic provinces, as *affinis affinis*); Archer, 2015:203 (Great

- Britain: English coastal sand dunes); Dollfuss, 2015b:437 (locality records from Czech Republic and Mongolia); Field, Shreeves, Kennedy, Brace, and Gilbert, 2015:1899 (sex-biased parental care and sexual size dimorphism); Koçak and Kemal, 2015:278 (in checklist of Hymenoptera of Turkey); Saure, 2015:12 (Germany: Berlin-Lichterfelde); Shorenko, 2015:313 (in list of Sphecidae *sensu lato* of Crimea); Voigt, 2015:70 (Germany: Schleswig-Holstein: Sorgwohld area); Else, Bolton, and Broad, 2016:50 (in checklist of Aculeata of Great Britain and Ireland: England, Wales); Gülmez and Dizer, 2016:60 (Turkey: Tokat Province); Levărdă and Matache, 2016:40 (in catalog of Sphecidae s.s. of Romania); Mokrousov and Popov, 2016:561 (Russia: Krasnodarskiy Krai); Reemer and Peeters, 2016:10 (Netherlands: Hulshorsterzand); A. Scholz, 2016:71 (Germany: Sachsen: Kleinraschützer Heide); U. Sörensen, 2016:427 (Germany: Schleswig-Holstein: der Ochsenweg south of Leck); Stolle and Saure, 2016:927 (Germany: in list of Sphecidae *sensu lato* of Sachsen-Anhalt); Wang, Q. Li, and Ma, 2016:448, 449 (in key to *Podalonia* of China); Wiśniowski, 2016:126 (Poland: Ojców National Park); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:8 (Turkey: Bayburt: Kopdağı); Danilov, 2017b:213 (in catalog of Sphecidae s.s. of Russia); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:19 (Iran: known from Ardabil, Khorasan-e Razavi, Khuzestan, and Mazandaran provinces); Magdalou, 2017:16 (France: Pyrénées-Orientales: Réserves Naturelles Catalanes: Julols, Vallée d'Eyne); Shorenko, 2017:76 (in Crimea collected in June through September); Twerd, Krzyżyński, Waldon-Rudziońek, and Olszewski, 2017:7 (Poland: Inowrocław and Janikowo: nesting in postindustrial soda ash dumping sites); Jacobs and Liebig, 2018:135 (Russia: Irkutsk Oblast': Bol'shoye Goloustnoye); Shorenko, 2018:126 (Crimea, including localities, habitats, and number of specimens); Carminati, Mora, and Cretin, 2019:28 (France: in list of Sphecidae *sensu lato* of Franche-Comté); Gülmez, 2019:3 (Turkey: Ankara and Tokat provinces: no specific localities); Olszewski and Kowalczyk, 2019:113 (northern Poland: Pomorze Gdańskie = Gdańsk Pomerania); Ruchin and Antropov, 2019a:13220 (Russia: Mordovia State Nature Reserve); Bitsch, Barbier, and Jacobs *in* Bitsch, Barbier, Gayubo, Jacobs, Leclercq, and Schmidt, 2020:106 (in Sphecid Fauna of Europe); Danilov, 2020:318 (specimens from China, Kazakhstan, Kyrgyzstan, Mongolia, Tajikistan, and Russia: Siberia and Primorskiy Krai in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Field, Gonzalez-Voyer, and Bolton, 2020:7 (evolution of parental care); Gadallah, 2020d:81 (in list of aculeate wasps of Arabian Peninsula); Kejval, Blažej, and Erhart, 2020:119 (western Czech Republic); Shorenko, 2020:47 (Crimea: Karadag Nature Reserve); Saure, 2020:276 (Germany: Sachsen-Anhalt: sand dunes); Shorenko, 2020:47 (Crimea: Karadag Nature Reserve); Cross, Baldock, and Wood, 2021:15 (in list of Sphecidae *sensu lato* of Portugal); Olszewski, Wiśniowski, and Ljubomirov, 2021:103 (in commented list of Sphecidae *sensu lato* of Poland); Ostrovsky, 2021:55 (*Podalonia affinis* parasitized by strepsipteran *Paraxenos sphecidarum* in Belorussia); Saure, 2021:81 (Germany: Brandenburg: Nature Reserve Ferbitzer Bruch near Potsdam); Antropov and Valuyev, 2022:9 (Russia: Bashkir Republic: Idel'bayevo-1); Embergenov, Élmurodova, Amirov and Kimyonazarov, 2022:47 (Uzbekistan: Surkhondarya Province: Zharkurgon District); Kaplan and Yildirim, 2023:1692 (in checklist of Sphecidae *sensu lato* of Turkey); Kochetkov, 2023:190 (Russia: Amur Oblast': Khingan Nature Reserve).
- Ammophila ariasi* Mercet, 1906b:187, ♀, ♂. Syntypes: Spain: Madrid Province: El Pardo and Madrid (MNCN). Synonymized with *Ammophila affinis* by Kohl, 1906:293. – Dusmet y Alonso, 1935:53 (Spain: Madrid: El Prado). – **As *Ammophila affinis* var. *ariasi***: Ceballos, 1956:359 (new status, in catalog of Hymenoptera of Spain).
- Ammophila nigriventris* Gussakovskij, 1934a:5, ♀. Syntypes: ♀, China: southern Gansu: no specific locality (Stockholm). Synonymized with *Podalonia affinis* by Dollfuss, 2010b:1249. – Hua, 2006:275 (in list of Chinese insects, geographic distribution). – **As *Podalonia nigriventris***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Danilov, 2016:350 (one syntype preserved in Zoological Institute, Sankt Petersburg, Russia).
- As *Sphex lutaria* Fabricius (which actually is a *Mimesa*): Panzer, 1806:124 (in critical review of his earlier work); Jurine, 1807:128 (listed); Vander Linden, 1827:357 (as synonym of *Ammophila affinis*); R. Turner, 1918a:88 (Tibet); Stelfox, 1927:280 (Ireland: list of localities); Palmer, 1942:25 (Ireland: Wicklow County: Newcastle; nesting and hunting behavior). – **As *Pepsis lutaria***: Dahlbom, 1845:XX (specimens in collection Fabricius are *Psammophila affinis*). – **As *Ammophila lutaria***: F. Smith, 1851c:17 (new combination, Great Britain: Sussex: Little Hampton), 1853:62 (in checklist of British Hymenoptera), 1856:208 (new combination, in catalog of Hymenoptera in British Museum), 1857d:40 (Great Britain: Kent: Deal), 1858c:83 (in review of British Aculeata, redescription), 1871:9 (in catalog of British Aculeata); J.Ch. Bradley, 1928:1012 (in

catalog of New York Sphecidae); F. Smith, 1871b:9 (in catalog of Hymenoptera in British Museum); Dours, 1874:141 (in catalog of Hymenoptera of France); Frivaldszky, 1876:354 (Hungary: Ulma, now Romania: Caraş-Severin or Timiş District); Girard, 1879:968 (morphology and distribution); E. Saunders, 1880:249 (in revision of British Aculeata), 1883b:87 (Great Britain: Island of Hayling); Harwood, 1884:211 (England: Essex: Colchester area); Ed. André, 1886:80 (in revision of Sphecidae of Europe and Algeria); Radoszkowski, 1887b:91 (in list of Transcaspian Hymenoptera); Ed. André, 1888:3* (bibliographic references); Kohl, 1889a:21 (recognition: has two teeth on each claw); F. Morawitz, 1893b:408 (Tajikistan); Baldini, 1894:48 (Italy: Modena area); Medina, 1894a:259 (Spain: Pozuelo de Calatrava); E. Saunders, 1896:89 (in revision of British Aculeata); Flamary, 1898:38 (France: Saône-et-Loire: Mâcon area); Gardner, 1901:376 (Great Britain: Lancashire: Blackpool); E. Saunders, 1902b:143 (Great Britain: islands of Jersey, Guernsey, and Alderney); de Cobelli, 1903:104 (Italy: Province of Trentino); Luff, 1905a:385 (British Channel Islands: Island of Herm); Morley, 1909:304 (Great Britain: Isle of Wight); Zavattari, 1911:3 (Italy: Piemonte: Valle del Maira), 1915:2 (Italy: Abruzzi: Vallata del Sangro); Drenowski, 1936:247 (Bulgaria); Yasumatsu, 1942c:114 (China: Nei Mongol: Apaka at 44°N 114.96°E); Richards, 1935a:165 (type lost, identity of species uncertain). – *As Psammophila lutaria*: A. Costa, 1864b:111 (four specimens from France in Museo Zoologico di Napoli); Beletskiy, 1873:81 (Ukraine: vicinity of Khar'kov); Kohl, 1880:182 (Austria: Tirol, and Italy: Trentino–Alto Adige); Magretti, 1881:115 (Italy: Lombardia), 270 (in list of species discussed in this paper); Kohl, 1883e:674 (Switzerland); von Heyden, 1884:115 (Germany: Frankfurt am Main); Sickmann, 1885:181 (Germany: Niedersachsen: Wellingholthausen); Adlerz, 1901:172 (nesting habits). – *As Podalonia lutaria*: Cuní y Martorell, 1897:331 (Spain: Cataluña: villa de Calella).

ssp. concolor (Brullé)

Ammophila concolor Brullé, 1839:92, sex not stated. Holotype or syntypes: Canary Islands: no specific locality (MNHN?). – F. Smith, 1856:210 (in catalog of Hymenoptera in British Museum); Dalla Torre, 1897:398 (in catalog of world Hymenoptera). – *As Ammophila affinis concolor*: de Beaumont, 1954b:2 (new status), 1968a:254 (Canary Islands; citation); R. Bohart and Menke, 1976:143 (in checklist of world Sphecidae); Hohmann, La Roche, Ortega, and Barquín, 1993:201 (detailed locality records from Canary Islands); Lauterbach and Latsch-Lauterbach, 2004:31 (first records from Island of Gran Canaria: 2 km north of Playa del Aguila).

Ammophila nigra Brullé, 1839:92, sex not stated. Holotype of syntypes: Canary Islands: no specific locality (MNHN?). Synonymized with *Ammophila concolor* by Kohl, 1906. – F. Smith, 1856:210 (in catalog of Hymenoptera in British Museum); Dalla Torre, 1897:405 (in catalog of world Hymenoptera).

ssp. ulanbaatorensis (Tsuneki)

Ammophila affinis ulanbaatorensis Tsuneki, 1971k:155, ♂. Holotype: ♂, Mongolia: Ulan Baator (TMB). – Tsuneki, 1971m:3 (China: Nei Mongol: Apaka). – *As Podalonia affinis ulanbaatorensis*: R. Bohart and Menke, 1976:143 (new combination, in checklist of world Sphecidae); Wu and Zhou, 1996a:59 (in revision in Economic Insect Fauna of China); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Wang, Q. Li, and Ma, 2016:448, 449 (in key to *Podalonia* of China).

2. afghanica Balthasar

Podalonia afghanica Balthasar, 1957:193, ♀. Holotype: ♀, Afghanistan: Kabul River valley: Laghman (originally V. Balthasar coll., now NMPC). – R. Bohart and Menke, 1976:143 (in checklist of world Sphecidae); Dollfuss, 2010b:1244 (in key to Old World *Podalonia*), 1250 (bibliographic references, recognition characters, geographic distribution); Dunford, Turbyville, and Leavengood, 2014:10 (listed as medically important in Afghanistan). – *As Ammophila afghanica*: de Beaumont, 1970a:386 (new combination, Afghanistan; additional description).

3. albohirsuta (Tsuneki)

Ammophila albohirsuta Tsuneki, 1971k:153, ♂. Holotype: ♂, Mongolia: Bayanhongor Aymag: Tsagan Bogd ul (TMB). – *As Podalonia albohirsuta*: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Dollfuss, 2010a:542 (Mongolia: 130 km south of Bayanhongor at 45°03'N 100°59'E), 2010b:1249 (in key to Old World *Podalonia*), 1250 (bibliographic references, recognition characters, geographic distribution); Danilov, 2017a:555 (diagnosis, redescription).

tion, locality records from Kazakhstan and Mongolia, color photographs), 2020:318 (specimen from Kazakhstan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia).

4. *alpina* (Kohl)

Ammophila alpina Kohl, 1888b:729, ♀, ♂. Lectotype: ♀, originally Austria: Tirol: between Franzenshöhe and Stilsferjochhöhe, now Italy: Alto Adige: Passo di Stelvio and Giogo di Stelvio (NHMW), designated by Dollfuss, 2010b:1250. – F. Morawitz, 1893b:409 (Tajikistan: Skakh-sara in Yagnob River valley); Dalla Torre, 1897:395 (in catalog of world Hymenoptera); Mercet, 1906b:187 (Spain: Huesca Province); Kohl, 1906b:273 (in revision of Palearctic Ammophilini), 1912a:63 (Austria: Innsbruck area, and Radein, now Redagno in Trentino-Alto Adige Region of Italy); Dusmet y Alonso, 1915:86 (Spain: Aragón); Berland, 1923b:288 (France: locality records), 1925d:33 (in Sphecidae Fauna of France); Benoist, 1928:408 (France: Alpes-Maritimes, Basses-Alpes, Hautes-Alpes); Roth, 1928:178 (Morocco: Grand Atlas), 1929:168 (in revision of Spanish Ammophilini); Bischoff, 1930a:216 (Tajikistan: Pamir); Gussakovskij, 1930b:73 (Tajikistan: Pamir); Guiglia, 1932c:3 (Italy: Valle d'Aosta: Parco Nazionale del Gran Paradiso); Bernard, 1936a:35 (France: Hautes-Pyrénées: Pic de Néouvielle area); Giner Marí, 1943a:68 (in Sphecidae Fauna of Spain); Guiglia, 1944b:7 (Italy: Piemonte and Trentino); Carl and de Beaumont, 1947:67 (Switzerland: Graubünden = Grisons Canton: Swiss National Park); Nouvel and Ribaut, 1953:176 (France: Haute-Garonne: Port de Vénasque, Hautes-Pyrénées: Caunterets, Orédon.); Grandi, 1954:235 (Italy: Trento: Bolzano); Ceballos, 1956:359 (in catalog of Hymenoptera of Spain); de Beaumont, 1957b:130 (northern Iran), 1958c:202 (Swiss National Park); Čingovski, 1960:5 (Macedonia: Luboten, Yakupitsa); de Beaumont, 1962b:18 (Spain: Granada Province); Ceballos, 1964:86 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:27 (in Sphecidae Fauna of Switzerland), 1967a:264 (Turkey); Suárez, 1969:27 (Spain: Almería Province); Kofler, 1972:105 (Austria: eastern Tirol); Marion, 1978:85 (France: Alpes-Maritimes); Schedl, 1982:101 (Austria: Tirol: Ötztaler Alps); Delarze, 1992:67 (Switzerland: Valais: Les Folletères). – **As *Psammophila alpina***: Schmiedeknecht, 1907:246 (new combination, in key to Hymenoptera of Central Europe), 1930:707 (in keys to Hymenoptera of North and Central Europe); Franz, 1949:13 (Austria: Hohe Tauern); Atanassov, 1962:126 (Bulgaria: Petrich area). – **As *Podalonia alpina***: Zavadil in Zavadil and Šnoflák, 1948:169 (new combination, in key to Sphecidae of Czechoslovakia, not yet found in Czechoslovakia); Leclercq, 1955h:65 (bibliographic references); Grandi, 1962:58 (Italy: Col de Chécrouit in Mont Blanc massif), 97 (Italy: Monte Bianco); Bonelli, 1966c:217 (Italy: Trentino–Alto Adige: Alpe di Siusi, Val Cadino); Wolf, 1971:374 (Italy: Trentino–Alto Adige: Alpi Siusi); Balthasar, 1972:433 (in Sphecidae Fauna of Czechoslovakia: may be expected in the country); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Pagliano, 1980:111 (Italy: Valle d'Aosta); Dollfuss, 1983b:3 (in catalog of Sphecidae of Austria); Mingo and Gayubo, 1983:157 (Spain); Pagliano, 1984:366 (Italy), 1985:18 (Italy); Gayubo, 1986b:36 (Spain: Andalucía); Gayubo and Sanza, 1986:29 (Spain: Segovia Province); Dollfuss, 1989:11 (type material in NHMW); Pagliano, 1990:62 (in catalog of Italian Sphecidae); Schwammberger and Priesner, 1990:532 (Austria: Kärnten); Dollfuss, 1991:30 (in key to Sphecidae of North and Central Europe); Gusenleitner, 1991:645 (Austria: Kärnten: Koralpe); Gayubo, Borsato, and Osella, 1992:277 (Spain: Sierra Nevada); Gusenleitner, 1992:684 (Austria: Nordtirol); Hamon, Tussac, and Fonfria, 1992:409, 411 (in key to French Ammophilini), 413 (distribution in France); Negrisoló in Minelli, Ruffo, and La Posta, 1995b:2 (in catalog of Italian fauna); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:98 (in Sphecidae Fauna of Western Europe); Kazenas, 1998b:136 (in Sphecidae Fauna of Kazakhstan); Neumayer, Schwarz, and Bregant, 1999:225 (Austria: in checklist of Sphecidae of Land Kärnten); Esenbekova and Kazenas, 2000:11 (southeast Kazakhstan: 35 km south of Merke, 8 km south of Talgar); Kazenas, 2001b:16 (in checklist of Sphecidae of Kazakhstan and Central Asia); Kazenas and Esenbekova, 2001:133 (Kazakhstan: Almatinskiy Nature Reserve); Bieri, 2002:78 (Liechtenstein); Kazenas, 2002a:32 (geographic distribution, collecting localities in Kazakhstan); Hellrigl, 2004a:174 (Italy: Trentino-Alto Adige, as Südtirol: Vinschgau = Val Venosta: Sulden); Kazenas, 2004b:99 (Kazakhstan: western Tien Shan Mountains); Hermann, 2005:5 (first records from Germany: Bayern: Rappental south of Oberstorf); Kofler, 2005:165 (Austria: Tirol: Lienz District: Tessenberg Fronstadl Alm in Heinfels Common, Arntal Oberstaller Alm in Innervillgratten Common, Innerberg in Sankt-Jakob Common, and Oberleibnig Lebnitztal in Sankt-Johann Common); Pagliano and Negrisoló, 2005:73 (in Sphecidae Fauna of Italy); Jacobs, 2007:43, 44 (in key to Sphecidae of Germany); Kazenas, 2008a:98 (southeastern Kazakhstan: Levyi Talgar and Pravyi Talgar); Ljubomirov and Yild-

irim, 2008:43 (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); Belkheir, 2009:17 (France: Pyrénées-Orientales: commune d'Eyne); Baghirov, 2010:677 (first record from Russia: Altai Territories: village Kosh-Agach in Chuiskaya Steppe); Bitsch, 2010:107 (in supplement to vol. II of Faune de France, 1997: recent record from Germany reported); Danilov, 2010b:45 (distribution of disjunct Tethyan type); Dollfuss, 2010a:541 (locality records from China, Italy, Kyrgyzstan, Mongolia, Tajikistan), 2010b:1244, 1245, 1247 (in key to Old World *Podalonia*), 1250 (synonymy, recognition characters, geographic distribution); Schmid-Egger, 2010a:22 (in red list of Aculeata of Germany: extremely rare); Baghirov, 2011b:139 (Russia: Altai Republic: Kosh-Agach); Schmid-Egger, 2011a:43 (France: Parc National du Mercantour); Bitsch, Grouet, and Savina, 2013:292 (France: Pyrénées-Orientales: col de Puymorens); Dollfuss, 2013b:587 (locality records from Italy, Kyrgyzstan, and Turkey); Danilov, 2014a:425 (Russia: Siberia: Altai Republic, Tyva), 2014b:517, 518 (in key to Sphecidae s.s. of Siberia); Dunford, Turbyville, and Leavengood, 2014:10 (listed as medically important in Afghanistan); Yildirim, 2014:30 (Turkey: distribution by biogeographic provinces); Dollfuss, 2015b:437 (Spain: 27 km northeast of Ripoll at 42°24'N 02°16'E); Koçak and Kemal, 2015:278 (in checklist of Hymenoptera of Turkey); Wang, Q. Li, and Ma, 2016:448, 449 (in key to *Podalonia* of China); Danilov, 2017b:213 (in catalog of Sphecidae s.s. of Russia); Danilov and Mokrousov, 2017a:108 (Russia: Dagestan: near Kurush); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:19 (Iran: known from Semnan Province); Magdalou, 2017:16 (France: Pyrénées-Orientales: Réserves Naturelles Catalanes: Vallée d'Eyne); Jacobs and Liebig, 2018:135 (Russia: Buryat Republic: 30 km northwest of Mondy); Carminati, Mora, and Cretin, 2019:28 (France: in list of Sphecidae *sensu lato* of Franche-Comté); Bitsch, Barbier, and Jacobs *in* Bitsch, Barbier, Gayubo, Jacobs, Leclercq, and Schmidt, 2020:107 (in Sphecidae Fauna of Europe); Danilov, 2020:318 (specimens from Kyrgyzstan, Tajikistan, and Russia: Altai, Tyva in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Can and Gülmez, 2021b:310 (Turkey: Sivas: Gölova: Çobanlı); Kaplan and Yildirim, 2023:1692 (in checklist of Sphecidae *sensu lato* of Turkey).

Podalonia pseudocaucasica Balthasar, 1957b:194, ♀. Holotype: ♀, Afghanistan: Badakhshan Mountains: Shiva (originally V. Balthasar coll., now NMPC). Synonymized with *Podalonia alpina* by Dollfuss, 2010b:1250. – R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae).

5. *altaiensis* (Tsuneki)

Ammophila altaiensis Tsuneki, 1971k:152, ♂. Holotype: ♂, Mongolia: Hovd Aymag: Mongol Altai (TMB). – **As *Podalonia altaiensis***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Dollfuss, 2010b:1249 (in key to Old World *Podalonia*), 1251 (bibliographic references, recognition characters, geographic distribution), 2013b:587 (locality records from Mongolia); Danilov, 2014a:425 (Russia: Siberia: Tyva), 2014b:518 (in key to Sphecidae s.s. of Siberia), 2017b:213 (in catalog of Sphecidae s.s. of Russia).

6. *andrei* (F. Morawitz)

Ammophila andrei F. Morawitz, 1889:126, ♀ (as *Andréi*, incorrect original capitalization and diacritic mark). Lectotype: ♀, China: Qinghai: Donkyr = Huangyuan at 36°38'N 101°9'E (ZIN), designated by Danilov, 2017a:557. Paratypes: Buryatia Republic of Russia, China, Mongolia. – Dalla Torre, 1897:395 (in catalog of world Hymenoptera); Kohl, 1906b:280 (in revision of Palearctic Ammophilini); W. Schulz, 1906:192 (*Andréi* is the correct spelling); Gussakovskij, 1934a:4 (Mongolia, China: Kansu Province); Tsuneki, 1971k:150 (Mongolia). – **As *Podalonia andrei***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Wu and Zhou, 1996b:297 (China: Karakorum – Kunlun Mountains); Li and L. Yang, 2005:884 (China: Gansu: Quinling Range and South Mountains); Dollfuss, 2010a:542 (locality records from China and Mongolia), 2010b:1245, 1249 (in key to Old World *Podalonia*), 1251 (bibliographic references, recognition characters, geographic distribution); Danilov, 2014b:518 (in key to Sphecidae s.s. of Siberia, not yet found in Siberia); Danilov, 2016:336 (syntypes preserved in Zoological Institute, Sankt Petersburg, Russia); Wang, Ma, Zhang, Ch. Li, Ji, and Q. Li, 2018:485 (China: Shanxi: Lishan National Nature Reserve); Wang, Q. Li, and Ma, 2016:449 (in key to *Podalonia* of China); Danilov, 2017a:557 (diagnosis, redescription, description of ♂, color illustrations); Maharramov, Mokrousov, and Proshchalykin, 2020:45 (Azarbaijan: Nakchivan Autonomous Republic).

7. *arcuaticlypeata* Wang and Ma

Podalonia arcuaticlypeata Wang and Ma in Wang, Q. Li, and Ma, 2016:44, ♀. Holotype: ♀, China: Xinjiang: oil field of Cainan at 45°36'N 84°51'E (Entomological Museum of China Agricultural University, Beijing). – Wang, Q. Li, and Ma, 2016:448 (in key to *Podalonia* of China).

8. *argentifrons* (Cresson)

Ammophila argentifrons Cresson, 1865b:462, ♂. Lectotype: ♂, USA: no specific locality (ANSP), designated by Cresson, 1916:93. – Cresson, 1887:274 (in catalog of North American Hymenoptera); Cameron, 1888a:23 (Mexico); Ashmead, 1890:33 (in checklist of Hymenoptera of Colorado), 1900:308 (in checklist of Caribbean Hymenoptera); Snow, 1906:7 (Arizona: Oak Creek 20 mi. southwest of Flagstaff, Tucson). – **As *Psammophila argentifrons***: Ashmead, 1899d:354 (new combination, new combination, in checklist of North American Sphecidae). – **As *Podalonia argentifrons***: Fernald, 1927:26 (new combination, in revision of North American *Podalonia*); Murray, 1940:38 (in revision of North and Central American *Podalonia*); Strickland, 1947:128 (Canada: Alberta: Medicine Hat, Wainwright); Murray in Muesebeck, Krombein, and Townes, 1951:977 (in catalog of North American Hymenoptera); Hurd and Linsley, 1975:116 (California: Riverside County: Chiriaco Summit; on flowers of *Larrea tridentata* (De Candolle) Coville, Zygophyllaceae); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Kumar, Lavigne, Lloyd, and Pfadt, 1976:51 (USA: Colorado: Pawnee National Grassland); Krombein, 1979b:1587 (in catalog of North American Hymenoptera); O'Brien, 1983b:194 (nesting habits); Amarante, 2002:68 (in catalog of Neotropical Sphecidae); Miller, Pearce, and O'Neill, 2009:3 (known to be parasitized by *Paraxenos luctuosae* (Pierce), Strepsiptera); Ratzlaff, 2016:28 (Canada: British Columbia: from Krombein, 1979).

9. *argentipilis* (Provancher)

Pelopoëus argentipilis Provancher, 1887:256, ♀. Holotype: ♀, Canada: British Columbia: Vancouver (lost: Gahan and Rohwer, 1918:106). – **As *Sceliphron argentipile***: Dalla Torre, 1897:378 (new combination, in catalog of world Hymenoptera); B. Porter, 1926:21 (is not a *Sceliphron*, presumably a *Sphex*); Ashmead, 1899d:355 (new combination, in checklist of North American Sphecidae, as *argentispilus*). – **As *Podalonia argentipilis***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Krombein, 1979b:1587 (in catalog of North American Hymenoptera); Parks, 1988:38 (prey: caterpillar of *Vanessa* sp.); Amarante, 2002:68 (in catalog of Neotropical Sphecidae).

Ammophila morrisoni Cameron, 1888a:21, ♂. Holotype or syntypes: ♂, Mexico: northern Sonora: no specific locality (BMNH). Synonymized with *Podalonia argentipilis* by Krombein, 1958f:192. – Dalla Torre, 1897:405 (in catalog of world Hymenoptera); Ashmead, 1899d:354 (in checklist of North American Sphecidae); Melander, 1903:159 (in key to North American Ammophilini), 162 (bibliographic references, geographic distribution); Fernald, 1927:17 (as tentative synonym of *Podalonia nicholi*), 38 (comments on holotype). – **As *Podalonia morrisoni***: Murray, 1940:21 (new combination, in revision of North and Central American *Podalonia*); Murray in Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera).

Psammophila nicholi Carter, 1924:366, ♀. Holotype: ♀, USA: Arizona: Tucson (Univ. Minnesota). Synonymized with *Podalonia morrisoni* by Murray, 1940:21. – Fernald, 1927:17 (in revision of North American *Podalonia*).

10. *asiatica* Danilov

As *Ammophila andrei* (♂ only), corrected by Danilov, 2017a:558: Kohl, 1906b:280 (in revision of Palearctic *Ammophilini*); Gussakovskij, 1934a:4 (Mongolia, China: Kansu Province); Tsuneki, 1971:150 (Mongolia).

Podalonia asiatica Danilov, 2017a:558, ♂. Holotype: ♂, Russia: Tyva Republic: Tes-Khemsy District: near Ak-Erik at 50°31'N 94°36'E (Institute of Systematics and Ecology of Animals, Russian Academy of Sciences, Siberian Branch, Novosibirsk). – Danilov, 2017b:213 (in catalog of Sphecidae s.s. of Russia); Jacobs and Liebig, 2018:135 (Russia: Irkutsk Oblast': Sarma); Danilov, 2020:318 (specimens from Russia: Siberia, and Tajikistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia).

11. *aspera* (Christ)

Sphex asper Christ, 1791:292, sex not stated (as *aspera*, incorrect original termination). Holotype of syntypes: origin unknown (lost). – Dalla Torre, 1897:415 (in catalog of world Hymenoptera). – **As *Podalonia aspera***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae).

12. *atriceps* (F. Smith)

Ammophila atriceps F. Smith, 1856:220, ♀, ♂. Lectotype: ♂, Mexico: no specific locality (BMNH), designated by Menke in R. Bohart and Menke, 1976:144. – Cresson, 1863:318 (in catalog of North American Hymenoptera); Cameron, 1888a:16 (Mexico); Dalla Torre, 1897:395 (in catalog of world Hymenoptera); Ashmead, 1899d:354 (in checklist of North American Sphecidae); Melander, 1903:162 (in key to North American *Ammophilini*), 163 (bibliographic references, geographic distribution). – **As *Podalonia communis atriceps***: R. Bohart and Menke, 1976:144 (new status, in checklist of world Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae). – **As *Podalonia atriceps***: Fernald, 1927:30 (new combination, as synonym of *Podalonia violaceipennis*); Menke, 1996:191 (in key to *Ammophilini* of Costa Rica), 197 (reverted to full species status, in revision of *Ammophilini* of Costa Rica); Amarante, 2002:68 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae); Dollfuss, 2010a:542 (locality records from Colorado and Washington); Ratzlaff, 2016:28 (Canada: British Columbia: from Spencer and Wellington, 1948).

Ammophila communis Cresson, 1865b:462, ♂. Lectotype: ♂, USA: Colorado Territory: no specific locality (ANSP), designated by Cresson, 1916:94. Synonymized with *Podalonia violaceipennis* by Fernald, 1927:30, with *Podalonia luctuosa* by Murray, 1940:23, and with *Podalonia atriceps* by Menke, 1996:197. – Cresson, 1876:208 (Colorado: Clear Creek, Empire, Plains; Utah: Spring Lake); Provancher, 1883b:614 (in revision of Canadian Hymenoptera); Taylor, 1884:80 (Canada: British Columbia: Island of Vancouver); Cresson, 1887:274 (in catalog of North American Hymenoptera); Ashmead, 1890:34 (in checklist of Hymenoptera of Colorado); Snow, 1906:133 (Arizona: Oak Creek 20 mi. southwest of Flagstaff). – **As *Psammophila communis***: Ashmead, 1899d:354 (new combination, in checklist of North American Sphecidae); nec Harrington, 1902:224 (= *Podalonia luctuosa* and *P. robusta*). – **As *Sphex communis***: nec Faull, 1913:384 (new combination = *Podalonia luctuosa* and *P. robusta*). – **As *Podalonia communis***: Murray, 1940:26 (new combination, in revision of North and Central American *Podalonia*); Strickland, 1947:128 (Canada: Alberta); Spencer and Wellington, 1948:10 (British Columbia); Murray in Muesebeck, Krombein, and Townes, 1951:977 (in catalog of North American Hymenoptera); Evans, 1970:484 (nesting habits); Stainer, 1959:66 (Canada: first record from British Columbia: Ladysmith); Horning and Barr, 1970:104 (USA: Idaho: Craters of the Moon National Monument); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Krombein, 1979b:1587 (in catalog of North American Hymenoptera); Rust, Hanks and Bechtel, 1983:406 (Nevada: Churchill County: Sand Mountain); Rust, Menke, and Miller, 1985:46 (California: Channel Islands); S. Frommer, 1988:95 (California: Riverside County: Deep Canyon); Spofford, Kurczewski, and Downes, 1989:256 (summary of previous records for nest parasites *Hilarella hilarella* (Zetterstedt) and *Metopia argyrocephala* (Meigen), miltogrammine flies); Hanson and Menke, 1995:638 (known from Costa Rica); Blades and Maier, 1996:71 (Canada: British Columbia: Osoyoos - Mount Kobau area at 49°05'N 119°40'W); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae).

