

Last updated: 18 October 2018

## **GORYTES**

- Gorytes* Latreille, 1805:180. Type species: *Mellinus quinquecinctus* Fabricius, 1793, by monotypy.
- Arpactus* Panzer, 1805:Heft 98, text for pl. 17. Type species: *Mellinus quadrifasciatus* Fabricius, 1804, by monotypy.
- Arpactus* Panzer, 1806:164, junior homonym of *Arpactus* Panzer, 1805. Type species: *Mellinus quadrifasciatus* Fabricius, 1804, designated by Pate, 1937c:11.
- Euzonia* Stephens, 1829b:363. Type species: *Mellinus quinquecinctus* Fabricius, 1793, designated by Pate, 1937c:27.
- Hoplisis* Lepeletier de Saint Fargeau, 1932:61. Type species: "*Hoplisis 5-Cinctus* St. Farg." [= *Hoplisis quinquecinctus* of Lepeletier de Saint Fargeau, 1832 = *Mellinus quinquecinctus* Fabricius, 1793], designated by Westwood, 1839:80. Synonymized with *Gorytes* Latreille by Pate, 1935:248.
- Euspongus* Lepeletier de Saint Fargeau, 1832:66. Type species: *Euspongus laticinctus* Lepeletier de Saint Fargeau, 1832, designated by Westwood, 1839:80.
- Pseudoplisus* Ashmead, 1899d:323. Type species: *Gorytes floridanus* W. Fox, 1891 [= *Pseudoplisus smithii floridanus* (W. Fox, 1891)], by original designation. Synonymized with *Gorytes* by Nemkov and Pulawski, 2009:7
- Laevigorytes* Zavdil in Zavdil and Šnoflák, 1948:66. Type species: *Gorytes kohlii* Handlirsch, 1888, by monotypy.
- Leiogorytes* R. Bohart, 2000:178. Type species: *Leiogorytes guerrero*, by original designation and monotypy. Synonymized with *Gorytes* by Nemkov and Pulawski, 2009:7.

Nest structure: Barth, 1910:119.

Revisions: de Beaumont, 1953 (western Palearctic Region); Nemkov, 1989 (Siberia and Russian Far East), 1990 (former USSR); Schmid-Egger, 2002b (western Palearctic Region).

Review of biology: Kazenas, 2001b:222 (*Gorytes*) and 223 (*Pseudoplisus*).

In key to genera of Gorytina: Nemkov, 2010b:502.

### **1. abdominalis Cresson**

*Gorytes abdominalis* Cresson, 1865:474, ♀, ♂. Lectotype: ♀, USA: Colorado Territory: no specific locality (ANSP), designated by Cresson, 1916:97. – Packard, 1867:425 (listed); Handlirsch, 1888b:510 (revision); W. Fox, 1896a:538 (in revision of North American *Gorytes*); Dalla Torre, 1897:536 (in catalog of world Sphecidae); Moidl and Klima, 1939:111 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Krombein in Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera); Nemkov and Pulawski, 2009:9 (reverted to *Gorytes*, in cladistic analysis of Gorytina). – **As *Hoplisis abdominalis***: Cresson, 1887:279 (in catalog of North American Hymenoptera); Ashmead, 1890:32 (in checklist of Hymenoptera of Colorado). – **As *Pseudoplisus abdominalis***: Ashmead, 1899:328 (new combination, in checklist of North American Crabronidae); R. Bohart, 1969b:393 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1695 (in catalog of North American Hymenoptera).

### **2. aequalis Handlirsch**

*Gorytes aequalis* Handlirsch, 1888b:505, ♀, ♂. Syntypes: Mexico: Michoacán: Anganguero, as Angang (coll. de Sausure, Geneva, actually NHMW). – Cameron, 1890a:77 (listed); Dalla Torre, 1897:536 (in catalog of world Sphecidae); Moidl and Klima, 1939:111 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Nemkov and Pulawski, 2009:9 (reverted to *Gorytes*, in cladistic analysis of Gorytina). – **As *Pseudoplisus aequalis***: Ashmead, 1899:328 (new combination, in checklist of North American Crabronidae); R. Bohart, 1969b:393 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Dollfuss, 1989:12 (type material in NHMW); Amarante, 2002:17 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae).

*Gorytes handlirschi* Cameron, 1890a:78, ♀, ♂, junior primary homonym of *Gorytes handlirschi* F. Morawitz, 1890. Syntypes: Mexico: Guerrero: Xucumanatlán (BMNH). Synonymized with *Pseudoplisus aequalis* by R. Bohart in R. Bohart and Menke, 1976:503.

*Gorytes cameronis* Handlirsch, 1895:927 (as *Cameronis*, incorrect original termination). Substitute name for *Gorytes handlirschi* Cameron. – Handlirsch, 1895:927 (original description translated into German); Dalla Torre, 1897:538 (in catalog of world Sphecidae); Maidl and Klima, 1939:111 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*). – **As *Pseudoplisus cameronis***: Ashmead, 1899:328 (new combination, in checklist of North American Crabronidae).

### 3. *africanus* Mercet

*Gorytes africanus* Mercet, 1905:464, ♀. Syntypes: ♀, Morocco: Tanger (MNCN). – Maidl and Klima, 1939:47 (in catalog of world Astatinae and Bembicinae); de Beaumont, 1953f:195 (in revision of western Palearctic *Gorytes*), 1953g:114 (Morocco); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Gayubo, 1982d:107 (Spain), 1983e:2234 (Spain: Salamanca Province); Gayubo and Sanza, 1986:75 (Spain: Burgos); Nemkov, 1990b:683, 685 (in key to *Gorytes* of former USSR); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:191 (in Sphecidae Fauna of Western Europe); Schmid-Egger, 2002b:175 (in revision of western Palearctic *Gorytes*); Nemkov, 2017:Table p. 5 (in zoogeographic analysis of Palearctic Bembicinae).

### 4. *aino* Tsuneki

*Gorytes aino* Tsuneki, 1963a:16, ♀, ♂. Holotype: ♀, Japan: Hokkaido: Jozankei (originally K. Tsuneki coll., now Hyogo Mus.). – Tsuneki, 1963a:4, 6 (in key of Gorytini of Japan and Korea), 1965c:31, 32 (in key to Bembicinae of Japan and Korea); T. Iida, 1968:21 (Japan); Tsuneki, 1970b:9 (central Japan); Yamada, 1970:14 (Japan: Nagano Prefecture: Shimajima Valley); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Kazenas, 1980e:83 (Russia: Primorskiy Krai); Nemkov, 1989:69, 71 (in key to *Gorytes* of Siberia and Russian Far East), 1990b:682, 684 (in key to *Gorytes* of former USSR to *Gorytes* of former USSR); Tano, 1994a:8 (holotype in K. Tsuneki coll.); Nemkov in Nemkov, Kazenas, Budrys, et Antropov, 1995:463, 464 (in key to Sphecidae of Russian Far East); Hashimoto and Nakanishi, 1997:24 (holotype transferred to Hyogo Mus.); Haneda, Nosaka, Tano, Kurokawa, and Murota, 2004:38 (Japan: Gifu Prefecture); Suda, 2004:46 (Japan: Yamanashi Prefecture); Haneda, Nozaka, Tano, Kurokawa, and Murota, 2005:54 (Japan: Gifu Prefecture); Kinota, Haneda, and Tano, 2005:31 (Japan: Hokkaido); Nemkov, 2005a:159 (Russia: Sakhalin Island); Takahashi, 2006a:4 (prey: *Sinophora submacula* Metcalf and Horton, an aphrophorid); Terayama, 2006:8, 10 (in key to Japanese Bembicinae); Nemkov, 2007b:75 (Russia: Kuril Islands: Kunashir Island), 2008b:24 (in catalog of Crabronidae of Asiatic Russia), 2009b:134 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia), 2012c:446 (in catalog of Crabronidae of Russian Far East), 2017a:Table p. 5 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:222 (in catalog of Bembicinae of Russia).

### 5. *albidulus* (Lepelletier de Saint Fargeau)

*Mellinus dissectus* Panzer, 1801, Heft 80:18, [♀], junior primary homonym of *Mellinus dissectus* Panzer, 1800. Holotype or syntypes: Germany: no specific locality (depository?). – Spinola, 1806:93 (Italy: Liguria); Blüthgen, 1949:89 (homonymy). – **As *Arpactus dissectus***: Panzer, 1806:166 (new combination, in critical review of his earlier work); Jurine, 1807:194 (listed). – **As *Hoplisis dissectus***: Lepelletier de Saint Fargeau, 1832:65 (new combination, in revision of Gorytini of western Europe); Wesmael, 1839:77 (unknown to the author); Kirchner, 1867:220 (in catalog of European Hymenoptera); Dours, 1874:150 (in catalog of Hymenoptera of France); Flamary, 1898:45 (France: Saône-et-Loire: Mâcon area); de Gaulle, 1908:120 (in catalog of French Hymenoptera); Schirmer, 1912:166 (Germany: Berlin area); A. Wagner, 1920:33 (Germany: Lower Elbe region, not found but can be expected); Noskiewicz, 1922a:8 (Ukraine: Lviv area); Schneid, 1941:1040 (Germany: Bayern: Bamberg area); Szulczewski, 1950:107 (Poland: Wielkopolski National Park 15 km S Poznań); Casolari and Casolari Moreno, 1980:121 (specimens in M. Spinola collection); Pagliano, 2014:90 (specimens in M. Spinola collection, Torino, are *Gorytes albidulus*). – **As *Euspongus dissectus***: Herich-Schaeffer, 1840:290 (new combination, Germany: Bayern: Regensburg area); Bat'a, 1942:86 (Czech Republic).

– *As Gorytes dissectus*: Vander Linden, 1829:101 (new combination, bibliographic references, Germany); Handlirsch, 1888b:473 (in revision of world Bembicinae); Krieger, 1894:8 (Germany: Kingdom of Saxony); Handlirsch, 1895:915 (additional bibliography); Dalla Torre, 1897:540 (in catalog of world Sphecidae); Mocsáry, 1897:82 (Hungary); Handlirsch, 1898b:488 (Algeria); Antiga and Bofill, 1904:16 (Spain: Cataluña Province); Mercet, 1906a:132, 141 (in key to Spanish *Gorytes*); Schmiedeknecht, 1907:219, 221 (in key to Hymenoptera of Central Europe); Dittrich, 1911b:23 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Birula, 1912:540 (Ukraine: Zhytomyr Oblast': Radomyshl'); Szilády, 1913:89 (Hungary: Nagyenyed); O. Meyer, 1919:153 (Germany: Posen Province, now Poland: Poznań Region); Dubois, 1920:88 (Belgium: Knocke), 1921c:200, 202, 203 (in key to Belgian Sphecidae); Berland, 1925d:89 (in Sphecid Fauna of France); Schmiedeknecht, 1930:681, 683 (in key to Hymenoptera of North and Central Europe); Pulkkinen, 1931:63 (in revision of Sphecidae of Finland, not yet found in Finland); Zavadil, 1932:95 (Czechoslovakia); Grandi, 1934:129 (Italy: Lazio: Acilia); Crèvecoeur and Maréchal, 1936:253 (in catalog of Belgian Hymenoptera); Drogoszewski, 1936:129 (Poland: Łowicz); Goebel, 1937:41 (Poland: Poznań District: Poznań-Dębina and Środa District: Tulce); Zavadil, Šustera, and Bat'a, 1937:190 (in catalog of Sphecidae of Czechoslovakia); Móczár, 1938c:81 (Hungary: Kőszeg Hills); Maidl and Klima, 1939:66 (in catalog of world Astatinae and Bembicinae); Balthasar, 1941b:113 (Czech Republic: eastern Moravia); Paul, 1941:44 (Germany: Pommern: Stettin area, now Poland: Województwo Zachodniopomorskie: Szczecin area); Giner Marí, 1943a:179 (in Sphecid Fauna of Spain); de Beaumont, 1945:475 (first record from Switzerland); Zavadil, 1946:8 (Czechoslovakia: Ostrava area); Šnoflák in Zavadil and Šnoflák, 1948:73 (in key to Sphecidae of Czechoslovakia); Móczár, 1953:310 (Hungary); de Beaumont, 1954e:89 (Italy); Vogrin, 1955:35 (Yugoslavia); Ceballos, 1956:382 (in catalog of Hymenoptera of Spain); Zirngiebl, 1957:181 (Germany: Rheinland-Pfalz: Birkenheide, Dürkheimer Bruch); Scobiola-Palade, 1959:497 (Romania: Constanța Region: Agigea); Niedl and Deneš, 1967:82 (Czech Republic: Třeboň area).

*Hoplisis albidulus* Lepeletier de Saint Fargeau, 1832:65, ♀ (as *Albidulus*, incorrect original capitalization). Holotype: ♀, France: Paris area (depository?). Synonymized with *Gorytes dissectus* ... – Dahlbom, 1843:163 (in revision of Sphecidae and Pompilidae), 1845:482 (in key to European *Hoplisis*); Lepeletier de Saint Fargeau, 1845:64 (in revision of world Hymenoptera); Schenck, 1861:1512 (redescription, Germany: Hessen: Wiesbaden); Schenck, 1867a:355 (Germany: Nassau Region); von Aichinger, 1870:318 (Austria: Tirol); Radoszkowski, 1892:582 (male genitalia); Acloque, 1897:83 (in Sphecid Fauna of France and Algeria). – *As Gorytes albidulus*: F. Smith, 1856:362 (new combination, in catalog of Hymenoptera in British Museum); Kohl, 1880:171 (Austria: Tirol, and Italy: Trentino–Alto Adige); de Beaumont, 1951g:312 (Italy: Lazio: Acilia; selected *albidulus* as valid name acting as first reviser), 1953f:173 (valid species name, in revision of western Palearctic *Gorytes*); Grandi, 1954:232 (Italy); Bajári, 1957a:105 (in key to Hungarian Sphecidae); Wolf, 1959b:30 (Germany: Nassau); Noskiewicz and Puławski, 1960:90, 93 (in key to Polish Sphecidae); de Beaumont, 1962b:23 (Spain); Ceballos, 1964:91 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:48 (in Sphecid Fauna of Switzerland), 1965a:35 (Greece), 1967a:312 (Turkey); Gauss, 1967:552 (Germany: Baden-Württemberg); J. Heinrich, 1967:71 (Germany: Bayern: Kahl); Scobiola-Palade, 1967a:161 (Romania: Constanța District: Comarova); Benedek, 1968:72 (Hungary, visiting flowers of *Pastinaca sativa* L.), 1969a:83 (Hungary; marshy meadow); Zangheri, 1969:1701 (Italy: in catalog of flora and fauna of Romagna Region); Benedek, 1970:97 (Hungary: Tapolca); Oehlke, 1970:687 (Democratic Germany); Schmidt, 1971b:27 (Germany: Mainz area); Tsuneki, 1971k:189 (Mongolia); Balthasar, 1972:316 (in Sphecid Fauna of Czechoslovakia); Kazenas, 1972b:151 (Kazakhstan); Scobiola-Palade, 1972b:252 (Romania); Kazenas, 1974b:110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, in Kazakhstan); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Kolesnikov, 1977:317 (Russia: Bryansk Oblast'); Kazenas, 1978b:75, 76 (in key to Sphecidae of Kazakhstan and Central Asia); Leclercq, 1978b:map 1183 (distribution in Belgium); Marion, 1978:87 (France: Nièvre Department); Pulawski, 1978:202, 203 (in key to Sphecidae of European part of former USSR); Schmidt, 1979b:346 (Germany: Baden-Württemberg); Skibińska, 1982:123 (Poland: Warszawa area); Dollfuss, 1983a:76 (endangered in Niederösterreich, Austria), 77 (endangered in Burgenland, Austria), 1983b:22 (in catalog of Sphecidae of Austria); Józán,