- ? *Ammophila piceiventris* Cameron, 1888a:22, ♀. Lectotype: ♀, Guatemala: Quezaltenango (BMNH), designated by Menke, 1996e:197 (as holotype, Article 74.6). Tentatively synonymized with *Podalonia luctuosa* by Fernald, 1927:22 and with *Podalonia atriceps* by Menke, 1996e:197. – Dalla Torre, 1897:406 (in catalog of world Hymenoptera); Melander, 1903:158 (in key to North American Ammophilini), 162 (bibliographic references, geographic distribution). – **As *Podalonia piceiventris***: Fernald, 1927:39 (new combination, comments on type); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae).
- Ammophila alpestris* Cameron, 1888a:21, ♂. Syntypes: Panama: Volcán de Chiriquí (BMNH), one specimen treated as holotype by Murray, 1940:30. Synonymized with *Ammophila communis* by Menke in R. Bohart and Menke, 1976:144. – Dalla Torre, 1897:395 (in catalog of world Hymenoptera); Ashmead, 1899d:354 (in checklist of North American Sphecidae); Melander, 1903:159 (in key to North American Ammophilini), 162 (bibliographic references, geographic distribution). – **As *Podalonia communis alpestris***: Murray, 1940:29 (new combination, new status, in revision of North and Central American *Podalonia*).
- Podalonia communis intermedia* Murray, 1940:29, ♂. Holotype: ♂, Mexico: Distrito Federal (USNM). Synonymized with *Podalonia atriceps* by Menke, 1996e:197. – R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae).

13. *atrocyanea* (Eversmann)

- Psammophila atrocyanea* Eversmann, 1849:365, sex not stated. Holotype or syntypes: sex unknown, Russia: Orenburg province: no specific locality (ZIN). – **As *Ammophila atrocyanea***: Ed. André, 1886:79 (new combination, in revision of Sphecidae of Europe and Algeria), 1888:5* (bibliographic references); Dalla Torre, 1897:395 (in catalog of world Hymenoptera); Kohl, 1906b:270 (in revision of Palearctic Ammophilini); nec Morice 1911:72 (= *Podalonia atrocyanea masinissa*); Storey, 1916:106 (Egypt: El Alag, Maadi, Mariut); Roth, 1928:170 (in revision of North African Ammophilini); Gussakovskij, 1938:14 (Mongolia); nec Giner Marí, 1945b:361 (= *Podalonia atrocyanea massinissa*); Alfieri, 1946:112 (in revision of Egyptian *Ammophila*); Kazenas, 1964:44 (Kazakhstan: Mangyshlak Peninsula; hunting precedes nest excavation, preying on caterpillar; prey temporarily stored during next excavation stolen by conspecific female), 1968b:342 (Kazakhstan: Alma Ata and Gur'yev, now Atyraū, oblast's); Tsuneki, 1968i:53 (nesting habits), 1971m:5 (China: Nei Mongol: Apaka); Pulawski, 1978:180 (in key to Sphecidae of European part of USSR). – **As *Podalonia atrocyanea***: Leclercq, 1955h:64 (new combination, bibliographic references); Kazenas, 1972b:106 (Kazakhstan: Ili in Alma Ata Oblast'); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Kazenas, 1978b:39 (in key to Sphecidae of Kazakhstan and Central Asia); Nemkov, 1990c:79 (Russia: Chita Oblast'); Roche and Zalut, 1994:114 (Egypt: Sinai Peninsula); Kazenas in Nemkov, Kazenas, Budrys, and Antropov, 1995:385 (in key to Sphecidae of Russian Far East); Kazenas, 1998b:137 (in Sphecid Fauna of Kazakhstan), 2001b:16 (in checklist of Sphecidae of Kazakhstan and Central Asia), 93 (review of known biology), 2002a:32 (geographic distribution, collecting localities in Kazakhstan), 2004d:27 (Kazakhstan: northern Caspian region); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Kazenas, 2008a:98 (southeastern Kazakhstan: Ili River valley, west shore of Lake Balkhash 20 km north of Myn-Aral); Nemkov, 2008b:17 (in catalog of Sphecidae of Asiatic Russia); Danilov, 2009:55 (Russia: Western Siberia: Kulundinskaya Steppe); Nemkov, 2009b:47 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Danilov, 2010b:44 (distribution of Tethyan type); Dollfuss, 2010a:542 (locality records from Kazakhstan, Mongolia, Tunisia, and Turkmenistan), 2010b:1244, 1247 (in key to Old World *Podalonia*), 1252 (bibliographic references, recognition characters, geographic distribution); Rudoiskatel', 2010:147 (Russia: southern Ural Mountains); Danilov, 2011a:189 (Russia: Siberia: Khakasiya: Sayanskiy Pass), 2011b:202 (Russia: Zabaikal'skiy Kray: Daur'skiy Nature Reserve); Dollfuss, 2013b:587 (locality records from Mongolia); Danilov, 2014a:425 (Russia: Siberia: Khakasiya, Tyva), 2014b:517, 518 (in key to Sphecidae s.s. of Siberia); Dollfuss, 2015b:437 (Jordan: Al Karak); Danilov, 2016:336 (holotype preserved in Zoological Institute, Sankt Petersburg, Russia); Wang, Q. Li, and Ma, 2016:448, 449 (in key to *Podalonia* of China); Danilov, 2017b:213 (in catalog of Sphecidae s.s. of Russia); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:309 (in list of Tunisian Sphecidae *sensu stricto*) Danilov, 2020:318 (specimens from Mongolia and Russia: Siberia in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Embergenov, Élmurodova, Amirov and Kimyonazarov, 2022:48 (Uzbekistan: Tashkent area).

As *Podalonia chalybea*: Tsuneki, 1942:328-332 (China: Nei Mongol; nesting habits) and Yasumatsu, 1942c:104 (China: Nei Mongol: Apaka at 44°N 114.96°E), corrected to *Ammophila atrocyanea* by Tsuneki, 1971m:5.

? *Ammophila psilocera* Kohl, 1888a:153, ♂. Syntypes: ♂, Uzbekistan: Bukhara (NHMW). – Dalla Torre, 1897:406 (in catalog of world Hymenoptera). – As tentative synonym of *Podalonia atrocyanea*: R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae).

Psammophila masinissa Morice, 1900a:65, ♀. Syntypes: ♀, Algeria: Biskra (OXUM). Synonymized with *Podalonia atrocyanea* by Dollfuss, 2010b:1252. – de Beaumont, 1960b:224 (Libya; diagnostic characters and taxonomic problems). – **As *Ammophila atrocyanea* var. *masinissa***: Roth, 1928:171 (new combination, new status, in revision of North African Ammophilini); Giner Marí, 1947:18 (Morocco: Western Sahara, as *massilissa*); de Beaumont and Bytinski-Salz, 1955:33 (Israel). – **As *Ammophila atrocyanea masinissa***: de Beaumont, 1956a:172 (new status, Libya). – **As *Podalonia masinissa***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Roche and Zalut, 1994:114 (Egypt: Sinai Peninsula, as *massinissa*). – **As *Podalonia atrocyanea masinissa***: Roche, 2007a:18 (in checklist of Egyptian Sphecidae), 2007b:2 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

As *Ammophila atrocyanea*: Morice, 1911:72 (Algeria: Biskra); Giner Marí, 1945b:361 (Morocco: Western Sahara: Bu Kerch).

14. *bicellularis* Wang and Ma

Podalonia bicellularis Wang and Ma in Wang, Q. Li, and Ma, 2016:445, ♂. Holotype: ♂, China: Qinghai, Yushu County at 32°55'N, 96°39'E (Zhejiang University, Hangzhou, Zhejiang). – Wang, Q. Li, and Ma, 2016:449 (in key to *Podalonia* of China).

15. *caerulea* Murray

Podalonia caerulea Murray, 1940:67, ♂. Holotype: ♂, USA: California: Siskiyou County: no specific locality (USNM). – Murray in Muesebeck, Krombein, and Townes, 1951:977 (in catalog of North American Hymenoptera); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Krombein, 1979b:1587 (in catalog of North American Hymenoptera).

16. *canescens* (Dahlbom)

Psammophila canescens Dahlbom, 1843:21, ♂. Holotype or syntypes: ♂, South Africa: Western Cape Province: Cape Town area (Lund). – Dahlbom, 1845:432 (in key to world *Psammophila*). – **As *Ammophila canescens***: F. Smith, 1856:211 (new combination, in catalog of Hymenoptera in British Museum); de Beaumont, 1967b:503 (South Africa). – **As *Podalonia canescens***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Gess, 1981:19 (South Africa: Hilton Farm 18 km west-northwest of Grahamstown; nesting in friable soils), 40 (method of nest digging), 41 (wing vibrating during nest excavation), 46 (hunting precedes nest excavation); Whitehead and Steiner, 1991:120 (South Africa: male pseudocopulation with *Disa atricapilla* (Harv. ex Lindl.) Bolus, Orchidaceae, in Wellington area); Gess and Gess, 1994:100 (visiting flowers of *Aspalathus spinescens*); Steiner, Whitehead, and Johnson, 1994:189 (main pollinator of the sexually deceptive orchid *Disa atricapillata* (Harv. ex.) Bolus); S. Gess, 1996:269, 274, 276, 277, 280, 283, 287, 288, 293, 296, 301, 303 (floral records); S. Gess and F. Gess, 2003:98 (Namibia, Lesoto, South Africa: visiting flowers of Aizoaceae: *Brownanthus kuntzei* (Schinz) Ohlenf. and Bittrich, *Prenia pallens* (Ait.) N.E. Br., *Psilocalaon glareosum* (Berger) Dinter and Schwant., *Limeum festinans* (Fenzl) Heimerl, *Trianthema parvifolia* E. Mey. ex Sond.; Amaranthaceae: *Hernbstaedtia glauca* (Wendl.) Reichb. ex Steud., *H. odorata* (Burch.) T. Cooke; Apiaceae: *Deverra denudata* (Viv.) Pfisterer and Podl., *Foeniculum vulgare* Mill.; Asparagaceae: *Asparagus flaveolans* Burch.; Asteraceae: *Athanasia trifurcata* (L.) L., *Cirsium vulgare* (Savi) Ten., *Conyza bonariensis* (L.) Cronq., *Lasiospermum bipinnatum* (Thunb.) Druce), *Metalasia muricata* (L.) D. Don, *Pteronia* sp., *Senecio rosmarinifolius* L. f., *Senecio* sp.; Boraginaceae: *Anchusa capensis* Thunb.; Campanulaceae: *Wahlenbergia* sp., Fabaceae: *Acacia caffra* (Thunb.) Willd., *Acacia karroo* Hayne, *Calpurnia glabrata* Brummitt, *Aspalathus spinescens* Thunb., *Indigofera filipes* Benth. ex Harv., *Indigofera auricomma* E. Mey.; Plumbaginaceae: *Limonium* sp.; Rhamnaceae: *Ziziphus mucronata* Willd.; Scrophulariaceae: *Phyllopodium cuneifolium* (L. f.) Benth.; and Zygophyllaceae: *Tribulus* sp., *Zygophyllum simplex* L.), 2006:31 (South Africa: visiting flowers of *Anchusa capensis* Thunb.); Dollfuss, 2010a:543 (locality records from Ethiopia, Kenya, Malawi, Mozambique, Namibia, South Africa, Tanzania, Yemen, Zaire, Zambia, and

Zimbabwe), 2010b:1246, 1248 (in key to Old World *Podalonia*); Field, Ohl, and Kennedy, 2011:734 (in molecular cladistic analysis of *Ammophilini*); Dollfuss, 2013b:587 (locality records from South Africa and Zambia), 2015b:437 (locality records from Namibia); Gadallah, 2020d:82 (in list of aculeate wasps of Arabian Peninsula).

Psammophila incana Dahlbom, 1843:21, ♀ (authorship attributed to Klug). Holotype: ♀, South Africa: Cape Town area (Lund). Synonymized with *Ammophila tydei* by Kohl, 1906:284, and with *Podalonia canescens* by R. Bohart and Menke, 1976:144. – Dahlbom, 1845:432 (in key to world *Psammophila*); F. Smith, 1856:211 (in catalog of Hymenoptera in British Museum). – **As *Ammophila incana***: von Kiesenwetter, 1849:87, footnote (new combination, specimen from Spain determined by Dahlbom); Pagliano, 2008:517, 518 (specimens in M. Spinola collection, Torino). – **As *Podalonia incana***: Bingham, 1898a:105 (new combination, Yemen: Aden); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection, Torino).

Ammophila capensis Lepeletier de Saint Fargeau, 1845:368, ♀, ♂ (as *Capensis*, incorrect original capitalization). Syntypes: South Africa: Cape of Good Hope (originally J. Serville coll., now?). Synonymized with *Ammophila canescens* by de Beaumont, 1967b:503. – nec de Saussure, 1892:438 (= *Podalonia canescens madecassa*); Brauns, 1911a:238 (South Africa); R. Turner, 1911b:369 (Seychelles Islands); von Schulthess in Friederichs, 1918:48 (Madagascar: no specific locality). – **As *Sphex capensis***: Schouteden, 1930:95 (new combination, Zaire). – **As *Sphex tydei* var. *capensis***: Arnold, 1920:33 (new combination, new status, in revision of southern African *Ammophila*) new com, 1928b:258 (in revision of southern African *Ammophila*), 1930:16 (in checklist of Afrotropical Sphecidae); Scott in Arnold, 1933a:370 (Ethiopia: Harar District). – **As *Ammophila tydei* var. *capensis***: Giordani Soika, 1939c:104 (Eritrea: Adi Caie, Adi Ugri, Saganeiti); Guiglia, 1939a:202 (Eritrea: Keren), 1939b:91 (Ethiopia: Lake Tana: Gorgora), 1943c:76 (Ethiopia: Gamo Gofa: Sagan – Omo region), 1950:247 (Ethiopia: Gamo Gofa: Mega); Arnold, 1935a:503 (South Africa: Kalahari), 1951:141 (Ethiopia), 1960a:83 (South Africa: Quazulu-Natal: Drakensberg Mountains); I. Robertson, 1969:480 (Tanzania: Nyarumbugu, Urambo). – **As *Psammophila tydei capensis***: van Vondel, 1995:24 (specimens from Malawi in Natuurmuseum Rotterdam).

Ammophila longipilosella Cameron, 1908a:267, ♂. Holotype or syntypes: ♂, Tanzania: Mount Kilimanjaro: Kibonoto (NRS). Synonymized with *Sphex tydei capensis* by Arnold, 1928b:279, and with *Podalonia canescens* by R. Bohart and Menke, 1976:144.

ssp. *madecassa* (Kohl)

As *Ammophila capensis* de Saussure, 1892:438 (Madagascar), corrected to *Ammophila madecassa* by Kohl, 1909:372.

Ammophila madecassa Kohl, 1909:372, ♀, ♂. Lectotype: Madagascar: Massif de l'Ankaratra (NHMW), designated by Madl, 2014b:22. – **As *Sphex tydei* race *madecassa***: Arnold, 1945:87 (new combination, new status, Madagascar); Leclercq, 1961d:106 (Madagascar, as var. *madecassa*). – **As *Podalonia canescens madecassa***: R. Bohart and Menke, 1976:144 (new combination, new status, in checklist of world Sphecidae); Madl, 2001:1108 (Island of Aldabra group); Pulawski, 2003b:795 (in checklist of Malagasy Sphecidae); Parnaudeau and Madl, 2009:460 (Island of Europa in western Indian Ocean); Dollfuss, 2010a:544 (locality records from Madagascar), 2010b:1246, 1248 (in key to Old World *Podalonia*), 1253 (bibliographic references, recognition characters, geographic distribution); Madl, 2014a:1018 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Madagascar, with synonymy and locality records), 2014b:22 (Madagascar: locality records).

17. *caucasica* (Mocsáry)

Psammophila caucasica Mocsáry, 1883:31, ♀ (as *Caucasica*, incorrect original capitalization). Holotype or syntypes: ♀, Georgia: Tiflis, now Tbilisi (TMB). – **As *Ammophila caucasica***: Ed. André, 1886:82 (new combination, in revision of Sphecidae of Europe and Algeria), 1888:4* (bibliographic references); Kohl, 1889a:21 (as new synonym of *Ammophila affinis*); Dalla Torre, 1897:397 (in catalog of world Hymenoptera); Kohl, 1906b:294 (in revision of Palearctic *Ammophilini*); Zavattari, 1909b:5 (Kashmir); Bischoff, 1930a:216 (Tajikistan: Pamir); Gussakovskij, 1934a:5 (China: Fu-shu-shi in Tian-Shan Mountains), 1938:14 (Mongolia); Tsuneki, 1968i:55 (nesting habits), 1971k:156 (Mongolia); 1971m:4 (China: Nei Mongol: Apaka). – **As *Podalonia caucasica***: Yasumatsu, 1940a:92 (new combination, China: Shansi: Tatung); nec Yasumatsu, 1942c:104 (= *Podalonia gobiensis*); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Nemkov in Nemkov, Kazenas, Budrys, and Antropov, 1995:386 (in key to Sphecidae of Russian Far East); Nazarova, 2004:105 (Tajikistan:

Badakhshan Region: village Langar in Shakh dara River valley); Nemkov, 2008b:17 and 2009b:47 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Danilov, 2010b:45 (distribution of Tethyan type); Dollfuss, 2010a:544 (locality records from Bulgaria, Kazakhstan, Mongolia, Russia: Tyva Republic, Tajikistan, and Uzbekistan), 2010b:1244, 1247 (in key to Old World *Podalonia*), 1252 (bibliographic references, recognition characters, geographic distribution); Danilov, 2011b:202 (Russia: Zabaikal'skiy Kray: Daur'skiy Nature Reserve); Akulov and Proshchalykin, 2013:111 (Russia: Siberia: Krasnoyarsk Kray); Dollfuss, 2013b:587 (Kyrgyzstan: Lake Issyk-Kul at 42°35'31"N 76°48'30"E); Danilov, 2014a:425 (Russia: Siberia: many areas); 2014b:516, 518 (in key to Sphecidae s.s. of Siberia); Dollfuss, 2015b:437 (locality records from Kyrgyzstan); Mokrousov and Zryanin, 2015:41 (Uzbekistan: Kashkadarya Oblast'); Wang, Q. Li, and Ma, 2016:448, 449 (in key to *Podalonia* of China); Danilov, 2017b:213 (in catalog of Sphecidae s.s. of Russia); Jacobs and Liebig, 2018:136 (Russia: Buryat Republic: East Sayan: 30 km northwest of Mondy; Irkutsk Oblast': Bol'shoye Goloustnoye and Sarma); Danilov, 2020:318 (specimens from Kazakhstan, Kyrgyzstan, Mongolia, Russia: Siberia, and Tajikistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Mokrousov and Proshchalykin, 2021a:320 (first record from European Russia: Crimea and Kalmykia: several localities).

Sphecx mahatma R. Turner, 1918a:88, ♀. Syntypes: Tibet: Gyantse; India: Sikkim: Khamba Jong (BMNH). Synonymized with *Podalonia caucasica* by Dollfuss, 2010b:1253. – **As *Podalonia mahatma***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae).

18. *chalybea* (Kohl)

Ammophila chalybea Kohl, 1906b:271, ♀. Lectotype: ♀, Mongolia: Ala-Shan (NHMW), designated by Dollfuss, 2010b:1253. – nec Tsuneki, 1942:328-332 and Yasumatsu, 1942c:104 (= *Podalonia atrocyanea*). – **As *Podalonia chalybea***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Dollfuss, 1989:11 (type material in NHMW); Q. Li, M. Xue, and Ch. Yang, 1995:196 (first record from China); Wu and Zhou, 1996a:59 (in revision in Economic Insect Fauna of China); Dollfuss, 2010a:545 (locality records from Mongolia), 2010b:1244, 1247 (in key to Old World *Podalonia*); Danilov, 2014a:425 (Russia: Siberia: Irkutsk Oblast'), 2014b:517, 518 (in key to Sphecidae s.s. of Siberia); Danilov, 2016:344 (paralectotype preserved in Zoological Institute, Sankt Petersburg, Russia); Wang, Q. Li, and Ma, 2016:448, 449 (in key to *Podalonia* of China); Danilov, 2017b:213 (in catalog of Sphecidae s.s. of Russia), 2020:318 (specimens from Mongolia in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia).

19. *clypeata* Murray

Podalonia clypeata Murray, 1940:49, ♀, ♂. Holotype: ♂, USA: Nebraska: Halsey (Univ. Minnesota). – Murray in Muesebeck, Krombein, and Townes, 1951:977 (in catalog of North American Hymenoptera); Evans and Lin, 1956a:144 (description of larva); LaBerge, 1956:528 (paratypes in Snow Entomological Museum); Krombein, 1958f:192 (in supplement to catalog of North American Hymenoptera: description of larva by Evans and Lin, 1956a, reported); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Krombein, 1979b:1587 (in catalog of North American Hymenoptera); Ratzlaff, 2016:29 (first record from Canada: British Columbia: Southern Interior), 39 (British Columbia: Vaseux).

20. *compacta* Fernald

Podalonia violaceipennis variety *compacta* Fernald, 1927:33, ♀, ♂. Holotype: ♀, USA, California: Marin County: Sausalito (AMNH). – **As *Podalonia compacta***: Murray, 1940:73 (new status, in revision of North and Central American *Podalonia*); Murray in Muesebeck, Krombein, and Townes, 1951:977 (in catalog of North American Hymenoptera); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Krombein, 1979b:1587 (in catalog of North American Hymenoptera); Rust, Menke, and Miller, 1985:46 (California: Channel Islands).

21. *dispar* (Taschenberg)

Psammophila dispar Taschenberg, 1869:429, ♀, ♂. Lectotype: ♂, Sudan: Khartoum (Halle), designated by Menke in R. Bohart and Menke, 1976:144. – **As *Ammophila dispar***: Ed. André, 1886:84 (new combination, in revision of Sphecidae of Europe and Algeria), 1888:4* (bibliographic references); Dalla Torre, 1897:398 (in catalog of world Hymenoptera); Kohl, 1906b:282 (in revision of Palearctic *Ammophilini*); Giordani Soika, 1935:233 (Libya: Fezzan: Sebha); Guiglia, 1942b:229

(Libya); Alfieri, 1946:118 (in revision of Egyptian *Ammophila*); de Beaumont, 1955c:55 (effects of stylopization), 1956a:171 (Libya), 1958a:291 (illustration of penis valve); Pulawski, 1964:65 (Egypt: Luxor, Sinai: Oasis Feiran). – **As *Podalonia dispar***: Leclercq, 1955h:65 (new combination, bibliographic references); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Roche and Zalut, 1994:114 (Egypt: Sinai Peninsula); Roche, 2007a:29 (in checklist of Egyptian Sphecidae, redescription), 2007b:2 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Dollfuss, 2010a:546 (Jordan: Safi 50 km north of Karak), 2010b:1245, 1249 (in key to Old World *Podalonia*), 1254 (bibliographic references, recognition characters, geographic distribution), 2013b:587 (Egypt: Fayum oasis).

? *Ammophila strenua* Walker, 1871:18, ♀, junior primary homonym of *Ammophila strenua* Cresson, 1865. Syntypes: Egypt: Cairo, Sinai Peninsula: Wadi Feiran and Wadi Genneh (destroyed). Tentatively synonymized with *Podalonia dispar* by Kohl, 1906:376. – Kohl, 1906b:376 (original description copied); Innes Bey, 1912:111 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected at Wadi Genneh); Roche, 2007b:139 (invalid name).

? *Ammophila walkeri* Dalla Torre, 1897:411. Substitute name for *Ammophila strenua* Walker, 1871.

22. *ebenina* (Spinola)

Ammophila ebenina Spinola, 1839:464, ♀. Lectotype: ♀, Egypt: no specific locality (Torino), designated by de Beaumont, 1952e:44. – Lepeletier de Saint Fargeau, 1845:366 (in revision of world Hymenoptera); F. Smith, 1856:211 (in catalog of Hymenoptera in British Museum); Walker, 1871:18 (Sinai Peninsula); Radoszkowski, 1871:197 (Iran: Astrabad, now Gorgan); Dours, 1874:141 (in catalog of Hymenoptera of France); Radoszkowski, 1887b:90 (Turkmenistan, Caucasus); Kohl and Handlirsch, 1889:275 (Turkmenistan); Radoszkowski, 1892:580 (male genitalia); nec Ed. André, 1886:79 (= *Podalonia hirsuta mervensis*); André 1888:4* (bibliographic references); Kohl, 1889a:21 (comparison with *Ammophila hirsuta mervensis*); F. Morawitz, 1893b:409 (Tajikistan, may be *hirsuta mervensis*); Vachal, 1896:74 (may prey on Coleoptera, a suggestion not confirmed by subsequent authors); Dalla Torre, 1897:399 (in catalog of world Hymenoptera); Zavattari, 1905b:4 (Lebanon: Antiliban, may be *hirsuta mervensis*); Kohl, 1906b:370 (original description copied); Innes Bey, 1912:111 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected in Sinai); Zavattari, 1912:3 (Italy: Sardegna: Monte Maxia, may be *hirsuta mervensis*); Alfieri, 1946:120 (described from Egypt, but never found since then); de Beaumont, 1955c:55 (effects of stylopization); de Beaumont and Bytinski-Salz, 1955:35 (Israel); de Beaumont, 1956a:172 (Libya), 1961e:2 (Iraq); Myartseva, 1963a:62 (nesting behavior), 1963b:59 (Turkmenistan: lower Murgab River), 1964b:90 (nest parasite: *Gonodonto-chrysis chloe* Semenov, Chrysididae; its larva devours not only caterpillar prey brought in by mother wasp of host, but also host larva), 1965:85 (Turkmenistan: reference to Myartseva, 1963); de Beaumont, 1967a:263 (Turkey), 1970c:2 (Iran: Baluchistan); Kazenas, 1968b:342 (Kazakhstan: Alma Ata, Gur'yev, now Atyraū, and Karaganda oblasts); Pulawski, 1978:180 (in key to Sphecidae of European part of USSR); Pagliano, 2008:517 (lectotype in M. Spinola collection, Torino); Tüzün and Yüksel, 2010:4468 (Turkey: Niğde Province). – **As *Ammophila hirsuta* var. *ebenina***: Zavattari, 1909a:1 (new status, *Ammophila ebenina* is identical with *A. mervensis*), 2 (bibliographic references); Roth, 1928:172 (taxonomic history, status); Guiglia, 1938b:9 and 1948c:200 (Italy: Sardegna; probably *Podalonia hirsuta mervensis*). – **As *Psammophila ebenina***: nec A. Costa, 1864b:111 (new combination), 1867b:72, 1867c:16, 1882b:22, 1883:57, 1884b:32, and Magretti, 1882b:159 (= *Podalonia hirsuta mervensis*). – **As *Podalonia ebenina***: Leclercq, 1955h:66 (new combination, bibliographic references); Myartseva, 1966:48 (preying on caterpillars), 49 (Turkmenistan: lower course of Murgab and Tedjen rivers; preying on noctuid caterpillars of *Agrotis segetum* Schiff., *Euxoa conspicua* Hb., and *Mervia kuznetzovi* Dar.), 1969:52 (Turkmenistan: one generation per year); Kazenas, 1972b:106 (Kazakhstan); Myartseva, 1972a:86 (Turkmenistan), 1972b:109 (nest parasite: *Gonodonto-chrysis chloe* Semenov, Chrysididae); Kazenas, 1974b:111 (feeding on flowers of *Scorzonera* sp., Asteraceae, in Kazakhstan); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Kazenas, 1978b:39 (in key to Sphecidae of Kazakhstan and Central Asia); Guichard, 1988a:126 (Kuwait); Al-Houty, 1989:162 (Kuwait: eight localities); Guichard, 1991a:338 (Jordan); Roche and Zalut, 1994:114 (Egypt: Sinai Peninsula); Al-Houty, 1997:161 (Kuwait: no specific locality); Kazenas, 1998b:139 (in Sphecid Fauna of Kazakhstan); Nazarova, 1998:40 (Tajikistan: Tigrovaya Balka Nature Reserve); Esenbekova and Kazenas, 2000:11 (southeastern Kazakhstan: 3 km northeast and 15 km southeast of Borandysu); Kazenas, 2001b:16 (in checklist of Sphecidae of Kazakhstan and Central Asia), 93 (review of

known biology), 2002a:32 (geographic distribution, collecting localities in Kazakhstan), 2004b:99 (Kazakhstan: western Tien Shan Mountains), 2004d:27 (Kazakhstan: northern Caspian region); Nazarova, 2004:104 (Tajikistan: Badakhshan Region: villages Visav and Dasht in Rushan District in Bartang River valley); Gayubo and Özbek, 2005:9 (Turkey: Erzurum: University campus, Oltu); Nazarova, 2005:93 (alfalfa fields in southwestern Tajikistan); Alieva and Humbatov, 2007:77 (nesting and prey); Roche, 2007a:28 (in checklist of Egyptian Sphecidae, redescription), 2007b:2 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Yildirim and Ljubomirov, 2007:116 (Turkey: Bingöl: Ilıcalar); Ljubomirov and Yildirim, 2008:43 (in catalog of Sphecidae of Turkey); Danilov, 2010b:45 (distribution of Tethyan type); Dollfuss, 2010a:546 (locality records from Armenia, Greece, Jordan, Kazakhstan, Syria, Tajikistan, Turkey, Turkmenistan, and Uzbekistan), 2010b:1243, 1247 (in key to Old World *Podalonia*), 1254 (bibliographic references, recognition characters, geographic distribution), 2013b:587 (Uzbekistan: Kyzyl-Kyr in Kyzyl-Kum desert); Kazenas, 2013a:28 (color photograph of adult wasp, short information on geographic distribution and nesting habits); Dunford, Turbyville, and Leavengood, 2014:11 (listed as medically important in Afghanistan); Kazenas, 2014a:132 (Kazakhstan: Karatau Mountain Range); Yildirim, 2014:30 (Turkey: distribution by biogeographic provinces); Dollfuss, 2015b:437 (locality records from Jordan and Spain); Koçak and Kemal, 2015:278 (in checklist of Hymenoptera of Turkey); Mokrousov and Zryanin, 2015:41 (Uzbekistan: Kashkadarya, Surkhandarya, and Khoresm Oblast's); Danilov, 2017b:213 (in catalog of Sphecidae s.s. of Russia); Danilov and Mokrousov, 2017a:110 (first record from Russia: Dagestan: no specific locality); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:19 (Iran: known from Golestan and Sistan-o Baluchestan Province); Augul, 2019:494 (recorded from Iraq by de Beaumont, 1961e); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:309 (in list of Tunisian Sphecidae *sensu stricto*); Bitsch, Barbier, and Jacobs *in* Bitsch, Barbier, Gayubo, Jacobs, Leclercq, and Schmidt, 2020:107 (in Sphecid Fauna of Europe); Danilov, 2020:318 (specimens from Kazakhstan, Tajikistan, and Turkmenistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Gadallah, 2020d:82 (in list of aculeate wasps of Arabian Peninsula); Maharramov, Mokrousov, and Proshchalykin, 2020:45 (Azarbaijan: Nakichivan Autonomous Republic); Kaplan and Yildirim, 2023:1692 (in checklist of Sphecidae *sensu lato* of Turkey).

Ammophila mandibulata W.F. Kirby, 1889:134, ♀. Holotype or syntypes: ♀, Afghanistan: Hari-rud Valley (BMNH). Synonymized with *Podalonia ebenina* by Dollfuss, 2010b:1254. – Bingham, 1897:234 (in revision of wasps and bees of British India, now India and Pakistan); Dalla Torre, 1897:404 (in catalog of world Hymenoptera); Kohl, 1906b:372 (original description copied). – **As *Podalonia mandibulata***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae).

Psammophila micipsa Morice, 1900a:66, ♀. Syntypes: ♀, Algeria: Biskra (OXUM). Synonymized with *Ammophila ebenina* by de Beaumont, 1952e:44. – **As *Ammophila micipsa***: Kohl, 1905c:231 (new combination, Turkey: Kayseri: Erciyes Dağı), 1906b:295 (in revision of Palearctic *Ammophilini*); Morice, 1911:72 (Algeria: Biskra); Roth, 1928:170 (in revision of North African *Ammophilini*); Gussakovskij, 1933b:374 (Iran: Kafirkala on Gerirud River); Alfieri, 1946:113 (in revision of Egyptian *Ammophila*). – **As *Podalonia micipsa***: Ghahari, Hayat, Lavigne, and Ostovan, 2014:1417 (prey of asilid fly *Leptogaster guttiventris* Zetterstedt).

23. *erythropus* (F. Smith)

Ammophila rufipes Lepeletier de Saint Fargeau, 1845:367, ♀, junior primary homonym of *Ammophila rufipes* Guérin-Méneville, 1831. Holotype or syntypes: ♀, Senegal: no specific locality (originally J. Serville coll., now M. Spinola coll., Torino). – Leclercq, 1955h:92 (bibliographic references, as species incertae sedis); Bradley, 1957:39 (type in M. Spinola collection, Turin); Menke *in* R. Bohart and Menke, 1976:144 (as new synonym of *Ammophila erythropus*); Pagliano, 2008:518 (holotype in M. Spinola coll., Torino).

Ammophila erythropus F. Smith, 1856:213. Substitute name for *Ammophila rufipes* Lepeletier de Saint Fargeau. – Dalla Torre, 1897:399 (in catalog of world Hymenoptera); Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Dollfuss, 2010b:1245 (in key to Old World *Podalonia*), 1255 (bibliographic references, recognition characters, geographic distribution), 2013b:587 (Cameroon: Northwest Province: east of Big Babanki at 6°07'N 10°16'E), 589 (description of ♂), 2015b:437 (Cameroon: Northwest Province: Kefen Forest 6 km east of Bambui at 6°02.050'N 10°17.423'E).

24. *fera* (Lepeletier de Saint Fargeau)

Ammophila fera Lepeletier de Saint Fargeau, 1845:365, ♀. Holotype or syntypes: ♀, “Romélie” = Ottoman Empire possessions in Balkan peninsula, now either Bulgaria, Greece, or European Turkey: no specific locality (M. Spinola coll., Torino). – F. Smith, 1856:210 (in catalog of Hymenoptera in British Museum); Ed. André, 1886:84 (in revision of Sphecidae of Europe and Algeria), 1888:4* (bibliographic references); Dalla Torre, 1897:400 (in catalog of world Hymenoptera); Kohl, 1906b:371 (original description copied); Bytinski-Salz, 1956:223 (Turkey: Acı Göl); de Beaumont, 1957b:129 (northern Iran), 1958a:291 (illustration of penis valve); Pulawski, 1958a:163 (Bulgaria: Aitos, Nesebar); de Beaumont, 1959a:6 (Italy: Abruzzo: Rivisondoli, Sicilia: Etna), 1965a:11 (recorded from Greece by Kohl, 1906), 1967a:263 (Turkey), 1969:80 (Turkey); Scobiola-Palade, 1972a:148 (Romania: delta of Danube: Caraorman); Kazenas, 1974b:109 (feeding on flowers of *Tamarix* sp., Tamaricaceae in Kazakhstan); Scobiola-Palade, 1974:144 (Romania: Sărăturile sandbank in Danube delta); Pulawski, 1978:180, 181 (in key to Sphecidae of European part of USSR); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection); Kuznetzova, 1990:17 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve); Pagliano, 2008:517 (holotype in M. Spinola collection, Torino). – **As *Sphex fera***: Palma, 1869: 38 (new combination; Italy: Sicilia settentrionale). – **As *Psammophila fera***: Becker, 1880:153 (new combination, Russia: Sarepta, now Krasnoarmeysk south of Volgograd). – **As *Podalonia fera***: Balthasar, 1972:435 (new combination, in Sphecid Fauna of Czechoslovakia: not yet found in country); Kazenas, 1972b:106 (Kazakhstan); Myartseva, 1972a:87 (Turkmenistan); Kazenas, 1974:109 (feeding on flowers of *Tamarix* sp., Tamaricaceae, and *Statice gmelini* Willd., Plumbaginaceae, in Kazakhstan), 111 (feeding on flowers of *Lepidium crassifolium* W. et K., Brassicaceae, in Kazakhstan), 112 (feeding on flowers of *Gallium* sp., Rubiaceae, in Kazakhstan); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Guichard, 1978:269 (Greece); Kazenas, 1978b:39 (in key to Sphecidae of Kazakhstan and Central Asia); Scobiola-Palade, 1985:95 (Romania: delta of Danube); Islamov, 1986:514 (Uzbekistan: Surkhandarya and Tashkent oblast's); Pagliano, 1990:62 (in catalog of Italian Sphecidae); Hamon, Tussac, and Fonfria, 1992:409, 411 (in key to French Ammophilini), 413 (distribution in France); Negrisolino *in* Minelli, Ruffo, and La Posta, 1995b:2 (in catalog of Italian fauna); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:99 (in Sphecid Fauna of Western Europe); Kazenas, 1998b:140 (in Sphecid Fauna of Kazakhstan); Shkuratov, 1998:97 (Russia: Rostov Oblast'); Esenbekova and Kazenas, 2000:11 (southeastern Kazakhstan: near Kapchagay); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:104 (Greece); Ljubomirov, 2000:7 (Bulgaria, specimens in N. Nedelkov collection); Kazenas, 2001b:16 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:32 (geographic distribution, collecting localities in Kazakhstan); Shkuratov, 2002b:138 (Russia: Rostov Oblast': Rostovskiy Nature Reserve at 46°27'N 42°41'E); Protsenko, 2003:68, 69 (Ukraine: Odessa Oblast': island of Malyi Tataru in Danube delta at 45.21°N 29.00°E); Schmid-Egger, 2003:756 (Italy: Sicilia: Madonie); Kazenas, 2004b:99 (Kazakhstan: western Tien Shan Mountains), 2004d:27 (Kazakhstan: northern Caspian region); Shkuratov, 2004a:72 (Russia: Rostov Oblast'); Gayubo and Özbek, 2005:10 (Turkey: many localities); Gülmez and Tüzün, 2005:48 (Turkey: Ankara Province); Jacobs, 2005a:437 (Bulgaria); Pagliano and Negrisolino, 2005:73 (in Sphecid Fauna of Italy); Shorenko, 2005a:163 (Ukraine: Crimea); Yildirim and Ljubomirov, 2005:1787 (Turkey: Konya: Çumra; Rize: İkizdere); Ljubomirov and Yildirim, 2008:44 (in catalog of Sphecidae of Turkey); Guéorguiev and Ljubomirov, 2009:262 (Bulgaria: Maleshevska Planina); Pagliano, 2009:175 (Italy: Piemonte: no specific locality); Shorenko, 2009:367 (in list of Sphecidae *sensu lato* of Crimea); Danilov, 2010b:45 (distribution of Tethyan type); Dollfuss, 2010a:547 (locality records from Armenia, Bulgaria, Greece, Kazakhstan, Kyrgyzstan, Russia: Volgograd Oblast': Lake Élton, Syria, Turkey, Turkmenistan), 2010b:1246, 1248 (in key to Old World *Podalonia*), 1255 (bibliographic references, recognition characters, geographic distribution); Tüzün and Yüksel, 2010:4468 (Turkey: Niğde Province); Japoshvili and Ljubomirov, 2012:96 (Turkey: Isparta: Gölcük Nature Park 8 km southwest of city of Isparta); Prisniy, 2012:46 (Russia: Belgorod Oblast'); Protsenko, Fateryga, Ivanov, and Puzanov, 2012:54 (Ukraine: Crimea); Yildirim, 2012:74 (Turkey: Adana, Bayburt, and Erzurum provinces); Bayındır, Gürbüz, Ljubomirov, and Pohl, 2013:146 (Turkey: Isparta: Kasnak Oak Forest Nature Reserve); Dollfuss, 2013b:588 (locality records from Iran, Kyrgyzstan, and Turkey); Danilov, 2014b:518 (in key to Sphecidae s.s. of Siberia, not yet found in Siberia); Kazenas, 2014a:132 (Kazakhstan: Karatau Mountain Range); Ruchin and Antropov, 2014:35 (Russia: Republic of Mordovia); Yildirim, 2014:30 (Turkey: distribution by biogeographic provinces); Koçak and Kemal, 2015:278 (in checklist of Hymenoptera of Turkey); Shorenko, 2015:313 (in list of Sphecidae *sensu lato* of Crimea); Gülmez and Dizer,

2016:60 (Turkey: Tokat Province); Levărdă and Matache, 2016:39 (in catalog of Sphecidae s.s. of Romania); Mokrousov and Popov, 2016:561 (Russia: Abkhasia, Krasnodarskiy Kray); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:8 (Turkey: Erzurum, Kahramanmaraş, Mersin, and Tunceli provinces); Arens, 2017a:634 (Greece: Peloponnesus); Danilov, 2017b:213 (in catalog of Sphecidae s.s. of Russia); Danilov and Mokrousov, 2017a:110 (Georgia; Russia: Adygea, Dagestan, Kalmykia, Orenburg Oblast', Stavropol'skiy Kray); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:19 (Iran: known from Alborz, Ardabil, Golestan, Khorasan, and Mazandaran provinces); Shoreenko, 2017:76 (in Crimea collected in May through September), 2018:126 (Crimea, including localities, habitats, and number of specimens); Gülmez, 2019:3 (Turkey: Ankara, Sivas, and Tokat provinces: no specific localities), 4 (abnormal forewing venation); Bitsch, Barbier, and Jacobs *in* Bitsch, Barbier, Gayubo, Jacobs, Leclercq, and Schmidt, 2020:108 (in Sphecid Fauna of Europe); Danilov, 2020:318 (specimens from Kazakhstan, south of European Russia, Tajikistan, and Turkey in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Maharramov, Mokrousov, and Proshchalykin, 2020:45 (Azarbaijan: Nakichivan Autonomous Republic); Can and Gülmez, 2021b:310 (Turkey: Erzincan, Giresun, and Sivas provinces); Kaplan and Yildirim, 2022a:56 (Turkey: Bingöl and Diyarbakır provinces), 2023:1692 (in checklist of Sphecidae *sensu lato* of Turkey).

Ammophila abeillei Marquet, 1881:177, sex not stated (as *Abeillei*, incorrect original capitalization). Syntypes: France: Marseille (Lausanne). Synonymized with *Ammophila morawitzi* by Berland, 1925:33 and with *Ammophila fera* by de Beaumont, 1951d:316 and 1952b:88. – Dalla Torre, 1897:394 (in catalog of world Hymenoptera); Kohl, 1906b:369 (original description copied); de Galle, 1908:103 (in catalog of French Hymenoptera); Berland, 1925d:33 (in Sphecid Fauna of France); Bernard, 1936c:287 (France: Bouches-du-Rhône: Port-de-Bouc); Zavadil *in* Zavadil and Šnoflák, 1948:168 (in key to Sphecidae of Czechoslovakia, not yet found in Czechoslovakia); Čingovski, 1960:6 (Macedonia: Strumitsa, Vodno); Scobiola, 1960b:236 (Romania: Constanța District: Agigea, Techirghiol, Vasile Roaită); Scobiola-Palade, 1967a:161 (Romania: Constanța District: Hagieni); Balthasar, 1972:433 (in Sphecid Fauna of Czechoslovakia: not yet found in the country).

Psammophila polita Mocsáry, 1883:30, ♀. Holotype or syntypes: ♀, southern Russia or Caucasus: no specific locality (TMB). Synonymized with *Ammophila abeillei* by Berland, 1925.

Ammophila morawitzi Ed. André, 1886:83. Substitute name for *Ammophila polita* (Mocsáry, 1883), junior secondary homonym in *Ammophila* of *Ammophila polita* Cresson, 1865. Synonymized with *Ammophila abeillei* by Berland, 1925:33. – Ed. André, 1886:83 (in revision of Sphecidae of Europe and Algeria), 1888:3* (bibliographic references); F. Morawitz, 1891a:204 (Russia: Astrakhan Governorate), 1894:340 (Turkmenistan: Khairabad); Dalla Torre, 1897:405 (in catalog of world Hymenoptera); Kohl, 1906b:288 (in revision of Palearctic Ammophilini); A. Müller, 1930:181 (Bulgaria: Kaliakra; Romania: Movila; as *moravetzi*); Atanassov, 1955:205 (as first record from Bulgaria: Obzor in Pomoriye district, Silistra, north of Varna, as Stalin); Scobiola-Palade, 1967b:37 (Romania); Kazenas, 1968b:342 (Kazakhstan: Aktyubinsk and Gur'yev, now Atyraū, oblast's); Ebrahimi, 2014:13 (Iran: Khorāsān). – *As Psammophila morawitzi*: Fahringer, 1922:177 (new combination, Turkey); Atanassov, 1962:126 (Bulgaria: Petrich area). – *As Podalonia morawitzi*: Ebrahimi, 1993:94 (new combination, Iran).

25. *flavida* (Kohl)

Ammophila flavida Kohl, 1901d:163, ♀. Lectotype: ♀, China: Nei Mongol: no specific locality (NHMW), designated by Dollfuss, 2010b:1256. – Kohl, 1906b:283 (in revision of Palearctic Ammophilini); Gussakovskij, 1934a:4 (Mongolia); Tsuneki, 1971k:145 (Mongolia), 1971m:4 (China: Nei Mongol: Apaka). – *As Podalonia flavida*: Yasumatsu, 1940a:92 (new combination, China: Nei Mongol: Chahar); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Nemkov, 1990c:79 (Russia: eastern Siberia, Maritime Province), 2005a:141 (Russia: Island of Sakhalin); Nemkov *in* Nemkov, Kazenas, Budrys, and Antropov, 1995:385 (in key to Sphecidae of Russian Far East); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Nemkov, 2008b:17 (in catalog of Sphecidae of Asiatic Russia); Danilov, 2009:55 (Russia: Western Siberia: Kulundinskaya Steppe); Nemkov, 2009b:47 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia), 2009c:235 (Russia: Primorskiy Kray: Lazovsky Nature Reserve); Danilov, 2010b:45 (distribution of Tethyan type); Dollfuss, 2010a:547 (locality records from Kazakhstan, Mongolia, and Uzbekistan), 2010b:1246, 1248 (in key to Old World *Podalonia*), 1256 (bibliographic references, recognition characters, geographic distribution); Danilov, 2011a:189 (Russia: Tyva

Republic), 2011b:202 (Russia: Zabaikal'skiy Kray: Daur'skiy Nature Reserve); Nemkov, 2012c:434 (in catalog of Sphecidae of Russian Far East); Dollfuss, 2013b:588 (Mongolia: Moltsoy Els 200 km south-southeast of Baruun-Urt, 100 km south-southeast of Baruun-Urt); Danilov, 2014a:425 (Russia: Siberia: Buryatia, Irkutsk Oblast', Khakasiya, Primorskiy Kray, Tyva, Zabaikal'skiy Kray); 2014b:518 (in key to Sphecidae s.s. of Siberia); Wang, Q. Li, and Ma, 2016:449 (in key to *Podalonia* of China); Danilov, 2017b:213 (in catalog of Sphecidae s.s. of Russia); Danilov and Mokrousov, 2017a:111 (Italy: Sicilia, no specific locality; Russia: Crimea, Kalmykia, Orenburg Oblast', Volgograd Oblast'; Tajikistan: Ruidasht; Turkmenistan: Ashkhabad); Akulov, Proshchalykin, and Mokrousov, 2020:46 (Russia: central Krasnoyarsk Kray); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:309 (in list of Tunisian Sphecidae *sensu stricto*); Bitsch, Barbier, and Jacobs *in* Bitsch, Barbier, Gayubo, Jacobs, Leclercq, and Schmidt, 2020:108 (in Sphecid Fauna of Europe); Danilov, 2020:318 (specimens from Kazakhstan, Mongolia, Russia: Volgograd Oblast' and Siberia, and Tajikistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Fresno, 2021a:76 (Spain: Asturias: La Franca); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey).

Ammophila rothi de Beaumont, 1951e:260, ♀, ♂. Holotype: ♀, Morocco: Midelt (Lausanne). Synonymized with *Podalonia flavida* by Danilov and Mokrousov, 2017a:111. – de Beaumont, 1958a:291 (illustration of penis valve), 1967a:261 (Turkey); Lomholdt, 1975a:7 (comparison with *Podalonia tydei* and *viatica*, correctly *hirsuta*). – **As *Podalonia rothi***: Leclercq, 1955h:66 (new combination, bibliographic references); R. Bohart and Menke, 1976:145 (in checklist of world Sphecidae); Smit, 2000:173 (Madeira, reference to Saunders, 1903, and Lomholdt, 1975a); Gayubo and Özbek, 2005:11 (Turkey: Kayseri: Hacýlar; Manisa: Center); Gayubo, González, de la Nuez, Asís, and Tormos, 2006:206 (first record from Spain: Zamora: Fermoselle); Ljubomirov and Yildirim, 2008:46 (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); Bitsch, 2010:107 (in supplement to vol. II of Faune de France, 1997: recent records from Spain reported, recognition characters); Dollfuss, 2010a:556 (locality records from Morocco, Spain, Tunisia, and Turkey), 2010b:1246, 1248 (in key to Old World *Podalonia*), 1265 (bibliographic references, recognition characters, geographic distribution); Danilov, 2014a:426 (Russia: Siberia: Altayskiy Kray, Novosibirsk Oblast', Omsk Oblast'; may be a subspecies of *Podalonia flavida*), 2014b:518 (in key to Sphecidae s.s. of Siberia); Mokrousov and Vafin, 2014:54 (Russia: Republic of Tatarstan: village Antonovka in Kamsko-Ust'inskiy District); Yildirim, 2014:30 (Turkey: distribution by biogeographic provinces); Koçak and Kemal, 2015:278 (in checklist of Hymenoptera of Turkey); Mokrousov and Popov, 2016:562 (Russia: Krasnodarskiy Kray); Fresno, 2018:226 (Spain: Valladolid: Reserva Natural Riberas de Castronuño); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey).

Ammophila obo Tsuneki, 1971k:146, ♂. Holotype: ♂, Bulgan Aymag: Somon Dashinchilen (TMB). Synonymized with *Podalonia flavida* by Dollfuss, 2010b:1256. – **As *Podalonia obo***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Nemkov, 1986:93 (Russia: Irkutsk Oblast': Angarsk), corrected to *Podalonia flavida* by Nemkov, 2009b:47; Wu and Zhou, 1996a:62 (in revision in Economic Insect Fauna of China); Hua, 2006:276 (in list of Chinese insects, geographic distribution).

26. *gobiensis* (Tsuneki)

As *Podalonia caucasica*: Yasumatsu, 1942c:104 (China: Nei Mongol: Apaka at 44°N 114.96°E), corrected to *Ammophila gobiensis* by Tsuneki, 1971m:5.

Ammophila gobiensis Tsuneki, 1971k:159, ♀, ♂. Holotype: ♂, Mongolia: Uvs Aymag: Hödlon gol (TMB). – Tsuneki, 1971m:5 (China: Nei Mongol: Apaka). – **As *Podalonia gobiensis***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Dollfuss, 2010a:548 (locality records from Mongolia), 2010b:1244, 1247 (in key to Old World *Podalonia*), 1256 (bibliographic references, recognition characters, geographic distribution); Danilov, 2011a:189 (Russia: Tyva Republic); Nemkov, 2014c:287 (recorded from Asiatic Russia by Danilov, 2011:189); Danilov, 2014a:425 (Russia: Siberia: Tyva, Zabaikal'skiy Kray), 2014b:516, 518 (in key to Sphecidae s.s. of Siberia); Dollfuss, 2015b:437 (Mongolia: 70 km east of Altay City: Guulin); Wang, Q. Li, and Ma, 2016:448, 449 (in key to *Podalonia* of China); Danilov, 2017b:213 (in catalog

of Sphecidae s.s. of Russia) Danilov, 2020:318 (specimens from Russia: Tyva in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia).

ssp. *chahariana* (Tsuneki)

Ammophila gobiensis chahariana Tsuneki, 1971m:5, ♂. Holotype: ♂, China: Nei Mongol: West-Sunitt (originally K. Tsuneki coll., now USNM). – Nuhn and Menke, 1994:25 (holotype transferred to USNM). – **As *Podalonia gobiensis chahariana***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Wu and Zhou, 1996a:61 (in revision in Economic Insect Fauna of China); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Wang, Q. Li, and Ma, 2016:449 (in key to *Podalonia* of China).

27. *gulussa* (Morice)

Psammophila gulussa Morice, 1900a:66, ♀, ♂ (♀ = *Parapsammophila algira*). Lectotype: ♂, Algeria: Biskra (lost: Dollfuss, 2010b:1241), designated by Morice, 1911:72. – Kohl, 1906b:274 (original description copied, with comments); Roth, 1928:172 (unknown to author). – **As *Podalonia gulussa***: Leclercq, 1955h:64 (new combination, bibliographic references); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae).

28. *gussakovskii* Danilov

Podalonia gussakovskii Danilov, 2017a:560, ♀, ♂. Holotype: ♂, Tajikistan: Varzob District: 35 km north of Dushanbe at 38°51'N 68°46'E (ZIN). – Danilov, 2020:318 (specimen from Tajikistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia).

29. *harveyi* (de Beaumont)

Ammophila harveyi de Beaumont, 1967a:262, ♀. Holotype: ♀, Turkey: Ankara: above Hasanoglan (BMNH). – de Beaumont, 1969:80 (Turkey). – **As *Podalonia harveyi***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Gülmez and Tüzün, 2005:49 (Turkey: Ankara Province); Ljubomirov and Yildirim, 2008:44 (in catalog of Sphecidae of Turkey); Dollfuss, 2010b:1246 (in key to Old World *Podalonia*), 1257 (bibliographic references, recognition characters, geographic distribution); Yildirim, 2014:30 (Turkey: distribution by biogeographic provinces); Koçak and Kemal, 2015:278 (in checklist of Hymenoptera of Turkey); Gülmez, 2019:3 (Turkey: Ankara Province: no specific locality); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey).

30. *hirsuta* (Scopoli)

Sphex hirsutus Scopoli, 1763:292, sex not stated (as *hirsuta*, incorrect original termination). Holotype or syntypes: Carniolia, now Slovenia: no specific locality (destroyed). – Schrank, 1781:380 (in revision of insects of Austria); de Villers, 1789:223 (redescription); Gmelin, 1790:2728 (redescription); Christ, 1791:297 (redescription); Schrank, 1802:319 (Germany: in revision of insects of Bayern (= Bavaria), female carrying caterpillar); Rogenhofer and Dalla Torre, 1892:599 (*Sphex hirsuta* of Scopoli, 1763 = *Psammophila viatica*); R. Turner, 1918a:88 (Tibet); R. Perkins, 1924:221 (Great Britain: Devon), 1925:149 (Great Britain: Somersetshire); Stelfox, 1927:289 (records from Ireland are erroneous). – **As *Ammophila hirsuta***: W. Kirby, 1798:206 (new combination, revision); Turton, 1801:497 (redescription); Sowerby, 1806:67 (Great Britain: Berkshire: Reading); Vander Linden, 1827:359 (synonymy, redescription); Stephens, 1829a:361 (in catalog of British insects), 1829b:33 (in checklist of British insects); Brullé, 1833a:369 (Greece: Peloponnesus); Shuckard, 1836:57 (providing nests with spiders, clearly in error), 1837a: 77 (in revision of British Aculeata); von Siebold, 1839:47 (Germany: Danzig, now Poland: Gdańsk); Herrich-Schaeffer, 1840:297 (Germany: Bayern: Regensburg area); Dufour, 1841a:513 and 1841b:245 (digestive tract), 1841a:515 and 1841b:251 (male reproductive system), 1841a:517 and 1841b:253 (female reproductive system); Lepeletier de Saint Fargeau, 1845:364 (in revision of world Hymenoptera); Lucas, 1849:274 (Algeria: Constantine); Belke, 1853:433 (Ukraine: Kamieniec Podolski), 1859:71 (Ukraine: Kamieniec Podolski); Sichel, 1860:216 (France: département des Basses-Alpes), 1861:751 (Italy: Sicilia); Belke, 1866:512 (Ukraine: Ukraine: Zhytomyr Oblast': Radomyshl'); P. Ivanov, 1872:152 (Ukraine: Khar'kov Oblast': Kupyansk area); Martinez y Saez, 1874:30 (specimens from Spain: Madrid area, donated to Leon Dufour); Radoszkowski, 1876b:131 (Egypt, record not confirmed by subsequent authors); Fabre, 1879:195 (France: Vaucluse: Mont Ventoux, overwintering aggregation under stone), 207 (nesting habits); E. Saunders, 1880:248 (in revision of

British Aculeata); Fabre, 1882:19 (nesting habits, finding prey), 28 (mechanism of finding prey); Ed. André, 1886:81, 82 (in revision of Sphecidae of Europe and Algeria); Gasperini, 1887:17 (Dalmatia: Macarsca, Milnà on Island of Brazza, Spalato, now Croatia: Makarska, Milna on Island of Brač, Split); Radoszkowski, 1887a:42 (China: Xinjiang: Keria-Daria); André, 1888:4* (bibliographic references); Radoszkowski, 1892:579 (male genitalia); Kohl, 1893a:35 (Austria: Niederösterreich); Baldini, 1894:48 (Italy: Modena area); Krieger, 1894:13 (Germany: Kingdom of Saxony); Medina, 1894a:259 (Spain: Madrid and Pozuelo de Calatrava); Schletterer, 1894:30 (Istria Peninsula, now part of Croatia, Slovenia, and Italy); De Stefani Perez, 1895:226 (in catalog of Sicilian Hymenoptera); Freke, 1895:281 (first record from Ireland: Wicklow County: Arklow); Laboulbène, 1895:180 (preying on spiders according to Shuckard); Freke, 1896:40 (Ireland); Medina, 1896:104 (Spain: Guadarrama: Peguerinos); E. Saunders, 1896:88 (in revision of British Aculeata); Acloque, 1897:96 (in Sphecid Fauna of France and Algeria); Dalla Torre, 1897:401 (in catalog of world Hymenoptera); Ferton, 1897:106 (Corsican specimens have all black gaster); Medina, 1897:192 (Spain: Cádiz); 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); O. Schneider, 1898:103 (Germany: Island of Borkum); Nevinson, 1900:62 (Great Britain: Wales: Criccieth, Towyn); Gardner, 1901:376 (Great Britain: Lancashire: Formby, Southport); E. Saunders, 1901:208 (Spain: Mayorca); Strand, 1901:7 (first record from Norway: Aal); R. Bradley, 1902:267 (Great Britain: northern Wales); Friese, 1902:477 (occurring in Lapland according to Zetterstedt, 1838); Nevinson, 1902 (Great Britain: Cornwall: Newquay); Saunders, 1902b:143 (Great Britain: Island of Jersey; France: Bretagne: Saint Briac); Bingham, 1903a:67 (South Africa: Johannesburg, possibly a new species); de Cobelli, 1903:104 (Italy: Province of Trentino); Gadeau de Kerville, 1903:306 (France: Eure and Manche Departments); Medina, 1903:320 (Spain: Palencia and Laguna de Duero); E. Saunders, 1903c:210 (Antiga and Bofill, 1904:4 (Spain: Cataluña Province); Aurivillius, 1904:255 (in revision of Swedish Sphecidae); Luff, 1904:281 (Great Britain: Island of Guernsey); W. Schulz, 1904b:92 (Germany, France, Lebanon, Spain, Portugal, Transcaspia); Ferton, 1905:96 (homing); Kubes, 1905:83 (Czech Republic: Kolín, Obora, Sušice); W. Schulz, 1905b:33 (Algeria: Biskra, Msila, Lambesa); Thijssse, 1905:90 (Netherlands: Amersfoort and Apeldoorn, nesting habits); Vángel, 1905:167 (Hungary); Zavattari, 1905a:2 (Italy: Isola d'Elba: Portoferraio); Graeffe, 1906:455 (Tunisia: Tunis area); Kohl, 1906b:276 (in revision of Palearctic Ammophilini); W. Schulz, 1906:44 (Greece: Crete, as subsp. *ebenina*); Móczár and Henter, 1907:205 (Hungary: Budapest, Tatatóváros); de Gaulle, 1908:104 (in catalog of French Hymenoptera); Morley, 1909:304 (Great Britain: Isle of Wight); Cavro, 1910:685 (France: Département du Nord: Mont Cassel); Zavattari, 1910:4 (Italy: Isola d'Elba: Portoferraio); Zavattari, 1911:3 (Italy: Piemonte: Valle del Maira); Birula, 1912:532 (citation of Belke, 1866); Dusmet y Alonso, 1912:285 (nesting behavior); Alfken, 1914:282 (northwestern Germany); Hallett, 1914:56 (Great Britain: Cardiff County); Szilády, 1914:89 (Hungary: Balánbánya, Nagyenyed, Parreng-havas); Dusmet y Alonso, 1915:86 (Spain: Aragón); Zavattari, 1915:2 (Italy: Abruzzi: Vallata del Sangro); Storey, 1916:106 (Egypt: Ein Shams, Massara, Nawa); Thijssse, 1916:56 (Netherlands, comparison with *Podalonia affinis*, illustration with spider prey in error); Noskiewicz, 1920a:154 (Poland: Tatry Mountains: Kamieniolom); Strand, 1920:14 (Germany: Mecklenburg-Vorpommern: Barnstorf), 23 (Germany: Berlin-Dahlem); Morice, 1911:72 (Algeria: Biskra); Berland, 1921:533 (Greece); Maidl, 1922:66 (Albania, Croatia); Ferton, 1923:293 (finds nest with difficulty when carrying prey), 340 (in Corsica represented by all black *Ammophila mervensis*); Berland, 1925d:32 (in Sphecid Fauna of France); Coulon, 1925:115 (France, Italy); Picard, 1925b:161, 162 (review of observations on stinging sequence), 163 (prey: subterranean caterpillars of *Agrotis*, Noctuidae, nest construction follows hunting); Jacquelot, 1926:167 (nesting habits); von Schulthess, 1926b:208 (Morocco); Falcoz and Ferrière, 1927:123 (France: mont Pilat in northern Cévennes); Grandi, 1927:280 (Italy: Toscana: Monte Serra di Ronchidosso); Hémon, 1926:199 (France: Finistère: Fouesnant); Benoist, 1928:408 (France: Alpes-Maritimes, Basses-Alpes, Hautes-Alpes); Grandi, 1928c:241 (correction to Roth, 1928, translation of his observations into Italian), 1928d:264 (corrections to Roth, 1928, translation of his observation into Italian, reports of his observations on overwintering); Roth, 1928:172 (in revision of North African Ammophilini), 209 (nesting habits); Grandi, 1929:259 (hypothesis of summer migration toward mountains rejected), 1929:287 (Italy: Toscana: valle della Limentra); Guiglia, 1929:394 (Libya: Cyrenaica: oasis Giarabub); Roth, 1929:172 (in revision of Spanish Ammophilini); Bischoff, 1930a:215 (Tajikistan: Pamir); G. Carpenter, 1930b:291 (nest closure); Dusmet y Alonso, 1931:6 (Portugal: Coimbra); Grandi, 1931:26 (nesting in mountains), 56 (Italy: Toscana: Vallata delle Pozze near Le Mandriole); Bischoff, 1933:6 (Spain, Morocco); Dulac, 1933b:39 (France: Saône-et-Loire: Le Creusot,