1985b:61 (Hungary: recorded from Simontornya by Bajári, 1957), 84 (ecological and zoogeographic characteristics); Westrich and Schmidt, 1985b:111 (Germany: extinct in Baden-Württemberg); Gayubo and Sanza, 1986:76 (Spain: Burgos); Islamov, 1986:522 (Uzbekistan: Tashkent Oblast'); Józán, 1986:373 (Hungary: Kiskunság National Park); Dollfuss, 1988:30 (Austria: Niederösterreich: Oberweiden); Karsai, 1988:101 (Hungary: Kiskunság National Park); Pádr *in* Šedivý, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Jacobs and Oehlke, 1990:122 and 211 (not collected in Democratic Germany after 1960); Nemkov, 1990b:681, 685 (in key to *Gorytes* of former USSR), 686 (southern and central European USSR, Caucasus, Kazakhstan, Uzbekistan); Pagliano, 1990:70 (in catalog of Italian Sphecidae); Day, 1991:xv (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:199 (in key to Sphecidae of North and Central Europe); Delarze, 1992:67 (Switzerland: Valais: Les Follatères); Pagliano, 1992:37, 39 (in key to Italian Bembicinae); K. Weber, 1992:87 (Germany: Bayern: Bamberg District); Kuhlmann, 1993:75 (Germany: known from Westfalen); Dollfuss, 1994:99 (endangered in Austria); Kazenas and Esenbekova, 1995:80 (Kazakhstan; bibliographic reference to leafhopper prey); Negrisoló *in* Minelli, Ruffo, and La Posta, 1995b:4 (in catalog of Italian fauna); Pagliano and Pesarini, 1995:91 (Italy: Ferrara Province); Scharrer, 1995:29 (Austria: Niederösterreich: Ober-Weiden); Schmid-Egger, Risch, and Niehuis, 1995:185 (Germany: summary of records from Rheinland-Pfalz); Voblenko, Gorobchishin, and Nesterov, 1996:15 (Ukraine: Polesye Region); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: not collected after 1955), 104 (not recorded after 1950); Woydak, 1996:94 (Germany: Westfalen: summary of distribution and nesting behavior); Wu and Zhou, 1996a:143 (in revision in Economic Insect Fauna of China); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:191 (in Sphecidae Fauna of Western Europe); Celary, 1997:60 (in checklist of Animals of Poland); Schmidt and Schmid-Egger, 1997:14 (in checklist of German Sphecidae); Dollfuss, Gusenleitner, and Bregant, 1998:522 (Austria: summary of collecting records from Burgenland); Gusenleitner, 1998:499 (Austria: Burgenland: Zurndorf); K. Weber, 1998:140 (Germany: Bayern: Bamberg area); Kuhlmann, Wolf, and Woydak, 1999:568 (extinct or presumably extinct in Nordrhein-Westfalen State of Germany); Pauly, 1999:111 (in catalog of Belgian aculeates); Zehnder and Zettel, 1999:131 (Switzerland: recolonization of flooded area in Valais Canton); Blösch, 2000:380 (in Sphecidae Fauna of Germany); Esenbekova and Kazenas, 2000:60 (south-east Kazakhstan: 1-3 km northwest of Zhabagly); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia), 223 (review of known biology); Ohl et al., 2001:139 (distribution in Germany by provinces); Kazenas, 2002a:120 (geographic distribution, collecting localities in Kazakhstan); Schmid-Egger, 2002b:175 (in revision of western Palearctic *Gorytes*); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:66 (Germany: in catalog of wasps and bees of Bayern); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:195 (Germany: Bayern: extinct or no longer collected); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:262 (Germany: in checklist of Sphecidae of Nordrhein-Westfalen); Gorobchishin, 2004:34 (Ukraine: Zaporiz'ka Oblast': Obitichna Kosa Nature Reserve); Kazenas, 2004b:109 (Kazakhstan: western Tien Shan); Shkuratov, 2004a:75 (Russia: Rostov Oblast'); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:355 (in catalog of Polish Crabronidae); Stolle et al., 2004:371 (Germany: Sachsen-Anhalt: last collected in 1909); Wiśniowski, 2004:51 and 62 (in checklist of Polish Sphecidae); Gayubo and Özbek, 2005:17 (Turkey: Bingöl, Erzurum: Tortum, Aksu Plateau); Kofler, 2005:184 (Austria: Tirol: Lienz District: Forchach in Lavant Common); Pagliano and Negrisoló, 2005:142 (in Sphecidae Fauna of Italy); Saure, 2005:15 (Germany: Berlin); Shorenko, 2005a:167 (Ukraine: Crimea, as *quinquefasciatus quinquefasciatus*); nec Yildirim and Ljubomirov, 2005:1791 (= *Gorytes quadrifasciatus* and *sulcifrons*); Ebrahimi, 2006:1 (Iran); Gorobchishin, 2006:139 (Ukraine: Kyiv); Hua, 2006:280 (in list of Chinese insects, geographic distribution); Ljubomirov, 2006:540 (Bulgaria: earlier records from Rhodope Mountains summarized, also: Mutenitsa River valley); Jacobs, 2007:172, 175 (in key to Crabronidae of Germany); Saure, 2007:82 (in checklist of Aculeata of Land Brandenburg, Germany); Shorenko, 2007b:258 (Ukraine: Crimea: Otuzy valley); Vepřek and Straka, 2007:208 (in catalog of Sphecidae of Czech Republic and Slovakia); Ebrahimi, 2008:95 (first record from Iran: Azerbaijan-e Shargi: Marand); Ljubomirov and Yildirim, 2008:77 (in catalog of Crabronidae of Turkey); U. Frommer, 2009a:27 (Germany: in checklist of Sphecidae of Hessen), 34 (Germany: Hessen: locality records, latest

record is from 1959); Shorenko, 2009:368 (in list of Sphecidae s.l. of Crimea); Baghirov, 2010:678 (Russia: Altai Territories: villages Aktash, Biskamzha, and Ust'-Kan); Bitsch, 2010:112 (in supplement to vol. II of Faune de France, 1997: recent records from Austria, Bulgaria, Croatia, Italy, and Switzerland reported); Esser, Fuhrmann, and Venne, 2010:36 (Germany: in checklist of aculeates of Nordrhein-Westfalen); Rudoiskatel', 2010:150 (Russia: southern Ural Mountains); Schmid-Egger, 2010a:16 (in red list of Aculeata of Germany: extinct, last collected in 1959); Shorenko and Kononov, 2010:15 (Ukraine: Khar'kov Oblast': Mokhnach); van der Smissen, 2010b:384 (France: Vaucluse: Bédoin); Baghirov, 2011b:141 (Russia: Altay Republic: Aktash, Ust'-Kan); Józán, 2011:183 (in checklist of Sphecidae s.l. of Hungary); Tischendorf, Frommer, Flügel et al., 2011:42 (Germany: extinct in Hessen, last collected in 1934); Yildirim, 2012:76 (Turkey: Artvin, Erzurum, and Iğdir provinces); Kazenas, 2013b:497 (southeast Kazakhstan: Sortogay in Sharyn River valley); Wiśniowski and Szczepko, 2013:35 (Poland: Kampinos National Park near Warszawa); Ebrahimi, 2014:33 (Iran: Āzarbāijān-e Sharghi: Marand); Yildirim, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); Stolle and Saure, 2016:923 (Germany: in list of Sphecidae s.l. of Sachsen-Anhalt); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:13 (Turkey: Bingöl and Erzurum provinces.); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:36 (Iran: known from East Azerbaijan Province); Nemkov, 2017a:Table p. 5 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:222 (in catalog of Bembicinae of Russia); Shorenko, 2017:79 (in Crimea collected in May and June).

*Euspongius albilabris* Lepeletier de Saint Fargeau, 1832:70, ♂ (as *Albilabris*, incorrect original capitalization). Syntypes: France: Bordeaux and no specific locality (MNHN). Synonymized with *Gorytes dissectus* by Handlirsch, 1889b:473. – Wesmael, 1839:79 (unknown to the author); Lepeletier de Saint Fargeau, 1845:71 (in revision of world Hymenoptera); Acloque, 1897:83 (in Sphecidae Fauna of France and Algeria). – **As *Gorytes albilabris***: F. Smith, 1856:362 (new combination, in catalog of Hymenoptera in British Museum); Leininger, 1953:18 (Germany: Baden-Württemberg: Neuenburg); de Beaumont, 1959a:21 (Italy: Lazio: Roma: Acilia). – **As *Hoplisis albilabris***: Dours, 1874:150 (new combination, in catalog of Hymenoptera of France); Blüthgen, 1949:89 (as valid name for *Hoplisis dissectus*).

*Gorytes elegans* F. Smith, 1856:362, ♀, junior primary homonym of *Gorytes elegans* Lepeletier de Saint Fargeau, 1832. Holotype or syntypes: ♀, Albania: no specific locality (BMNH or OXUM). Synonymized with *Gorytes dissectus* by Handlirsch, 1888b:473, synonymy (with *Gorytes albidulus*) confirmed by de Beaumont, 1953f:173. – **As *Hoplisis elegans***: Kirchner, 1867:220 (new combination, in catalog of European Hymenoptera).

## 6. *albosignatus* W. Fox

*Gorytes albosignatus* W. Fox, 1892:152, ♀, ♂. Lectotype: ♀, USA: Montana: no specific locality (ANSP), designated by Cresson, 1928:47. – W. Fox, 1896a:533 (in revision of North American *Gorytes*); Dalla Torre, 1897:536 (in catalog of world Sphecidae); Brimley, 1938:446 (North Carolina: Marston, may be in error); Maidl and Klima, 1939:100 (in catalog of world Astatinae and Bembicinae); Strickland, 1947:126 (Canada: Alberta: Edmonton, Medicine Hat); Krombein in Muesebeck et al., 1951:991 (in catalog of North American Hymenoptera); Evans, 1970:494 (Wyoming: Jackson Hole); Horning and Barr, 1970:105 (USA: Idaho: Craters of the Moon National Monument); Steiner, 1973:27 (Canada: Northwest Territories); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1693 (in catalog of North American Hymenoptera); Ahlstrom, 1995:112 (in checklist of insects of North Carolina); Finnamore, 1997:894 (expected to occur in Yukon). – **As *Hoplisis albosignatus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); H. Smith, 1908b:347 (new combination, in revision of Nebraskan Sphecidae); Stevens, 1917:421 (North Dakota); Mickel, 1918b:355 (in catalog of Nebraskan Sphecidae).

## 7. *ambiguus* Handlirsch

*Gorytes ambiguus* Handlirsch, 1888b:476, ♀. Holotype: ♀, Russia: Altai Mountains: Mimsh (Kraków). – Handlirsch, 1895:915 (description of ♂); Dalla Torre, 1897:536 (in catalog of world Sphecidae); Maidl and Klima, 1939:66 (in catalog of world Astatinae and Bembicinae); Tsuneki, 1971k:187 (Mongolia); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Nemkov, 1986:107 (Russia: Siberia: Irkutsk Oblast'), 1989:67, 71 (in key to *Gorytes*

of Siberia and Russian Far East; Tajikistan to Khabarovsk Krai, and Mongolia), 1990b:681, 685 (in key to *Gorytes* of former USSR), 1995a:2 (synonymy); Nemkov *in* Nemkov, Kazenas, Budrys, et Antropov, 1995:461, 464 (in key to Sphecidae of Russian Far East); Esenbekova and Kazenas, 2000:60 (southeast Kazakhstan: 1 km south of Alma Ata); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:120 (geographic distribution, collecting localities in Kazakhstan); Hua, 2006:280 (in list of Chinese insects, geographic distribution); Nemkov, 2008b:24 (in catalog of Crabronidae of Asiatic Russia), 2009b:135 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Baghirov, 2011b:141 (Russia: recorded from Altay by Nemkov *in* Nemkov, Kazenas, Budrys, and Antropov, 1995); Nemkov, 2012c:446 (in catalog of Crabronidae of Russian Far East), 2017a:Table p. 5 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:222 (in catalog of Bembicinae of Russia).

*Gorytes sogdianus* Gussakovskij, 1952:269, ♀. Lectotype: ♀, Uzbekistan: Katta-Kurgan (ZIN), designated by Nemkov, 1989:71. Synonymized with *Gorytes ambiguus* by Nemkov, 1989:71 and 1990b:681 (as new synonym). – R. Bohart and Menke, 1976:502 (in checklist of world Sphecidae).

*Gorytes verhoeffi* Tsuneki, 1967e:3, ♂, ♀. Holotype: ♂, China: Manchuria: Harbin (RMNH). Synonymized with *Gorytes ambiguus* by Nemkov, 1989:71 and 1990b:681 (as new synonym). – R. Bohart and Menke, 1976:502 (in checklist of world Sphecidae).

*Gorytes heptapotamiensis* Kazenas, 1972b:149, ♀. Holotype: ♀, Kazakhstan: Alma-Ata Oblast' (ZIN). Synonymized with *Gorytes ambiguus* by Nemkov, 1989:71 and 1990b:681 (as new synonym). – R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae).

*Gorytes zaysanicus* Kazenas, 1987a:1899, ♀. Holotype: ♀, Kazakhstan: Zaisan Valley 15 km S Aksaut (ZIN). Synonymized with *Gorytes ambiguus* by Nemkov, 1989:71 and 1990b:681 (as new synonym).

*Gorytes nobilis* Nesterov, 1993:54, ♀. Holotype: ♀, Kazakhstan: Aktyubinsk Oblast': Emba at Emba River in Mugodjary Mountains (Zool. Inst. Ukrain. Acad. Sci. Kiev). Synonymized with *Gorytes ambiguus* by Nemkov, 1995a:2.

### 8. *angustus* (Provancher)

*Hoplisis angustus* Provancher, 1895:141, ♀. Lectotype, ♂ [sic], USA: California: Los Angeles (Laval Univ.), designated by Gahan and Rohwer, 1917:429. – Ashmead, 1899d:328 (in checklist of North American Crabronidae). – **As *Gorytes angustus***: W. Fox, 1896a:537 (new combination, in revision of North American *Gorytes*); Bradley, 1920:114 (California; variation, as *angustatus*); Maidl and Klima, 1939:100 (in catalog of world Astatinae and Bembicinae); Krombein *in* Muesebeck et al., 1951:991 (in catalog of North American Hymenoptera); Horning and Barr, 1970:105 (USA: Idaho: Craters of the Moon National Monument); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae), 628 (Ashmead's misspelling recorded); Krombein, 1979b:1693 (in catalog of North American Hymenoptera); Rust, Menke, and Miller, 1985:47 (California: Channel Islands); Ratzlaff, 2016:24 (Canada: British Columbia: after Krombein, 1979).

### 9. *atricornis* Packard

*Odynerus atricornis* Harris, 1835:68, nomen nudum.