Montsarin and Saint-Leu near Le Creusot); Maidl, 1933b:121 (Morocco); Nadig, 1933:100 (Morocco); E. Nielsen, 1933:305 (nesting habits); Grandi, 1934:130 (Italy: Lazio: Acilia); Guiglia, 1934b:291 (Libya: bibliography and summary of locality records); Gussakovskij, 1934a:4 (Mongolia, China: Kansu Province); Jansson, 1934:290 (Sweden); Molitor, 1934a:161 (overwintering); Bernard, 1935:61 (France: Var: Fréjus area); Bougy, 1935:19 (nesting habits); Dusmet y Alonso, 1935:83 (Spain: Moncayo); Marchand and Dulac, 1935:61 (France: Saône-et-Loire: Saint Laurent d'Andenay); Vergne, 1935:117 (France: Auvergne: common); Bernard, 1936a:35 (France: Hautes-Pyrénées: Pic de Néouvielle area); Drenowski, 1936:247 (Bulgaria: Alibotush); Roller, 1936:315 (Austria: loess cliffs at Bisamberg near Vienna); Rungs, 1936:23 (Morocco); Dulac, 1937:8 (France: Saône-et-Loire: Le Creusot, Saint-Laurent d'Andenay); Redikortsev, 1938:144 (Russia: Mordovian State Nature Reserve); Móczár, 1939:5 (Hungary: Jászberény); Guiglia, 1941c:165 (Italy: Calabria: Grande Sila); Yasumatsu, 1942c:114 (China: Nei Mongol: Apaka at 44°N 114.96°E); Giner Marí, 1943a:69 (in Sphecida Fauna of Spain); Guiglia, 1943d:91 (Albania: Scutari); Guiglia, 1944b:6 (Italy); Deleurance, 1946b:67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); Carl and de Beaumont, 1947:67 (Switzerland: Graubünden = Grisons Canton: Swiss National Park); Guiglia, 1947a:28 (Italy: Piano Maiuri), 1948c:200 (Italy: Sardegna: Villasalto); de Andrade, 1949:5 (Portugal); de Beaumont, 1950f:395 (Algeria, Morocco), 1951e:259 (Morocco), 1951h:32 (Switzerland: Neuchâtel area); Cleu, 1953:50 (France: Ardèche River basin); Nouvel and Ribaut, 1953:176 (France: Hautes-Pyrénées: Cauterets, Orédon); de Beaumont, 1954e:85 (Italy); Fahlander, 1954:253 (Sweden: Gästrikland Region); Grandi, 1954:235 (Italy); de Beaumont, 1955c:55 (effects of stylopization); Steiner, 1955:133 (France: Dordogne); Ceballos, 1956:360 (in catalog of Hymenoptera of Spain); Morel, Nouvel, and Ribaut, 1956:337 (France: Département des Pyrénées-Orientales); Bajári, 1957a:15 (in key to Hungarian Sphecidae); de Beaumont, 1957b:129 (northern Iran); Grandi, 1957:387 (Italy); Zirngiebl, 1957:184 (Germany: Rheinland-Pfalz: Leistadt); de Beaumont, 1958a:291 (illustration of penis valve), 1958c:201 (Swiss National Park); Nouvel and Ribaut, 1958:8 (France: Pyrénées-Orientales: Banyuls-sur-Mer); Compte Sart, 1959:131 (Spain: Mayorca); de Beaumont, 1959a:5 (Italy); Diniz, 1959:26 (Portugal: 10 localities); Giner Marí, 1959:388 (Morocco); Grandi, 1959b:287 (Italy: Bologna: Monte Cavallo); Suárez in Giner Marí, 1959:400 (*Podalonia* is the correct subgeneric name); de Beaumont, 1960c:169 (Afghanistan); Scobiola, 1960b:235 (Romania: Focșani Region: Scîntea, Vilcea Region: Cozia; male genitalia illustrated); de Beaumont, 1961c:44 (Greece: Island of Crete); Grandi, 1961:141 (nesting habits); de Beaumont, 1962b:18 (Spain); Ceballos, 1964:87 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:26 (in Sphecida Fauna of Switzerland), 1965a:10 (Greece); Myartseva, 1965:87 (Turkmenistan: Akibay); B. Klug, 1965:136 (Germany: Baden-Württemberg: Freiburg im Breisgau area); de Beaumont, 1967a:261 (Turkey); Gauss, 1967:551 (Germany: Baden-Württemberg); Scobiola-Palade, 1967a:161 (Romania: Constanța District: Hagieni), 1967b:37 (Romania); Benedek, 1968:70 (Hungary, floral records); Kazenas, 1968b:342 (Kazakhstan: Alma Ata and Chimkent oblasts); Parré, 1968:122 (Germany: Sachsen-Anhalt: Staßfurt); Scobiola-Palade, 1968c:382 (Romania: București, Frătești, Măgurele, Odaia, Turnu); de Beaumont, 1969:80 (Turkey); Suárez, 1969:26 (Spain: Almería Province); Schmidt, 1971b:22 (Germany: Mainz area), 1971c:73 (Germany: Schleswig-Holstein); Tsuneki, 1971k:150 (Mongolia), 1971m:3 (China: Nei Mongol: Apaka); Kofler, 1972:105 (Austria: eastern Tirol); Scobiola-Palade, 1972a:148 (Romania: delta of Danube: Caraorman), 1972b:251 (Romania); Wolf, 1973:41 (Germany: Siegerländer Hütten-sand); Esmaili and Rastegar, 1974:45 (Iran); Levi, Sysoletina, and Shernin, 1974:268 (Russia: Kirov Oblast': Bakhta, Goltsy, Kirov, Korshik, Makar'ye, Pushma, Velikasya, Yaransk, Zlobino); Georghiou, 1977:189 (Cyprus); Marion, 1978:85 (France); Pulawski, 1978:180, 181 (in key to Sphecidae of European part of USSR); Piek and Spanjer, 1986:179 (in list of Sphecidae with known prey); Pankevich, Belyavskaya, Molchanova, Shlyakhtenok, and Blinov, 1989:94 (Belorussia: Berezinskiy Nature Reserve); Scobiola-Palade, 1989:87 (Romania: delta of Danube); Pádr, 1990:68 (Czech Republic: Praha area); Delarze, 1992:67 (Switzerland: Valais: Les Follatères); Podgorbunskikh and Rudoiskatel', 1999:142 (Russia: Chelyabinsk Oblast': Il'men Nature Reserve). – **As *Psammophila hirsuta***: Wesmael, 1852:82 (new combination, Belgium); Taschenberg, 1858:61 (in key to Sphecidae of Germany), 1866:207 (in revision of Hymenoptera of Germany); A. Costa, 1867b:72 and 1867c:16 (in revision of Italian Sphecidae); Schmiedeknecht, 1876:186 (Germany: Thüringen: Rothensteiner Felsen); Gribodo, 1881a:74 (Italy: Calabria); Magretti, 1881:114 (Italy: Lombardia), 270 (in list of species discussed in this paper); Friese, 1883:203 (Germany: Sachsen-Anhalt: Weissenfels); Bezzi, 1892:123 (Italy: Lombardia: Provincia di Pavia: monte Penice); Adlerz, 1901:172 (nesting habits); N. Arnold, 1902:90 (Russia: Mohilev Province, now Belorussia); Adlerz, 1904:70 (detailed ac-

count of nesting habits); E. Saunders, 1904c:604 (Spain: Mayorca), 636 (Spain); Dusmet y Alonso, 1906:7 (Spain); Strand, 1906:101 (Norway: Gol); Clerc and Clerc, 1907:79 (Russia: Ekaterinburg district); Schmiedeknecht, 1907:246 (in key to Hymenoptera of Central Europe); Strand, 1910d:340 (Norway: Fredrikstad); Dittrich, 1911b:25 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Schirmer, 1912:168 (Germany: Berlin area); Smits van Burgst, 1913a:319 and 1913b:6 (Tunisia: no specific locality); Torka, 1913:35 (Germany: Provinz Posen, now Poland: Poznań Region); Birula, 1914:389 (Belorussia: Korolevo near Vitebsk); Lécaillon, 1918:530 (prey captur and transportation); Kerenskiy, 1919:36 (Russia: Penza Governorate); O. Meyer, 1919:156 (Germany: Posen Province, now Poland: Poznań Region); A. Wagner, 1920:35 (Germany: Lower Elbe region); Dubois, 1922:214 (in key to Belgian Sphecidae); Fahringer and Friese, 1921:160 (Turkey: Erzurum: Das Dagħ and Djihan valley near Marash in Amanus Mountains = Gavur Dağlari); Fahringer, 1922:176 (Turkey); Hedicke, 1922:272 (Germany: Brandenburg: Gross Machnower Weinberg); Strand, 1922:197 (Germany: Bayern: Kulmbach), 198 (Austria: Niederösterreich: Guntramsdorf); Maréchal, 1924:6 (Belgium: Loën); Bischoff, 1925:301 (Latvia; Lithuania: Dolny near Vilnius; Poland: Białowieża and Grajewo area); Grandi, 1925a:89 (gregarious resting); Lauterborn, 1925:355 (Germany: Rheinland); Schütze, 1925:114 (Germany: Lausitz Region); Shestakov, 1925:37 (Russia: Yaroslavl' area); K. Strohm, 1925:212 (Germany: Baden-Württemberg: common); Bouwman, 1926:280 (in list of Sphecidae of Netherlands); Friese, 1926:169 (in key to Sphecidae of Central Europe, short morphological and biological characteristics); K. 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Turrisi, 2007:115 (Italy: Sicilia: Mount Etna: Botanical Garden Nuova Gussonea and vicinity, as *hirsuta hirsuta*); Vago, 2007:174 (France: départements du Nord, Pas-de-Calais, and Somme); Vepřek and Straka, 2007:199 (in catalog of Sphecidae of Czech Republic and Slovakia); Vicidomini and Pignataro, 2007:2 (Italy: Salerno: known from Parco Nazionale del Cilento east of Vallo di Diano, as *irsuta*); 15 (Italy: Provincia di Salerno: Corleto Monforte); Yildirim and Ljubomirov, 2007:117 (Turkey: Bingöl: Ilıcalar); Danilov, 2008:346 (Russia: Altayskiy Krai: Barnaul area, as *hirsuta hirsuta*); Dvořák, Bogusch, Malenovský, Bezděčka, Bezděčková, Holý, Liška, Macek, Roller, Říha, Smetana, Straka, and Šima, 2008:65 (Czech Republic: Hády Hill near Brno); Gayubo, González, Tormos, and Asís, 2008:136 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ghahari, Hayat, Tabari, Ostovan, and Imani, 2008:740 (Iran: Guilan: Lahijan, as *hirsuta hirsuta*); Haeseler, 2008:309 (Germany: Friesian Islands Heneberg, Bogusch, and Řehounek, 2008:unnumbered p. 7 (Czech Republic: sandpits); Kazenas, 2008b:111 (Kazakhstan: foothills of Zailiskiy Alatau: on loess cliffs in early spring); Kochetkov, Bol'shakova, Butenko, and Priklonskiy, 2008:261 (Russia: Ryazan' Oblast': Oka Nature Reserve); Larnhof, 2008:46 (Austria: Niederösterreich: Nature Reserve "in den Sandbergen" near Drösing); Livory, Chevin, Lair, Sagot, and Baldock, 2008:26 (France: Département de la Manche); Ljubomirov and Yildirim, 2008:45 (in catalog of Sphecidae of Turkey); Nemkov, 2008b:17 (in catalog of Sphecidae of Asiatic Russia); Tannert and von der Dunk, 2008:181 (Germany: Bayern: west of Ernhofen and Weissenbrunn); Theunert, 2008:74 (Germany: map of distribution in Niedersachsen and Bremen); Baños-Picón, Asís, Gayubo, and Tormos, 2009:310 (Spain: frequency of specimens collected with hand nets and Malaise traps); Belkheir, 2009:17 (France: Pyrénées-Orientales: commune d'Eyne); Danilov, 2009:56 (Russia: Western Siberia: Kulundinskaya Steppe, as *hirsuta hirsuta*); Debuyser and Vago, 2009:2 (in list of Sphecidae *sensu lato* of northern France); U. Frommer, 2009a:29 (Germany: in checklist of Sphecidae of Hessen); 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, 2009:262 (Bulgaria: Maleshevskya Planina, as *hirsuta hirsuta*); Mokrousov, Antropov, Ruchin, and Bugayev, 2009:78 (Russia: Republic of Mordovia); Ødegaard, Sverdrup-Thygeson, Hansen, Hanssen, and Öberg, 2009:70 (Norway: locality records); Ruchin, Antropov, and Shibayev, 2009:169 (Russia: Republic of Mordovia); Shorenko, 2009:367 (in list of Sphecidae *sensu lato* of Crimea); Szczepek and Wiśniowski, 2009:72 (Poland: Spała Landscape Park); Zettel, Wagner, Zimmermann, Wiesbauer, Sorger, Ockermüller, and Seyfert, 2009:10 (Austria: Oberösterreich: Pfaffstätten); Bitsch, 2010:107 (in supplement to vol. II of Faune de France, 1997: records of nesting habits by Blösch, 2000 reported); Danilov, 2010b:45 (distribution of transpalearctic type); Dollfuss, 2010a:548 (locality records from Algeria, Armenia, Austria, Bulgaria, China, Cyprus, Czech Republic, Denmark, Estonia, Greece Hungary, Iran, Italy, Kazakhstan, Kyrgyzstan, Lithuania, Macedonia, Morocco, Pakistan, Romania, Russia: Tyva Republic, Slovakia, Spain, Syria, Tajikistan, Turkey, Turkmenistan, Ukraine, and Uzbekistan), 2010b:1245, 1248 (in key to Old World *Podalonia*), 1257 (bibliographic references, recognition characters, geographic distribution); Ermilov and Mokrousov: 2010:89 (phoretic mites *Acarus psenuli* (Vitzthum), *Histiogaster* sp., and *Lackerbaueria cribratissima* Zachvatkin in Middle Volga Region of Russia); Esser, Fuhrmann, and Venne, 2010:38 (Germany: in checklist of aculeates of Nordrhein-Westfalen); Ghazi-Soltani, Ebrahimi, Iranipour, and Pour Abad, 2010:797 (Iran: East Azarbaijan: several localities); Ghazi-Soltani, Khaghaninia, and Shahim, 2010:638 (Iran: East Azerbaijan: Horand Forests); Hable, Krauss, von der Dunk, and Wickl, 2010:28 (Germany: Bayern: Sulz- and Ottmaringer Tal); Howe, Knight, and Clee, 2010:100 (United Kingdom: occurring on coastal sand dunes); Johansson, 2010:121 (Sweden: Småland: upper Emå river valley); Mokrousov, 2010a:60 (Russia: Kirov, Kostroma, and Nizhny Novgo-

rod oblast's, Chuvash Republic, Mordoviya, and Tatarstan: no specific localities); Rudoiskatel', 2010:147 (Russia: central and southern Ural Mountains); Saure, 2010b:174 (Germany: Berlin-Reinickendorf: airport Tempel and Flughafensee Protected Area); Schmid-Egger, 2010a:22 (in red list of Aculeata of Germany: relatively common); Shorenko and Konovalov, 2010:10 (Ukraine: Crimea); Smetana, Roller, Beneš, Bogusch, Dvořák, Holý, Karas, Macek, Straka, Šima, Tyrner, Vepřek, and Zeman, 2010:100 (Western Slovakia: recorded from Borská nížina); Smit and Wijngaard, 2010:69 (in checklist of Sphecinae of Netherlands); Tüzün and Yüksel, 2010:4468 (Turkey: Niğde Province); van der Smissen, 2010a:350 (Germany: Schleswig-Holstein: locality records), 2010b:386 (France: Ardèche: locality records), 2010c:397 (Sweden: Öland: Gårdbý; Wurdack and Gack, 2010:153 (Germany: Baden-Württemberg: Kaiserstuhl); Archer, 2011b:54 (Great Britain: North Norfolk sand dunes); Baghirov, 2011b:139 (Russia: Altayskiy Kray: Savvushka); Burger, 2011a:288 (Germany: in red list of Sphecidae *sensu lato* of Thüringen); Danilov, 2011b:203 (Russia: Zabaikal'skiy Kray: Daur'skiy Nature Reserve); Cruz-Sánchez, Asís, Gayubo, Tormos, and González, 2011:497 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park: effects of wildfire); Field, Ohl, and Kennedy, 2011:734 (in molecular cladistic analysis of Ammophilini); Gogala, 2011:7 (Slovenia); Józán, 2011:179 (in checklist of Sphecidae *sensu lato* of Hungary); Mokrousov, Berezin, and Egorov, 2011:64 (Russia: Chuvash Republic); Murai and Amr, 2011:108, 120 (first record from Syria: Al Thawrah Nature Reserve at 35°51'N 28°38'E); Rudoiskatel', 2011b:68 (Russia: Republic of Bashkortostan), 2011d:238 (Russia: central Ural Mountains); Saure, 2011d:199 (Germany: Sachsen-Anhalt: conservation area "Heide südlich Burg"; Schmid-Egger, 2011a:43 (France: Parc National du Mercantour); Theunert, 2011a:221 (Germany: in checklist of aculeates of Niedersachsen including city of Bremen); Tischendorf, Frommer, Flügel et al., 2011:63 (Germany: Hessen: strongly endangered); von der Dunk, 2011:184 (Germany: Bayern: Kaiserburg in Nürnberg); Boillat, 2012:229 (Switzerland: in checklist of insects of Canton de Genève); Burguet *in* Durand and Burguet, 2012:2 (France: Puy-de-Dôme: sands Girauts-Faures in Orléat commune); Franzén, Molander, Norén, and Nilsson, 2012:27 (Sweden: Skåne: Kullaberg Peninsula); 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, as *hirsuta hirsuta*); Protsenko, Fateryga, Ivanov, and Puzanov, 2012:55 (Ukraine: Crimea); Shlyakhtenok, 2012b:91 (Belorussia: Beresina National Reserve: overgrowing dry meadow); Strumia, Pagliano, and Gayubo, 2012:55 (Italy: Toscana: Riserva di San Rossore); Yildirim, 2012:74 (Turkey: Erzurum: Oltu; Tunceli: Mazgirt: Kalaycı) and as *hirsuta hirsuta* (Turkey: Adana, Baybur, Erzurum, Iğdı, and Kars provinces); Bayındır, Gürbüz, Ljubomirov, and Pohl, 2013:146 (Turkey: Isparta: Kasnak Oak Forest Nature Reserve); Bitsch, Grouet, and Savina, 2013:292 (France: Pyrénées-Orientales: col de Puymorens); Dollfuss, 2013b:588 (locality records from Algeria, Bulgaria, Czech Republic, France, Iran, Italy, Kazakhstan, Kyrgyzstan, Slovakia, Spain, Syria, Tajikistan, and Turkey); Flügel, 2013a:120 (Germany: Brandenburg: Pimpinellenberg near Oderberg); Kazenas, 2013a:29-31 (color photographs of adult wasps, short information on geographic distribution and nesting habits); Lohez and Vago, 2013:21 (France: Pas-de-Calais: Mont Saint-Frieux); Pankov, 2013:228 (Russia: Ivanovo Oblast'); Saure, 2013:17 (Berlin: Treptow-Köpenick: Gosener Wiesen); A. Scholz and Liebig, 2013:26 (Germany: Sachsen: in list of Sphecidae *sensu lato*); Shlyakhtenok, 2013:134 (in annotated catalog of aculeate wasps of Belorussia); Vieira, Oliveira, Brewster, and Gayubo, 2013:15 (Portugal: Douro International Natural Park); Wiśniowski and Piotrowski, 2013:20 (Poland: Poleski National Park); Wiśniowski and Szczepko, 2013:22 (Poland: Kampinos National Park near Warszawa); Baldock, 2014:353 (Spain: Island of Mallorca: Puig Major); Danilov, 2014a:425 (Russia: Siberia: many areas), 2014b:518 (in key to Sphecidae s.s. of Siberia); Dunford, Turbyville, and Leavengood, 2014:11 (listed as medically important in Afghanistan); Ebrahimi, 2014:10 (Iran: Alborz, Āzarbāijān-e Sharghi, Kordestān, Lorestān, and Zanjān provinces); Flügel, 2014:255 (Brandenburg: Hangelsberger Heide); Ghahari, Hayat, Lavigne, and Ostovan, 2014:1401 (prey of asilid fly *Satanas gigas* (Eversmann)), 1413 (prey of asilid fly *Pogonosoma maroccanum* (Fabricius)), 1417 (prey of asilid fly *Leptogaster calceata* Engel); Hellqvist, Abenius, and Norén, 2014:90 (in catalog of Ampulicidae, Sphecidae, and Crabronidae of Sweden, by provinces); Józán, 2014:131 (Croatia: Rudelić Draga, Šibenik); Kazenas, 2014a:132 (Kazakhstan: Karatau Mountain Range); Mokrousov and Vafin, 2014:54 (Russia: Republic of Tatarstan); Yildirim, 2014:30 (Turkey: distribution by biogeographic provinces, as *hirsuta hirsuta*); Archer, 2015:202 (Great Britain: English coastal sand dunes); Dollfuss, 2015b:437 (locality records from Bulgaria, Cyprus, France, Greece, Iran, Italy, Jordan, Kyrgyzstan, Macedonia, Mongolia, Morocco, Spain, and Turkey); Field, Shreeves, Kennedy, Brace, and Gilbert, 2015:1899 (sex-biased parental care and sexual size dimorphism);

Koçak and Kemal, 2015:278 (in checklist of Hymenoptera of Turkey); P. Rosa and Pagliano, 2015:96 (Italy: Lombardia and Piemonte: Parco del Ticino); Samin, Bagriacik, and Monaem, 2015:195 (Iran: Isfahan: no specific locality); Saure, 2015:12 (Germany: Berlin-Lichterfelde); Shorenko, 2015:313 (in list of Sphecidae *sensu lato* of Crimea); Bleidorn, Gerth, Hopfe, et al., 2016:11 (Germany: Sachsen: Trages circa 20 km south of Leipzig); Cölln and Jakubzik, 2016:18 (Germany: Rheinland-Pfalz: Vulkaneifel District); Else, Bolton, and Broad, 2016:50 (in checklist of Aculeata of Great Britain and Ireland: England, Wales); Gülmez and Dizer, 2016:60 (Turkey: Tokat Province); Levărdă and Matache, 2016:41 (in catalog of Sphecidae s.s. of Romania); A. Scholz, 2016:71 (Germany: Sachsen: Kleinraschützer Heide); Stolle and Saure, 2016:927 (Germany: in list of Sphecidae *sensu lato* of Sachsen-Anhalt); Wang, Q. Li, and Ma, 2016:448, 449 (in key to *Podalonia* of China); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:8 (Turkey: Ankara, Bartı, Bayburt, and Tunceli provinces, as *hirsuta hirsuta*); Arens, 2017a:634 (Greece: Peloponnesus); Danilov, 2017b:214 (in catalog of Sphecidae s.s. of Russia); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:20 (Iran: known from provinces of Alborz, Ardabil, Charmahal-o Bakhtiari, East Azerbaijan, Golestan, Guilan, Hamadan, Isfahan, Khorasan-e Razavi, Kohgiluyeh-va Boyerahmad, Lorestan, Markazi, Mazandaran, Qazvin, Sistan-o Baluchestan, Tehran, West Azerbaijan, and Zanjan); Magdalou, 2017:16 (France: Pyrénées-Orientales: Réserve Naturelle Catalanes: Forêt de la Massane, Julols, Vallée d'Eyne); Shorenko, 2017:76 (in Crimea collected in February through September); Twerd, Krzyżyński, Waldon-Rudzionek, and Olszewski, 2017:7 (Poland: Inowrocław and Janikowo: nesting in postindustrial soda ash dumping sites); Franken and Berg, 2018:67 (Netherlands: North Holland: sand dunes); Kemal and Koçak, 2018:43 (Turkey: in list of pterygot insects of Van Province); Ma, Zhang, Ch. Li, Ji, and Q. Li, 2018:485 (China: Shanxi: Lishan National Nature Reserve); Nicolas and Vago, 2018:12 (France: Pas-de-Calais: Mont Saint-Frieux); Shorenko, 2018:126 (Crimea, including localities, habitats, and number of specimens); Gülmez, 2019:3 (Turkey: Ankara, Sivas, and Tokat provinces: no specific localities, as *hirsute*), 4 (abnormal forewing venation); Ljubomirov, 2019:102 (Bulgaria: Vrachanska Planina, as *hirsuta hirsuta*); Olszewski and Kowalczyk, 2019:113 (northern Poland: Pomorze Gdańskie = Gdańsk Pomerania); Ruchin and Antropov, 2019a:13220 (Russia: Mordovian State Nature Reserve), 2019b:162 (common in Mordovian State Nature Reserve); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:309 (in list of Tunisian Sphecidae *sensu stricto*; additional records: Gabes, Medenine, and Tozeur provinces); Bitsch, Barbier, and Jacobs *in* Bitsch, Barbier, Gayubo, Jacobs, Leclercq, and Schmidt, 2020:108 (in Sphecid Fauna of Europe); Cassar and Mifsud, 2020:164 (in checklist of Sphecidae s.s. of Malta); Danilov, 2020:318 (specimens from Belorussia, Kazakhstan, Kyrgyzstan, Russia: Dagestan and Siberia, and from Tajikistan and Turkmenistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Field, Gonzalez-Voyer, and Boulton, 2020:7 (evolution of parental care); Kejval, Blažej, and Erhart, 2020:119 (western Czech Republic); Maharramov, Mokrousov, and Proshchalykin, 2020:45 (Azarbaijan: Nakichivan Autonomous Republic); Örgel, Anlaş, and Tezcan, 2020:638 (Turkey: Manisa Province, as *hirsuta hirsuta*); Shorenko, 2020:47 (Crimea: Karadag Nature Reserve); Saure, 2020:276 (Germany: Sachsen-Anhalt: sand dunes); Shorenko, 2020:47 (Crimea: Karadag Nature Reserve); Can and Gülmez, 2021b:310 (Turkey: Erzincan, Gumüşane, and Sivas provinces); Cross, Baldock, and Wood, 2021:15 (in catalog of Sphecidae *sensu lato* of Portugal); Olszewski, Wiśniowski, and Ljubomirov, 2021:103 (in commented list of Sphecidae *sensu lato* of Poland); Saure and Marten, 2021:134 (Germany: Sachsen-Anhalt: Nationalpark Harz); Jakubzik and Cölln, 2022:11 (Germany: Rheinland-Pfalz: Moselle River valley between Drohn and Kattenes); Kaplan and Yildirim, 2022a:56 (Turkey: Bingöl and Diyarbakır provinces); Embergenov, Élmurodova, Amirov and Kimyonazarov, 2022:48 (Uzbekistan: Zhizzakh Province, as *hirsute*); Antropov and Valuyev, 2023:5 (Russia: Bashkir Republic); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey); Kochetkov, 2023:191 (Russia: Amur Oblast': Khingan Nature Reserve).

Sphex arenarius Fabricius, 1787:273, sex not stated (as *arenaria*, incorrect original termination), junior primary homonym of *Sphex arenarius* Linnaeus, 1758. Lectotype: sex not stated, Germany: Kiel (ZMUC), designated by van der Vecht, 1961a:41. Synonymized with *Ammophila hirsuta* by Fabricius, 1804:207 (the latter name treated as invalid junior synonym). – de Villers, 1789:225 (redescription); Rossi, 1790:60 (in revision of insects of Etruria, now Toscana, Italy); Fabricius, 1793:199 (redescription), 1796:155 (in Index to his Entomologia Systematica, 1793); Panzer, 1899, Heft 65:15 (in revision of German insects, illustration of habitat), 1806:124 (in critical review of his earlier work); Illiger, 1807b:92 (synonymy, redescription); Jurine, 1807:128 (listed); Zetterstedt, 1838:435 (in revision of insects of Lapland); C. Verhoeff, 1890a:334 (comparison with

- Psammophila affinis*); Peets, 1909-1911:68 (*Sphex arenaria* of Panzer = *Psammophila hirsuta*). – **As *Pepsis arenaria***: Fabricius, 1804:207 (new combination, redescription); Dahlbom, 1845:XX (specimens in collection Fabricius are *Psammophila viatica*). – **As *Ammobia arenaria***: Billberg, 1820:105 (new combination, Sweden); Bonnefois, 1895:CCCXLIV (wasp's larva consumed live caterpillar after being taken out of nest); Rohwer, 1911c:153 (discussion of name). – **As *Ammophila arenaria***: Lepeletier de Saint Fargeau and Audinet-Serville, 1828:452 (new combination, redescription); Casolari and Casolari Moreno, 1980:101 (specimens in M. Spinola collection, Torino); Pagliano, 2008:515 (specimens in M. Spinola collection, Torino).
- Sphex arenosa* Gmelin, 1790:2742, sex not stated. Holotype or syntypes: Germany: Schleswig-Holstein: Kilonia, now Kiel (destroyed). Synonymized with *Ammophila hirsuta* by Kohl, 1906:276.
- Ammophila argentea* W. Kirby, 1798:208, [♂]. Holotype or syntypes: ♂, Great Britain: no specific locality (depository ?). Synonymized with *Ammophila viatica* by F. Smith, 1856:208. – Turton, 1801:498 (redescription); Stephens, 1829a:361 (in catalog of British insects), 1829b:33 (in checklist of British insects). – **As *Psammophila argentea***: von Frauenfeld, 1861:103 (new combination, Croatia: Dalmatia no specific locality, determination tentative).
- Sphex viatica* var. *macrogaster* Dahlbom, 1831c:44, ♀. Syntypes: Sweden: Östergötland: Vadstena Lot and Medhamra Äng; Scania: Ystad (Lund). Synonymized with *Ammophila hirsuta* by Kohl, 1906:276.
- Ammophila mervensis* Radoszkowski, 1887b:89, ♀, ♂ (as *Mervensis*, incorrect original capitalization). Syntypes: Turkmenistan: Samsaul; Caucasus; France: Corse (Kraków). Synonymized with *Podalonia hirsuta* by Yildirim and Ljubomirov, 2007:121. – Ferton, 1905:98 (weight of female and of prey); Strand, 1915:97 (Greece: Crete: Candia); Ferton, 1923:342 (female is all black, male has gaster red, as in *hirsuta*); Gribodo, 1924b:48 (Libya: Zavia Mechili); Myartseva, 1972a:87 (Turkmenistan). – **As *Ammophila hirsuta* var. *mervensis***: Kohl, 1889a:21 (new status, comparison with *Ammophila ebenina*); Kohl and Handlirsch, 1889:275 (Turkmenistan); Kohl, 1905c:231 (Turkey: Kayseri: Erciyes Dağı); Ferton, 1901a:140 (prey defensive behavior), 1914:100 (unusual prey: a caterpillar of *Cucullia chamomillae* Schiffermüller, Noctuidae, a free living species); Berland, 1925d:32 (in Sphecidae Fauna of France); von Schulthess, 1926b:208 (Libya: Cyrenaica); Bischoff, 1930a:215 (Tajikistan: Pamir, as form *mervensis*); G. Carpenter, 1930b:291 (nest closure); Gussakovskij, 1933b:274 (Iran); Bajári, 1957a:15 (in key to Hungarian Sphecidae). – **As *Psammophila hirsuta* var. *mervensis***: Fahringer and Friese, 1921:160 (new combination, Turkey: Erzurum: Amanus Mountains = Gavur Dağları); Fahringer, 1922:177 (Turkey), Ferton, 1923:322 (preys normally on caterpillar of *Agrotis*, Noctuidae, exceptionally on those of *Cucullia chamomillae* Schiffermüller and setose *Epinephela jurtina* (L.), Nymphalidae). – **As *Ammophila hirsuta mervensis***: Kruger, 1929a:21 and 1929b:56 (new combination, new status, Libya: Cyrenaica: Tobruk); Grandi, 1934:130 (Italy: Sardegna: Oristano and Sassari); Guiglia, 1934b:291 (Libya: bibliography and summary of locality records); Nadig, 1934:33 (France: Corse: Vizzavona; Italy: Sardegna: Aritzo, Cagliari, Mandas); Balthasar, 1954b:281 (Palestine: Wadi el Kelt near Jericho); Bytinski-Salz, 1956:223 (Turkey: Ercias Dag, Goundely, Keşiş, Kurbali Dere, Uludagh); de Beaumont, 1957b:129 (northern Iran); Grandi, 1957:342 (cocoon structure), 387 (Italy: Sardegna); de Beaumont, 1959a:5 (Italy: Sardegna: Muravera, Sarrabus), 1961c:44 (Greece: Crete: Ayia Varvara, Heraklion); Grandi, 1961:143 (nesting habits); de Beaumont, 1970a:386 (Afghanistan); Esmaili and Rastegar, 1974:45 (Iran). – **As *Podalonia hirsuta* f. *mervensis***: Dollfuss, 2010a:542 (new status, locality records from Armenia, Czech Republic, France, Greece, Iran, Jordan, Kazakhstan, Kyrgyzstan, Pakistan, Russia, Slovenia, Syria, Tajikistan, Turkey, Turkmenistan, and Uzbekistan). – **As *Podalonia hirsuta mervensis***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Pagliano, 1980:111 (Italy: Sardegna), 1984:369 (Italy), 1985:20 (Italy), 1990:62 (in catalog of Italian Sphecidae); Gayubo, Borsato, and Osella, 1991:395 (Italy: Sardegna), 1992:278 (Turkey); Hamon, Tussac, and Fonfria, 1992:410, 411 (in key to French Ammophilini); Kazenas, 1992c:25 (Turkmenistan: Repetek Nature Reserve); Ebrahimi, 1993:92 (Iran); Gayubo and Borsato, 1994:202 (Italy: Sardegna); Negrisolo in Minelli, Ruffo, and La Posta, 1995b:3 (in catalog of Italian fauna); Kazenas, 2001b:16 (in checklist of Sphecidae of Kazakhstan and Central Asia); Gayubo and Özbek, 2005:10 (Turkey: many localities); Gülmez and Tüzün, 2005:49 (Turkey: Ankara Province); Pagliano and Negrisolo, 2005:74 (in Sphecidae Fauna of Italy); Yildirim and Ljubomirov, 2005:1789 (Turkey: Bayburt, Bingöl, Bitlis, Erzincan, Erzurum, Konya, Niğde, and Rize provinces; males with red gaster); Kazenas, 2013a:15 (color photograph of female); Ebrahimi, 2014:11 (Iran: Alborz, Āzarbāijān-e Gharbi, Āzarbāijān-e Sharghi, Chārmahāl-Bakhtiāri, Gilān, Golestān, Hamadān, Lorestān, Khorāsān-e Razavi, Māazandarān, Sistān-Baluchestān, and Tehrān provinces).