*Gorytes atricornis* Packard, 1867:428, ♂, ♀. Lectotype: ♀, USA: Massachusetts: no specific locality (ANSP), designated by Cresson, 1928:47. – Provancher, 1883b:638 (in revision of Canadian Hymenoptera); Handlirsch, 1888b:479 (in revision of world Bembicinae), 1895:918 (reference to Provancher, 1889); W. Fox, 1896a:534 (in revision of North American *Gorytes*); Dalla Torre, 1897:537 (in catalog of world Sphecidae); J. Ch. Bradley, 1928:1015 (in catalog of New York Sphecidae); Maidl and Klima, 1939:101 (in catalog of world Astatinae and Bembicinae); Krombein, 1936:98 (New York: Buffalo; floral records); Pate, 1946h:99 (prey: *Cyrtolobus tuberosus* (Fairmaire), a membracid); Krombein *in* Muesebeck et al., 1951:991 (in catalog of North American Hymenoptera); Evans, 1966d:67 (prey); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1679 (in catalog of North American Hymenoptera, list of prey); Finnamore, 1982:218 (in Sphecid Fauna of Southern Quebec); Radović, 1985:65 (sting apparatus analyzed); Buck, 2004:27 (in checklist of Crabronidae of Ontario, Canada); Evans and O'Neil, 2007:45 (prey of *Philanthus sanbornii*); Ardila-Garcia, Umphrey, and Gregory, 2010:339 (genome size dataset);

Nemkov, 2012b:120 (review of known prey). – **As *Hoplilus atricornis***: Cresson, 1887:279 (new combination, in catalog of North American Hymenoptera); Ashmead, 1890:32 (in checklist of Hymenoptera of Colorado), 1899:328 (in checklist of North American Crabronidae); Rohwer, 1916b:656, 657 (in catalog of Hymenoptera of Connecticut); Rohwer in Viereck, 1925:656 (in key to Sphecidae of Connecticut; not yet found in the State); Ratzlaff, 2016:24 (Canada: British Columbia: after Krombein, 1979 and Buck, 2004).

*Gorytes rugosus* Packard, 1867:427, ♂. Holotype or syntypes: ♂, USA: Illinois: no specific locality (depository?). Synonymized with *Gorytes atricornis* by Krombein in Muesebeck et al., 1951:991. – Handlirsch, 1888b:412 (original description translated into German); W. Fox, 1896a:530 (in revision of North American *Gorytes*); Dalla Torre, 1897:554 (in catalog of world Sphecidae); Maidl and Klima, 1939:92 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoides rugosus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae).

*Gorytes decorus* W. Fox, 1896a:353, ♀, ♂. Lectotype: ♀, USA: Montana: no specific locality (ANSP), designated by Cresson, 1928:47. Synonymized with *Gorytes atricornis* by R. Bohart in R. Bohart and Menke, 1976:501. – Maidl and Klima, 1939:101 (in catalog of world Astatinae and Bembicinae); Strickland, 1947:126 (Canada: Alberta: Edmonton); Krombein in Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera). – **As *Hoplilus decorus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae).

*Hoplilus elegantulus* H. Smith, 1908:346, ♂. Holotype: ♂, USA: Nebraska: Sioux County: Glen (UNL). Synonymized with *Gorytes atricornis* by Krombein, 1958f:194. – Mickel, 1918b:355 (in catalog of Nebraskan Sphecidae); Carter, 1925:131 (Canada: Alberta: Edmonton); Strickland, 1947:127 (Canada: Alberta); Muma, 1952:19 (holotype in UNL). – **As *Gorytes elegantulus***: Maidl and Klima, 1939:101 (new combination, in catalog of world Astatinae and Bembicinae); Krombein in Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera).

As *Hoplilus canaliculatus* Harrington, 1902:223 (Canada: Ontario: Ottawa), corrected to *Gorytes atricornis* by Buck, 2004:76.

### 10. *atrifrons* W. Fox

*Gorytes atrifrons* W. Fox, 1892:151, ♀, ♂. Lectotype: USA: ♀, Nevada: no specific locality (ANSP), designated by Cresson, 1928:47. – Handlirsch, 1895:919 (original description translated into German); W. Fox, 1896a:533 (Nevada); Dalla Torre, 1897:537 (in catalog of world Sphecidae); Maidl and Klima, 1939:101 (in catalog of world Astatinae and Bembicinae); Krombein in Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1693 (in catalog of North American Hymenoptera). – **As *Hoplilus atrifrons***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); Rohwer, 1917a:248 (California: Tahoe); Stevens, 1917:421 (North Dakota).

### 11. *butleri* (R. Bohart)

*Pseudoplilus butleri* R. Bohart, 1969b:397, ♂. Holotype: ♂, USA: Arizona: 25 mi E Pearce (UCD). – R. Bohart, 1969b:394 (in key to North American *Pseudoplilus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1695 (in catalog of North American Hymenoptera). – **As *Gorytes butleri***: Nemkov and Pulawski, 2009:7 (new combination, in cladistic analysis of Gorytina).

### 12. *californicus* (R. Bohart)

*Pseudoplilus californicus* R. Bohart, 1969b:401, ♀, ♂. Holotype: ♂, USA: California: Santa Barbara County: Santa Ynez Mountains (UCD). – R. Bohart, 1969b:393 (in key to North American *Pseudoplilus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1695 (in catalog of North American Hymenoptera); Parks, 1986:35 (Torrey Pines State Reserve); Hook, 1998:252 (first record from Texas: Val Verde County: Dolan Falls Preserve); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae). **As *Gorytes californicus***: Nemkov and Pulawski, 2009:7 (new combination, in cladistic analysis of Gorytina).

### 13. *canaliculatus* Packard

*Gorytes canaliculatus* Packard, 1867:428, ♀. Lectotype: ♀, Canada: no specific locality (ANSP), designated by Cresson, 1928:47. – Handlirsch, 1888b:480 (original description translated into German); W. Fox, 1896a:534 (in revision of North American *Gorytes*); Dalla Torre, 1897:539 (in catalog of world Sphecidae); Barth, 1907a:141 (nesting habits, prey); J. Ch. Bradley, 1928:1015 (in catalog of New York Sphecidae); Maidl and Klima, 1939:101 (in catalog of world Astatinae and Bembicinae); Krombein *in* Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera); Evans and Lin, 1956b:43 (description of larva); Krombein, 1958f:194 (in supplement to catalog of North American Hymenoptera: description of larva by Evans and Lin, 1956b, reported), 1963f:277 (Maryland: Plummers Island near Washington, D.C.); Kurczewski and Kurczewski, 1963:147 (Pennsylvania: Presque Isle State Park); Krombein, 1964b:119 (nest and prey); Evans, 1966d:58 (nesting behavior); Kurczewski and Kurczewski, 1971b:335 (prey record); Powell, 1974:1 (nesting behavior, description of larva); Evans, 1975a:263 (slow colonizer of new habitats); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1693 (in catalog of North American Hymenoptera, nesting sites, list of prey); Fennemore, 1982:219 (in Sphecid Fauna of Southern Quebec); Piek and Spanjer, 1986:184 (in list of Sphecidae with known prey, as *caniculatus*); Steiner, 1986:109 (references to publications on nesting habits); Spofford, Kurczewski, and Downes, 1989:256, 257, 259, 260 (references to publications on nest parasites *Metopia argyrocephala* (Meigen), *Phrosinella fumosa* Allen, *Senotainia trilineata* (Wulp), miltogrammine flies), and undetermined Miltogrammini) 257, 260 (nest parasites: *Phrosinella aurifacies* Downes, *Senotainia vigilans* Allen, miltogrammine flies); Spofford and Kurczewski, 1990:746, 748, 749, 751 (nest parasites: *Phrosinella aurifacies* Downes, *Senotainia trilineata* (Van der Wulp), *Senotainia vigilans* Allen, and unknown species of Miltogrammini, Sarcophagidae), 1992:999 (species of miltogrammine parasites listed), 1002 (counter cleptoparasitic behavior: diversionary flight), 1005 (post-larvipositional counter-cleptoparasitic behavior: abandon prey); Kurczewski, 1998d:250 (pine barrens in upstate New York); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Buck, 2004:27 (in checklist of Crabronidae of Ontario, Canada); Evans and O'Neil, 2007:54 (summary of information on nesting habits); Ratzlaff, 2016:24 (Canada: British Columbia: after Krombein, 1979 and Buck, 2004). – **As *Hoplisis canaliculatus***: Cresson, 1887:279 (new combination, in catalog of North American Hymenoptera); Ashmead, 1899d:328 (in checklist of North American Crabronidae); nec Harrington, 1902:223 (= *Gorytes atricornis*).

*Gorytes geminus* Handlirsch, 1888b:478, ♀, ♂. Syntypes: North America (♀): no specific locality (NHMW); and USA: Virginia: no specific locality (depository not indicated). Synonymized with *Gorytes canaliculatus* by R. Bohart *in* R. Bohart and Menke, 1976:501. – W. Fox, 1896a:534 (in revision of North American *Gorytes*); Dalla Torre, 1897:542 (in catalog of world Sphecidae); Maidl and Klima, 1939:102 (in catalog of world Astatinae and Bembicinae); Krombein *in* Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera); Dollfuss, 1989:9 (type material in NHMW). – **As *Hoplisis geminus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae).

*Gorytes asperatus* W. Fox, 1896a:534, ♀, ♂. Lectotype: ♀, USA: Southern California: no specific locality (ANSP), designated by Cresson, 1928:47. Synonymized with *Gorytes canaliculatus* by R. Bohart *in* R. Bohart and Menke, 1976:501. – Maidl and Klima, 1939:89 (in catalog of world Astatinae and Bembicinae, in subgenus *Hoplisoides*); Strickland, 1947:126 (Canada: Alberta: Wainwright); Krombein *in* Muesebeck et al., 1951:991 (in catalog of North American Hymenoptera); Krombein, 1953a:335 (North Carolina: Kill Devil Hills); Evans and Lin, 1956b:44 (description of larva); Alcock, 1974a:332 (nesting behavior); L. Davis, 1978:217 (North Carolina: Kill Devil Hills, data from Krombein, 1953a). – **As *Hoplisoides asperatus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae). – **As *Hoplisis asperatus***: Mickel, 1918b:355 (new combination, in catalog of Nebraskan Sphecidae). – **As *Gorytes canaliculatus asperatus***: Evans, 1970:494 (new status, Wyoming: Jackson Hole, nest, prey).

*Hoplisis corrugis* Mickel, 1918a:319, ♂. Holotype: ♂, USA: Nebraska: Mitchell (UNL). Synonymized with *Gorytes asperatus* by Krombein, 1958f:194 and with *Gorytes canaliculatus* by R. Bohart and Menke, 1976:501. – Mickel,



1918b:356 (in catalog of Nebraskan Sphecidae); Maidl and Klima, 1939:101 (in catalog of world Astatinae and Bembicinae, as *carrugis*); Muma, 1952:19 (holotype in UNL); Krombein *in* Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera).

#### 14. *catalinae* (R. Bohart)

*Pseudoplisus catalinae* R. Bohart, 1969b:395, ♀, ♂. Holotype: ♂, USA: Arizona: Pima County: Molino Basin in Santa Catalina Mountains (UCD). – R. Bohart, 1969b:392 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1695 (in catalog of North American Hymenoptera). – **As *Gorytes catalinae***: Nemkov and Pulawski, 2009:7 (new combination, in cladistic analysis of Gorytina).

#### 15. *claripennis* (R. Bohart)

*Pseudoplisus claripennis* R. Bohart, 1969b:403, ♂. Holotype: ♂, USA: Arizona: Madera Canyon in Santa Rita Mountains (UCD). – R. Bohart, 1969b:393 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1695 (in catalog of North American Hymenoptera). – **As *Gorytes claripennis***: Nemkov and Pulawski, 2009:7 (new combination, in cladistic analysis of Gorytina).

#### 16. *cochisensis* R. Bohart

*Gorytes cochisensis* R. Bohart, 1971:450, ♀, ♂. Holotype: ♀, USA: Arizona: Cochise County: 9 mi west of Portal (UCD). – R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1694 (in catalog of North American Hymenoptera).

#### 17. *deceptor* Krombein

*Gorytes deceptor* Krombein, 1958a:62, ♀, ♂. Holotype: ♀, USA: West Virginia: Lost River State Park (USNM). – Krombein, 1958a:52 (USA: West Virginia: Lost River State Park); Evans, 1966d:67 (preying on Membracidae); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1694 (in catalog of North American Hymenoptera, prey); Finnamore, 1982:219 (in Sphecida Fauna of Southern Quebec); Hook, 1998:252 (first records from Texas); Buck, 2004:27 (in checklist of Crabronidae of Ontario, Canada); Giles and Ascher, 2006:231 (New York: Black Rock Forest Preserve); Deyrup and Eisner, 2003:522 (Floridian populations are red-marked).

#### 18. *divisus* F. Smith

*Gorytes divisus* F. Smith, 1856:370, ♂. Holotype or syntypes: ♂, USA: Georgia: no specific locality (BMNH). – Cresson, 1862:235 (in catalog of North American Hymenoptera); Packard, 1867:432 (listed); Cresson, 1887:279 (in catalog of North American Hymenoptera); Handlirsch, 1888b:508 (original description translated into German); W. Fox, 1896a:538 (in revision of North American *Gorytes*); Dalla Torre, 1897:541 (in catalog of world Sphecidae); Maidl and Klima, 1939:111 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Krombein *in* Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera); Nemkov and Pulawski, 2009:9 (reverted to *Gorytes*, in cladistic analysis of Gorytina). – **As *Pseudoplisus divisus***: Ashmead, 1899:328 (new combination, in checklist of North American Crabronidae); R. Bohart, 1969b:394 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Ahlstrom, 1995:112 (in checklist of insects of North Carolina); Krombein, 1979b:1695 (in catalog of North American Hymenoptera); Deyrup and Eisner, 2003:522 (a Floridian, red-marked species).

*Gorytes bipartitus* Handlirsch, 1888:521, ♀, ♂. Syntypes: USA: Georgia: no specific locality (coll. de Saussure, Geneva). Synonymized with *Gorytes divisus* by Krombein, 1958f:194 and with *Pseudoplisus divisus* by R. Bohart *in* R. Bohart and Menke, 1976:503. – W. Fox, 1896a:538 (in revision of North American *Gorytes*); Dalla Torre, 1897:538 (in catalog of world Sphecidae); Brimley, 1938:446 (North Carolina: Kingsboro, Raleigh); Maidl and Klima, 1939:111 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Krombein *in* Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera). – **As *Pseudoplisus bipartitus***: Ashmead, 1899:328 (new combination, in checklist of North American Crabronidae); Mickel, 1918b:357 (in catalog of Nebraskan Sphecidae).

*Pseudoplisus varipunctus* H. Smith, 1908b:348, ♀. Holotype: ♀, USA: Nebraska: West Point (UNL). Synonymized with *Pseudoplisus bipartitus* by Krombein in Muesebeck et al., 1951:992 and with *Gorytes divisus* by R. Bohart in R. Bohart and Menke, 1976:503 (as new synonym). – Mickel, 1918b:3357 (in catalog of Nebraskan Sphecidae); Muma, 1952:22 (type in UNL), 28 (paratypes in UNL). – As *Gorytes varipunctus*: Maidl and Klima, 1939:114 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*).

### 19. *dorotheae* Krombein

*Gorytes dorotheae* Krombein, 1950a:269, ♂. Holotype: ♂, USA: North Carolina: Dare County: Kill Devil Hill (USNM). – Wray, 1950:38 (North Carolina: Kill Devil Hills); Krombein in Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera); Krombein, 1953a:335 (North Carolina: Kill Devil Hills), 1958f:194 (in supplement to catalog of North American Hymenoptera: is *Gorytes dorotheae dorotheae* now); Wray, 1967:124 (North Carolina: Kill Devils Hills); L. Davis, 1978:217 (North Carolina: Kill Devil Hills, data from Krombein, 1953a); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1694 (in catalog of North American Hymenoptera); Ahlstrom, 1995:112 (in checklist of insects of North Carolina); Hook, 1998:252 (first record from Texas: Bastrop County: Sayersville).

### *ssp. russeolus* Krombein

*Gorytes dorotheae russeolus* Krombein, 1954b:23, ♀, ♂. Holotype: ♂, USA: Florida: Marion County: Juniper Springs (USNM). – Krombein and Evans, 1954:234 (Florida); Krombein, 1958f:194 (recorded in supplement to catalog of North American Hymenoptera); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1694 (in catalog of North American Hymenoptera); Deyrup and Eisner, 2003:522 (a Floridian, red-marked subspecies).

### 20. *effugiens* Brauns

*Gorytes effugiens* Brauns, 1911b:133, ♀. Holotype: ♀, South Africa: KwaZulu-Natal: Port Natal, now Durban (TMP). – Maidl and Klima, 1939:54 (in catalog of world Astatinae and Bembicinae); Nemkov and Pulawski, 2009:9 (reverted to *Gorytes*, in cladistic analysis of Gorytina). – As *Arpactus effugiens*: Arnold, 1929a:234 (new combination, in revision of Southern African Sphecidae), 1930:18 (in checklist of Afrotropical Sphecidae). – As *Pseudoplisus effugiens*: R. Bohart and Menke, 1976:503 (new combination, in checklist of world Sphecidae).

*Arpactus fugax* R. Turner, 1915d:289, ♀. Holotype or syntypes: ♀, Kenya: Makindu (BMNH). Synonymized with *Gorytes effugiens* by Arnold, 1929a:234. – Maidl and Klima, 1939:54 (in catalog of world Astatinae and Bembicinae).

### 21. *erugatus* (R. Bohart)

*Pseudoplisus erugatus* R. Bohart, 1969b:404, ♀, ♂. Holotype: ♂, USA: Mexico: Baja California Sur: Las Animas in Sierra Laguna (CAS). – R. Bohart, 1969b:393 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae). – As *Gorytes erugatus*: Nemkov and Pulawski, 2009:9 (new combination, in cladistic analysis of Gorytina).

### 22. *fallax* Handlirsch

*Gorytes fallax* Handlirsch, 1888b:489, ♀, ♂. Syntypes: Austria: Wien; Switzerland and Russia (Daghestan): no specific localities (Kraków, NHMW). – Kohl, 1888b:72 (Austria: Tirol, now Italy: Alto Adige), 1893a:27 (Austria: Niederösterreich: Wien: Türkenschanze); Sickmann, 1893:89 (Germany: Niedersachsen: Iburg); Handlirsch, 1895:921 (reference to Radoszkowski, 1891; Germany: Iburg; Sütirol, now Italy: Alto Adige); Dalla Torre, 1897:541 (in catalog of world Sphecidae); Antiga and Bofill, 1904:16 (Spain: Cataluña Province); W. Schulz, 1904b:97 (Switzerland: Wallis); Schmiedeknecht, 1907:219, 222 (in key to Hymenoptera of Central Europe); Zilahi Kiss, 1915:80 (Hungary: Boksánbánya); O. Meyer, 1919:153 (Germany: Posen Province, now Poland: Poznań Region); Bouwman, 1927:55 (Netherlands: Dieren, redescription); Schmiedeknecht, 1930:681, 684 (in key to Hymenoptera of North and Central Europe); Bischoff, 1931:9 (Spain); Pulkkinen, 1931:63 (in revision of Sphecidae of Finland,

not yet found in Finland); Zavadil, Šustera, and Bat'a, 1937:191 (in catalog of Sphecidae of Czechoslovakia); van Lith, 1938:122 (Netherlands: Limburg: Exaeten); Maidl and Klima, 1939:94 (in catalog of world Astatinae and Bembicinae); Teunissen, 1939:174 (Netherlands: Haaren); Benno, 1940a:205 (Netherlands: Vlijmen); Paul, 1941:44 (Germany: Pommern: Rummelsberg, now Poland: Województwo Zachodniopomorskie: Miastko); van Lith, 1947:106 (Netherlands); Balthasar, 1948:142 (Slovakia: Parkan); Šnoflák *in* Zavadil and Šnoflák, 1948:70, 72 (in key to Sphecidae of Czechoslovakia); Aerts, 1950a:51 (Germany: Nordrhein-Westfalen: Rheidter Wertchens near Köln); Benno, 1951a:273 (Netherlands: Helenaveen); Leininger, 1951:117 (Germany: Baden-Württemberg: Jöhlingen, Tauberbischofsheim); Scobiola-Palade, 1951:273 (first record from Romania: București: Botanical Garden); de Beaumont, 1953f:190 (in revision of western Palearctic *Gorytes*); Móczár, 1953:310 (Hungary); Aerts, 1955:62 (Germany: Rheinland); Hellén, 1955a:127 (Finland: Lutto, Paanajärvi); Steiner, 1955:145 (France: Dordogne); Vogrin, 1955:35 (Yugoslavia); Ceballos, 1956:382 (in catalog of Hymenoptera of Spain); Bajári, 1957a:108, 110 (in key to Hungarian Sphecidae); Zirngiebl, 1957:181 (Germany: Rheinland-Pfalz: Birkenheide, Dürkheimer Bruch); Benno, 1958b:11 (in review of Dutch Sphecidae); Ceballos, 1959:229 (in supplement to catalog of Spanish Sphecidae); Wolf, 1959b:30 (known from Germany, but not from Nassau); Noskiewicz and Puławski, 1960:93, 94 (in key to Polish Sphecidae); Babiý, 1964:117 (Austria: Land Salzburg); de Beaumont, 1964c:49 (in Sphecid Fauna of Switzerland); Benno, 1967:34 (in checklist of Sphecidae of Netherlands); Niedl and Deneš, 1967:82 (Czech Republic: Třeboň area); Scobiola-Palade, 1967b:48 (Romania); Benedek, 1968:72 (Hungary, visiting flowers of *Pastinaca sativa* L.); Scobiola-Palade, 1968c:384 (Romania: București); Benedek, 1969a:83 (Hungary; marshy meadow); Romanova, 1969:134 (Russia: North Caucasus); Schmidt, 1969:162 (Germany: Rhein-Main area: Worms); Benedek, 1970:97 (Hungary: Tapolca); Oehlke, 1970:688 (first record from Democratic Germany); Schmidt, 1971b:27 (Germany: Rheinland-Pfalz: Gonsenheimer Wald); Balthasar, 1972:310 (in Sphecid Fauna of Czechoslovakia); Kofler, 1972:106 (Austria: eastern Tirol); Niedl and Deneš, 1972:153 (Czechoslovakia); Scobiola-Palade, 1972b:252 (Romania); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Eck, 1976:90 (Democratic Germany); Kolesnikov, 1977:317 (Russia: Bryansk Oblast'); Schmidt, 1977/78:55 (Germany: Rheinland-Pfalz: Gonsenheimer Wald); Guichard, 1978:270 (Greece); Kazenas, 1978b:75, 77 (in key to Sphecidae of Kazakhstan and Central Asia); Puławski, 1978:203 (in key to Sphecidae of European part of former USSR); Benedek, 1979:230 (Hungary: Bakony Mountains); Lefeber, 1979:11 (in checklist of Sphecidae of Netherlands), 38 (Netherlands: distribution map); Schmidt, 1979b:347 (Germany: Baden-Württemberg); Dollfuss and Ressler, 1981:324 (Austria: Niederösterreich: Scheibbs District); Dollfuss, 1983a:77 (endangered in Niederösterreich, Austria), 78 (endangered in Burgenland, Austria), 78 (endangered in Oberösterreich, Austria), 79 (endangered in Land Salzburg and Kärnten, Austria), 80 (endangered in Steiermark, Austria), 80 (endangered in Tirol, Austria), 1983b:22 (in catalog of Sphecidae of Austria); Chevin and Silvestre de Sacy, 1984:9 (France: Yvelines Department); Józán, 1985b:61 (Hungary S Lake Balaton), 81 (floral records), 84 (ecological and zoogeographic characteristics); Lefeber, 1985:87 (Netherlands: southern Limburg); Westrich and Schmidt, 1985b:111 (Germany: endangered in Baden-Württemberg); Brechtel, 1986:59 (Germany: Südpfalz); Nemkov, 1986:107 (Russia: Siberia: Irkutsk Oblast'); Schmidt and Westrich, 1987:359 (Germany: Mainz area); Kowalczyk, 1988b:64 (Poland: environs of Łódź); Nemkov, 1989:69 (in key to *Gorytes* of Siberia and Russian Far East); Dollfuss, 1989:9 (holotype in NHMW); Pádr *in* Šedivý, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Jacobs and Oehlke, 1990:211 (new records from Democratic Germany); Nemkov, 1990b:683 (in key to *Gorytes* of former USSR); Schwammberger and Priesner, 1990:552 (Austria: Kärnten); Day, 1991:xv (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:199 (in key to Sphecidae of North and Central Europe); Józán, 1991:604 (Hungary: Bátorliget Nature Reserve); Kowalczyk, 1991a:100, 101, 105 (Poland: Łódź), 1991b:120 (Poland: Augustów Forest); Józán, 1992b:175 (Hungary: Boronka-melléki Protected Area), 1992c:290 (Hungary: Zselic Hills); K. Weber, 1992:87 (Germany: Bayern: Bamberg District); van der Smissen, 1993:128 (nw. Germany); Dollfuss, 1994:100 (endangered in Austria); Kowalczyk, 1994:73 (Poland: Łagiewniki forest in Łódź); Schmid-Egger, 1994b:17 (Germany: conservation in upper Rhein area); Józán, 1995:105 (Hungary: projected Duna-Dráva National Park); Nemkov *in* Nemkov, Kazenas,

Budrys, et Antropov, 1995:463 (in key to Sphecidae of Russian Far East); Schmid-Egger, Risch, and Niehuis, 1995:185 (summary of records from Germany: Rheinland-Pfalz State); Arens, 1996:442 (Germany: Bayern: Bayreuth area); Jakubzik, 1996:252 (Germany: Köln); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: probably endangered); Voblenko, Gorobchishin, and Nesterov, 1996:15 (Ukraine: Polesye Region); Witt, 1996:106 (Germany: Brandenburg), 108 (locality records); Wu and Zhou, 1996a:144 (in revision in Economic Insect Fauna of China); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:192 (in Sphecid Fauna of Western Europe); Celary, 1997:60 (in checklist of Animals of Poland); Lauterbach, 1997c:83 (Germany: Nordrhein-Westfalen: Bielefeld); Schmidt and Schmid-Egger, 1997:15 (in checklist of German Sphecidae); Dollfuss, Gusenleitner, and Bregant, 1998:522 (Austria: summary of collecting records from Burgenland); Drewes, 1998:49 (Germany: Niedersachsen: Goldbeck 26 km WSW Hamburg); Józán, 1998:312 (Hungary: Duna-Dráva National Park); Lefebvre, 1998:182 (Netherlands: Limburg: Sint-Pietersberg near Maastricht at 50°50'N 5°41'E); van der Smitten, 1998:60 (Germany: Schleswig-Holstein: Büchen, Wulfsdorfer Heide); K. Weber, 1998:140 (Germany: Bayern: Bamberg area); Neumayer, Schwarz, and Bregant, 1999:224 (Austria: in checklist of Sphecidae of Land Kärnten); Pauly, 1999:111 (in catalog of Belgian aculeates); M. Schwarz, 1999:88 (Austria: Oberösterreich: city of Linz area); Blösch, 2000:380 (in Sphecid Fauna of Germany); Jacobs, 2000:7, 16 (Germany: Land Mecklenburg-Vorpommern: close to extinction); Józán, 2000:113 (Hungary: Bakony Mountains); Schmid-Egger, 2000b:275 (Germany: Baden-Württemberg: shores of Rhine River); Zettel, 2000:31 (Austria: Wien); Józán, 2001:281 (Hungary: Somogy County); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia); Ohl et al., 2001:139 (distribution in Germany by provinces); van der Smitten, 2001:61 (Germany: Schleswig-Holstein: to be treated as endangered); Zettel, Gross, and Mazzucco, 2001:80 (Austria: Wien); Józán, 2002:54 (Hungary: Mecsek Mountains); Kazenas, 2002a:120 (geographic distribution, collecting localities in Kazakhstan); Kowalczyk, Szczepko, and Świątek, 2002:155 (Poland: Kampinos National Park near Warszawa); Schmid-Egger, 2002b:176 (in revision of western Palearctic *Gorytes*); Wiśniowski, 2002:73 (Poland: Ojców National Park); Józán, 2003:228 (Hungary: Látrányi Puszta Nature Conservation Area); Kowalczyk and Kurzac, 2003:209 (Poland: Łódź: Botanical Garden); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:66 (in catalog of wasps and bees of Bayern, Germany); von der Heide and Metscher, 2003:102 (Germany: Niedersachsen: Emsland area); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:196 (Germany: Bayern: strongly endangered); Wiśniowski *in* Dylewska and Wiśniowski, 2003:177 (Poland: Ojców National Park); Deván, 2004:147 (western Slovakia); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:262 (Germany: in checklist of Sphecidae of Nordrhein-Westfalen); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:355 (in catalog of Polish Crabronidae); Stolle et al., 2004:371 (Germany: Sachsen-Anhalt: last collected before 1942); van Achterberg and Peeters, 2004:32 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:51 and 62 (in checklist of Polish Sphecidae); Burger, 2005:33 (Germany: Thüringen); Kofler, 2005:184 (Austria: Tirol: Lienz District: shores of Drau in Anras Common); Kowalczyk and Kurzac, 2005:105 (Poland: Botanical Garden in Łódź); Saure, 2005:15 (Germany: Berlin); Theunert, 2005a:17 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Venne and Bleidorn, 2005:43 (Germany: Nordrhein-Westfalen: Moosheide Nature Reserve); Wiśniowski, 2005b:340 (Poland: Ojców National Park, of secondary faunistic value); Gadoum and Barbier, 2006:43 (France: départements of Val-d'Oise and Yvelines: Parc Naturel Régional du Vexin Français: Frouville); Gorobchishin, 2006:139 (Ukraine: Kyiv Oblast': Kyiv, village Svityl'ne); Hua, 2006:280 (in list of Chinese insects, geographic distribution); Vepřek, 2006:510 (Czech Republic: Kokořínsko area); Dvořák, Straka, Smetana, Halada, Vepřek, and Karas, 2007:168 (Czech Republic: Vyšenské Kopce National Nature Reserve); Jacobs, 2007:174, 176, 178 (in key to Crabronidae of Germany); Jansen and Kaluza, 2007:24 (Germany: northwestern Sachsen); Józán, 2007:180 (Hungary: Zselic hills); Kowalczyk and Nadolski, 2007:283 (Poland: Łódź: railway areas); Saure, 2007:82 (in checklist of Aculeata of Land Brandenburg, Germany); Venne, Bleidorn, and Lauterbach, 2007:301 (Germany: Nordrhein-Westfalen: Bielefeld); Vepřek and Straka, 2007:208 (in catalog of Sphecidae of Czech Republic and Slovakia); Nemkov, 2008b:24 (in catalog of Crabronidae of Asiatic Russia); Theunert, 2008:40 (Germany: map of distribution in Niedersachsen and Bremen);