As *Ammophila tydei*: Westerlund, 1896:28 (Finland: Rantasalmi), corrected to *Podalonia hirsuta* by Hellén, 1955a:124.

As *Sphex viatica* (which actually is a pompilid, see ICZN, 1980, Opinion 1157): Latreille, [1805]:293 (redescription); Dwigubsky, 1802:167 (Russia: Moskva area); Valkeila, Brander, and Käpylä, 1963:41 (Finland: historical region Lounais-Hämeen = southwest Häme). – As *Ammophila viatica*: Dahlbom, 1831:43 (new combination, redescription); Shuckard, 1836:57 (providing nests with spiders, clearly reference to a pompilid), Kiesenwetter, 1849:87 (Germany: Kingdom of Saxony); F. Smith, 1851c:16 (Great Britain: on sandy spots), 1853:62 (in checklist of British Hymenoptera), 1856:208 (in catalog of Hymenoptera in British Museum), 1858c:82 (in review of British Aculeata, redescription); Sichel, 1861:751 (Italy: Sicilia); F. Smith, 1865b:86 (Great Britain: Dorset County: Bournemouth), 1871b:9 (in catalog of British Aculeata); Dours, 1874:141 (in catalog of Hymenoptera of France); Martinez y Saez, 1874:31 (specimens from Spain: Madrid area, donated to Leon Dufour); Marquet, 1875:208 (France: Languedoc); Frivaldszky, 1876:354 (Hungary: Temes Komitat: Grebenács, now in Timiș District in Romania); Girard, 1878:242 (France: Calvados: Lion-sur-Mer, coastal sand dunes), 1879:968, 969 (morphology and habits); Siebke, 1880:60 (Norway); Marquet, 1881:177 (southern France); De Stefani Perez, 1882:39 (Italy: Sicilia: Sciacca); Cuní y Martorell, 1888:164 (Spain: Barcelona); F. Morawitz, 1889a:126 (China: Gansu), 1891a:204 (Russia: Astrakhan Governorate), 1893a:108 (Russia: Karelian Isthmus), 1893b:408 (Tajikistan); Sickmann, 1893:95 (Germany: Niedersachsen: Iburg); F. Morawitz, 1894:340 (Turkmenistan: Tedjen); De Stefani Perez, 1895:226 (in catalog of Sicilian Hymenoptera); Pulkkinen, 1931:53 (in revision of Sphecidae of Finland); E. Nielsen, 1933:307 (summary of nesting habits); de Beaumont, 1947b:381 (Cyprus); Pittioni, 1950:19 (Cyprus); Pulawski, 1958a:163 (Bulgaria: Aitos, Kniazhevo and Vitosha Mountain near Sofia, Kurilo); Noskiewicz and Puławski, 1960:39, 40 (in key to Polish Sphecidae); Myartseva, 1963b:59 (Turkmenistan: lower Murgab River); Scobiola-Palade, 1966a:162 (Romania: Tulcea District: Chilia Veche; preying on caterpillar of *Zeuzera pyrina* L., Cossidae); Tumšs, 1970:71 (Latvia); Valetta, 1971:46 (Malta); Georghiou, 1977:189 (Cyprus); Skibińska, 1982:122 (Poland: Warszawa area); Kowalczyk, 1990:290 (Poland: Góry Świętokrzyskie). – As *Psammophila viatica*: Dahlbom, 1842a:8 (new combination, in review of Scandinavian aculeates), 1843:18 (in revision of Sphecidae and Pompilidae), 1845:432 (in key to world *Psammophila*); Eversmann, 1849:365 (Russia: Astrakhan, Orenburg, and Saratov provinces); Wissmann, 1849:10 (Germany: Kingdom of Hannover: sandy habitats); Kirchner, 1854:311 (Czechoslovakia: Kaplitz in Budweiser District, now České Budějovice); Ruthe and Stein, 1857:312 (Germany: Berlin area); Schenck, 1857:205 (Germany: in revision of fossorial wasps of Nassau Region); A. Costa, 1858a:19 (Italy: Campania: Monti Partenii in Benevento Region), 1858b:13 (Italy: in revision of Sphecidae of Kingdom of Naples); Assmuss, 1859:606 (Russia: Moscow Governorate); Funk, 1859:59 (Germany: Bayern: Bamberg); Schenck, 1860:149 (Germany: Nassau Region); Schenck, 1861:143 (Germany: Hessen: Dillenburg); Brischke, 1862:98 (Germany: Preussen Province, now Poland: Pomorze Region); A. Costa, 1863:65 (Italy: Calabria Ulteriore: Aspromonte); Siła-Nowicki, 1864:55 (Ukraine: L'viv), 1865:55 (western Ukraine: Galicia region: no specific locality); A. Costa, 1866:24 (two specimens from France in Museo Zoologico di Napoli); Jaennicke, 1867:147 (Germany: Hessen: Frankfurt area); Kirchner, 1867:217 (in catalog of European Hymenoptera); Schenck, 1867a:357 (Germany: Nassau Region); Jaennicke, 1868:9 (Germany: Hessen: Mombach, Rüsselsheim); Wierzejski, 1868:117 (Poland: Kraków area, and Ukraine: L'viv area, Podole region: common everywhere); Palma, 1869:38 (Italy: Sicilia settentrionale); Taschenberg, 1869:429 (Germany: Halle); von Aichinger, 1870:321 (Austria: Tirol); Thomson, 1870:230 (in revision of Swedish wasps); Mocsáry, 1874:120 (Siebenbürgen, now Romania: Transylvania: no specific locality); Thomson, 1874:177 (in revision of Hymenoptera of Scandinavia); Wierzejski, 1874:258 (Poland: Kraków area and Ukraine: Podole Region: common everywhere); Beuthin, 1876:232 (Germany: Hamburg area); Brischke, 1876:11 (gregarious habits); Kohl, 1880:182 (Austria: Tirol, and Italy: Trentino-Alto Adige); Yaroshevskiy, 1881:127 (Ukraine: Khar'kiv Oblast': Khar'kiv, Kupyansk); Gribodo and Emery, 1882:82 (Italy: Cima Dolcedorme, Cima del Vulture, Vetta del Catria); Gribodo, 1883:689 (Portugal: Island of Madeira); Kohl, 1883e:674 (Switzerland); Sickmann, 1883:86 (Germany: Niedersachsen: Wellingholthausen); von Heyden, 1884:115 (Germany: Frankfurt am Main); Wüstnei, 1886:43 (Germany: Schleswig-Holstein: Sonderburg, Tingleff); Brischke, 1888b:94 (Germany: Preussen Province, now Poland: Pomorze Region); Assmuss, 1892:52 (Russia: earlier record from Moscow Governorate repeated); Westerlund, 1893:23 (Russia: Karelian Republic: northern shore of Lake Ladoga); Meunier, 1896:273 (Belgium: Bruxelles area); Borries, 1897:99 (review of known nesting habits); Lüderwaldt, 1897b:30 (Germany: Gollnow, now Poland: Pomorze Region: Goleniów); Meunier, 1897b:352 (Belgium: coastal

sand dunes at Blankenberge); Schirmer, 1898:265 (gregarious hiding place under pine bark); Strand, 1898b:92 (Norway); Chyzer, 1902:33 (Hungary); von Heyden, 1905:81 (Germany: Hessen: Frankfurt); Graeffe, 1911:49 (Italy: Trieste area); Bondroit, 1932:33 (Belgium: recorded from Bruxelles area by Vander Linden and Wesmael); Bondroit, 1934:60 (Belgium: Middelkerke); Forsius *in* Forsius and Hellén, 1935:12 (in checklist of Hymenoptera of Finland); Hüsing and Jäger, 1964:192 (Germany: Sachsen-Anhalt: Nietleben near Halle), 200 (nesting in sand). – **As *Podalonia viatica***: Cuní y Martorell, 1897:331 (new combination, Spain: Cataluña: villa de Calella); Alfken, 1924:231 (northern Germany); Richards, 1935a:165 (*Podalonia viatica* is the proper name for *hirsuta*), 1937b:104 (in checklist of British aculeates); Guichard, 1938:72 (England: Norfolk coast), 1939a:42 (Great Britain: southern Cornwall: Polperro); Yarrow, 1939:15 (Great Britain: Dorset: Lytchett Minster); Schneid, 1941:1050 (Germany: Bayern: Bamberg area); Alfken, 1942:231 (Germany: Niedersachsen: Lüneburger Heide); Audcent, 1942:25 (nest parasite: *Miltogramma punctatum* Meigen, Sarcophagidae); J. Perkins, 1942:197 (Sweden: Skåne: Kivik); Boyd, 1943:163 (Great Britain: eastern Dorset); Spooner, 1943:71 (Great Britain: 10 localities); Leclercq, 1948:205 (*Podalonia viatica* is the correct name, not *hirsuta*); Zavadil *in* Zavadil and Šnoflák, 1948:169 (in key to Sphecidae of Czechoslovakia); Cavro, 1950:31 (France: Département du Nord); Richards, 1950:79 (Great Britain: Wales: Pembrokeshire: Cwm-yr-Eglwys), 1952:142 (Great Britain: Anglesea); Tonapi, 1958a:509 (spiracular structures), 1958b:250 (respiratory system); Wengris, 1962:203 (Lithuania: Vilnius area); Fæster, 1965:192 (Denmark: Hansted Nature Reserve); Balthasar, Hrubant, and Hrubant, 1967:175 (Bulgaria: Slanchev Bryag near Nessebar); Niedl and Deneš, 1967:85 (Czech Republic: Třeboň area); Hoop, 1967a:40 (Germany: Schleswig-Holstein: Friedrichsort, Sarnekow); H. Schulz, 1967:59 (Germany: Brandenburg: Ruhlsdorf near Potsdam); Hoop, 1971:83 (Germany: Schleswig-Holstein: Buchhorste Berge, Segrahner Berg); Kazenas, 1971:161 (Kazakhstan: Zailiyskiy Alatau Range; widely distributed in Kazakhstan), 1972b:105 (Kazakhstan), 1974b:111 (feeding on flowers of *Lepidium crassifolium* W. et K., Brassicaceae, in Kazakhstan), 112 (feeding on flowers of *Salsola* sp., Chenopodiaceae, and *Primula* sp., Primulaceae, in Kazakhstan); Lomholdt, 1974:198 (map of distribution in Fennoscandia and Denmark), 1975a:7 (comparison with *Podalonia rothi* and *P. tydei*), 1975b:31 (Denmark: Island of Anholt); Kolesnikov, 1977:317 (Russia: Bryansk Oblast'); Kowalczyk, 1991a:76, 99, 101 (Poland: Łódź); Szczepko and Kowalczyk, 2004:125 (Poland: Kampinos National Park near Warszawa); Alieva and Humbatov, 2007:77 (nesting and prey). – **As *Sphex viaticus***: Valkeila, 1962b:67 (new combination, southwestern Finland).

Ammophila ebenina Lepeletier de Saint Fargeau, 1845:366, ♀ (authorship attributed to Spinola), junior primary homonym of *Ammophila ebenina* Spinola, 1839. Syntypes: Egypt and Sardinia: no specific locality (depository?). – **As *Psammophila ebenina***: A. Costa, 1882b:22 and 34 (new combination, Italy: Sardegna), 1883:57 (Italy: Sardegna: valle di Logulentu near Sassari), 1884b:32 (Italy: Sardegna: Gennargento); Magretti, 1882b:159 (Italy: Sardegna). – **As *Ammophila hirsuta* var. *ebenina***: Kohl *in* Dalla Torre, 1897:402 (new status, in catalog of world Hymenoptera); Guiglia, 1938b:9 (Italy: Sardegna), 1948c:200 (Italy: Sardegna: Villasalto).

Ammophila bolanica Nurse, 1903b:8, ♀. Syntypes: ♀, Pakistan: Quetta (BMNH). Synonymized with *Podalonia hirsuta mervensis* by Kazenas, 2000a:51. – Nurse, 1904:25 (description of ♂) Ramakrishna Aiyar, 1916:554 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Podalonia bolanica***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae; possibly a synonym of *Podalonia hirsuta mervensis*).

As *Psammophila ebenina* Spinola: A. Costa, 1864b:111 (six specimens from Corsica in Museo Zoologico di Napoli), present correction, 1867b:72 and 1867c:16 (in revision of Italian Sphecidae, known from Sardegna), present correction, 1882b:22 (Italy: Sardinia: Gennargento); Magretti, 1882b:159 (Italy: Sardinia: Gennargento), present correction; A. Costa, 1883a:57 (Italy: Sardinia: valle di Logulentu near Sassari), present correction; Ed. André, 1886:79 (in revision of Sphecidae of Europe and Algeria), corrected to *Ammophila hirsuta mervensis* by Kohl, 1889a:21.

ssp. *nepalensis* (Zavattari)

Ammophila hirsuta var. *nepalensis* Zavattari, 1909a:3, ♀. Holotype: ♀, Nepal: no specific locality (Torino). – Zavattari, 1909b:5 (Nepal, the specimen collected is a ♀). – **As *Podalonia hirsuta nepalensis***: R. Bohart and Menke, 1976:144 (new combination, new status, in checklist of world Sphecidae).

31. *hirsutaffinis* (Tsuneki)

Ammophila hirsutaffinis Tsuneki, 1971k:154, ♂. Holotype: ♂, Mongolia: Uvs Aymag: Höndlon gol (TMB). – **As *Podalonia hirsutaffinis***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Wu and Zhou, 1996a:60 (in revision in Economic Insect Fauna of China); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Dollfuss, 2010a:554 (Kazakhstan: Medeo 15 km southeast of Almaty), 2010b:1247 (in key to Old World *Podalonia*), 1258 (bibliographic references, recognition characters, geographic distribution); Wang, Q. Li, and Ma, 2016:449 (in key to *Podalonia* of China); Danilov, 2017a:561 (diagnosis, redescription, description of ♀, locality records from China, Kyrgyzstan, Mongolia, and Russia: Tuva Republic, color photographs), 2017b:214 (in catalog of Sphecidae s.s. of Russia), 2020:318 (specimens from Kyrgyzstan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia).

32. *hirticeps* (Cameron)

Ammophila hirticeps Cameron, 1889c:99, sex not stated. Holotype or syntypes: Pakistan: Gilgit (OXUM or Calcutta Mus.). – Cameron, 1889c:94 (in list of Sphecidae of Oriental Region); Bingham, 1897:234 (in revision of wasps and bees of British India, now India and Pakistan, redescription of ♀); Dalla Torre, 1897:400 (in catalog of world Hymenoptera); Gupta, 1960:26 (India: Himalaya). – **As *Podalonia hirticeps***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Jha and Farooqi, 1994:11 (description and illustration of male genitalia); S. Gupta, 1995:85 (India: Uttar Pradesh); Dollfuss, 2010b:1258 (redescription of ♀ by Bingham, 1897 reproduced, description of male genitalia by Jha and Farooq, 1994 reproduced).

33. *kansuana* Q. Li and Ch. Yang

Podalonia kansuana Q. Li and Ch. Yang, 1992:87, ♀. Holotype: ♀, China: Kansu: Wenxian County (Beijing Agricultural University). – Q. Li and L. Yang, 2005:884 (China: Gansu: Quinling Range and South Mountains); Dollfuss, 2010b:1244 (in key to Old World *Podalonia*), 1258 (bibliographic references, recognition characters, geographic distribution); Wang, Q. Li, and Ma, 2016:448 (in key to *Podalonia* of China).

34. *kaszabi* (Tsuneki)

Ammophila kaszabi Tsuneki, 1971k:147, ♀. Holotype: ♀, Mongolia: Central Aymag: Tsagan Dirshin Hodag (TMB). – R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Dollfuss, 2010b:1246 (in key to Old World *Podalonia*), 1259 (bibliographic references, recognition characters, geographic distribution).

35. *kazenasi* Danilov

Podalonia kazenasi Danilov, 2017a:563, ♂. Holotype: ♂, Kazakhstan: Mangystau Province: Karakiya District at 42°29'N 54°03'E (ZIN).

36. *kozlovii* (Kohl)

Ammophila kozlovii Kohl, 1906b:272, ♀, ♂ (as *Kozlovii*, incorrect original capitalization). Lectotype: ♀, China: Gansu: Jiuquan: Subei Mongol Autonomous County: Ulan-Bulak at 39°13'N 95°30'E (ZIN), designated by Danilov, 2017a:564. – **As *Podalonia kozlovii***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Dollfuss, 2010b:1244, 1247 (in key to Old World *Podalonia*), 1259 (bibliographic references, recognition characters, geographic distribution); Danilov, 2016:345 (syntypes preserved in Zoological Institute, Sankt Petersburg, Russia); Wang, Q. Li, and Ma, 2016:448, 449 (in key to *Podalonia* of China); Danilov, 2017a:564 (diagnosis, redescription locality records from China, color photographs).

37. *leleji* Danilov and Mokrousov

Podalonia leleji Danilov and Mokrousov, 2016:29, ♂. Holotype: ♂, Kazakhstan: Atyrau Province: 25 km southwest of Kulsary at 46°49'N 53°42'E (ZIN).

38. *luctuosa* (F. Smith)

Ammophila luctuosa F. Smith, 1856:224, ♀. Lectotype: ♀, USA: Rocky Mountains: no specific locality (BMNH), designated by Menke in R. Bohart and Menke, 1976:144. – Cresson, 1863:318 (in catalog of North American Hymenoptera), 1865b:462

(color variation); de Saussure, 1867:6 (Mexico); Cresson, 1875:714 (Colorado, Nevada, New Mexico), 1876:208 (Colorado: Canon City, Clear Creek; Utah: Spring Lake); Provancher, 1883b:614 (in revision of Canadian Hymenoptera); Cameron, 1888a:23 (Mexico); Cresson, 1887:274 (in catalog of North American Hymenoptera); Ashmead, 1890:34 (in checklist of Hymenoptera of Colorado); W. Fox, 1893d:9 (Mexico: Baja California); Dalla Torre, 1897:404 (in catalog of world Hymenoptera); Melander, 1903:158 (in key to North American Ammophilini), 162 (bibliographic references, geographic distribution); W. Schulz, 1903:476 (Caribbean Islands: Island of Saint Thomas); Snow, 1906:133 (Arizona). – **As *Spheg luctuosa***: Faull, 1913:384 (new combination, Canada: Toronto region); Rohwer, 1916b:681 (in catalog of Hymenoptera of Connecticut); Washburn, 1919:222 (in list of Hymenoptera of Minnesota); Rohwer *in* Viereck, 1925:681 (in key to Sphecidae of Connecticut, not yet found in the State); J.Ch. Bradley, 1928:1012 (in catalog of New York Sphecidae); Brimley, 1938:445 (North Carolina: no specific locality, as *luctuosus*). – **As *Psammophila luctuosa***: Ashmead, 1899d:354 (new combination, in checklist of North American Sphecidae); Viereck, 1901a:273 (New Mexico: Las Vegas Range); Harrington, 1902:224 (Canada: Ontario: Ottawa); Viereck, 1903a:68 (New Mexico: Beulah); H. Smith, 1908b:330 (in revision of Nebraskan Sphecidae); Rohwer, 1917a:241 (California); Stevens, 1917:421 (North Dakota); Johnson and Ledig, 1918:24 (California: Claremont); Mickel, 1918b:405 (in catalog of Nebraskan Sphecidae); Carter, 1925:132 (Canada: Alberta). – **As *Podalonia violaceipennis form luctuosa***: Hicks, 1932d:150 (new status, prey, inquilines). – **As *Podalonia luctuosa***: Fernald, 1927:21 (new combination, in revision of North American *Podalonia*); Newcomer, 1930:552 (hunting precedes nest construction, prey capture, nest construction, sarcophagid nest parasites: *Hilarella hilarella* (Zetterstedt) and *Taxigramma heteroneura* (Meigen)); Fernald, 1931b:278 (as synonym of *Podalonia violaceipennis*); Hicks, 1931:49 (nesting habits), 1932a:75 (prey capture); Murray, 1940:23 (in revision of North and Central American *Podalonia*); Dreisbach, 1944:271 (in key to *Podalonia* of Michigan), 274 (Michigan: locality records); Strickland, 1947:128 (Canada: Alberta); Spencer and Wellington, 1948:10 (British Columbia); Murray *in* Muesebeck, Krombein, and Townes, 1951:977 (in catalog of North American Hymenoptera); G. Bohart, Nye, and Hawthorn, 1970:49 (Utah: Logan, onion pollinator); Evans, 1970:485 (Wyoming: Jackson Hole); Horning and Barr, 1970:104 (USA: Idaho: Craters of the Moon National Monument); Steiner, 1973:26 (Canada: Northwest Territories, Yukon Territory); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Kumar, Lavigne, Lloyd, and Pfadt, 1976:51 (USA: Colorado: Pawnee National Grassland); Krombein, 1979b:1587 (in catalog of North American Hymenoptera); Finnamore, 1982:21 (in Sphecid Fauna of Southern Quebec); O'Brien and Kurczewski, 1983:261 (nesting behavior, overwintering); Steiner, 1983b:1 (prey hunting and stinging); G. Ferguson, 1984a:299 (prey of *Philanthus zebraus*); Brockmann, 1985b:312 (nest closure summary); O'Brien, 1986:21 (odoriferous secretion); Piek and Spanjer, 1986:187 (in list of Sphecidae with known prey); Steiner, 1986:97 (references to papers on nesting habits); S. Frommer, 1988:95 (California: Riverside County: Deep Canyon; as *lactuosa*); O'Brien, 1989b:207 (distribution in Michigan); Spofford, Kurczewski, and Downes, 1989:256 (references to publications on nest parasites *Hilarella hilarella* (Zetterstedt), *Metopia argyrocephala* (Meigen), *Senotainia rubriventris* Macquart, and *Taxigramma heteroneura* (Meigen), miltogrammine flies), 257, 260, 261 (nest parasites: *Metopia luggeri* Townsend, *Senotainia vigilans* Allen, miltogrammine flies, and undetermined Miltogrammini); Spofford and Kurczewski, 1990:745, 749, 750 (nest parasites: *Metopia luggeri* (Townsend), *Senotainia vigilans* Allen, and unknown Miltogrammini, Sarcophagidae), 1992:996 (species of miltogrammine nest parasites listed), 1005 (post-larvipositional counter-cleptoparasitic behavior: abandon prey); Ahlstrom, 1995:107 (in checklist of insects of North Carolina); Finnamore, 1997:883 (Canada: Yukon); Kurczewski, 1998d:250 (pine barrens in upstate New York); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Buck, 2004:24 (Canada: in checklist of Sphecidae of Ontario); Miller, Pearce, and O'Neill, 2009:3 (known to be parasitized by *Paraxenos luctuosae* (Pierce), Strepsiptera); Dollfuss, 2010a:554 (locality records from Michigan and Washington); Ratzlaff, 2016:29 (Canada: British Columbia: from Spencer and Wellington, 1948 and Buck, 2004).

Psammophila pacifica Melander and Brues, 1902:42, ♂. Holotype: ♂, USA: California: Monterey Grove: Pacific Grove (depository?). Synonymized with *Podalonia violaceipennis* by Fernald, 1927:36, and with *Podalonia luctuosa* by Murray, 1940:23. – Melander, 1903:159 (in key to North American Ammophilini), 162 (bibliographic references, geographic distribution).

As *Psammophila communis* (partly): Harrington, 1902:224 (Canada: Ontario: Ottawa), corrected to *Podalonia luctuosa* by Buck, 2004:75.

As *Sphex communis* (partly), corrected to *Podalonia luctuosa* by Buck, 2004:75: Faull, 1913:384 (Canada: Toronto region).

39. *luffii* (E. Saunders)

Psammophila arenaria Lüderwaldt, 1897a:125, ♀, ♂, junior secondary homonym of *Podalonia arenaria* (Fabricius, 1787). Syntypes: Germany: Gollnow, now Poland: Goleniów (depository? Possibly Zool. Inst. Warszawa via Stettin Entomol. Soc.). Synonymized with *Ammophila luffii* by Kohl, 1906b:286. – C. Verhoeff, 1890a:334 (comparison with *Psammophila affinis*); Lüderwaldt, 1897b:30 (Germany: Gollnow, now Poland: Pomorze Region: Goleniów); Schulze, 1918:281 (Germany: Berlin-Buckow); Ander, 1945:140 (first record from Sweden: Island of Gotland). – **As *Podalonia arenaria***: Lyneborg, 1962: 329 (new combination, first record from Denmark: Jylland: Hansted-reservatet).