Nemkov, 2009b:135 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Pagliano, 2009:178 (Italy: recorded from Trentino-AltoAdige by Kohl, 1888); Straka, Dvořák, and Bogusch, 2009:261 (Czech Republic: Jizerské Mountains and Frýdlant region); Bitsch, 2010:112 (in supplement to vol. II of Faune de France, 1997: reference to Pagliano, 2009; France: first record from Lozère: Saint-Etienne-Vallée-Française); Esser, Fuhrmann, and Venne, 2010:36 (Germany: in checklist of aculeates of Nordrhein-Westfalen); Hable, Wickl, Krauss, and von der Dunk, 2010:27 (Germany: Bayern: Sulz- and Ottmaringer Tal); Jakubzik, Kinkler, and Cölln, 2010:154 (Germany: Rheinland-Pfalz: Leverkusen-Steinbüchel); Mokrousov, 2010a:61 (Russia: Nizhny Novgorod and Vladimir Oblast's, Chuvash Republic: no specific localities); J. Neumayer, 2010:334 (Austria: Niederösterreich: Thayatal National Park); Schmid-Egger, 2010a:16 (in red list of Aculeata of Germany: rare); Shorenko and Konovalov, 2010:15 (Ukraine: Khar'kov Oblast: Skripai); Smetana, Roller, Beneš, Bogusch, Dvořák, Holý, Karas, Macek, Straka, Šima, Tyrner, Vepřek, and Zeman, 2010:101 (Western Slovakia: recorded from Borská Nížina); Treiber, 2010:135 (France: département du Bas-Rhin); van der Smissen, 2010a:341 (Germany: Schleswig-Holstein: Büchen, Grißheim, Wulfsdorfer Heide), 2010b:384 (France: Ardèche: Saint-Thomé); Józán, 2011:183 (in checklist of Sphecidae s.l. of Hungary); Mokrousov, Berezin, and Egorov, 2011:67 (Russia: Chuvash Republic); Gerth, Mayer, Hering, Wolf, Schaffer, and Bleidorn, 2012:9 (Germany: Sachsen: Bienitz in Leipzig); Saure, 2011a:6 (Germany: Berlin: former airport Tempelhof); Theunert, 2011a:20 (Germany: in checklist of aculeates of Niedersachsen including city of Bremen); Tischendorf, Frommer, Flügel et al., 2011:81 (Germany: Hessen: recorded both before and after 1990); Ziska and Saure, 2011:109 (Germany: Berlin: Tegeler Fließ valley); Cölln, Jakubzik, and Kinkler, 2012:24 (Germany: Nordrhein-Westfalen: Leverkusen); Gerth, Mayer, Hering, Wolf, Schaffer, and Bleidorn, 2012:9 (Germany: Sachsen: Bienitz in Leipzig); Saure, 2012b:229 (Germany: Berlin-Spandau: Spandauer Forst); Akulov and Proshchalykin, 2013:117 (Russia: Siberia: Krasnoyarsk Krai: 20 km south of Minusinsk); Wiśniowski and Szczepko, 2013:35 (Poland: Kampinos National Park near Warszawa); Bitsch, 2014:398 (recent records from France and Germany reported); Mokrousov and Popov, 2016:567 (Russia: Krasnodarskiy Krai); Stolle and Saure, 2016:923 (Germany: in list of Sphecidae s.l. of Sachsen-Anhalt); Wiśniowski, 2016:128 (Poland: Ojców National Park); Jansen, 2017:8 (Germany: Sachsen: Leipzig); Nemkov, 2017a:Table p. 5 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:222 (in catalog of Bembicinae of Russia). – **As *Hoplissus fallax***: Schneid, 1941:1041 (new combination, Germany: Bayern: Bamberg area); Baťa, 1942:86 (Czech Republic); Szulczewski, 1950:107 (Poland: Wielkopolski National Park 15 km south of Poznań); Baťa, 1952:167 (Czech Republic). – **As *Psammaecius fallax***: Radoszkowski, 1892:583 (new combination, male genitalia).

### 23. *fasciatus* W. Fox

*Gorytes fasciatus* W. Fox, 1896a:539, ♂. Lectotype: ♂, USA: Colorado: no specific locality (ANSP), designated by Cresson, 1928:47. – Maidl and Klima, 1939:112 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Krombein in Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera); Nemkov and Pulawski, 2009:9 (reverted to *Gorytes*, in cladistic analysis of Gorytina). – **As *Hoplissus fasciatus***: Casolari and Casolari Moreno, 1980:121 (specimens in M. Spinola collection; may be a species different from Fox's). – **As *Pseudoplisus fasciatus***: Ashmead, 1899:328 (new combination, in checklist of North American *Crabronidae*); R. Bohart, 1969b:393 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1695 (in catalog of North American Hymenoptera).

### 24. *flagellatus* R. Bohart

*Gorytes flagellatus* R. Bohart, 1971:448, ♀, ♂. Holotype: ♂, USA: California: Nevada County: Sagehen Creek near Hobart Mills (UCD). – Evans, 1973c:149 (Wyoming: Jackson Hole); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1694 (in catalog of North American Hymenoptera); Ratzlaff, 2016:24 (Canada: British Columbia: after Krombein, 1979).

**25. *flavidulus* (R. Bohart)**

*Pseudoplisis flavidulus* R. Bohart, 1969b:402, ♂. Holotype: ♂, USA: California: Imperial County: Brawley (UCD). – R. Bohart, 1969b:393 (in key to North American *Pseudoplisis*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1695 (in catalog of North American Hymenoptera). – **As *Gorytes flavidulus***: Nemkov and Pulawski, 2009:7 (new combination, in cladistic analysis of Gorytina).

**26. *foveolatus* Handlirsch**

*Gorytes foveolatus* Handlirsch, 1888b:485, ♀, ♂ (♀ = ?). Lectotype: ♂, Dalmatia: Spalato, now Croatia: Split (NHMW), designated by de Beaumont, 1953f:187, 188. – Dalla Torre, 1897:542 (in catalog of world Sphecidae); Gasperini, 1889:70 (Dalmatia: Spalato, now Croatia: Split); Schletterer, 1901:218 (Croatia: southern Istria Peninsula); W. Schulz, 1904b:97 (Turkey: Brussa, now Bursa); Maidl and Klima, 1939:94 (in catalog of world Astatinae and Bembicinae); Šnoflák in Zavadil and Šnoflák, 1948:70, 71 (in key to Sphecidae of Czechoslovakia); de Beaumont, 1953f:186 (in revision of western Palearctic *Gorytes*); Bajári, 1957a:108, 109 (in key to Hungarian Sphecidae, not yet found in Hungary); Ceballos, 1959:229 (in supplement to catalog of Spanish Sphecidae); de Beaumont and Bytinski-Salz, 1959:101 (Israel); de Beaumont, 1965a:36 (Greece); Balthasar, Hrubant, and Hrubant, 1967:172 (Bulgaria: Slanchev Bryag near Nessebar); de Beaumont, 1967a:315 (Turkey), 1969:84 (Turkey); Balthasar, 1972:310 (in Sphecid Fauna of Czechoslovakia); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Kolesnikov, 1977:317 (Russia: Bryansk Oblast'); Pulawski, 1978:202 (in key to Sphecidae of European part of former USSR); Gayubo, 1882e:107 (Spain: Cádiz Province); Gayubo, 1986a:64 (Spain: Ciudad Real Province); Dollfuss, 1989:9 (lectotype in NHMW); Nemkov, 1990b:680, 684 (in key to *Gorytes* of former USSR), 689 (Ukraine: Crimea; Russia: Krasnodar); Dollfuss, 1991:191 (in key to Sphecidae of North and Central Europe); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:193 (in Sphecid Fauna of Western Europe); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:109 (Greece); Schmid-Egger, 2002b:177 (in revision of western Palearctic *Gorytes*); Gayubo and Özbek, 2005:17 (Turkey: Bilecik, Erzurum: Ýspir); Shorenko, 2005a:167 (Ukraine: Crimea), 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve); Vepřek and Straka, 2007:208 (in catalog of Sphecidae of Czech Republic and Slovakia, known from Slovakia only), 233 (Slovakia: Devinská Kobyla); Ljubomirov and Yildirim, 2008:78 (in catalog of Crabronidae of Turkey); Józán, 2009:166 (Croatia: Lindar); Shorenko, 2009:368 (in list of Sphecidae s.l. of Crimea); Shorenko and Konovalov, 2010:15 (Ukraine: Lugansk Oblast': D'yakovo); Murai and Amr, 2011:110 (Syria: Al Thawrah Nature Reserve at 35°51'N 28°38'E); Prisniy, 2012:51 (Russia: Belgorod Oblast'); Protsenko, Fateryga, and Ivanov, 2014:30 (Crimea: several localities); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); Mokrousov and Popov, 2016:567 (Russia: Krasnodarskiy Kray); Yildirim, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:36 (Iran: known from Kordestan Province); Nemkov, 2017a:Table p. 5 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:222 (in catalog of Bembicinae of Russia, as *foveolatus foveolatus*); Shorenko, 2017:79 (in Crimea collected in June and July).

**ssp. *dichrous* Mercet**

*Gorytes dichrous* Mercet, 1906a:120, ♂, ♀. Syntypes: Spain: Madrid and Huesca Provinces: five localities (MNCN). – Mercet, 1906a:134, 139 (in key to Spanish *Gorytes*); Dusmet, 1915:88 (Spain: Aragón), 1935:49 (Spain: Madrid: Montarco and Vaciamadrid), 52 (Spain: Madrid: Parla); Maidl and Klima, 1939:94 (in catalog of world Astatinae and Bembicinae); Giner Marí, 1943a:180 (in Sphecid Fauna of Spain); de Andrade, 1949:18 (Portugal); Ceballos, 1956:382 (in catalog of Hymenoptera of Spain); Diniz, 1959:29 (Portugal: Algés, Areias, Benfca, Lisboa); R. Bohart and Menke, 1976:501 (as synonym of *Gorytes foveolatus*). – **As *Gorytes foveolatus dichrous***: de Beaumont, 1953f:189 (new status, in revision of western Palearctic *Gorytes*), 1962b:24 (Spain); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); Diniz, 1973:44 (Portugal: Lisboa, Peniche, San Martinho do Porto).

**ssp. *usurpator* W. Schulz**

*Gorytes longicornis* Handlirsch, 1898b:488, ♂, junior secondary homonym of *Sphex longicornis* Rossi, 1790, which is a junior synonym of *Gorytes mystaceus* (Linnaeus, 1761), now in *Argogorytes*. Lectotype: ♂, Algeria: Tlemcen (NHMW), designated by de Beaumont, 1953f:190. – Maidl and Klima, 1939:94 (in catalog of world Astatinae and Bembicinae); de Beaumont, 1953g:113 (Morocco); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); Dollfuss, 1989:9 (lectotype in NHMW); R. Bohart and Menke, 1976:501 (as synonym of *Gorytes foveolatus*). – **As *Gorytes foveolatus longicornis***: de Beaumont, 1953f:189 (new status, in revision of western Palearctic *Gorytes*); Roche, 2007a:114 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:8 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

*Gorytes usurpator* W. Schulz, 1906:200. Substitute name for *Gorytes longicornis* Handlirsch (Article 59.3).

*Gorytes rubrocinctulus* Strand, 1910e:217, ♂. Holotype: ♂, Algeria: Constantine Province: no specific locality (depository?), synonymized with *Gorytes foveolatus longicornis* by de Beaumont, 1953f:187. – Strand, 1927:254 (in list of species described by the author); Maidl and Klima, 1939:99 (in catalog of world Astatinae and Bembicinae).

**27. *guerrero* (R. Bohart)**

*Leiogorytes guerrero* R. Bohart, 2000:179, E, ♂. Holotype: ♂, Mexico: Guerrero: Omilteme (BMNH). – Amarante, 2002:16 (in catalog of Neotropical Crabronidae). – **As *Gorytes guerrero***: Nemkov and Pulawski, 2009:9 (new combination, in cladistic analysis of Gorytina).

**28. *hadrus* (R. Bohart)**

*Pseudoplisus hadrus* R. Bohart, 1969b:406, ♀. Holotype: ♀, Mexico: Michoacán: 2 mi S Tzitzio (Kansas Univ.). – R. Bohart, 1969b:393 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Amarante, 2002:17 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae). – **As *Gorytes hadrus***: Nemkov and Pulawski, 2009:7 (new combination, in cladistic analysis of Gorytina).

**29. *hebraeus* de Beaumont**

*Gorytes hebraeus* de Beaumont, 1953f:181, ♀. Holotype: ♀, Jordan: Jericho (NHMW). – de Beaumont and Bytinski-Salz, 1959:101 (Israel); de Beaumont, 1967a:314 (Turkey); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Dollfuss, 1989:9 (holotype in NHMW); Nemkov, 1990b:681 (in key to *Gorytes* of former USSR), 688 (Armenia: Arax valley); Schmid-Egger, 2002b:177 (in revision of western Palearctic *Gorytes*); Ljubomirov and Yildirim, 2008:78 (in catalog of Crabronidae of Turkey); Yıldırım, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); Yıldırım, Ljubomirov, Özbek, and Yüksel, 2016:13 (Turkey: Erzurum: Dereboğazi); Nemkov, 2017:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae).

**30. *imperialis* (R. Bohart)**

*Pseudoplisus imperialis* R. Bohart, 1969b:403, ♂. Holotype: ♂, USA: California: Imperial County: no specific locality (USNM). – R. Bohart, 1969b:393 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1695 (in catalog of North American Hymenoptera). – **As *Gorytes imperialis***: Nemkov and Pulawski, 2009:7 (new combination, in cladistic analysis of Gorytina).

**31. *intrudens* Nurse**

*Gorytes intrudens* Nurse, 1903b:14, ♀, ♂. Syntypes: India: Rajasthan: Mount Abu (BMNH). – Ramakrishna Aiyar, 1916:556 (in catalog of Indian aculeates described after Bingham, 1897); Maidl and Klima, 1939:55 (in catalog of world Astatinae and Bembicinae); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae).

### 32. *ishigakiensis* Tsuneki

*Gorytes ishigakiensis* Tsuneki, 1982f:48, ♂. Holotype: ♂, Ryukyu Islands: Ishigaki Island (originally K. Tsuneki coll., now Hyogo Mus.). – Tsuneki, 1982g:63 (known from the Ryukyu archipelago); Tano, 1994a:8 (holotype in K. Tsuneki coll.); Hashimoto and Nakanishi, 1997:24 (holotype transferred to Hyogo Mus.); Nemkov, 1999b:3 (comparison with *Gorytes kohlii*); Yamane, Ikudome, and Terayama, 1999:533 (in Identification Guide to Crabronidae of Nansei = Ryukyu Islands, Japan); Takahashi, 2006a:4 (prey: *Ugyops vittatus* (Matsumura), a delphacid); Terayama, 2006:7, 8, 10 (in key to Japanese Bembicinae).

### 33. *jonesi* (R. Turner)

*Arpactus jonesi* R. Turner, 1920b:494, ♂. Holotype: ♂, South Africa: Natal: Zululand: M'fongosi (SAM). – Arnold, 1929a:235 (revision), 1930:18 (in checklist of Afrotropical Sphecidae). – **As *Gorytes jonesi***: Maidl and Klima, 1939:72 (new combination, in catalog of world Astatinae and Bembicinae); Bohart and Menke, 1976:235 (in checklist of world Sphecidae).

### 34. *kohlii* Handlirsch

*Gorytes kohlii* Handlirsch, 1888b:511, ♂, ♀ (as *Kohlii*, incorrect original capitalization). Lectotype: ♀, Dalmatia, now Croatia: no specific locality (NHMW), designated de Beaumont, 1953f:198. – Gasperini, 1889:70 (Dalmatia); Dalla Torre, 1897:543 (in catalog of world Sphecidae); Mocsáry, 1897:82 (Kingdom of Hungary: Fiume, now Croatia: Rijeka); Maidl and Klima, 1939:50 (in catalog of world Astatinae and Bembicinae); Zavadil in Zavadil and Šnoflák, 1948:66 (in new subgenus *Laevigorytes*); de Beaumont, 1953f:198 (in revision of western Palearctic *Gorytes*); Balthasar, 1972:316 (in Sphecid Fauna of Czechoslovakia: may be expected in the country); Pulawski, 1978:201 (in key to Sphecidae of European part of former USSR); Nemkov, 1999b:3 (retransferred to *Gorytes*, comparison with *Gorytes ishigakiensis*); Amarante, 2005a:9 (correction to his 2002 catalog); Shorenko, 2005a:167 (Ukraine: Crimea), 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve); Ljubomirov and Yildirim, 2008:76 (in catalog of Crabronidae of Turkey); Protsenko, Fateryga, and Ivanov, 2014:31 (Crimea: Nikitskiy Garden near Yalta); Yıldırım, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); Mokrousov and Gromenko, 2015:126 (Uzbekistan: 3 km northeast of village Uchkyzyl at 37°21'56" N, 67°17'3" E); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:222 (in catalog of Bembicinae of Russia); Shorenko, 2017:79 (in Crimea collected in July). – **As *Pseudoplisus kohlii***: R. Bohart and Menke, 1976:503 (new combination, in checklist of world Sphecidae); Dollfuss, 1989:12 (lectotype in NHMW); Nemkov, 1990b:689 (in revision of *Gorytes* of former USSR; Ukraine: Crimea; Kazakhstan, Turkmenistan); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:238 (in Sphecid Fauna of Western Europe); Esenbekova and Kazenas, 2000:62 (southeast Kazakhstan: 30 km SSW Koktal); Tschuch and Brothers, 2000:322 (stridulatory organs on terga IV and V laterally); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:122 (geographic distribution, collecting localities in Kazakhstan); Schmid-Egger, 2002b:187 (in revision of western Palearctic *Gorytes*, discussion of generic placement); Kazenas, 2008a:105 (Southeastern Kazakhstan: Ili River valley: 17 km northwest of Bakanas, 30 km south of Koktal); Shorenko, 2009:368 (in list of Sphecidae s.l. of Crimea); Bitsch, 2010:115 (in supplement to vol. II of Faune de France, 1997: taxonomic history); Kazenas, 2013b:498 (southeast Kazakhstan: 30 km south of Koktal); Mokrousov and Popov, 2016:567 (Russia: Krasnodarskiy Krai).

*Gorytes kozlovi* Nesterov, 1993:51, ♀. Holotype: ♀, Kazakhstan: Alma Ata Oblast': Charyn River 15 km W Chundja (Zool. Inst. Ukrain. Acad. Sci. Kiev). Synonymized with *Pseudoplisus kohlii* by Nemkov, 1995a:3.

### 35. *kulingensis* Yasumatsu

*Gorytes kulingensis* Yasumatsu, 1943:17, ♀. Holotype: ♀, China, Jiangxi: Kuling (Heude Mus., Shanghai). – R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Hua, 2006:280 (in list of Chinese insects, geographic distribution).



### 36. *laticinctus* (Lepeletier de Saint Fargeau)

*Euspongius laticinctus* Lepeletier de Saint Fargeau, 1832:66, ♂, ♀ (as *Laticinctus*, incorrect original capitalization). Syn- types: France: Paris area and Pyrénées (Torino). – Lepeletier de Saint Fargeau, 1845:66 (in revision of world Hymenoptera); P. Ivanov, 1872:152 (Ukraine: Kharkov Oblast': Kupyansk area); Wesmael, 1839:77 (comparison with *Gorytes arenarius* Vander Linden); Yaroshevskiy, 1881:125 (Ukraine: Khar'kiv Oblast': Kupyansk); Acloque, 1897:83 (in Sphecidae Fauna of France and Algeria); Bat'a, 1952:167 (Czech Republic). – **As *Arpactus laticinctus***: Tjeder, 1954:67 (new combination, Sweden: eastern Skåne: Sandhammaren). – **As *Hoplisis laticinctus***: Dahlbom, 1843:161 (new combination, in revision of Sphecidae and Pompilidae), 1845:482 (in key to European *Hoplisis*); Wesmael, 1852:99 (Belgium, coloration); Kirschbaum, 1853:45 (Germany: Herzogtum Nassau: near Weilburg); Schenck, 1857:169 (in revision of fossorial wasps of Nassau Region, Germany); A. Costa, 1859:34 (in revision of Sphecidae of Kingdom of Naples, Italy); Funk, 1859:59 (Germany: Bayern: Bamberg); Schenck, 1860:148 (Germany: Nassau Region); Brischke, 1862:101 (Germany: Preussen Province, now Poland: Pomorze Region); A. Costa, 1863:66 (Italy: Calabria Ulteriore: Aspromonte), 1864c:124 (Italy: Campania: Benevento area), 1866:24 (specimen from France in Museo Zoologico di Napoli), 1867c:66 (in revision of Italian Sphecidae); Jaenicke, 1867:147 (Germany: Hessen: Frankfurt area); Kirchner, 1867:220 (in catalog of European Hymenoptera); Palma, 1867:40 (Italy: Sicilia settentrionale); Schenck, 1867a:355 (Germany: Nassau Region); Jaenicke, 1868:9 (Germany: Hessen: Rüsselheim); A. Costa, 1869b:82 (in revision of Italian Sphecidae); Thomson, 1870:246 (in revision of Swedish wasps); Dours, 1874:150 (in catalog of Hymenoptera of France); Thomson, 1874:235 (in revision of Hymenoptera of Scandinavia); Wierzejski, 1874:259 (Poland: Kraków, Żegiestów); Radoszkowski, 1877:42 (Uzbekistan); E. Saunders, 1880:271 (in revision of British Aculeata); Friese, 1883:202 (Germany: Thüringen: Gumperda); Kohl, 1883e:668 (Switzerland); Sickmann, 1883:80 (Germany: Niedersachsen: Wellingholthausen); A. Costa, 1884b:33 (Italy: Sardegna: Meanna, as *latecinctus*); Wüstnei, 1886:41 (Germany: Schleswig-Holstein: Sonderburg); Brischke, 1888b:98 (Germany: Preussen Province, now Poland: Pomorze Region); Baldini, 1894:67 (Italy: Modena area); De-Stefani, 1895:227 (in catalog of Sicilian Hymenoptera); Borries, 1897:64 (reference to Schenck, 1857:315); Flamarly, 1898:45 (France: Saône-et-Loire: Mâcon area); Strand, 1898b:94 (Norway); de Gaulle, 1908:120 (in catalog of French Hymenoptera); Cavro, 1910:685 (France: Département du Nord); Schirmer, 1912:166 (Germany: Berlin area); A. Wagner, 1920:32 (Germany: Lower Elbe region); Noskiewicz, 1922a:8 (Poland: Lwów area, now Ukraine: Lviv area); Coulon, 1925:119 (France: Evreux, Oise); Schütze, 1925:112 (Germany: Lausitz Region); Hémon, 1926:199 (France: Finistère: Fouesnant); Hamm and Richards, 1930:103 (nesting habits unknown); Bondroit, 1932:32 (Belgium: recorded from Bruxelles area by Wesmael), 1933:6 (Belgium: Bruxelles); Jansson, 1934:290 (Sweden); van der Vecht, 1934:10 (Netherlands: Den Haag); Richards, 1937b:107 (in checklist of British aculeates); Kloet, 1941:235 (Great Britain: Wales: Cardiff); Schneid, 1941:1040 (Germany: Bayern: Bamberg area); Boyd, 1943:163 (Britain: eastern Dorset); Głowacki, 1953:519 (Poland: Podkowa Leśna near Warszawa); Nouvel and Ribaut, 1953:178 (France: Central Pyrénées: Cauterets, Saint-Béat); Bradley, 1957:48 (types in Turin); Hamann, 1960:195 (Austria: Niederösterreich: Mönchgraben at 48°13'N 14°21'E); Lefeber, 1966:209 (Netherlands: Bemelen, St. Pietersberg); Andrewes, 1975:104 (England); Casolari and Casolari Moreno, 1980:121 (specimens in M. Spinola collection); Pagliano, 2014:88, 89 (specimens in M. Spinola collection, Torino, are *Gorytes laticinctus* and *Gorytes* sp. – **As *Gorytes laticinctus***: Shuckard, 1837a:217 (new combination, in revision of British Aculeata); von Siebold, 1839:52 (Germany: Danzig, now Poland: Gdańsk); F. Smith, 1851c:38 (Great Britain: New Forest), 1853:65 (in checklist of British Hymenoptera), 1856:361 (in catalog of Hymenoptera in British Museum), 1858c:106 (in review of British Aculeata, redescription), 1871b:12 (in catalog of British Aculeata); Kohl, 1880:171 (Austria: Tirol: Mühlau, and Italy: Trentino–Alto Adige); Handlirsch, 1888b:461 (in revision of world Bembicinae); Kohl, 1888b:727 (Austria: Tirol, now Italy: Alto Adige), 1893:27 (Austria: Niederösterreich); F. Morawitz, 1893a:112 (Russia: Karelian Isthmus); Sickmann, 1893:89 (Germany: Niedersachsen: Iburg); Handlirsch, 1895:915 (additional bibliography); E. Saunders, 1896:108 (in revision of British Aculeata); Westerlund, 1896:28 (Finland: no specific locality); Dalla Torre, 1897:542 (in catalog of world Sphecidae); Mocsáry, 1897:82 (Kingdom of Hungary, localities

are in today's Romania and Slovakia); Handlirsch, 1898b:488 (Algeria); de Cobelli, 1903:113 (Italy: Province of Trentino); Antiga and Bofill, 1904:16 (Spain: Cataluña Province); Aurivillius, 1904:270 (in revision of Swedish Sphecidae); W. Schulz, 1904b:97 (Czechoslovakia: Trencin, as Trencsin); Mantero, 1905:70 (Italy: Toscana: Isola del Giglio); Mercet, 1906a:132, 141 (in key to Spanish *Gorytes*); Móczár and Henter, 1907:205 (Hungary: Hatvan, Putnok; Romania: Caraş-Severin: Mehadia); Schmiedeknecht, 1907:218, 221 (in key to Hymenoptera of Central Europe); Dittrich, 1911b:23 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Graeffe, 1911:46 (Italy: Trieste area); Alfken, 1914:279 (NW Germany); Birula, 1914:385 (Belarus': Luskopol' near Vit'eb'sk); Haines, 1914:129 (Great Britain: Dorset: Moreton); Zilahi Kiss, 1915:80 (Hungary: Boksánbánya); O. Meyer, 1919:153 (Germany: Posen Province, now Poland: Poznań Region); Dubois, 1921c:201, 203 (in key to Belgian Sphecidae); Berland, 1925d:88 (in Sphecida Fauna of France); Bischoff, 1925:300 (Latvia: Wezkukkul; Poland: Białowieża and Grajewo area); Friese, 1926:159 (in key to Sphecidae of Central Europe, short morphological and biological characteristics); Bouwman, 1927:54 (in revision of Sphecidae of Netherlands); Barovskij, 1929:149 (Russia: Toksovo NNE Sankt Petersburg); Schmiedeknecht, 1930:681, 683 (in key to Hymenoptera of North and Central Europe); Pulkkinen, 1931:63 (in revision of Sphecidae of Finland); Zavadil, 1932:95 (Czechoslovakia); Balles, 1934:20 (Germany: Baden-Württemberg: Oberachern); Forsius *in* Forsius and Hellén, 1935:11 (in checklist of Hymenoptera of Finland); Crèvecoeur and Maréchal, 1936:253 (in catalog of Belgian Hymenoptera); Blüthgen, 1937:236 (Germany: Saale River valley: Naumburg); Zavadil, Šustera, and Bat'a, 1937:190 (in catalog of Sphecidae of Czechoslovakia); Guiglia, 1938b:9 (Italy: Sardinia); Móczár, 1938c:81 (Hungary: Kőszeg Hills); Redikortsev, 1938:144 (Russia: Mordovian State Nature Reserve); A. Wagner, 1938a:121 (northwestern Germany); Maidl and Klima, 1939:67 (in catalog of world Astatinae and Bembicinae); Maréchal, 1939:341 (Belgium: Loën); Balthasar, 1941b:112 (Czech Republic: eastern Moravia); Guiglia, 1941c:163 (Italy: Calabria: Grande Sila); Paul, 1941:44 (Germany: Pommern: Stettin area, now Poland: Województwo Zachodniopomorskie: Szczecin area); Balthasar, 1943:41 (Czech Republic: Moravia: Zlin area); Benno, 1943:66 (Netherlands: Babberich); Giner Marí, 1943a:178 (in Sphecida Fauna of Spain); Guiglia, 1944b:19 (Italy); Muller, 1948:139 (Belgium: Warsage); Šnoflák *in* Zavadil and Šnoflák, 1948:73, 74 (in key to Sphecidae of Czechoslovakia); Caruel, 1951:100 (France: Marne Department); de Beaumont, 1951g:311 (Italy), 1951h:32 (Switzerland: Neuchâtel area); Leininger, 1951:117 (Germany: Baden-Württemberg: Kaiserstuhl, Michaelsberg); de Beaumont, 1953f:170 (in revision of western Palearctic *Gorytes*), 1954e:89 (Italy); Grandi, 1954:233 (Italy); Aerts, 1955:62 (Germany: Rheinland); Atanassov, 1955:200 (Bulgaria: Sandansky, Varna, as Stalin); Steiner, 1955:144 (France: Dordogne); Ceballos, 1956:382 (in catalog of Hymenoptera of Spain, as *laticinctus* Shuckard); Vergne, 1955:4 (France: Auvergne); Vogrin, 1955:35 (Yugoslavia); Bajári, 1957a:105, 109 (in key to Hungarian Sphecidae); Grandi, 1957:385 (Italy: Abruzzi); Zirngiebl, 1957:181 (Germany: Rheinland-Pfalz: Pfalz region); Benno, 1958b:11 (in review of Dutch Sphecidae); Compte Sart, 1959:133 (Spain: Mayorca); Olberg, 1959:340-341 (photographs of female digging nest); Wolf, 1959b:30 (Germany: Nassau); Noskiewicz and Puławski, 1960:91, 94 (in key to Polish Sphecidae); Hoop, 1961:65 (Germany: Schleswig-Holstein: Brandsbek, Flemhude, Kiel-Eichhof); Grandi, 1962:98 (Italy); Valkeila, 1962b:67 (southwestern Finland); Hoop, 1963a:73 (Germany: Schleswig-Holstein: Reher Kratt); Babiy, 1964:117 (Austria: Land Salzburg); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:48 (in Sphecida Fauna of Switzerland); Plavil'shchikov, 1964:122 (Russia: Mordovian State Nature Reserve); Fæster, 1965:193 (Denmark: Hansted Nature Reserve); Evans, 1966d:67 (synopsis of known biological information); Benno, 1967:34 (in checklist of Sphecidae of Netherlands); de Beaumont, 1967a:312 (Turkey); Gauss, 1967:552 (Germany: Baden-Württemberg); J. Heinrich, 1967:71 (Germany: Bayern: Unterfranken District); Niedl and Deneš, 1967:82 (Czech Republic: Třeboň area); Scobiola-Palade, 1967b:47 (Romania); Benedek, 1968:72 (Hungary, floral records); Benedek, 1969a:83 (Hungary; marshy meadow), 1969b:421 (Hungary: Csopak, collected in vicinity of aphid *Hyalopteritena pruni* (Geoffroy)); Lefebvre, 1969c:233 (Netherlands: St. Pietersberg = Montagne Saint Pierre); Petit, 1969:72 (Belgium); Romanova, 1969:133 (Russia: North Caucasus); Schmidt, 1969:161 (Germany: Rhein-Main area: Wiesbaden);