Ammophila luffii E. Saunders, 1903d:248, ♀, ♂ (as *Luffii*, incorrect original capitalization). Syntypes: Great Britain: Channel Islands: Island of Jersey: no specific locality (OXUM). – Kohl, 1906b:286 (in revision of Palearctic *Ammophilini*); Noskiewicz, 1924b:181 (Poland: Hołosko near Lwów, now Ukraine: Lviv); Pulkkinen, 1931:53 (in revision of Sphecidae of Finland, not yet found in Finland); Bajári, 1957a:15 (in key to Hungarian Sphecidae); de Beaumont, 1958a:291 (illustration of penis valve); Noskiewicz and Puławski, 1960:40 (in key to Polish Sphecidae); de Beaumont, 1964c:27 (in Sphecidae Fauna of Switzerland, not recorded from Switzerland); Kazenas, 1968b:342 (Kazakhstan: Gur'yev Oblast', now Atyraū Oblast'); Schmidt, 1969:161 (Germany: Rhein-Main area: Eberstädter Düne); Haeseler, 1970:73 (Germany: Schleswig-Holstein: Weißenhaus); Schmidt, 1971b:22 (Germany: Rheinland-Pfalz: Mainzer Sand); Pulawski, 1978:180, 181 (in key to Sphecidae of European part of USSR); Preuss, 1980a:23 (Germany: endangered, nesting in dry soils); Skibińska, 1981:357 (Poland: Warszawa-Białoleka), 1982:122 (Poland: Warszawa area), 1995:423, 424 (Poland: pine forest in Białowieża Primeval Forest). – **As *Psammophila luffii***: M. Müller, 1921:168 (new combination, Germany: Berlin: Spandau; Brandenburg: Königswusterhausen); Hedicke, 1922:272 (Germany: Brandenburg: Gross Machnower Weinberg); Bouwman, 1926:280 (in list of Sphecidae of Netherlands), 1927:115 (in revision of Sphecidae of Netherlands); van der Vecht, 1928:93 (Netherlands: Meijendel sand dunes); Schmiedeknecht, 1930:707 (in keys to Hymenoptera of North and Central Europe); Bondroit, 1932:33 (first record from Belgium: Solbosch); Crèvecoeur and Maréchal, 1936:249 (in catalog of Belgian Hymenoptera; as *Luffii*); Drogoszewski, 1936:130 (Poland: Łowicz); Walrecht, 1936:291 (Netherlands: Domburg); Struve, 1937:149 (Germany: Island of Borkum); Goebel, 1937:48 (Poland: Poznań District: Strzeszyn); Zavadil, 1937a:73 (eastern Slovakia); Zavadil, Šusterka, and Bat'a, 1937:215 (in catalog of Sphecidae of Czechoslovakia); A. Wagner, 1938a:123 (northwestern Germany); Paul, 1941:48 (Germany: Pommern: Stettin area, now Poland: Województwo Zachodniopomorskie: Szczecin area); Noskiewicz and Chudoba, 1949:425 (Poland: Dolny Śląsk: Sułów, Wilczyce near Wrocław); Szulczewski, 1950:109 (Poland: Wielkopolski National Park 15 km south of Poznań); Leininger, 1951:118 (Germany: Baden-Württemberg: Sandhausen); Tjeder, 1954:68 (Sweden: eastern Skåne: Klammersbäcks, Löderup, Vitemölla); Vogrin, 1955:31 (Yugoslavia, record improbable for geographic reasons); Babiy, 1964:116 (Austria: Land Salzburg, as *luffii*); Hüsing and Jäger, 1964:192 (Germany: Sachsen-Anhalt: Nietleben near Halle), 200 (commonly found in the area); Gauss, 1967:551 (Germany: Baden-Württemberg: nördliches Rheinvorland); Babiy, 1970:20 (correction of name to *luffii*); Marion, 1978:85 (France: Vendée); Pádr *in* Šedivý, 1989a:166 (in checklist of Czechoslovakian Sphecidae). – **As *Podalonia luffii***: Zavadil *in* Zavadil and Šnoflák, 1948:170 (new combination, in key to Sphecidae of Czechoslovakia); Pasteels, 1951:193 (first record from France: Finistère: Pouldu near Roscoff); Benno, 1958b:10 (in review of Dutch Sphecidae); Wolf, 1959b:28 (Germany: Nassau); Balthasar and Hrubant, 1961:16 (Czech Republic: Čeperka near Pardubice); Hoop, 1967a:40 (Germany: Schleswig-Holstein: Bottsand, Heidkate), 1970:61 (Germany: Schleswig-Holstein: Bottsand, Heidkate); Oehlke, 1970:677 (Democratic Germany); Balthasar, 1972:434 (in Sphecidae Fauna of Czechoslovakia); Kazenas, 1972b:105 (Kazakhstan); Oehlke, 1972:135 (Germany: Island of Hiddensee); Lomholdt, 1973a:105 (Denmark: Skallingen Peninsula); Kazenas, 1974b:109 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, 110 (feeding on flowers of *Nitraria schoberi* L., Zygophyllaceae, and *Daucus carota* L., Apiaceae, in Kazakhstan), 111 (feeding on flowers of *Lepidium crassifolium* W. et K., Brassicaceae, in Kazakhstan); Lomholdt, 1975c:74 (in Sphecidae Fauna of Fennoscandia and Denmark); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Lefeber, 1976:151 (Netherlands: Maasduintjes between Bergen and Wellse Hut); Haeseler, 1978c:195 (Germany: Friesian Islands: Island of Borkum); Kazenas, 1978b:39 (in key to Sphecidae of Kazakhstan and Central Asia); Lefeber, 1979:11 (in checklist of

Sphecidae of Netherlands), 18 (Netherlands: distribution map); Leclercq, Gaspar and Verstraeten, 1979:map 1403 (Belgium); Richards, 1979:401 (British Channel Islands); Schmidt, 1979a:54 (Germany: Ost-Holstein); Mityaev, Matesova, Kulenova, Kazenas, and Zhdanko, 1980:115 (Russia: Siberia: Altayskiy Kray: basin of Aley River); Petit, 1980:42 (Belgium: Aayen); Schmidt, 1981:221 (Germany: Baden-Württemberg); Dollfuss, 1983a:76 (Austria: endangered in Niederösterreich), 79 (Austria: endangered in Salzburg area), 1983b:3 (in catalog of Sphecidae of Austria); Lefeber, 1983a:84 (Netherlands: Waddendistrict: islands of Vlieland, Terscheling, and Ameland); Józán, 1985b:55 (Hungary: Somogytúr), 76 (floral records), 83 (ecological and zoogeographic characteristics); Schmidt, 1985c:571 (Germany: Friesian Islands); Westrich and Schmidt, 1985b:111 (Germany: extinct in Baden-Württemberg); Islamov, 1986:515 (Uzbekistan: Tashkent Oblast'); Józán, 1986:368 (Hungary: Kiskunság National Park); Skibińska, 1986b:153 (Poland: suburbs of Warszawa); Lomholdt, 1987:93 (Denmark: western Jutland: Skallingen Peninsula); Schmidt and Westrich, 1987:358 (Germany: Mainz area); Chevin, 1988:14 (France: La Manche Department); Karsai, 1988:99 (Hungary: Kiskunság National Park); Jacobs, 1989:4 (Germany: Mecklenburg-Vorpommern), 1990:10 (Germany: Rostock area); Jacobs and Oehlke, 1990:134 (new records from Democratic Germany); Day, 1991:xviii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:31 (in key to Sphecidae of North and Central Europe); Kowalczyk, 1991a:99 (Poland: Łódź); Budrys, 1992:22 (in list of Sphecidae of Lithuania); Haeseler, 1992:358 (in North Germany found only on eastern Friesian islands); Hamon, Tussac, and Fonfria, 1992:410, 411 (in key to French Ammophilini), 413 (distribution in France); Józán, 1992b:171 (Hungary: Boronka-melléki Protected Area); Luig, 1993:40 (Estonia); Theunert, 1994c:49 (Germany: summary of records from Niedersachsen and Bremen); Gorobchishin, 1995:17 (Ukraine: Kanev Nature Reserve); Jansen and Kaluza, 1995:8 (Germany: endangered in Sachsen); Krasnobayev et al., 1995:139 (Russia: Zhiguli Hills northwest of Samara); Saure and Dürrenfeld, 1995:29 (Germany: Brandenburg: Gabower Hänge near Bad Freienwalde); Schmid-Egger, Risch, and Niehuis, 1995:206 (summary of records from Germany: Rheinland-Pfalz State); Minoranskiy and Shkuratov, 1996:80 (Russia: Rostov Oblast'); Pawlikowski and Kruszyński, 1996:87 (Poland: Toruń Basin); Schmid-Egger, Schmidt, and Doczkal, 1996:378 (Germany: Baden-Württemberg: last collected in 1930); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:102 (in Sphecid Fauna of Western Europe); Celary, 1997:57 (in checklist of Animals of Poland); Nazarova and Shomirsaidov, 1997:23 (Tajikistan: fruit tree orchards in Vakhsh River valley); Schmidt and Schmid-Egger, 1997:26 (in checklist of German Sphecidae); F. Burger, Saure, and Oehlke, 1998:29 (Germany: in list of Sphecidae of Brandenburg), 35 (endangered); Flügel, 1998:60 (Germany: Brandenburg: Unteres Odertal National Park); Kazenas, 1998b:144 (in Sphecid Fauna of Kazakhstan); H.-J. Schulz, 1998c:113 (Germany: Lausitz: former military training area near Mücka); van der Smissen, 1998:67 (Germany: Schleswig-Holstein: sea coast northwest of Oldenburg); K. Weber, 1998:148 (Germany: Bayern: Bamberg area); Pauly, 1999:107 (in catalog of Belgian aculeates); Skibińska, 1999:95 (previously recorded from Białowieża Primeval Forest, Poland); Blösch, 2000:126 (in sphecid fauna of Germany); Esenbekova and Kazenas, 2000:12 (southeastern Kazakhstan: 10 km northwest of Chemolgan, 45 km northwest of Suzak); Jacobs, 2000:9, 17 (Germany: Land Mecklenburg-Vorpommern: endangered); Mokrousov, 2000b:30 (Russia: Nizhniy Novgorod Oblast'); Shkuratov, 2000:54 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Basset, 2001:78 (France: Département de Gironde); Józán, 2001:278 (Hungary: Somogy County); Kazenas, 2001b:16 (in checklist of Sphecidae of Kazakhstan and Central Asia), 96 (prey: noctuid caterpillars); Ohl et al., 2001:141 (distribution in Germany by provinces); van der Smissen, 2001:63 (Germany: Schleswig-Holstein: threatened with extinction); Zettel, Gross, and Mazzucco, 2001:67 (Austria: Wien); Kazenas, 2002a:34 (geographic distribution, collecting localities in Kazakhstan); Gayubo, González, Tormos, and Asís, 2002:84 (in Portugal only along littoral); Shkuratov, 2002b:138 (Russia: Rostov Oblast': Rostovskiy Nature Reserve at 46°27'N 42°41'E); Shlyakhtenok and Skibinska, 2002:32 (Belorussia: no specific locality); Józán, 2003: 226 (Hungary: Látrányi Puszta Nature Conservation Area); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:69 (in catalog of wasps and bees of Bayern, Germany); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:195 (Germany: Bayern: extinct or no longer collected); Heitmans *in* Peeters, van Achterberg, et al., 2004:355 (in Wasp and Ant Fauna of Netherlands); Kazenas, 2004b:99 (Kazakhstan: western Tien Shan Mountains), 2004d:27 (Kazakhstan: northern Caspian region); Shkuratov, 2004a:72 (Russia: Rostov Oblast'), 2004b:164 (Russia: Rostov Oblast': Gosudarstvennyi Muzei-Zapovednik M.A. Sholokhova); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:358 (in catalog of Polish Sphecidae); Stolle et al., 2004:372 (Germany: Sachsen-Anhalt: in red list of Sphecidae); van Achterberg and Peeters,

2004:30 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:38 and 58 (in checklist of Polish Sphecidae); Zettel, 2004:3 (Austria: Burgenland: Illmitz, comparison with *Podalonia tydei*); Gayubo and Özbek, 2005:11 (Turkey: Erzurum: University campus); Saure, 2005:13 (Germany: Berlin); Shorenko, 2005a:163 (Ukraine: Crimea); Straka, 2005a:399 (critically endangered in Czech Republic); Theunert, 2005a:18 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Gayubo, González, de la Nuez, Asís, and Tormos, 2006:206 (first record from Spain: Cantabria: Liencres); Alieva and Humbatov, 2007:77 (nesting and prey, from literature); Jacobs, 2007:43, 45 (in key to Sphecidae of Germany); Kazenas, 2007a:89 (Kazakhstan: Akmala Oblast': Kurgandzhin Nature Reserve and vicinity); Liebig, 2006:40 (Germany: Sachsen: Muskauer Heide); Vago, 2007:174 (France: départements de Pas-de-Calais and Somme); Vepřek and Straka, 2007:199 (in catalog of Sphecidae of Czech Republic and Slovakia); Danilov, 2008:346 (Russia: Altayskiy Kray: Barnaul area); Danilov and Tshernyshev, 2008:41 (Russia: Novosibirsk Oblast': Karasuk area); Haeseler, 2008:309 (Germany: Friesian Islands); Kazenas, 2008c:255 (Kazakhstan: village Koktum south of Lake Alakol'); Larnhof, 2008:46 (Austria: Niederösterreich: Nature Reserve "in den Sandbergen" near Drösing); Livory, Chevin, Lair, Sagot, and Baldock, 2008:27 (France: Département de la Manche); Ljubomirov and Yildirim, 2008:46 (in catalog of Sphecidae of Turkey); Theunert, 2008:75 (Germany: map of distribution in Niedersachsen and Bremen); Danilov, 2009:56 (Russia: Western Siberia: Kulundinskaya Steppe); Debuyser and Vago, 2009:2 (in list of Sphecidae *sensu lato* of northern France); U. Frommer, 2009:40 (Germany: records from Hessen are misdeterminations); Shorenko, 2009:367 (in list of Sphecidae *sensu lato* of Crimea); Vago, 2009:front cover (France: Pas-de-Calais: Wissant); Bitsch, 2010:107 (in supplement to vol. II of Faune de France, 1997: recent records from Portugal and Spain reported, distinctive characters by Zettel, 2005, reported); Danilov, 2010b:44 (distribution of western Palearctic type); Dollfuss, 2010a:554 (locality records from Bulgaria, Czech Republic, Hungary, Kazakhstan, Kyrgyzstan, Mongolia, Portugal, Slovakia, Syria, Tajikistan, Turkey, Turkmenistan, and Uzbekistan), 2010b:1246, 1249 (in key to Old World *Podalonia*), 1260 (bibliographic references, recognition characters, geographic distribution); Mokrousov, 2010a:60 (Russia: Nizhniy Novgorod Oblast', Tatarstan: no specific localities); Schmid-Egger, 2010a:22 (in red list of Aculeata of Germany: very rare); Smit and Wijngaard, 2010:69 (in checklist of Sphecinae of Netherlands); van der Smissen, 2010a:350 (Germany: Schleswig-Holstein: Baltic shore northwest of Oldenburg); Baghirov, 2011b:139 (Russia: Altayskiy Kray: 20 km west of Karasuk); Field, Ohl, and Kennedy, 2011:734 (in molecular cladistic analysis of Ammophilini); Józán, 2011:179 (in checklist of Sphecidae *sensu lato* of Hungary); Mokrousov, Berezin, and Egorov, 2011:65 (Russia: Chuvash Republic); Theunert, 2011a:212 (Germany: in checklist of aculeates of Niedersachsen including city of Bremen); Tischendorf, Frommer, Flügel et al., 2011:47 (Germany: extinct in Hessen, last collected in 1956); Wiesbauer and Zettel, 2011:269 (Austria: Niederösterreich: March = Morava lowland); Boillat, 2012:229 (Switzerland: in checklist of insects of Canton de Genève); Kazenas, 2012b:168 (Kazakhstan: Korgalzhin State Nature Reserve); Prismaniy, 2012:46 (Russia: Belgorod Oblast'); Protsenko, Fateryga, Ivanov, and Puzanov, 2012:55 (Ukraine: Crimea); Dollfuss, 2013b:589 (locality records from Iran, Portugal, and Kyrgyzstan); Dyuzhaeva, 2013:116 (Russia: Samara Oblast': Zhiguli Nature Reserve); Kazenas, 2013a:31-33 (color photographs of adult wasps, short information on geographic distribution and nesting habits); A. Scholz and Liebig, 2013:26 (Germany: Sachsen: in list of Sphecidae *sensu lato*); Shlyakhtenok, 2013:135 (in annotated catalog of aculeate wasps of Belorussia); Wiśniowski and Szczepko, 2013:23 (Poland: Kampinos National Park near Warszawa); Danilov, 2014a:426 (Russia: Siberia: Altayskiy Kray, Krasnoyarskiy Kray, Novosibirsk Oblast', Tyva), 2014b:518 (in key to Sphecidae s.s. of Siberia); Hellqvist, Abenius, and Norén, 2014:90 (in catalog of Ampulicidae, Sphecidae, and Crabronidae of Sweden, by provinces); Kazenas, 2014a:132 (Kazakhstan: Karatau Mountain Range); Mokrousov and Vafin, 2014:54 (Russia: Republic of Tatarstan); Yildirim, 2014:30 (Turkey: distribution by biogeographic provinces); Dollfuss, 2015b:438 (locality records from Mongolia); Koçak and Kemal, 2015:278 (in checklist of Hymenoptera of Turkey); Shorenko, 2015:313 (in list of Sphecidae *sensu lato* of Crimea); Mokrousov and Popov, 2016:561 (Russia: Krasnodarskiy Kray); Stolle and Saure, 2016:927 (Germany: in list of Sphecidae *sensu lato* of Sachsen-Anhalt); Danilov, 2017b:214 (in catalog of Sphecidae s.s. of Russia); Danilov and Mokrousov, 2017a:110 (Russia: Buryatia, Kalmykia, Orenburg Oblast'); Leclercq, and Schmidt, 2020:109 (in Sphecid Fauna of Europe); Danilov, 2020:318 (specimens from Kazakhstan, Kyrgyzstan, and Russia: Astrakhan' Oblast', Voronezh Oblast', Altai, and Tyva in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Saure, 2020:276 (Germany: Sachsen-Anhalt: sand dunes); Fresno, 2021a:76 (Spain: Asturias: Villaviciosa); Budrys *in* Rašomavičius, 2021:185 (endangered in Lithuania);

Cross, Baldock, and Wood, 2021:16 (in catalog of Sphecidae *sensu lato* of Portugal); Olszewski, Wiśniowski, and Ljubomirov, 2021:103 (in commented list of Sphecidae *sensu lato* of Poland); Kaplan and Yildirim, 2022a:57 (Turkey: Bingöl Province), 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey).

As *Podalonia tydei* (corrected to *Podalonia luffii* by Zettel, Gross, and Mazzucco, 2001:67): Kohl, 1893a:35 (Austria: Wien); Dollfuss, 1991:31 (in key to Austrian Sphecidae).

40. *marismortui* (Bytinski-Salz)

Ammophila maris-mortui Bytinski-Salz in de Beaumont and Bytinski-Salz, 1955:33, ♀, ♂, incorrect original hyphenation. Holotype: ♀, Israel: Old Jericho road (originally H. Bytinski-Salz coll., now Tel Aviv Univ.). – de Beaumont, 1961e:1 (Iraq: Dewania), 1966:211 (Egypt: Sollum), 1968b:145 (variation, diagnostic characters). – As *Podalonia marismortui*: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Guichard, 1991a:338 (Jordan); Roche, 2007a:30 (in checklist of Egyptian Sphecidae, redescription of ♀), 2007b:2 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Dollfuss, 2010b:1245, 1248, 1249 (in key to Old World *Podalonia*), 1260 (bibliographic references, recognition characters, geographic distribution); Augul, 2019:495 (recorded from Iraq by de Beaumont, 1961e); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:310 (in list of Tunisian Sphecidae *sensu stricto*); Gadallah, 2020d:82 (in list of aculeate wasps of Arabian Peninsula).

41. *mauritanica* (Mercet)

Ammophila mauritanica Mercet, 1906b:189, ♀. Syntypes: ♀, Morocco: Tanger (MNCN). – Kohl, 1906b:287 (in revision of Palearctic *Ammophilini*); von Schulthess, 1926b:208 (Algeria: Aïn Sefra); Roth, 1928:176 (in revision of North African *Ammophilini*); Kruger, 1929a:21 and 1929b:56 (Libya: Cyrenaica: Tobruk, as *mauretunica*); Bischoff, 1933:6 (Morocco); Nadig, 1933:100 (Morocco: Ifrane); Guiglia, 1934b:291 (Libya: bibliography and summary of locality records); Giner Marí, 1945b:361 (Morocco: Western Sahara: El Aiun, Um at Sfaia), 1945e:218 (Morocco: Western Sahara), 1947:18 (Morocco: Western Sahara); de Beaumont, 1950f:395 (Algeria), 1951e:260 (Morocco); Grandi, 1954:235 (Algeria: Ghardaia); de Beaumont, 1956a:171 (Libya), 1958a:291 (illustration of penis valve), 1968a:254 (Canary Islands: Fuertaventura); Báez and Ortega, 1978:191 (Canary Islands); Hohmann, La Roche, Ortega, and Barquín, 1993:202 (detailed locality records from Canary Islands). – As *Podalonia mauritanica*: Leclercq, 1955h:66 (new combination, bibliographic references); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Guichard, 1980:224 (Oman); Dollfuss, 2010a:555 (locality records from Morocco and Tunisia), 2010b:1246, 1248 (in key to Old World *Podalonia*), 1261 (bibliographic references, recognition characters, geographic distribution); Field, Ohl, and Kennedy, 2011:734 (in molecular cladistic analysis of *Ammophilini*); Dollfuss, 2013b:589 (Morocco: Tizi-n-Ilissi southeast of Ait Mhamed in Moyen Atlas at 31.76°N 6.29°W), 590 (in corrected key to Old World *Podalonia*); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:310 (in list of Tunisian Sphecidae *sensu stricto*; additional records: Medenine, Sfax, Sousse, Tataouine, and Tozeur provinces); Gadallah, 2020d:82 (in list of aculeate wasps of Arabian Peninsula).

42. *melaena* Murray

Podalonia melaena Murray, 1940:34, ♀, ♂. Holotype: ♂, USA: Colorado: Boulder (AMNH). – Murray in Muesebeck, Krombein, and Townes, 1951:977 (in catalog of North American Hymenoptera); LaBerge, 1956:528 (paratype in Snow Entomological Museum); Hurd and Linsley, 1975:116 (Arizona: Cochise County: Douglas and Portal; on flowers of *Larrea tridentata* (De Candolle) Coville, Zygophyllaceae); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Krombein, 1979b:1587 (in catalog of North American Hymenoptera); Zack, 1984:40 (paratype in James Entomological Collection, Washington State University); Frommer, 1988:95 (California: Riverside County: Deep Canyon; as *malaena*); Field, Ohl, and Kennedy, 2011:734 (in molecular cladistic analysis of *Ammophilini*); Ratzlaff, 2016:29 (Canada: British Columbia: from Spencer and Wellington, 1948).

43. *mexicana* (de Saussure)

Ammophila mexicana de Saussure, 1867:25, ♀, ♂. Lectotype: Mexico: Cordova (MHNG), designated by Murray, 1940:41. – Dalla Torre, 1897:404 (in catalog of world Hymenoptera); Ashmead, 1899d:354 (in checklist of North American Sphecidae).

– **As *Podalonia mexicana***: Fernald, 1927:21 (new combination, as tentative synonym of *Podalonia luctuosa* or *P. argenti-frons*), 38 (original description copied); Murray, 1940:39 (in revision of North and Central American *Podalonia*); Strickland, 1947:128 (Canada: Alberta: Lethbridge, Medicine Hat); Murray in Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera); Horning and Barr, 1970:104 (USA: Idaho: Craters of the Moon National Monument); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Kumar, Lavigne, Lloyd, and Pfadt, 1976:51 (USA: Colorado: Pawnee National Grassland); Krombein, 1979b:1588 (in catalog of North American Hymenoptera); Rust, Menke, and Miller, 1985:46 (California: Channel Islands), 152 (overwintering females); Kingsley, Bailowitz, and Smith, 1987:18 (Arizona: Organ Pipe Cactus National Monument: Quitobaquito Springs area); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Amarante, 2002:68 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae); Amarante, 2005a:14 (correction to his 2002 catalog); Dollfuss, 2010a:555 (locality records from California and Washington); Ratzlaff, 2016:29 (Canada: British Columbia: from Spencer and Wellington, 1948).

44. *mickeli* Murray

Podalonia mickeli Murray, 1940:68, ♀, ♂. Holotype: ♂, USA: Minnesota: Polk County: Euclid (Univ. Minnesota). – Strickland, 1947:128 (Canada: Alberta); Murray in Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera); Muma, 1952:28 (paratypes in University of Lincoln, Nebraska); LaBerge, 1956:528 (paratypes in Snow Entomological Museum); Evans, 1970:485 (Wyoming: Jackson Hole); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Kumar, Lavigne, Lloyd, and Pfadt, 1976:51 (USA: Colorado: Pawnee National Grassland); Krombein, 1979b:1588 (in catalog of North American Hymenoptera); Zack, 1984:40 (paratypes in James Entomological Collection, Washington State University); Blades and Maier, 1996:71 (Canada: British Columbia: Osoyoos - Mount Kobau area at 119°40'W 49°05'N); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Ratzlaff, 2016:29 (Canada: British Columbia: from Murray, 1940 and Krombein, 1979).

45. *minax* (Kohl)

Ammophila minax Kohl, 1901d:162, ♀. Lectotype: ♀, Egypt: Abbasiyeh near Cairo (NHMW), designated by Dollfuss, 2010b:1261. – Kohl, 1906b:291 (in revision of Palearctic *Ammophilini*); Giner Marí, 1945b:362 (Morocco: Western Sahara), 365 (description of ♂), 1945c:219 (Morocco: Western Sahara), 1947:18 (Morocco: Western Sahara); Alfieri, 1946:117 (in revision of Egyptian *Ammophila*, description of ♂); de Beaumont, 1950f:395 (Algeria); Grandi, 1954:235 (Algeria: Ouargla); de Beaumont, 1956a:172 (Libya), 1958a:290 (illustration of genitalia), 1960b:226 (Libya); Pulawski, 1964:65 (Egypt: Saqqara, Tell-el-Amarna), 1967c:387 (Sudan: Sarra north of Wadi Halfa); Guichard, 1988a:126 (Kuwait); Hohmann, La Roche, Ortega, and Barquín, 1993:23 (first record from Canary Islands: Fuerteventura and Lanzarote); Ebrahimi, 1993:93 (Iran). – **As *Podalonia minax***: Leclercq, 1955h:66 (new combination, bibliographic references); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Al-Houty, 1989:162 (Kuwait: eight localities); Roche and Zalut, 1994:114 (Egypt: Sinai Peninsula); Al-Houty, 1997:161 (Kuwait: no specific locality); Gadallah and Assery, 2004a:217 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 223 (in catalog of Sphecidae of Saudi Arabia: Khomra south of Jeddah); Roche, 2007a:28 (in checklist of Egyptian Sphecidae, redescription of ♀), 2007b:2 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Dollfuss, 2010a:555 (locality records from Morocco and Tunisia), 2010b:1244, 1247 (in key to Old World *Podalonia*), 1261 (bibliographic references, recognition characters, geographic distribution); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:360 (in new catalog of Sphecidae of Saudi Arabia); Ebrahimi, 2014:13 (Iran: Hormozgān: Bandar-e Lengeh); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:20 (Iran: known from Hormozgan Province); Augul, 2019:495 (recorded from Iraq by Augul, Abdul-Rassoul, and Kaddou); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:310 (in list of Tunisian Sphecidae *sensu stricto*); Gadallah, 2020d:82 (in list of aculeate wasps of Arabian Peninsula).

Ammophila confalonierii Guiglia, 1932d:469, ♂ (as *Confalonierii*, incorrect original capitalization). Holotype: ♂, Libya: Cyrenaica: Es Sahabi (MSNG). Synonymized with *Ammophila minax* by de Beaumont, 1950f:395. – Guiglia, 1934b:291 (Libya: bibliography and summary of locality records), 1940c:485 (description of ♀), 1942b:229 (Libya).

46. *moczari* (Tsuneki)

Ammophila moczari Tsuneki, 1971k:161, ♀. Holotype: ♀, Mongolia: South Gobi Aymag: 35 km southwest of Somon Sevrey (TMB). – **As *Podalonia moczari***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Dollfuss, 2010b:1244 (in key to Old World *Podalonia*), 1262 (bibliographic references, recognition characters, geographic distribution).

47. *montana* (Cameron)

Ammophila montana Cameron, 1888a:20, ♂. Lectotype: ♂, Mexico: Durango: Ventanas (BMNH), designated by Menke, 1996e:201 (as holotype, Article 74b). – Dalla Torre, 1897:405 (in catalog of world Hymenoptera); Ashmead, 1899d:354 (in checklist of North American Sphecidae); Melander, 1903:159 (in key to North American Ammophilini), 162 (bibliographic references, geographic distribution). – **As *Podalonia montana***: Fernald, 1927:13 (new combination, as synonym of *Podalonia valida*); Murray, 1940:44 (in revision of North and Central American *Podalonia*); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Menke, 1996e:191 (in key to Ammophilini of Costa Rica), 201 (in revision of Ammophilini of Costa Rica); Menke and Parker, 1996:186 (first record from Costa Rica: Guanacaste Province: Finca Montezuma at 10°48'N 85°5'W); Amarante, 2002:68 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae).

Ammophila jason Cameron, 1888a:20, ♀. Lectotype: ♀, Guatemala: San Gerónimo (BMNH), designated by Menke, 1996e:201 (as holotype, Article 74b). Tentatively synonymized with *Podalonia valida* by Fernald, 1927:13, synonymized with *Podalonia montana* by Murray, 1940:46. – Dalla Torre, 1897:403 (in catalog of world Hymenoptera); Ashmead, 1899d:354 (in checklist of North American Sphecidae); Melander, 1903:158 (in key to North American Ammophilini), 162 (bibliographic references, geographic distribution); Fernald, 1927:37 (study of holotype).

Ammophila quadridentata Cameron, 1888a:23, ♀. Lectotype: ♀, Mexico: Durango: Ventanas (BMNH), designated by Menke, 1996e:201 (as holotype, Article 74b). Tentatively synonymized with *Podalonia montana* by Murray, 1940:46, synonymy confirmed by Menke, 1996e:201. – W. Fox, 1894c:101 (Mexico: Baja California); Dalla Torre, 1897:406 (in catalog of world Hymenoptera); Ashmead, 1899d:354 (in checklist of North American Sphecidae); Melander, 1903:158 (in key to North American Ammophilini), 162 (bibliographic references, geographic distribution). – **As *Podalonia quadridentata***: Fernald, 1927:17 (new combination, in revision of North American *Podalonia*).

48. *nazarovae* Danilov

Podalonia nazarovae Danilov, 2017a:566, ♀, ♂. Holotype: ♂, Tajikistan: Tavildara District, village Dehi-Colon near Tavildara at 38°39'N 70°31'E (Institute of Systematics and Ecology of Animals, Russian Academy of Sciences, Siberian Branch, Novosibirsk). – Danilov, 2020:318 (specimens from Tajikistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia).

49. *nigrohirta* (Kohl)

Ammophila nigrohirta Kohl, 1888a:154, ♀. Lectotype: ♀, Caucasus: no specific locality (NHMW), designated by Dollfuss, 2010b:1262. – Dalla Torre, 1897:405 (in catalog of world Hymenoptera); Kohl, 1906b:281 (in revision of Palearctic Ammophilini); Tsuneki, 1968i:55 (nesting habits), 1971k:150 (Mongolia). – **As *Podalonia nigrohirta***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Kazenas, 2001b:17 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:34 (geographic distribution, collecting localities in Kazakhstan); Danilov, 2010b:45 (distribution of Tethyan type); Dollfuss, 2010a:555 (locality records from Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan), 2010b:1245, 1249 (in key to Old World *Podalonia*); Danilov, 2014b:518 (in key to Sphecidae s.s. of Siberia, not yet found in Siberia); Mokrousov and Zryanin, 2015:41 (Uzbekistan: Kashkadarya and Navoi Oblast's); Danilov, 2020:318 (specimens from Kazakhstan, Tajikistan, and Uzbekistan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Can and Gülmez, 2021b:310 (Turkey: Erzincan: Refahiye: Sakaltutan); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey).

50. *occidentalis* Murray

Podalonia occidentalis Murray, 1940:54, ♀, ♂. Holotype: ♂, USA: Colorado: Sargent (Univ. Minnesota). – Strickland, 1947:128 (Canada: Alberta); Murray in Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera); Muma, 1952:28 (paratypes in University of Lincoln, Nebraska); LaBerge, 1956:528 (paratypes in Snow Entomological Museum); Evans, 1970:485 (Wyoming: Jackson Hole); Horning and Barr, 1970:104 (USA: Idaho: Craters of the Moon National Monument); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Krombein, 1979b:1588 (in catalog of North American Hymenoptera); Zack, 1984:40 (paratype in James Entomological Collection, Washington State University); Evans, 1987:130 (prey and nest); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Ratzlaff, 2016:29 (Canada: first record from British Columbia: Southern Interior and Southern Interior Mountains), 39 (British Columbia: Oliver, Osoyoos, Shuswap Narrows).

51. *parallela* Murray

Podalonia parallela Murray, 1940:65, ♀, ♂. Holotype: ♀, ♂, USA: California: San Bernardino County: Big Bear Lake (Univ. Minnesota). – Murray in Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera); Muma, 1952:22 (type in University of Lincoln, Nebraska), 28 (paratype in University of Lincoln, Nebraska); LaBerge, 1956:528 (paratype in Snow Entomological Museum); R. Bohart and Menke, 1976:144 (in checklist of world Sphecidae); Krombein, 1979b:1588 (in catalog of North American Hymenoptera); S. Frommer, 1988:95 (California: Riverside County: Deep Canyon).

52. *parvula* Q. Li and Ch. Yang

Podalonia parvula Q. Li and Ch. Yang, 1992:88, ♂. Holotype: ♂, China: Nei Mongol Province: Bayanner League: Urad Front Banner (Beijing Agricultural University). – Dollfuss, 2010b:1263 (original description translated into English); Wang, Q. Li, and Ma, 2016:449 (in key to *Podalonia* of China).

53. *pilosa* Q. Li, and Ch. Yang

Podalonia pilosa Q. Li, and Ch. Yang in Q. Li, M. Xue, and Ch. Yang, 1995:196, ♀. Holotype: ♀, China: Xinjiang Province: Shihezi (Beijing Agricultural University). – Dollfuss, 2010b:1263 (original description translated into English); Wang, Q. Li, and Ma, 2016:449 (in key to *Podalonia* of China).

54. *pubescens* Murray

Podalonia pubescens Murray, 1940:47, ♀, ♂. Holotype: ♂, USA: Arizona: Fort Grant in Pinaleno Mountains at Post Creek Canyon (Univ. Minnesota). – Murray in Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera); LaBerge, 1956:528 (paratypes in Snow Entomological Museum); R. Bohart and Menke, 1976:145 (in checklist of world Sphecidae); Krombein, 1979b:1588 (in catalog of North American Hymenoptera); Brockmann, 1985b:312 (nest closure summary); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae); van Pelt, 2002:132 (in list of species described from Big Bend National Park, Texas); Ohl and Linde, 2003:149 (number of ovarioles); Field, Ohl, and Kennedy, 2011:734 (in molecular cladistic analysis of Ammophilini).