Zangheri, 1969:1701 (Italy: in catalog of flora and fauna of Romagna Region); Benedek, 1970:97 (Hungary: Tapolca); Gauss and Perraudin, 1970:360 (Germany: Baden-Württemberg: Bodensee area); Hoop, 1970:60 (Germany: Schleswig-Holstein: Weißenhaus); Oehlke, 1970:688 (Democratic Germany); Tumšs, 1970:79 (first record from Latvia); Lefeber, 1971a:17 (Belgium: Bassenge); Petit, 1971:21 (Luxemburg: Bourscheid, Echternach, Pintsch, Schuttbourg); Balthasar, 1972:314 (in Sphecidae Fauna of Czechoslovakia); Haeseler, 1972:155 (Germany: Schleswig-Holstein, anthropogenic habitats); Kofler, 1972:106 (Austria: eastern Tirol); Lomholdt, 1972:122 (Denmark: Læsø Island); Oehlke, 1972:136 (Germany: Hiddensee Island); Diniz, 1973:44 (Portugal: Coimbra, Figueira da Foz, Vouzela); Lefeber, 1973:152 (Belgium: Plombières); Haeseler, 1973:53 (Germany: Schleswig-Holstein: Nieby 30 km E Lübeck); Wolf, 1973:41 (Germany: Siegerländer Hüttensand); Lefeber and Petit, 1974:163 (Belgium: Plombières); Frilli and Pizzaghi, 1975:53 (Italy: Cerignale in Piacenza Province); Lefeber, 1975a:37 (Netherlands: Heemskerduin, Overveen), 1975b:122, 154 (Belgium); Lomholdt, 1975c:196 (in Sphecidae Fauna of Fennoscandia and Denmark); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Eck, 1976:90 (Democratic Germany); Wolf, 1976:30 (Germany: Nordrhein-Westfalen: Victoria Mine near Littfeld); Schmidt, 1977:96 (Germany: Baden-Württemberg: Enzklosterle in Schwarzwald); Marion, 1978:86 (France: Nièvre Department); Petit, 1978:86 (Belgium: Sourbrodt); Pulawski, 1978:202, 204 (in key to Sphecidae of European part of former USSR); Schwammberger, 1978:417 (Germany: Württemberg); Benedek, 1979:229 (Hungary: Bakony Mountains); Lefeber, 1979:11 (in checklist of Sphecidae of Netherlands), 41 (Netherlands: distribution map); Marchal and Leclercq, 1979:11 (Belgium: Gembloux); Schmidt, 1979b:347 (Germany: Baden-Württemberg); Pagliano, 1980:115 (Italy: Piemonte); Richards, 1980:81 (in key to Sphecidae of British Isles); Westrich, 1980:629 (Germany: Baden-Württemberg: Tübingen area; specimens recorded by Schmidt, 1966 as *Gorytes quinquefasciatus* actually are *laticinctus*); Dollfuss and Ressler, 1981:324 (Austria: Niederösterreich: Scheibbs District); Woydak, 1981:40 (Germany: Westfalen: Hamm); Donath, 1982:212 (Germany: Cottbus Bezirk); Gayubo, 1982b:40 (Spain, Ávila and Salamanca provinces); Skibińska, 1982:123 (Poland: Warszawa area); Dollfuss, 1983b:22 (Austria); Józán, 1983:100 (Hungary); Riemann, 1983:83 (Germany: Bremen-Daverden area); Chevin and Silvestre de Sacy, 1984:10 (France: Yvelines Department); Haack, Tschartke, and Vidal, 1984:128 (Germany: Hamburg area); Nilsson, 1984:104 (Sweden: Västmanland Province); Sagvolden, 1984:19 (Norway: Aust-Agder: Sagesund); Józán, 1985b:61 (Hungary S Lake Balaton), 81 (floral records), 84 (ecological and zoogeographic characteristics); Lefeber, 1985:87 (Netherlands: southern Limburg); Tyrner, 1985:9 (Czech Republic: Jezerka Nature Reserve in Krušné Hory = Erzgebirge); Brechtel, 1986:59 (Germany: Südpfalz); Gayubo and Sanza, 1986:76 (Spain: Burgos); Skibińska, 1986b:157 (Poland: Warszawa area: rural and suburban parks); Steiner, 1986:109 (references to publications on nesting habits); Vikberg, 1986:78 (Finland); Felton, 1987a:89 (prey: *Aprophora corticea* (Germar), an aphrophorine); Dollfuss, 1988:30 (Austria: Niederösterreich: Oberweiden); Kowalczyk, 1988a:45 (Poland: Rogów), 1988b:64 (Poland: environs of Łódź); Nilsson, 1988:98 (Sweden); Jacobs, 1989:27 (Germany: Mecklenburg-Vorpommern); Józán, 1989:102 (Hungary: Tihany Nature Reserve); Nemkov, 1989:68, 70 (in key to *Gorytes* of Siberia and Russian Far East, as *laticinctus laticinctus*); Pádr in Šedivy, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Pankevich, Belyavskaya, Molchanova, Shlyakhtenok, and Blinov, 1989:94 (Belorussia: Berezinskiy Nature Reserve); Jacobs and Oehlke, 1990:211 (new records from Democratic Germany); Kowalczyk, 1990:291 (Poland: Góry Świętokrzyskie); Nemkov, 1990b:682, 685 (in key to *Gorytes* of former USSR, as *laticinctus laticinctus*); Pádr, 1990:71 (Czech Republic: Praha area); Pagliano, 1990:70 (in catalog of Italian Sphecidae); Schwammberger and Priesner, 1990:552 (Austria: Kärnten); Yeo, 1990:102 (Britain: Cambridge); Day, 1991:xv (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:200 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:414 (Italy); Jakubzik, 1991:74 (Germany: Köln); Kowalczyk, 1991a:89, 93, 100, 101 (Poland: Łódź), 1991b:120 (Poland: Augustów Forest); Negrisolo, 1991:323 (Italy: Udine and Venezia Provinces); Nilsson, 1991:83 (Sweden: Lake Mälaren); von der Heide, 1991:63 (Germany: peat bog near Oldenburg); Budrys, 1992:27 (in list of Sphecidae of Lithuania); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Józán, 1992a:229 (Hungary: Béda-Karapanca Protected Area), 1992b:175 (Hungary: Boronka-melléki Protected Area), 1992c:290 (Hungary: Zselic

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Kampinos National Park near Warszawa); Litt, 2002:166 (Belgium); Mokrousov, 2002:150 (Russia: Nizhniy Novgorod Oblast': Kerzhenskiy Nature Reserve); Nicoli Aldini, 2002:163 (nesting habits); Schmid-Egger, 2002b:178 (in revision of western Palearctic *Gorytes*); Shlyakhtenok and Skibinska, 2002:35 (Belarus': no specific locality); Vischer, 2002:289 (Germany: Sachsen-Anhalt: vineyards in Saale-Unstrut area); Wiśniowski, 2002:73 (Poland: Ojców National Park); Cölln, Esser, and Jakubzik, 2003:62 (Germany: northwestern Rheinland-Pfalz: excavation sites and quarries); Drewes, 2003:138 (Germany, Italy: miscellaneous locality records); Flügel, 2003:9 (Germany: Hessen: Knüllwald); Generani, Pagliano, Scaramozzino, and Strumia, 2003:64 (Italy: Arcipelago Toscano); Haeseler, 2003:339 (Germany: Niedersachsen: Harriersand Island near Bremen); Józán, 2003:228 (Hungary: Látrányi Puszta Nature Conservation Area); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:66 (Germany: in catalog of wasps and bees of Bayern); Reemer, 2003:62 (Netherlands: Gelderland: Zaltbommel area); Schmid-Egger, 2003:753 (Italy: Sicilia: Linguaglossa); von der Heide and Metscher, 2003:102 (Germany: Niedersachsen: Emsland area); Wiśniowski *in* Dylewska and Wiśniowski, 2003:177 (Poland: Ojców National Park); Deván, 2004:147 (western Slovakia); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:262 (Germany: in checklist of Sphecidae of Nordrhein-Westfalen); Schneider and Carrières, 2004:98 (Luxemburg: Bon-Pays Region); Shkuratov, 2004a:75 (Russia: Rostov Oblast'); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:355 (in catalog of Polish Crabronidae); Tischendorf and Frommer, 2004:68 (Germany: Hessen: near Lorch); van Achterberg and Peeters, 2004:32 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:51 and 62 (in checklist of Polish Sphecidae); G. 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Frommer, 2014:27 (Germany: Hessen: Lorch); Hellqvist, Abenius, and Norén, 2014:90 (in catalog of Ampulicidae, Sphecidae, and Crabronidae of Sweden, by provinces); Mokrousov and Vafin, 2014:55 (Russia: Republic of Tatarstan); Protsenko, Fateryga, and Ivanov, 2014:29 (Crimea: Krasnoles'ye in Simferopol' District and Karasevka in Belogorsk District); Yıldırım, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); P. Rosa and Pagliano, 2015:101 (Italy: Lombardia and Piemonte: Parco del Ticino); Schedl, 2015:948 (Austria: Tirol: Innsbruck: Botanical Garden); Simon, Lorthiois, and Macé, 2015:54 (France: alluvial terraces in

Eure Department: Courcelles-sur-Seine and Seine-Maritime Department: Anneville-Ambourville); Mokrousov and Popov, 2016:567 (Russia: Krasnodarskiy Krai); Saure, 2016a:8 (Germany: Brandenburg: Uckermark District: dry slopes near Altgalow-Stützkow), 2016b:49 (Germany: Sachsen-Anhalt: fruit orchards); Stolle and Saure, 2016:923 (Germany: in list of Sphecidae s.l. of Sachsen-Anhalt); Wiśniowski, 2016:128 (Poland: Ojców National Park); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:13 (Turkey: Tunceli: Mazgirt: Meşelik); Magdalou, 2017:15 (France: Pyrénées-Orientales: Réserves Naturelles Catalanes: Forêt de la Massane, Vallée d'Eyne); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:223 (in catalog of Bembicinae of Russia, as *laticinctus laticinctus*); Shorenko, 2017:79 (in Crimea collected in July).

As *Gorytes quinquefasciatus*: Schmidt, 1966: (Germany: Baden-Württemberg: Tübingen), corrected to *Gorytes laticinctus* by Westrich, 1980:629.

### **ssp. *koreanus* Handlirsch**

*Gorytes koreanus* Handlirsch, 1888b:471, ♀ (as *Koreanus*, incorrect original capitalization). Holotype: ♀, Korea: no specific locality (Kraków). – Dalla Torre, 1897:543 (in catalog of world Sphecidae); Gussakovskij, 1932:31 (description of ♂); Russia: Primorskiy Krai: Sedanka); Maidl and Klima, 1939:67 (in catalog of world Astatinae and Bembicinae); Tsuneki, 1963a:3, 5 (in key to Gorytini of Japan and Korea), 13 (in revision of Gorytini of Japan and Korea, Japan: Hokkaido), 1965c:33 (in key to Bembicinae of Japan and Korea), 1969d:15 (nesting behavior), 1974a:361 (Korea); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Kazenas, 1980e:83 (Primorskiy Krai and Kunashir Island); Tsuneki, 1982b:18 (known from Korea); Paik, 1985:202 (in list of Sphecidae of Korea); Tsuneki, 1991:199 (Korea); Kinota, Haneda, and Tano, 2005:31 (Japan: Hokkaido); Terayama, 2006:7, 9, 13 (in key to Japanese Bembicinae). – As *Gorytes laticinctus koreanus*: Nemkov, 1989:68, 70 (in key to *Gorytes* of Siberia and Russian Far East), 71 (new status), 1990b:682, 685 (in key to *Gorytes* of former USSR); Nemkov in Nemkov, Kazenas, Budrys, et Antropov, 1995:461, 464 (in key to Sphecidae of Russian Far East); Nemkov, 2005a:159 (Russia: Sakhalin Island), 2007b:75 (Russia: Kuril Islands: Kunashir Island), 2009b:135 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia), 2009c:238 (Russia: Primorskiy Krai: Lazovsky Nature Reserve), 2012c:446 (in catalog of Crabronidae of Russian Far East); J.-K. Kim, 2014:422 (in catalog of Sphecidae s.l. of Korean Peninsula); Nemkov, 2017b:222 (in catalog of Bembicinae of Russia).

*Gorytes radoszkowskyi* Handlirsch, 1888b:470, ♀ (as *Radoszkowskyi*, incorrect original capitalization). Holotype: ♀, Korea: no specific locality (Kraków). Synonymized with *Gorytes laticinctus koreanus* by Nemkov, 1989:71. – Dalla Torre, 1897:553 (in catalog of world Sphecidae); Maidl and Klima, 1939:71 (in catalog of world Astatinae and Bembicinae); Tsuneki, 1963a:3 (in key to Gorytini of Japan and Korea), 15 (in revision of Gorytini of Japan and Korea, Korea), 1965c:31 (in key to Bembicinae of Japan and Korea); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Tsuneki, 1982b:18 (known from Korea); Paik, 1985:202 (in list of Sphecidae of Korea).

### **37. *limbellus* R. Bohart**

*Gorytes limbellus* R. Bohart, 1971:447, ♀, ♂. Holotype: ♂, USA: California: Napa County: Samuel Springs, now bottom of Lake Beryessa (UCD). – R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1694 (in catalog of North American Hymenoptera).

### **38. *maculicornis* (F. Morawitz)**

*Hoplisis maculicornis* F. Morawitz, 1889a:149, ♀. Lectotype: ♀, China: Gansu: Sigu (ZIN), designated by Nemkov, 1889:72. – As *Gorytes maculicornis*: Handlirsch, 1895:922 (new combination, original description copied); Dalla Torre, 1897:545 (in catalog of world Sphecidae); Maidl and Klima, 1939:94 (in catalog of world Astatinae and Bembicinae); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Nemkov, 1989:68, 70 (in key to *Gorytes* of Siberia and Russian Far East), 1990b:681, 685 (in key to *Gorytes* of former USSR), 1992b:250 (Russia: Far East: Khingan Nature Reserve); Nemkov in Nemkov, Kazenas, Budrys, et Antropov, 1995:462, 464 (in key to Sphecidae of Russian Far East); Haneda, Nosaka, Tano, Kurokawa, and Murota, 2004:38 (Japan: Gifu Prefecture); Suda, 2004:46 (Japan: Yamanashi Prefecture); Haneda, Nozaka, Tano, Kurokawa, and Murota, 2005:54 (Japan:

Gifu Prefecture); Kinota, Haneda, and Tano, 2005:31 (Japan: Hokkaido); nec Yildirim and Ljubomirov, 2005:1792 (= *Gorytes quinquefasciatus*); Hua, 2006:280 (in list of Chinese insects, geographic distribution); Nemkov, 2006b:169 (Russia: Primorskiy Kray: Kedrovaya Pad' Nature Reserve); Terayama, 2006:8, 10 (in key to Japanese Bembicinae); Nemkov, 2008b:24 (in catalog of Crabronidae of Asiatic Russia), 2009b:136 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia), 2009c:238 (Russia: Primorskiy Kray: Lazovsky Nature Reserve), 2012c:446 (in catalog of Crabronidae of Russian Far East); J.-K. Kim, 2014:422 (in catalog of Sphecidae s.l. of Korean Peninsula); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:223 (in catalog of Bembicinae of Russia).