55. *puncta* Murray

Podalonia puncta Murray, 1940:36, ♀, ♂. Holotype: ♂, USA: New Mexico: Alamogordo (ANSP). – Murray in Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera); LaBerge, 1956:527 (allotype and paratype in Snow Entomological Museum); R. Bohart and Menke, 1976:145 (in checklist of world Sphecidae); Krombein, 1979b:1588 (in catalog of North American Hymenoptera).

56. pulawskii Dollfuss

Podalonia pulawskii Dollfuss, 2010b:1264, ♂. Holotype: ♂, South Africa: Western Cape Province: Langberg (OÖLM). Paratypes: Namibia. – Dollfuss, 2010b:1248 (in key to Old World *Podalonia*), 2015b:438 (Namibia: Khomas Province: 15 km northeast of Windhoek at 23°16'S 16°19'E).

57. pungens (Kohl)

Ammophila pungens Kohl, 1901d:161, ♀. Lectotype: ♀, Kazakhstan: Lake Zaysan (NHMW), designated by Dollfuss, 2010b:1265. – Kohl, 1906b:290 (in revision of Palearctic *Ammophilini*); Tsuneki, 1971k:148 (Mongolia; description of ♂). – **As *Podalonia pungens***: R. Bohart and Menke, 1976:145 (new combination, in checklist of world Sphecidae); Dollfuss, 1989:11 (type material in NHMW); Kazenas, 1998b:146 (in Sphecid Fauna of Kazakhstan), 2001b:17 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:32 (geographic distribution, collecting localities in Kazakhstan); Danilov, 2010b:45 (distribution of Tethyan type); Dollfuss, 2010b:1246, 1249 (in key to Old World *Podalonia*), 1265 (bibliographic references, recognition characters, geographic distribution); Danilov, 2020:318 (specimens from Kazakhstan in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia).

58. robusta (Cresson)

Ammophila robusta Cresson, 1865b:461, ♀. Lectotype: ♀, USA: Colorado Territory: no specific locality (ANSP), designated by Cresson, 1916:94. – Cresson, 1875:714 (Nevada, New Mexico), 1876:208 (Colorado: Empire), 1887:274 (in catalog of North American Hymenoptera); Ashmead, 1890:34 (in checklist of Hymenoptera of Colorado); Aldrich, 1891:136 (prey theft); Dalla Torre, 1897:407 (in catalog of world Hymenoptera). – **As *Psammophila robusta***: Ashmead, 1899d:354 (new combination, in checklist of North American Sphecidae). – **As *Sphex robusta***: Washburn, 1919:222 (new combination, in list of Hymenoptera of Minnesota). – **As *Podalonia robusta***: Fernald, 1927:30 (new combination, as synonym of *Podalonia violaceipennis*); Murray, 1940:62 (in revision of North and Central American *Podalonia*); Dreisbach, 1944:271 (in key to *Podalonia* of Michigan), 274 (Michigan: locality records); Strickland, 1947:128 (Canada: Alberta); Spencer and Wellington, 1948:10 (British Columbia); Murray in Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera); nec Evans, 1963b:237 and 1964b:240 (= *Podalonia sericea*); Steiner, 1973:26 (Canada: Northwest Territories, Yukon Territory); R. Bohart and Menke, 1976:145 (in checklist of world Sphecidae); Krombein, 1979b:1588 (in catalog of North American Hymenoptera); Finnamore, 1982:22 (in Sphecid Fauna of southern Quebec); Steiner, 1986:97 (references to papers on nesting habits); O'Brien, 1989b:208 (distribution in Michigan); Spofford, Kurczewski, and Downes, 1989:259, 260 (nest parasites: *Senotainia trilineata* (Wulp), *Senotainia vigilans* Allen, and *Sphenometopa tergata* (Coquillett), miltogrammine flies); Kurczewski and Acciavatti, 1990:59 (New York: Cayuga County); Spofford and Kurczewski, 1990:747, 749, 750 (nest parasites: *Senotainia trilineata* (Van der Wulp), *Senotainia vigilans* Allen, *Sphenometopa tergata* (Coquillett), and unknown species of Miltogrammini, Sarcophagidae); Kurczewski, O'Brien, and Spofford, 1992:235 (nesting behavior); Spofford and Kurczewski, 1992:996 (species of miltogrammine parasites listed), 1004 (post-larvipositional counter-cleptoparasitic behavior: abandon burrow, inordinate amount of post-provisioning time in burrow); Hanson and Menke, 1995:638 (known from Costa Rica); Finnamore, 1997:884 (Canada: Yukon); Kurczewski, 1998d:250 (pine barrens in upstate New York); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Amarante, 2002:68 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae); Buck, 2004:24 (in checklist of Sphecidae of Ontario, Canada); Dollfuss, 2010a:556 (locality records from Michigan and Washington); Ratzlaff, 2016:29 (Canada: British Columbia: from Spencer and Wellington, 1948 and Buck, 2004).

As *Psammophila communis* (partly): Harrington, 1902:224 (Canada: Ontario: Ottawa), corrected to *Podalonia robusta* by Buck, 2004:75.

As *Sphex communis* (partly), corrected to *Podalonia robusta* by Buck, 2004:75: Faull, 1913:384 (Canada: Toronto region).

As *Podalonia violaceipennis*: A. Brown, 1934:264 (Canada: Ontario: Timagami), corrected to *Podalonia robusta* by Buck, 2004:77.

59. *schmiedeknechti* (Kohl)

Ammophila schmiedeknechti Kohl, 1898a:340, ♀ (as *Schmiedeknechti*, incorrect original capitalization). Syntypes: Egypt: Wadi Hof near Cairo (TMB). – Kohl, 1906b:275 (in revision of Palearctic *Ammophilini*); Alfieri, 1946:115 (in revision of Egyptian *Ammophila*); de Beaumont, 1953a:172 (Mauritania), 1956a:172 (Libya), 1958a:291 (illustration of penis valve); Pulawski, 1964:65 (Egypt: Tell-el-Amarna). – **As *Podalonia schmiedeknechti***: Leclercq, 1955h:64 (new combination, bibliographic references); R. Bohart and Menke, 1976:145 (in checklist of world Sphecidae); Roche and Zalut, 1994:114 (Egypt: Sinai Peninsula); Roche, 2007a:30 (in checklist of Egyptian Sphecidae, redescription), 2007b:2 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Dollfuss, 2010a:556 (Egypt: Fayed), 2010b:1245, 1248 (in key to Old World *Podalonia*), 1266 (bibliographic references, recognition characters, geographic distribution).

Ammophila saharae Giner Marí, 1945b:364, ♀. Holotype: ♀, Morocco: Western Sahara: Ausert (IEE). Synonymized with *Ammophila schmiedeknechti* by .. – Giner Marí, 1945b:361 (Morocco: Western Sahara: Ausert); Leclercq, 1955h:64 (bibliographic reference, probably a synonym of *Podalonia schmiedeknechti*).

60. *sericea* Murray

Podalonia sericea Murray, 1940:57, ♀, ♂. Holotype: ♂, USA: California: Niles (Univ. Minnesota). – Dreisbach, 1944:271 (in key to *Podalonia* of Michigan), 274 (Michigan: locality records); Strickland, 1947:128 (Canada: Alberta: Medicine Hat, Wainwright); Murray in Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera); Muma, 1952:28 (paratypes in University of Lincoln, Nebraska); LaBerge, 1956:528 (paratypes in Snow Entomological Museum); Evans, 1970:485 (Wyoming: Jackson Hole); Horning and Barr, 1970:104 (USA: Idaho: Craters of the Moon National Monument); R. Bohart and Menke, 1976:145 (in checklist of world Sphecidae); Krombein, 1979b:1588 (in catalog of North American Hymenoptera); Zack, 1984:40 (paratypes in James Entomological Collection, Washington State University); O'Brien, 1989b:208 (distribution in Michigan); Dollfuss, 2010a:556 (Washington: Benton County: Prosser); Ratzlaff, 2016:29 (Canada: British Columbia: from Spencer and Wellington, 1948 and Krombein, 1979).

As *Podalonia robusta*: Evans, 1963b:237 (nesting behavior) and 1964b:240 (description of larva), corrected to *Podalonia sericea* by Evans, 1970:485 .

61. *sheffieldi* (R. Turner)

Spheg sheffieldi R. Turner, 1918a:89, ♀. Syntypes: Malawi: Mlanje (BMNH). – Arnold, 1928b:259 (original description copied) 1930:16 (in checklist of Afrotropical Sphecidae). – **As *Podalonia sheffieldi***: Leclercq, 1955h:69 (new combination, bibliographic references), 1962a:393 (Tanzania: Kilimanjaro); R. Bohart and Menke, 1976:145 (in checklist of world Sphecidae); Dollfuss, 2010b:1245 (in key to Old World *Podalonia*, as *sheffieldi*), 1266 (bibliographic references, recognition characters, geographic distribution).

62. *sonorensis* (Cameron)

Ammophila sonorensis Cameron, 1888a:21, ♀, ♂. Lectotype: ♀, Mexico: northern Sonora: no specific locality (BMNH), designated by Menke in R. Bohart and Menke, 1976:175. – Dalla Torre, 1897:410 (in catalog of world Hymenoptera); Ashmead, 1899d:354 (in checklist of North American Sphecidae); Melander, 1903:158 (in key to North American *Ammophilini*), 162 (bibliographic references, geographic distribution). – **As *Podalonia sonorensis***: Fernald, 1927:20 (new combination, in revision of North American *Podalonia*); Murray, 1940:31 (in revision of North and Central American *Podalonia*); Murray in Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera); R. Bohart and Menke, 1976:145 (in checklist of world Sphecidae); Krombein, 1979b:1588 (in catalog of North American Hymenoptera); G. Scudder, 1994:75 (in checklist of rare and endangered invertebrates of British Columbia); Blades and Maier, 1996:71 (Canada: British Columbia: Osoyoos - Mount Kobau area at 119°40'W 49°05'N); Amarante, 2002:68 (in catalog of Neotropical Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:669 (in checklist of Mexican Sphecidae); Ratzlaff, 2016:29 (Canada: British Columbia: from Scudder, 1994).

Podalonia sonorensis differentia Murray, 1940:33, ♀, ♂. Holotype: M, USA: Colorado: Troublesome (USNM). Synonymized with *Podalonia sonorensis* by R. Bohart in Bohart and Menke, 1976:175. – Strickland, 1947:128 (Canada: Alberta: Leth-

bridge); Murray in Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera); Evans, 1970:485 (Wyoming: Jackson Hole).

63. *turcestanica* Dalla Torre

Ammophila hirticeps F. Morawitz, 1893b:408, ♂, junior primary homonym of *Ammophila hirticeps* Cameron, 1889. Holotype: ♂, Tajikistan: Simarkh [= Rabot at 39°11'N 68°35'E] in Yagnob River valley (ZIN). – Kohl, 1906b:371 (original description copied); Danilov, 2016:337 (holotype preserved in Zoological Institute, Sankt Petersburg, Russia).

Ammophila turcestanica Dalla Torre, 1897:411. Substitute name for *Ammophila hirticeps* F. Morawitz. – **As *Podalonia turcestanica***: R. Bohart and Menke, 1976:145 (new combination, in checklist of world Sphecidae), 154 (as synonym or *Ammophila turkestanica*, in error); Kazenas, 2001b:17 (in checklist of Sphecidae of Kazakhstan and Central Asia, as *turkestanica*); Dollfuss, 2010b:1251 (as new synonym of *Podalonia andrei*); Danilov, 2017a:568 (resurrected from synonymy, diagnosis, redescription, color photographs).

64. *tydei* (Le Guillou)

Ammophila tydei Le Guillou, 1841:324, ♀. Holotype or syntypes: ♀, Canary Islands: Tenerife: top of volcano (MNHN?). – Pérez, 1985a:197 (Canary Islands: Tenerife); Kohl and Handlirsch, 1889:276 (Turkmenistan); F. Morawitz, 1891a:204 (Russia: Astrakhan' Governorate); nec Kohl, 1893a:35 (= *Podalonia luffii*); Sickmann, 1894:218 (China: Hopei Province: Tientsin); nec Westerlund, 1896:28 (= *Podalonia hirsuta*); Dalla Torre, 1897:411 (in catalog of world Hymenoptera); Magretti, 1898:49 (Somalia: Elba); Picard, 1903a:15 (nesting habits); E. Saunders, 1903c:210 (Canary Islands); Antiga and Bofill, 1904:4 (Spain: Cataluña Province); Saunders, 1904a:202 (Canary Islands: Tenerife); W. Schulz, 1904b:92 (Kazakhstan), 1905b:33 (Algeria: Ain Sefra, Tiut oasis), 55 (Tunisia: Sfax, Susa); Vángel, 1905:167 (Hungary, probably in error); Kohl, 1906b:284 (in revision of Palearctic *Ammophilini*); W. Schulz, 1906a:189 (Yemen: Socotra); Bingham, 1908:355 (India: Simla Hills); Cameron, 1908a:268 (Tanzania: Mount Kilimanjaro); de Gaulle, 1908:103 (in catalog of French Hymenoptera); von Schulthess, 1909:441 (Libya: Mediterranean zone); Cameron, 1910b:136 (South Africa: Limpopo: Pietersburg, now Polokwane; and Mpumalanga: Middelburg); Morice, 1911:72 (Algeria: Biskra); Bischoff, 1915a:474 (Rwanda); Dusmet y Alonso, 1915:86 (Spain: Aragón); Mantero, 1915:324 (Libya); Storey, 1916:107 (Egypt: abundant everywhere); Berland, 1921:533 (Greece); Gribodo, 1924a:262 (Libya: Derna), 1924b:48 (Libya: Benghazi, Derna); Berland, 1925d:32 (in Sphecidae Fauna of France); Coulon, 1925:115 (Canary Islands); Picard, 1925b:162 (observations on stinging sequence); 163 (prey: subterranean caterpillars of *Agrotis*, nest construction follows hunting); Zanon, 1926:91 (Libya: Fueihat 15 km south of Benghazi); von Schulthess, 1926b:208 (Morocco, Tunisia, Libya, Egypt); Dusmet y Alonso, 1927:25 (Spain: Cataluña: Montserrat); Roth, 1928:176 (in revision of North African *Ammophilini*), 213 (nesting habits); Guiglia, 1929:395 (Libya: Cyrenaica: oasis Giarabub); Kruger, 1929a:21 and 1929b:56 (Libya: Cyrenaica: Giarabub); Roth, 1929:176 (in revision of Spanish *Ammophilini*); G. Carpenter, 1930b:295 (nest closure, France); Grandi, 1930:303 (nest established in hard soil), 340 (Italy: Toscana: Maremma); A. Müller, 1930:181 (Bessarabia: Tarutino, now Ukraine); Dusmet y Alonso, 1931:7 (Portugal: Coimbra); Giordani Soika, 1932a:20 (Italy: Lido di Venezia); Guiglia, 1932c:3 (Italy: Valle d'Aosta: Parco Nazionale del Gran Paradiso), 1932d:468 (Libya: Cufra, Es Sahabi, Gialo); Dulac, 1933b:40 (France: recorded from Saône-et-Loire Département by Picard); Giordani Soika, 1933b:60 (nesting habits); Gussakovskij, 1933b:274 (Iran); Maidl, 1933b:121 (Morocco); Nadig, 1933:100 (Morocco); Giner Marí, 1934:130 (Spain); Giordani Soika, 1934:343 (description of mature larva); Grandi, 1934:130 (Italy: Lazio: Acilia); Guiglia, 1934b:290 (Libya: bibliography and summary of locality records); Gussakovskij, 1934a:4 (Mongolia); Maidl, 1934:64 (Greece: Aegean Islands: Milos); Bernard, 1935:61 (France: Var: Fréjus area); Giordani Soika, 1935:233 (Libya: Fezzan: Murzuch, Sebha, Serdeles); Gussakovskij, 1935:414 (Tajikistan: Shuroabad); Drenowski, 1936:247 (Bulgaria: Sradna Gora, determination tentative); Bischoff, 1937b:1 (Canary Islands); Guiglia, 1938:9 (Italy: Sardegna); Móczár, 1938d:80 (Hungary: Pótharasz puszta); Guiglia, 1939c:185 (Libya: Fezzan: Hon), 1939d:73 (Ethiopia: Sidamo: Neghelli, now Negele); Móczár, 1939:5 (Hungary: Jászberény); Guiglia, 1940a:286 (Libya: Hun), 1941c:165 (Italy: Calabria: Grande Sila), 1942b:228 (Libya); nec Yasumatsu, 1942c:104 (= *Podalonia tydei apakensis*); Berland, 1943a:312 (Morocco: Western Sahara: Villa-Cisneros); Giner Marí, 1943a:69 (in Sphecidae Fauna of Spain); Giordani Soika, 1944:13 (Italy: Sicilia: Agrigento, Falcone); Guiglia, 1944a:145 (Cyprus: Limassol), 1944b:7 (Italy); Giner Marí, 1945b:359 (eastern Mo-

rocco: Muley Rechid), 361 (Canary Islands: Gran Canaria: El Carrizal), 361 (Morocco: Western Sahara), 1945e:218 (Morocco: Western Sahara); Alfieri, 1946:117 (in revision of Egyptian *Ammophila*); Deleurance, 1946b:62 (prey), 67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); de Beaumont, 1947b:381 (Cyprus); Giner Marí, 1947:18 (Morocco: Western Sahara); Guiglia, 1947a:28 (Italy: Piano Maiuri), 1948c:200 (Italy: Sardegna: Cagliari); de Andrade, 1949:5 (Portugal); Berland, 1950b:295 (Niger: Air area); de Beaumont, 1950d:6 (Egypt: Siwa oasis), 1950f:395 (Algeria); Pittioni, 1950:19 (Cyprus); Cleu, 1953:50 (France: Ardèche River basin); Nouvel and Ribaut, 1953:176 (France: Haute-Garonne: Saint-Béat); de Beaumont, 1954b:1 (Canary Islands), 1954e:85 (Italy); Hertzog, 1954:99 (France: Bouches-du-Rhône: Camargue); de Beaumont, 1955c:54 (effects of stylopization); de Beaumont and Bytynski-Salz, 1955:33 (Israel); Hellén, 1955a:124 (specimen recorded from Finland by Westerlund, 1895:28 is actually *Podalonia viatica*, now *hirsuta*); Steiner, 1955:133 (France: not found in Eyzies); Bytynski-Salz, 1956:223 (Turkey: Balaban Bridge, Elmali, Finike, Kasaba, Konya, Pendik); Ceballos, 1956:361 (in catalog of Hymenoptera of Spain); de Beaumont, 1956a:171 (Libya; Chad: Tibesti), 1956d:2 (Cabo Verde Islands); Evans and Lin, 1956a:145 (description of larva by Giordani Soika, 1934); Hertzog, 1956:148 (prey: caterpillars of *Agrotis* sp., prey capture and transportation); Morel, Nouvel, and Ribaut, 1956:336 (France: Département des Pyrénées-Orientales); Bajári, 1957a:15 (in key to Hungarian Sphecidae); de Beaumont, 1958a:291 (illustration of penis valve); Nouvel and Ribaut, 1958:8 (France: Pyrénées-Orientales: Banyuls-sur-Mer area); Pulawski, 1958a:163 (Bulgaria: Aitos, Nesebar, Varna); de Beaumont, 1959a:5 (Italy); Compte Sart, 1959:131 (Spain: Mayorca); Diniz, 1959:27 (Portugal: 16 localities); Grandi, 1959b:287 (Italy: Ferrara: Valle Pega); Suárez, 1959:52 (Spain: Almería Province); Čingovski, 1960:6 (Macedonia: Pelister, Yakupitsa); de Beaumont, 1960a:5 (Greece: Isle of Rhode), 1960b:223 (Libya); Hemmingsen, 1960:325 (Island of Tenerife: nesting habits at Arafo); Scobiola-Palade, 1960:236 (Romania; male genitalia illustrated); de Beaumont, 1961b:272 (Afghanistan), 1961e:1 (Iraq); Grandi, 1961:141 (nesting habits); Shalaby, 1961:226 (Saudi Arabia: Taif); de Beaumont, 1962b:18 (Spain); Myartseva, 1963b:59 (Turkmenistan: lower Murgab River); Ceballos, 1964:87 (in supplement to catalog of Spanish Sphecidae); Diniz, 1964c:107 (Angola: Lunda: Dundo); Pulawski, 1964:65 (Egypt: Tell-el-Amarna); de Beaumont, 1965a:11 (Greece); Derwesh, 1965:69 (Iraq: no specific locality); Isensee, Lesemann, and Röseler, 1965:612 (Spain: Gerona: no specific locality); Myartseva, 1965:86 (Turkmenistan: Akibay, Bayram-Ali); Balthasar, M. Hrubant, and E. Hrubant, 1967:175 (Bulgaria: Slanchev Bryag near Nesebar); de Beaumont, 1967a:261 (Turkey); Scobiola-Palade, 1967b:37 (Romania); Grandi, 1967:387 (Algeria); de Beaumont, 1968a:254 (Canary Islands); Kazenas, 1968b:342 (Kazakhstan: Alma Ata and Gur'yev, now Atyraū, oblast's); Simon Thomas, 1969a:120 (Canary Islands: Tenerife); de Beaumont, 1970a:386 (Afghanistan); nec Tsuneki, 1971k:144 and 1971m:3 (= *Podalonia tydei apakensis*); Scobiola Palade, 1972a:148 (Romania: delta of Danube: Caraorman); Erlandsson, 1974:57 (Greece, Spain; as *tydie*); Al-Ali, 1977:100 (Iraq: Baghdad); Georghiou, 1977:189 (Cyprus); Erlandsson, 1978a:204 (Canary Islands); Báez and Ortega, 1978:191 (Canary Islands); Marion, 1978:85 (France); Pulawski, 1978:181 (in key to Sphecidae of European part of USSR); Abdu and Shaumar, 1985:229 (Qatar: Doha, Sumaimah); Piek and Spanjer, 1986:179 (in list of Sphecidae with known prey). – **As *Sphex tydei***: R. Turner, 1917e:177 (new combination, Pakistan: Karachi and Multan); Bischoff, 1931:8 (Spain). – **As *Psammophila tydei***: E. Saunders, 1904c:604 (new combination, Spain: Mayorca), 636 (Spain); Magretti, 1906:11 (Eritrea); Schmiedeknecht, 1907:246 (in key to Hymenoptera of Central Europe); Scholz, 1909a:182 (recorded from Germany: Schlesien, now Poland: Śląsk), 1910:306 (author's earlier record from Schlesien is uncertain); Bischoff, 1912:221 (Uganda: south of Edward Lake); Guiglia, 1932:99 (Libya: Fezzan: Murzuk); Zavadil, Šustera, and Bat'a, 1937:214 (in catalog of Sphecidae of Czechoslovakia); Deleurance, 1941:288 (France: Camargue; nesting habits); Dovnar-Zapolskiy, 1940:304 (Russia: Kursk Oblast'); Móczár, 1953:309 (Hungary); Vogrin, 1955:31 (Yugoslavia); Plavil'shchikov, 1964:122 (Russia: *Mordovian State Nature Reserve*); Piek and Spanjer, 1986:188 (in list of Sphecidae with known prey); Pádr *in* Šedivy, 1989a:166 (in checklist of Czechoslovakian Sphecidae). – **As *Podalonia tydei***: Zavadil *in* Zavadil and Šnoflák, 1948:170 (new combination, in key to Sphecidae of Czechoslovakia, not yet found in Czechoslovakia); Harant and Leclercq, 1955:250 (France: Hérault: Maguelonne, Palavas-les-Flots); Leclercq, 1955h:67 (bibliographic references, variation, locality records from Zaire and elsewhere), 1955i:406 (Rwanda), 1958b:480 (France: Pyrénées-Orientales: Argelès-sur-Mer; second half of April); Guiglia, 1959:314 (Somalia); Grandi, 1962:97 (Italy); Diniz, 1965:3 (Portugal: 19 localities); Myartseva, 1966:48 (preying on caterpillars), 49 (Turkmenistan: lower course of Murgab and Tedjen rivers; preying on caterpillars of *Pandesma anysa* f. *terrigena* Chr., Noctuidae); Benedek, 1969a:83

(Hungary; marshy meadow); Myartseva, 1969:54 (Turkmenistan; nest construction either precedes or follows hunting, soil evacuated from nest during constriction is deposited at nest entrance, prey: noctuid larvae including *Pandesma anysa* f. *terrigena* Chr. and *Mamestra spinacea* View., Noctuidae, preimaginal development); Balthasar, 1972:434 (in Sphecidae Fauna of Czechoslovakia); Kazenas, 1972b:105 (Kazakhstan); Myartseva, 1972a:87 (Turkmenistan); Simon Thomas, 1972:175 (France: not found in explored areas); Kazenas, 1974b:109 (feeding on flowers of *Tamarix* sp., Tamaricaceae, *Statice gmelini* Willd., Plumbaginaceae, and *Euphorbia* spp., Euphorbiaceae, in Kazakhstan), 111 (feeding on flowers of *Lepidium crassifolium* W. et K., Brassicaceae, in Kazakhstan), 112 (feeding on flowers of *Salsola* sp., Chenopodiaceae, *Gallium* sp., Rubiaceae, and *Allium caspium* Pall., Liliaceae, in Kazakhstan); Lomholdt, 1975a:7 (comparison with *Podalonia rothi* and *P. viatica*, correctly *hirsuta*), 8 (first record from Madeira since 1894); R. Bohart and Menke, 1976:145 (in checklist of world Sphecidae); Guichard, 1978:269 (Greece); Kazenas, 1978b:39 (in key to Sphecidae of Kazakhstan and Central Asia); Radović and Krunić, 1979:unpaginated foldout (nesting in coarse sand and loose soil, foreleg structure); Guichard, 1980:224 (Oman); Pagliano, 1980:111 (Italy: Sicilia); Wolf, 1980:73 (Canary Islands); Roche, 1981:2 (in checklist of Sphecidae of United Arab Emirates); Rodgers and Homewood, 1982:233 (Tanzania: Usambara Mountains, as *tycei*, may be misdetermination of *Podalonia canescens*); Dollfuss, 1983a:76 (Austria: endangered in Niederösterreich), 1983b:3 (in catalog of Sphecidae of Austria); Schmidt and Westrich, 1983:121 (Greece); Pagliano, 1984:369 (Italy); Cardale, 1985:228 (in catalog of Australian Sphecidae); Chevin and Chevin, 1985:38 (France: Aude); Eiroa and Novoa, 1985:23 (Spain: Pontevedra: Barra beach near Cangas); Józán, 1985b:55 (Hungary south of Lake Balaton), 68 (map of distribution in Hungary), 83 (ecological and zoogeographic characteristics); Pagliano, 1985:20 (Italy); Radović, 1985:64 (sting apparatus analyzed); Scobiola-Palade, 1985:95 (Romania: delta of Danube); Islamov, 1986:515 (Uzbekistan: Surkhandarya Oblast'); Józán, 1986:368 (Hungary: Kiskunság National Park); Steiner, 1986:97 (references to papers on nesting habits); Guichard, 1988a:125 (Arabian Peninsula); Al-Houty, 1989:162 (Kuwait: five localities); McCorquodale and Thomson, 1989:94 (Australia: Bristowe, 1971, prey record); Pagliano, 1990:63 (in catalog of Italian Sphecidae); Day, 1991:xviii (summary of European Endangered Hymenoptera Lists); nec Dollfuss, 1991:31 (= *Podalonia luffii*); Guichard, 1991a:338 (Jordan); Schembri, 1991:176 (first record from Malta); Valentine and Walker, 1991:41 (in catalog of New Zealand Hymenoptera); Gayubo, Borsato, and Osella, 1992:278 (Greece, Spain); Hamon, Tussac, and Fonfria, 1992:410, 411 (in key to French Ammophilini), 413 (distribution in France); Kazenas, 1992c:25 (Turkmenistan: Repetek Nature Reserve); Ebrahimi, 1993:93 (Iran); Gorobchishin, 1993:46 (Ukraine: Kanev Nature Reserve; as *tycei*); Hohmann, La Roche, Ortega, and Barquín, 1993:203 (detailed locality records from Canary Islands); Jha and Farooqi, 1994:11 (description and illustration of male genitalia); Krasnobayev et al., 1995:139 (Russia: Zhiguli Hills northwest of Samara); Negrisoló, 1995a:19 (visiting flowers of *Limonium bellidifolium* (Gouan) Dumort), Plumbaginaceae, 22 (Italy: Veneto); Negrisoló in Minelli, Ruffo, and La Posta, 1995b:3 (in catalog of Italian fauna); Pagliano and Pesarini, 1995:83 (Italy: Ferrara Province); Voblenko, Gorobchishin, and Nesterov, 1996:14 (Ukraine: Polesye Region); Wu and Zhou, 1996a:63 (in revision in Economic Insect Fauna of China); Al-Houty, 1997:161 (Kuwait: no specific locality); Bitsch, Barber, Gayubo, Schmidt, and Ohl, 1997:103 (in Sphecidae Fauna of Western Europe); Nazarova and Shomirsaidov, 1997:23 (Tajikistan: fruit tree orchards in Vakhsh River valley); Dollfuss, Gusenleitner, and Bregant, 1998:509 (Austria: summary of collecting records from Burgenland); Kazenas, 1998b:148 (in Sphecidae Fauna of Kazakhstan); Naumann, 1998:183 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E); Nazarova, 1998:40 (Tajikistan: Tigrovaya Balka Nature Reserve); Shkuratov, 1998:97 (Russia: Rostov Oblast'); Esenbekova and Kazenas, 2000:12 (southeast Kazakhstan: 3 km northeast of Borandysu, near Borokhudzir, 10 km northwest of Chundzha, near Kapchagay, 45 km northwest of Suzak); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:105 (Greece); Ljubomirov, 2000:8 (Bulgaria, specimens in N. Nedelkov collection); Smit, 2000:174 (Island of Madeira); Vicidomini, 2000b:27 (Italy: previously recorded from Campania); Kazenas, 2001b:17 (in checklist of Sphecidae of Kazakhstan and Central Asia), 97 (nesting habits, review of known biology), 2002a:34 (geographic distribution, no specimens collected by author); Shkuratov, 2002b:138 (Russia: Rostov Oblast': Rostovskiy Nature Reserve at 46°27'N 42°41'E); Drewes, 2003:141 (Cyprus: Limassol; Morocco: Agadir; Spain: Tarragona); Gadallah and Assery, 2004a:217 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 223 (in catalog of Sphecidae of Saudi Arabia: Hadasham 120 km east of Jeddah); Kazenas, 2004b:99 (Kazakhstan: western Tien Shan Mountains), 2004d:27 (Kazakhstan: northern Caspian region); Shkuratov, 2004a:72 (Russia: Rostov Oblast'), 2004b:164 (Russia: Rostov

Oblast': Gosudarstvennyi Muzei-Zapovednik M.A. Sholokhova); Wiśniowski, 2004:38 and 58 (in checklist of Polish Sphecidae: erroneously reported from Lower Silesia by Scholz, 1909, 1910, 1913); Zettel, 2004:4 (not occurring in Austria); Gayubo and Özbek, 2005:11 (Turkey: many localities); Gülmez and Tüzün, 2005:49 (Turkey: Ankara Province); Jacobs, 2005a:437 (Bulgaria); Pagliano and Negrisola, 2005:75 (in Sphecidae Fauna of Italy); Shorenko, 2005a:163 (Ukraine: Crimea); Yildirim and Ljubomirov, 2005:1788 (Turkey: Konya: Güneysınır); Blösch, 2006:90 (on Canary Islands males dig themselves into ground to spend night); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Standfuss and Standfuss, 2006c:308 (Greece: Thessalia: Magnisia Peninsula at 39°N 23°E); Alieva and Humbatov, 2007:77 (nesting and prey); Vepřek and Straka, 2007:199 (in catalog of Sphecidae of Czech Republic and Slovakia), 211 (record from Slovakia by Mocsáry, 1897 is probably misidentification of *Podalonia luffii*); Yildirim and Ljubomirov, 2007:116 (Turkey: İçel: Aydıncık); Gayubo, González, Tormos, and Asís, 2008:136 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov, 2008:256 (known from Canary Islands: La Palma); Ljubomirov and Yildirim, 2008:46 (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); Danilov, 2009:56 (Russia: Western Siberia: Kulundinskaya Steppe); 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, 2009:262 (Bulgaria: Maleshevska Planina, as *tydei tydei*); Ruchin, Antropov, and Shibayev, 2009:169 (Russia: Republic of Mordovia); Shorenko, 2009:367 (in list of Sphecidae *sensu lato* of Crimea, as *tydei tydei*); Danilov, 2010b:44 (distribution of Palearctic-Ethiopian-Indomalayan- Australian type); Dollfuss, 2010a:556 (locality records from Algeria, Australia, Bulgaria, China, Cyprus, Egypt, Greece, Hungary, Iran, Jordan, Kazakhstan, Kenya, Kyrgyzstan, Madeira, Morocco, Romania, Slovakia, Spain, South Africa, Syria, Tajikistan, Tunisia, Turkey, Turkmenistan, Uzbekistan, Yemen, and Zimbabwe), 2010b:1245, 1248 (in key to Old World *Podalonia*), 1267 (bibliographic references, recognition characters, geographic distribution); Mokrousov, 2010a:60 (Russia: Nizhniy Novgorod Oblast': no specific localities, record questionable for geographic reasons), 2010b:100 (Russia: Nizhniy Novgorod Oblast' no specific locality); Shorenko and Kononov, 2010:11 (Ukraine: Crimea, Khar'kov Oblast'); Tüzün and Yüksel, 2010:4468 (Turkey: Niğde Province); Józán, 2011:179 (in checklist of Sphecidae *sensu lato* of Hungary); Murai and Amr, 2011:108, 120 (first record from Syria: Al Thawrah Nature Reserve at 35°51'N 28°38'E); Schmid-Egger, 2011b:599 (United Arab Emirates: Al-Ajban, Dubai/al-Awir, Ra's al-Khaimah airport, Sharjah/15 km north of ad-Dhaid), 602 (color photographs of male and female); Prismaniy, 2012:46 (Russia: Belgorod Oblast'); Protsenko, Fateryga, Ivanov, and Puzanov, 2012:55 (Ukraine: Crimea); Dollfuss, 2013b:5898 (locality records from Bulgaria, Egypt, France, Greece, Iran, Jordan, Kazakhstan, Kyrgyzstan, Spain, and Turkey); Dyuzhaeva, 2013:116 (Russia: Samara Oblast': Zhiguli Nature Reserve); El-Hawagry, Khalil, Sharaf, Fadl, and Aldawood, 2013:79 (Saudi Arabia: Al-Baha Province: El-Baha); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:360 (in new catalog of Sphecidae of Saudi Arabia); Baldock, 2014:354 (Spain: Island of Mallorca: many localities); Danilov, 2014b:518 (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, 2014:13 (Iran: Alborz, Ghom, Māzandarān, and Tehrān provinces); Ghahari, Hayat, Lavigne, and Ostovan, 2014:1411 (prey of fly *Choerades ursula* (Loew), Asilidae); Kazenas, 2014a:132 (Kazakhstan: Karatau Mountain Range); Schmid-Egger, 2014:623 (United Arab Emirates); Shayestehfar, Noori, Talebi, and Moniri, 2014:24 (Iran: Isfahan: Golpayegan); Yildirim, 2014:30 (Turkey: distribution by biogeographic provinces, as *tydei tydei*); Dollfuss, 2015b:438 (locality records from Cape Verde Islands, Egypt, Greece, Israel, and Oman); Koçak and Kemal, 2015:278 (in checklist of Hymenoptera of Turkey); Mokrousov and Zryanin, 2015:42 (Uzbekistan: Kashkadarya Oblast'); Samin and Bagriacik, 2015:70 (Iran: West Azarbaijan: Urmia at 37°33'N 45°00'E); Shorenko, 2015:313 (in list of Sphecidae *sensu lato* of Crimea); Gülmez and Dizer, 2016:60 (Turkey: Tokat Province); Levărdă and Matache, 2016:42 (in catalog of Sphecidae s.s. of Romania); Mokrousov and Popov, 2016:562 (Russia: Krasnodarskiy Krai); Wang, Q. Li, and Ma, 2016:449, 450 (in key to *Podalonia* of China); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:8 (Turkey: Erzurum, Manisa, and Tunceli provinces, as *tydei tydei*); Arens, 2017a:635 (Greece: Peloponnesus); Danilov, 2017b:214 (in catalog of Sphecidae s.s. of Russia); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:20 (Iran: known from Alborz, Isfahan, Khorasan, Markazi, Mazandaran, Qom, Sistan-o-Baluchestan, Tehran, and West Azerbaijan provinces); Shorenko, 2017:76 (in Crimea collected in May through October),

2018:126 (Crimea, including localities, habitats, and number of specimens); Augul, 2019:495 (Iraq: Baghdad: Bab Al-Muadham; Diyala Province: Al Wajehiya; Wasit Province: Al-Numaniyah, Al Zubadiah: Sher'han village); Gülmez, 2019:3 (Turkey: Ankara, Sivas, and Tokat provinces: no specific localities), 4 (abnormal forewing venation); Ruchin and Antropov, 2019a:13220 (Russia: Mordovia State Nature Reserve, occurrence needs confirmation); Ben Khedher, Yildirim, Braham, and Ljubomirov, 2020a:310 (in list of Tunisian Sphecidae *sensu stricto*; additional records: Tunisia: Gabes, Jendouba, Kebili, Mahdia, Medenine, Monastir, Nabeul, Sfax, Sidi Bouzid, Sousse, Tataouine, Tozeur, Tunis, and Zaghwan provinces; as *tydei tydei*); Bitsch, Barbier, and Jacobs *in* Bitsch, Barbier, Gayubo, Jacobs, Leclercq, and Schmidt, 2020:110 (in Sphecid Fauna of Europe); Cassar and Mifsud, 2020:164 (in checklist of Sphecidae s.s. of Malta); Danilov, 2020:318 (specimens from Kazakhstan, Kyrgyzstan, Russia: Astrakhan' Oblast', Tajikistan, and Turkey in Institute of Systematics and Ecology of Animals, Novosibirsk, Russia); Gadallah, 2020d:82 (in list of aculeate wasps of Arabian Peninsula); Örgel, Anlaş, and Tezcan, 2020:638 (Turkey: Manisa Province; Can and Gülmez, 2021b:310 (Turkey: Sivas Province); Cross, Baldock, and Wood, 2021:16 (in catalog of Sphecidae *sensu lato* of Portugal); Ghaderipour, Khayrandish, Madjzadeh, Ebrahimi, and Schmid-Egger, 2021:504 (Iran: Kerman Province); Embergenov, Élmurodova, Amirov and Kimyonazarov, 2022:47 (Uzbekistan: Tashkent Province); Embergenov, Akhmedov, and Medetov, 2023:24 (Uzbekistan: southern Lake Aral region); Kaplan and Yildirim, 2023:1693 (in checklist of Sphecidae *sensu lato* of Turkey, as *tydei tydei*).

Ammophila tydei Le Guillou, 1842:319, ♀. Objective synonym of *Ammophila tydei* Le Guillou, 1841.

Psammophila madeirae Dahlbom, 1843:21, ♀ (as *Madeirae*, incorrect original capitalization). Syntypes: ♀, Island of Madeira (Lund). Synonymized with *Ammophila tydei* by Kohl, 1906b:284, synonymy confirmed by de Beaumont, 1953h:194 and Lomholdt, 1975a:6. – Dahlbom, 1845:432 (in key to *Psammophila*); F. Smith, 1856:210 (in catalog of Hymenoptera in British Museum), as *maderae*; A. Costa, 1864b:111 (specimen from Madeira in Museo Zoologico di Napoli); Taschenberg, 1869:429 (Cape Province); Gribodo, 1883:689 (Canary Islands: Tenerife); Magretti, 1884a:249 (Sudan), 1884c:574 (Sudan: Sauakin); Gribodo, 1894c:135 (Mozambique: Magnarra River). – **As *Podalonia madeirae***: Lomholdt, 1975a:5 (new combination, Madeira).

Psammophila senilis Dahlbom, 1843:21, ♀, ♂. Syntypes: southern Europe: no specific locality (Lund). Synonymized with *Podalonia madeirae* by Dahlbom, 1845:432 and with *Ammophila tydei* by Kohl, 1906b:284. – Kirchner, 1867:217 (in catalog of European Hymenoptera). – **As *Ammophila tydei senilis***: de Beaumont, 1953h:194 (new combination, new status). – **As *Podalonia tydei senilis***: R. Bohart and Menke, 1976:145 (new combination, in checklist of world Sphecidae); Gayubo, 1981a:138 (northern Spain: Sierra de Béjar), 1982f:246 (Spain: Cádiz Province), 1983c:232 (Spain: Salamanca Province); Mingo and Gayubo, 1983:158 (Spain); Gayubo, 1984c:357 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:10 (Spain: Valencia); Gayubo, 1985c:167 (Spain: Cantabria: Santoña; Lugo: Covas-Vivero), 1986b:37 (Spain: Andalusia), 1986f:999 (strepsipteran parasite); Gayubo and Heras, 1986:30 (Spain: Segovia and Valladolid Provinces; floral records); Gayubo and Sanza, 1986:30 (Spain: Burgos); Gayubo and Tormos, 1986a:9 (Spain: Castellón de la Plana), 1986b:5 (Spain: Valencia); Asís and Jiménez, 1987:24 (Spain: Provincia de Castellón); Gayubo, 1987:108 (Spain: Provincia de Ciudad Real); Tormos and Jiménez, 1987a:123 (Spain: Valencia), 1987b:316 (Spain: Valencia: Dehesa de El Saler); Gayubo, Asís, and Tormos, 1990a:11 (Spain); Gayubo, Borsato, and Osella, 1991:395 (Italy: Veneto, Liguria); Gayubo and Torres, 1991:Table I and p. 81 (Spain: Salamanca; effects of urban pressure); Gayubo, Tormos, and Asís, 1993b:307 (parasitized by *Paraxenos sphecidarum* Dufour, Strepsiptera), 308 (specimens with deformed wings); Torregrosa, Gayubo, Tormos, and Asís, 1993:11 (Spain: Alicante Province); Tormos, Asís, and Gayubo, 1994:187, 196 (Spain: Albacete Province); Negrísolo *in* Minelli, Ruffo, and La Posta, 1995b:3 (in catalog of Italian fauna); Gayubo, García, Torres, and González, 1999:89 (Spain: Soria Province); Gayubo, González, and Torres, 2000:184 (Spain: Salamanca Province); Gayubo et al., 2004:130 and Nieves-Aldrey et al., 2003:42 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Cruz-Sánchez, Gayubo, González, and Torres, 2005:219 (Spain: Salamanca: San Martín del Castañar).

Ammophila klugii Lepeletier de Saint Fargeau, 1845:367, ♀, ♂ (as *Klugii*, incorrect original capitalization). Syntypes: Portugal: no specific locality (originally M. Spinola coll., now?). – Synonymized with *Ammophila tydei* by Kohl, 1889a:22. – F. Smith, 1856:209 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:217 (in catalog of European Hymenoptera); Ed. André, 1886:85 (in revision of Sphecidae of Europe and Algeria), 1888:4* (bibliographic references); Medina, 1894a:259

(Spain: Sevilla, Laguna, Canary Islands); De Stefani Perez, 1895:226 (in catalog of Sicilian Hymenoptera); Acloque, 1897:96 (in Sphecidae Fauna of France and Algeria); Medina, 1897:192 (Spain: Cádiz). – **As *Psammophila klugii***: Olivier, 1910:163 (new combination, Algeria: Bou Saâda). – **As *Sphex klugii***: Arnold, 1920:33 (new combination, as synonym of *Sphex tydei* var. *capensis*).

Ammophila psammodes Lepeletier de Saint Fargeau, 1845:367 (authorship attributed to Klug). Not available: published as synonym of *Ammophila klugii* (Article 11.6).

Ammophila capuccina A. Costa, 1858b:15, ♂. Holotype: ♂, Italy: Terra d'Otranto: no specific locality (Napoli). Synonymized with *Ammophila tydei* by Kohl, 1889a:22. – Frivaldszky, 1876:354 (Hungary: Temes Komitat: Grebenáčz, now in Timiș District in Romania); Ed. André, 1886:82 (in revision of Sphecidae of Europe and Algeria, as *capucina*), 1888:3* (bibliographic references, as *capucina*); De Stefani Perez, 1895:226 (in catalog of Sicilian Hymenoptera); Mocsáry, 1900:79 (Kingdom of Hungary, some localities are in today's Romania); Móczár and Henter, 1907:205 (Hungary: Hatvan; Romania: Caraș-Severin: Mehadia); Graeffe, 1911:49 (Italy: Trieste area, as *capucina*). – **As *Psammophila capuccina***: A. Costa, 1867b:73 and 1867c:17 (new combination, in revision of Italian Sphecidae); Kirchner, 1867:217 (in catalog of European Hymenoptera).

? *Ammophila spinipes* F. Smith, 1878:16, ♀. Syntypes: India: Ladakh: Drás, Kárgil, and Leh (BMNH). – Synonymized with *Ammophila vagabunda* by Bingham, 1897:231; tentatively synonymized with *Podalonia tydei* by Bohart and Menke, 1976:145. – Dalla Torre, 1897:410 (in catalog of world Hymenoptera); Kohl, 1906b:376 (original description copied).

Ammophila lanuginosa Marquet, 1881:177, sex not stated. Holotype or syntypes: France: Hérault: Cette, now Sète (lost: de Beaumont, 1952b:89). Synonymized with *Ammophila tydei* by Kohl, 1906b:285, synonymy confirmed by de Beaumont, 1952b:89. – Dalla Torre, 1897:403 (in catalog of world Hymenoptera); de Gaulle, 1908:103 (in catalog of French Hymenoptera).

? *Ammophila laeta* Bingham, 1897:234, ♀. Holotype or syntypes: ♀, Afghanistan: Chaman (BMNH). – Kohl, 1906b:372 (original description copied); Bohart and Menke, 1976:145 (as tentative synonym of *Podalonia tydei*). – **As *Podalonia laeta***: S. Gupta, 1995:85 (new combination, India: Uttar Pradesh).

? *Ammophila durga* Nurse, 1903a:519, ♀, ♂. Syntypes: India: Kashmir: Murree (BMNH). – Ramakrishna Aiyar, 1916:554 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Podalonia durga***: R. Bohart and Menke, 1976:145 (new combination, in checklist of world Sphecidae, as tentative synonym of *Podalonia tydei*).

Ammophila errabunda Mercet, 1906b:190, ♀, junior primary homonym of *Ammophila errabunda* Kohl, 1901. Holotype or syntypes: ♀, Spain: Madrid Province: vicinity of Madrid (MNCN). Synonymized with *Ammophila tydei* by Giner Marí, 1943a:69.

Ammophila homogenea Mercet, 1906b:191, ♀, ♂. Syntypes: Spain: Alicante (MNCN, but not listed by Martín Albaladejo and Izquierdo Moya, 2006). Synonymized with *Ammophila tydei* by Giner Marí, 1943a:69.

Ammophila merceti Kohl, 1906b:283, ♀. Holotype: ♀, Spain: Madrid: Vaciamadrid (MNCN). Synonymized with *Podalonia tydei* by Dollfuss, 2010b:1267. – Roth, 1929:171 (in revision of Spanish Ammophilini); Giner Marí, 1943a:68 (in Sphecidae Fauna of Spain); Ceballos, 1956:360 (in catalog of Hymenoptera of Spain); Martín Albaladejo and Izquierdo Moya, 2006:124 (type in Museo Nacional de Ciencias Naturales, Madrid). – **As *Podalonia merceti***: R. Bohart and Menke, 1976:144 (new combination, in checklist of world Sphecidae); Mingo and Gayubo, 1983:158 (Spain; citation of Kohl, 1906); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:102 (in Sphecidae Fauna of Western Europe).

ssp. *apakensis* (Tsuneki)

As *Podalonia tydei*: Yasumatsu, 1942:104 (China: Nei Mongol: Apaka at 44°N 114.96°E), corrected to *Ammophila tydei apakensis* by Tsuneki, 1971m:3.

As *Ammophila tydei*: Tsuneki, 1971k:144 (Mongolia), corrected to *Ammophila tydei apakensis* by Tsuneki, 1971m:3.

Ammophila tydei apakensis Tsuneki, 1971m:3, ♂. Holotype: ♂, China: Nei Mongol: Apaka at 44°N 114.96°E (Kyushu Univ.). – **As *Podalonia tydei apakensis***: R. Bohart and Menke, 1976:145 (new combination, in checklist of world Sphecidae); Hua, 2006:276 (in list of Chinese insects, geographic distribution); Wang, Q. Li, and Ma, 2016:449 (in key to *Podalonia* of China).

ssp. argentata (Lepeletier de Saint Fargeau)

Ammophila argentata Lepeletier de Saint Fargeau, 1845:366, ♀. Holotype or syntypes: ♀, Algeria: Oran (originally Lepeletier de Saint Fargeau coll., now?). – Lucas, 1849:274 (Algeria: Oran; original description copied with modifications); Walker, 1871:17 (Sinai Peninsula; Sudan: Hor Tamanib; Indian Ocean coast of Africa: Harkeko); Dours, 1874:141 (in catalog of Hymenoptera of France); Fabre, 1879:207 (France: Vaucluse, nesting habits); Ed. André, 1886:85 (in revision of Sphecidae of Europe and Algeria); Radoszkowski, 1887a:41 (China: Qinghai Province: Tsaidam); no specific locality, description of ♂, male genitalia); André, 1888:4* (bibliographic references); Kohl, 1889a:22 (as new synonym of *Ammophila tydei*); F. Morawitz, 1889a:127 (China: Gansu); Radoszkowski, 1892:580 (reference to Radoszkowski, 1888a); Acloque, 1897:96 (in Sphecid Fauna of France and Algeria); Innes Bey, 1912:110 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected in Sinai). – **As *Psammophila argentata***: A. Costa, 1864b:111 (new combination, two specimens from Algeria in Museo Zoologico di Napoli), 1893b:4 (Tunisia). – **As *Podalonia tydei argentata***: R. Bohart and Menke, 1976:145 (new combination, new status, in checklist of world Sphecidae); Simon Thomas and Wiering, 1993:404 (Cape Verde Islands); Roche and Zalut, 1994:114 (Egypt: Sinai Peninsula); Roche, 2007a:31 (in checklist of Egyptian Sphecidae, redescription), 2007b:2 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

Ammophila argentea Brullé, 1839:93 (Canary Islands). Nomen nudum. Synonymized with *Ammophila argentata* by F. Smith, 1856:211. – Dours, 1874:141 (in catalog of Hymenoptera of France).

ssp. suspiciosa (F. Smith)

Ammophila suspiciosa F. Smith, 1856:214, ♀, ♂. Syntypes: Australia: Swan River, Hunter River, northwestern coast (BMNH). – Froggatt, 1892:209 (in catalog of Australian Hymenoptera); Dalla Torre, 1897:410 (in catalog of world Hymenoptera); R. Turner, 1908:466 (Australia, Tasmania); Chandler, 1925:107 (nest and prey); Bristowe, 1971:42 (attracted to flowers of *Nuytsia floribunda* Labil., Loranthaceae; preying and nest building). – **As *Sphex suspiciosa***: R. Turner, 1915b:551 (new combination, Tasmania). – **As *Podalonia suspiciosa***: Riek, 1970:940 (new combination, in Insect Fauna of Australia); Faulds, 1977:312 (established in New Zealand). – **As *Podalonia tydei suspiciosa***: R. Bohart and Menke, 1976:145 (new status, in checklist of world Sphecidae); Callan, 1979:32 (recently introduced to New Zealand; available information reviewed); Cardale, 1985:228 (in catalog of Australian Sphecidae); K. Walker, Naumann, Austin, Taylor, and Cardale, 1992:49 (in catalog of insects of Tasmania); Harris, 1994:18 (in Fauna of New Zealand, nest), 2001:57 (nesting habits, mature larva), 2003:123 (nesting habits); Pagliano, 2003a:504 (Australia: Australian Capital Territory and Victoria); Harris, 2002a:20 (New Zealand: range extension to Castlecliff Beach in Wanganui-Manawatu Province).

65. valida (Cresson)

Ammophila valida Cresson, 1865b:461, ♀. Lectotype: USA: Colorado Territory: no specific locality (ANSP), designated by Cresson, 1916:95. – Cresson, 1887:274 (in catalog of North American Hymenoptera); Ashmead, 1890:34 (in checklist of Hymenoptera of Colorado); Dalla Torre, 1897:411 (in catalog of world Hymenoptera); Ashmead, 1899d:354 (in checklist of North American Sphecidae); Melander, 1903:158 (in key to North American Ammophilini), 162 (bibliographic references, geographic distribution). – **As *Psammophila valida***: Mickel, 1918b:406 (new combination, in catalog of Nebraskan Sphecidae); Carter, 1924:365 (description of ♂), 1925:132 (Canada: Alberta); Fernald, 1926:91 (influence of humidity on coloration). – **As *Podalonia valida***: Fernald, 1927:13 (new combination, in revision of North American *Podalonia*); Murray, 1940:42 (in revision of North and Central American *Podalonia*); Strickland, 1947:129 (Canada: Alberta); Spencer and Wellington, 1948:10 (British Columbia); Murray in Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera); Steiner, 1974:773 (Arizona: preying on diurnal, markedly haired lepidopterous larvae of genus *Estigmene*, Arctiidae); tracking prey by olfactory clues, 1975:113 (nesting habits; nest digging precedes hunting, territoriality); R. Bohart and Menke, 1976:145 (in checklist of world Sphecidae); Krombein, 1979b:1588 (in catalog of North American Hymenoptera); Rust, Menke, and Miller, 1985:46 (California: Channel Islands), 52 (prey: hairy caterpillar); Piek and Spanjer, 1986:188 (in list of Sphecidae with known prey); A. Menke and K. Menke, 1990:22 (prey: caterpillar of *Grammia nevadensis* complex, Noctuidae); O'Neill and Evans, 1999:312 (nesting behavior; nest construction precedes hunting); Dollfuss, 2010a:558 (Colorado: Larimer and Limon); Field, Ohl, and Kennedy, 2011:734 (in molecular cladistic analysis of Ammo-

philini); Ratzlaff, 2016:29 (Canada: British Columbia: from Spencer and Wellington, 1948); Field, Gonzalez-Voyer, and Boulton, 2020:7 (evolution of parental care).

Ammophila grossa Cresson, 1873:209, ♀. Holotype: ♀, USA: Texas: Travis or Bastrop County: no specific locality (USNM). Synonymized with *Podalonia valida* by Fernald, 1927:13. – Cresson, 1887:274 (in catalog of North American Hymenoptera); Dalla Torre, 1897:400 (in catalog of world Hymenoptera); Melander, 1903:158, 159 (in key to North American Ammophilini), 162 (bibliographic references, geographic distribution); Cresson, 1916:94 (type in USNM). – **As *Psammophila grossa***: Ashmead, 1899d:354 (new combination, in checklist of North American Sphecidae); Melander and Brues, 1902:41 (description of ♂); H. Smith, 1908b:331 (in revision of Nebraskan Sphecidae); Mickel, 1918b:406 (in catalog of Nebraskan Sphecidae); Carter, 1925:132 (Canada: Alberta).

66. *violaceipennis* (Lepeletier de Saint Fargeau)

Ammophila violaceipennis Lepeletier de Saint Fargeau, 1845:370, ♀ (as *violacei-pennis*, incorrect original hyphenation). Lectotype: ♀, USA: Pennsylvania: Philadelphia (originally J. Serville coll., now M. Spinola coll., Torino), designated by Menke, 1965a:216. – F. Smith, 1856:224 (in catalog of Hymenoptera in British Museum); Cresson, 1863:319 (in catalog of North American Hymenoptera), 1887:274 (in catalog of North American Hymenoptera); Dalla Torre, 1897:411 (in catalog of world Hymenoptera); J. Smith, 1900:524 (in list of insects of New Jersey); Melander, 1903:159 (in key to North American Ammophilini), 162 (bibliographic references, geographic distribution); Pagliano, 2008:517 (lectotype in M. Spinola collection, Torino). – **As *Sphex violaceipennis***: Viereck, 1903d:121 (new combination, Maryland: Chestertown and College Park); J. Smith, 1910:677 (in new list of insects of New Jersey); Rohwer, 1916b:681 (in catalog of Hymenoptera of Connecticut); Rohwer *in* Viereck, 1925:681 (in key to Sphecidae of Connecticut; not yet found in State); J.Ch. Bradley, 1928:1012 (in catalog of New York Sphecidae); Brimley, 1938:445 (North Carolina: Franklin, Grimesland, Southern Pines); Britton, 1938:149 (in addition to checklist of insects of Connecticut). – **As *Psammophila violaceipenneis***: Ashmead, 1899d:354 (tentative new combination, in checklist of North American Sphecidae); H. Smith, 1908b:331 (in revision of Nebraskan Sphecidae); J. Parker, 1915:70 (nesting habits); Rohwer, 1917a:241 (California); Stevens, 1917:421 (North Dakota); Mickel, 1918b:406 (in catalog of Nebraskan Sphecidae); Carter, 1925:132 (Canada: Alberta); Fernald, 1926:91 (influence of humidity on coloration); G. Carpenter, 1930b:294 (nest closure). – **As *Podalonia violaceipennis***: Fernald, 1927:30 (new combination, in revision of North American *Podalonia*); F. Williams, 1928d:163 (obligatory nymphal diapause); Bequaert, 1929:220 (female is all black, male has partly red gaster); Fernald, 1931b:278 (sexual color dimorphism); Hicks, 1933c:49 (nest parasite: *Paniscus* sp., Ichneumonidae); nec A. Brown, 1934:264 (= *Podalonia robusta*); Balduf, 1936:137 (Minnesota: preying on caterpillars of *Symmerista albifrons* (J.E. Smith), a notodontid); Krombein, 1936:96 (nesting habits), 98 (floral records); Murray, 1940:51 (in revision of North and Central American *Podalonia*); Dreisbach, 1944:271 (in key to *Podalonia* of Michigan), 274 (Michigan: locality records); Strickland, 1947:129 (Canada: Alberta); Murray *in* Muesebeck, Krombein, and Townes, 1951:978 (in catalog of North American Hymenoptera); K. Cooper, 1953:34 (Massachusetts: Island of Penikese); Krombein, 1955d:146 (North Carolina: Kill Devil Hills); Kurczewski and Kurczewski, 1963:147 (Pennsylvania: Presque Isle State Park); Menke, 1965a:216 (synonymy); International Commission on Zoological Nomenclature, 1968b:88 (designated *Ammophila violaceipennis* as type of *Podalonia* Fernald); R. Bohart and Menke, 1976:145 (in checklist of world Sphecidae); L. Davis, 1978:217 (North Carolina: Kill Devil Hills, data from Krombein, 1955d); Krombein, 1979b:1588 (in catalog of North American Hymenoptera); Finnamore, 1982:24 (in Sphecid Fauna of southern Quebec); Hilchie, 1982:106 (prey of *Philanthus albopilosus*), 107 (Alberta: Empress); Brockmann, 1985b:312 (nest closure summary); Piek and Spanjer, 1986:188 (in list of Sphecidae with known prey); Steiner, 1986:97 (references to papers on nesting habits); O'Brien, 1989b:208 (distribution in Michigan); Spofford, Kurczewski, and Downes, 1989:256 (summary of records for nest parasites *Hilarella hilarella* (Zetterstedt), *Hilarella* sp., and *Metopia argyrocephala* (Meigen), miltogrammine flies); Ahlstrom, 1995:108 (in checklist of insects of North Carolina); Sugar *et al.*, 1998:15 (Canada: southern Ontario); Buck, 2004:24 (Canada: in checklist of Sphecidae of Ontario); Miller, Pearce, and O'Neill, 2009:3 (known to be parasitized by *Paraxenos luctuosae* (Pierce), Strepsiptera); Dollfuss, 2010a:559 (Michigan: Cheboygan, Delta, and Otsego counties).

Ammophila cementaria F. Smith, 1856:224, ♀. Lectotype: ♀, USA: Florida: Duval County: Saint John's Bluff, now in Jacksonville (BMNH), designated by Fernald, 1927:36 and illegally by Menke, 1965a:216. Synonymized with *Podalonia viola-ceipennis* by Fernald, 1927:30. – Cresson, 1863:318 (in catalog of North American Hymenoptera), 1887:274 (in catalog of North American Hymenoptera); Dalla Torre, 1897:397 (in catalog of world Hymenoptera); Ashmead, 1899d:354 (in checklist of North American Sphecidae); Viereck, 1903a:68 (New Mexico: Beulah).

67. yunnana Q. Li and Ch. Yang

Podalonia yunnana Q. Li and Ch. Yang, 1992:85, ♀, ♂. Holotype: ♀, China: Yunnan: Xiaguan (Beijing Agricultural University). – Dollfuss, 2010a:556 (China: Yunnan: Lijiang), 2010b:1246 (in key to Old World *Podalonia*), 1268 (original description translated into English); Wang, Q. Li, and Ma, 2016:449 (in key to *Podalonia* of China).

sp.

Titus, 1909:319 (Michigan: Lake Superior: Isle Royale); Storey, 1916:107 (Egypt); P. Roth, 1922b:292 (Algeria); Bischoff, 1935:259 (Kashmir, near *Podalonia morawitzi*); Giner Marí, 1959:387 (Morocco); de Beaumont, 1961b:272 (Afghanistan); sp. near *Podalonia hirsuta*, 1967a:264 (Turkey, sp. near *Podalonia affinis*), 1970c:1 (Iran: Baluchistan); Kumar, Lavigne, Lloyd, and Pfadt, 1976:51 (USA: Colorado: Pawnee National Grassland); Dathe, 1980:207 (Russia: northern Caucasus: Dombay); Hilchie, 1982:107 (Alberta: Empress); Parks, 1986:34 (California: Torrey Pines State Reserve); Schubert and Schönitzer, 1993:264 (presence of facial fovea questionable); S. Gupta, 1997:101 (India: Uttar Pradesh: Nanda Devi Biosphere Reserve), 2004:26 (India: Uttaranchal: Uttarkashi District); Gayubo and Özbek, 2005:11 (Turkey); Ruíz Cancino, Coronado Blanco, and Horta Vega, 2005:170 (Mexico: recorded from State of Tamaulipas); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007:48 (Mexico: Tamaulipas); Roche, 2007a:32 (in checklist of Egyptian Sphecidae, description); Ljubomirov and Yildirim, 2008:47 (in catalog of Sphecidae of Turkey); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:21 (Iran: Markazi and Sistan-o Baluchestan provinces); Buys, 2020b:80 (in cladistic analysis of larvae of Sphecidae s.s.); Gadallah, 2020d:82 (in list of aculeate wasps of Arabian Peninsula).

SPECIES DESCRIBED IN PSAMMOPHILA AND TRANSFERRED ELSEWHERE

caroli Pérez, 1907 = *Parapsammophila*

NOMINA NUDA IN PODALONIA

Podalonia anthracina Kohl: Dollfuss, 1989:11 (type material in NHMW).

Podalonia deserticola R. Bohart: S. Frommer, 1988:95 (California: Riverside County: Deep Canyon).