*Gorytes eous* Gussakovskij, 1932:30, ♀, ♂. Lectotype: ♀, Russia: Primorskiy Kray: Sedanka (Stockholm), designated by Nemkov, 1889:72. Synonymized with *Gorytes maculicornis* by Nemkov, 1989:72. – Maidl and Klima, 1939:94 (in catalog of world Astatinae and Bembicinae); nec Yasumatsu, 1942c:110 (= *Gorytes mongolicus*); Tsuneki, 1963a:4, 5 (in key to Gorytini of Japan and Korea), 14 (in revision of Gorytini of Japan and Korea; Korea; Japan: Honshu, Hokkaido), 1965c:31, 32 (in key to Bembicinae of Japan and Korea), 1967g:44 (western Japan: Hyonosen Mountain); Haneda, 1968a:46 (Japan), 1968b:56 (Japan: Nagano Prefecture: Ina District), 1969:70 (Japan: Yamana-nashi Prefecture); Itami, 1969:47 (Japan: Niigata Prefecture); Haneda, 1970:13 (Japan: Akita Prefecture); Tsuneki, 1970b:9 (central Japan); Suda, 1973:123 (Japan: Yamanashi Prefecture); Nambu, 1975b:71 (Japan: Saitama Prefecture); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Paik, 1985:202 (in list of Sphecidae of Korea); Miyatake, 1996:103 (specimens in Hiroshi Aoki collection); Kazenas, 1980e:83 (Russia: Far East); Tsuneki, 1982b:18 (known from Korea).

As *Gorytes tricinctus* Yano, 1932:280 and 1950:1470, corrected to *Gorytes eous* by Tsuneki, 1963a:14.

*Gorytes harbinensis* Tsuneki, 1967e:5, ♂. Holotype: ♂, China: Harbin (RMNH). Synonymized with *Gorytes maculicornis* by Nemkov, 2016a:6. – R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Nemkov, 1989:70 (in key to *Gorytes* of Siberia and Russian Far East), 1990b:686 (in key to *Gorytes* of former USSR); Gorobchishin, 1991:50 (Russia: Maritime Province: Lazov Nature Reserve); Hua, 2006:280 (in list of Chinese insects, geographic distribution); Nemkov, 2014c:287 (recorded from Asiatic Russia by Gorobchishin, 1991:50).

### 39. *mcateei* Krombein and R. Bohart

*Gorytes mcateei* Krombein and R. Bohart in Krombein, 1962a:15, ♀. Holotype: ♀, USA: Maryland: Plummers Island (USNM). – Krombein, 1963f:277 (Maryland: Plummers Island near Washington, D.C.); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1694 (in catalog of North American Hymenoptera).

### 40. *melpomene* (Arnold)

*Arpactus melpomene* Arnold, 1936:9, ♀. Holotype: ♀, Zimbabwe: Balla-Balla (SAM). – As *Gorytes melpomene*: Maidl and Klima, 1939:54 (new combination, in catalog of world Astatinae and Bembicinae); Bohart and Menke, 1976:501 (new combination, in checklist of world Sphecidae).

### 41. *montanus* Cameron

*Gorytes montanus* Cameron, 1890a:77, ♂. Holotype or syntypes: ♂, Mexico: Guerrero: Omilteme (BMNH). – Ashmead, 1890:32 (in checklist of Hymenoptera of Colorado); Handlirsch, 1895:926 (original description translated into German); Dalla Torre, 1897:546 (in catalog of world Sphecidae); Maidl and Klima, 1939:112 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Nemkov and Pulawski, 2009:9 (reverted to *Gorytes*, in cladistic analysis of Gorytina). – As *Pseudoplisus montanus*: Ashmead, 1899:328 (new combination, in checklist of North American Crabronidae); R. Bohart, 1969b:393 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Tschuch and Brothers, 2000:324 (stridulatory organs absent on terga IV and V); Amarante, 2002:17 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae).



**42. natalensis F. Smith**

*Gorytes natalensis* F. Smith, 1856:365, ♀ (as *Natalensis*, incorrect original capitalization). Holotype or syntypes: ♀, South Africa: KwaZulu-Natal: Port Natal, now Durban (BMNH). – Handlirsch, 1888b:515 (revision), 1895:933 (reference to Staveley, 1860); Dalla Torre, 1897:548 (in catalog of world Sphecidae); Bingham, 1902:212 (South Africa: Durban); Maidl and Klima, 1939:55 (in catalog of world Astatinae and Bembicinae); van Vondel, 1995:25 (specimens from Malawi in Natuurmuseum Rotterdam); Nemkov and Pulawski, 2009:9 (reverted to *Gorytes*, in cladistic analysis of Gorytina). – **As *Megalomma natalensis***: Gribodo, 1895:350 (Mozambique: Howick, additional description). – **As *Arpactus natalensis***: Arnold, 1929a:233 (revision), 1930:18 (in checklist of Afrotropical Sphecidae). – **As *Pseudoplisus natalensis***: R. Bohart and Menke, 1976:503 (new combination, in checklist of world Sphecidae); Callan, 1991d:1611 (nesting habits); Tschuch and Brothers, 2000:322 (stridulatory organs on terga IV and V laterally); Evans and O'Neil, 2007:57 (summary of information on nesting habits).

*Lestiphorus africanus* Radoszkowski, 1881:207, ♀. Holotype or syntypes: ♀, Angola: no specific locality (Kraków). Synonymized with *Gorytes natalensis* by Handlirsch, 1888b:515.

**43. neglectus Handlirsch**

*Gorytes neglectus* Handlirsch, 1895:916, ♀, ♂. Syntypes: Siberia between Irkutsk and mouth of Ussuri River (NHMW or Kraków?), see Nemkov, 1989:72. – Dalla Torre, 1897:548 (in catalog of world Sphecidae); Maidl and Klima, 1939:69 (in catalog of world Astatinae and Bembicinae); Hellén 1955b:65 (Finland, redescription), 1956:45 (recorded from Finland); Valkeila, 1959a:182 (Finland: Kuusamo); Lomholdt, 1975c:198 (in Sphecid Fauna of Fennoscandia and Denmark); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); van der Zanden, 1977b:39 (Finland: Kuusamo); Pulawski, 1978:203 (in key to Sphecidae of European part of former USSR); Nemkov, 1986:108 (Russia: Siberia: Irkutsk Oblast'); Vikberg, 1986:78 (Finland); Nemkov, 1989:69, 71 (in key to *Gorytes* of Siberia and Russian Far East), 1990b:682, 684 (in key to *Gorytes* of former USSR); Dollfuss, 1991:200 (in key to Sphecidae of North and Central Europe); Nemkov in Nemkov, Kazenas, Budrys, et Antropov, 1995:463, 464 (in key to Sphecidae of Russian Far East); Mokrousov, 2000a:24 (Russia: Nizhniy Novgorod Oblast': village Staraya Pustyn' in Arzamas District), 2000b:31 (Russia: Nizhniy Novgorod Oblast'); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia); Schmid-Egger, 2002b:178 (in revision of western Palearctic *Gorytes*); Nemkov, 2005a:159 (Russia: Sakhalin Island); Takahashi, 2006:4 (prey: *Bathysmatophorus japonicus* Ishishara and *B. shabliovskii* Kusnetzov, cicadellids); Terayama, 2006:8, 9, 10 (in key to Japanese Bembicinae); Nemkov, 2008b:24 (in catalog of Crabronidae of Asiatic Russia); Humala and Polevoi, 2009:63 (Russia: Republic of Karelia east of Lake Onega: River Koloda); Nemkov, 2009b:136 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia), 2009c:238 (Russia: Primorskiy Krai: Lazovsky Nature Reserve); Mokrousov, 2010a:61 (Russia: Nizhniy Novgorod Oblast': no specific localities); Rudoiskatel', 2010:151 (Russia: central Ural Mountains); Baghirov, 2011b:141 (Russia: recorded from Altay by Nemkov in Nemkov, Kazenas, Budrys, and Antropov, 1995); Nemkov, 2012c:446 (in catalog of Crabronidae of Russian Far East); Danilov and Odintseva, 2013:334 (Russia: Western Siberia: 65 km north-northeast of Tobol'sk at 58°45'N 68°74'E); Shlyakhtenok, 2013:233 (in annotated catalog of aculeate wasps of Belarus'); J.-K. Kim, 2014:422 (in catalog of Sphecidae s.l. of Korean Peninsula); Mokrousov and Egorov, 2015:424 (Russia: Republic of Mordovia: Nature State Reserve Priskuskiy); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:13 (first record from Turkey: Rize: Çamlıhemşin: Halil Şişman); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:223 (in catalog of Bembicinae of Russia).

*Gorytes hakotozanus* Tsuneki, 1963a:17, ♀, ♂. Holotype: ♀, North Korea: Nansetsu-rei (originally K. Tsuneki coll., now Hyogo Mus.). Synonymized with *Gorytes neglectus* by Nemkov, 1989:72. – Tsuneki, 1963a:4, 6 (in key to Gorytina of Japan and Korea), 1965c:32, 33 (in key to Bembicinae of Japan and Korea); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Kazenas, 1980e:83 (Russia: Primorskiy Krai); Tsuneki, 1982b:18 (known from Korea); Paik, 1985:202 (in list of Sphecidae of Korea); Tano, 1994a:8 and 1995:43 (holotype in K. Tsuneki coll.); Hashimoto and Nakanishi, 1997:24 (holotype transferred to Hyogo Mus.).

**44. nevadensis W. Fox**

*Gorytes nevadensis* W. Fox, 1892:150, ♀, ♂. Lectotype: ♀, USA: Nevada: no specific locality (ANSP), designated by Cresson, 1928:48. – Handlirsch, 1895:918 (original description translated into German); W. Fox, 1896a:537 (Nevada); Dalla Torre, 1897:548 (in catalog of world Sphecidae); Maidl and Klima, 1939:102 (in catalog of world Astatinae and Bembicinae); Krombein *in* Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1694 (in catalog of North American Hymenoptera). – **As *Hoplisis nevadensis***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae).

**45. nigricomus (R. Bohart)**

*Pseudoplisis nigricomus* R. Bohart, 1969b:398, ♀, ♂. Holotype: ♂, USA: Arizona: Santa Cruz County: Madera Canyon in Santa Rita Mountains (UCD). – R. Bohart, 1969b:394 (in key to North American *Pseudoplisis*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1695 (in catalog of North American Hymenoptera); Amarante, 2002:17 (in catalog of Neotropical Crabronidae). – **As *Gorytes nigricomus***: Nemkov and Pulawski, 2009:7 (new combination, in cladistic analysis of Gorytina).

**46. nigrifacies (Mocsáry)**

*Hoplisis nigrifacies* Mocsáry, 1879:134, ♀, ♂. Syntypes: Hungary: Budapest (TMB). – Haris, 2016:15 (in list of species described by S. Mocsáry from Carpathian Basin). – **As *Gorytes nigrifacies***: Handlirsch, 1888b:494 (new combination, in revision of world Bembicinae), 1895:921 (Spain: Barcelona; variation); Dalla Torre, 1897:549 (in catalog of world Sphecidae); Mocsáry, 1897:82 (Hungary except Grebenáz is in today's Romania); Antiga and Boffill, 1904:16 (Spain: Cataluña Province); Mercet, 1906a:136, 139 (in key to Spanish *Gorytes*); Schmiedeknecht, 1907:220, 221 (in key to Hymenoptera of Central Europe), 1930:682, 683 (in key to Hymenoptera of North and Central Europe); Maidl and Klima, 1939:94 (in catalog of world Astatinae and Bembicinae); Giner Marí, 1943a:181 (in Sphecid Fauna of Spain); Šnoflák *in* Zavadil and Šnoflák, 1948:70 (in key to Sphecidae of Czechoslovakia, not yet found in Czechoslovakia); de Beaumont, 1953f:182 (in revision of western Palearctic *Gorytes*); Bajári, 1957a:106, 109 (in key to Hungarian Sphecidae); Balthasar, 1958:337 (first record from Slovakia: Kamenice n. Hr.); Ceballos, 1959:229 (in supplement to catalog of Spanish Sphecidae); de Beaumont and Bytinski-Salz, 1959:101 (Israel); Balthasar and Hrubant, 1961:15 (Slovakia: Kamenice n. Hr.); de Beaumont, 1962b:24 (Spain); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); Benedek, 1968:73 (Hungary, visiting flowers of *Pastinaca sativa* L.); Ceballos, 1956:383 (in catalog of Hymenoptera of Spain); Benedek, 1969a:83 (Hungary; marshy meadow); de Beaumont, 1965a:36 (Greece), 1967a:313 (Turkey), 1969:85 (Turkey); Benedek, 1969a:83 (Hungary; marshy meadow); Suárez, 1969:29 (Spain: Almería Province); Benedek, 1970:97 (Hungary: Tapolca); Balthasar, 1972:306 (in Sphecid Fauna of Czechoslovakia); Diniz, 1973:45 (Portugal: Caparica, Carcavelos, Estoril, Lisboa, Montemor-o-Velho); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Pulawski, 1978:202, 203 (in key to Sphecidae of European part of former USSR); Gayubo, 1982b:40 (Spain: Ávila, Cáceres, and Salamanca provinces), 1882e:107 (Spain: Cádiz Province); Gayubo and Tormos, 1984:20 (Spain: Valencia); Scobiola-Palade, 1985:96 (Romania: Józán, 1986:373 (Hungary: Kiskunság National Park); Dollfuss, 1987:24 (first record from Austria: Bisamberg near Wien), 1988:19 (Austria: Bisamberg); Dollfuss, 1989:9 (type material in NHMW), 1991:200 (in key to Sphecidae of North and Central Europe); Gayubo, Asís, and Tormos, 1990b:78 (Spain: Cáceres Province); Nemkov, 1990b:680, 684 (in key to *Gorytes* of former USSR), 688 (Russia: Daghestan); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:195 (in Sphecid Fauna of Western Europe); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:109 (Greece); Schmid-Egger, 2002b:179 (in revision of western Palearctic *Gorytes*); Shorenko, 2003:97 (Ukraine: Crimea); Gayubo and Özbek, 2005:17 (Turkey: Erzurum: İlyca, Oltu, Sarýsaz); Jacobs, 2005a:445 (Bulgaria: Topolovgrad); Vepřek and Straka, 2007:208 (in catalog of Sphecidae of Czech Republic and Slovakia, known from Slovakia only); Ljubomirov and Yildirim, 2008:80 (in catalog of Crabronidae of Turkey); Shorenko, 2009:368 (in list of Sphecidae s.l. of Crimea); Bitsch, 2010:112 (in supplement to vol. II of Faune de

France, 1997: recent records from Bulgaria and Ukraine reported; France: first records from Aude: Laure-Minervois, Aveyron: Millau, Tarn: massif de Nore; characteristics of males from Tarn); van der Smissen, 2010b:384 (France: Ardèche: Saint-Maurice-d'Ibie, Saint-Thomé); Józán, 2011:183 (in checklist of Sphecidae s.l. of Hungary); Protsenko, Fateryga, and Ivanov, 2014:31 (Crimea); Yıldırım, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); Gülmez and Can, 2017:82 (Turkey: Erzincan Province); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:223 (in catalog of Bembicinae of Russia); Shoreenko, 2017:79 (in Crimea collected in May through July).

#### 47. *nyasicus* (R. Turner)

*Arpactus nyasicus* R. Turner, 1915d:288, ♂. Holotype or syntypes: ♂, Malawi: SW Lake Chilwa (BMNH). – Arnold, 1929a:236 (original description copied), 1930:18 (in checklist of Afrotropical Sphecidae). – As *Gorytes nyasicus*: Maidl and Klima, 1939:88 (new combination, in catalog of world Astatinae and Bembicinae). – As *Pseudoplisus nyasicus*: R. Bohart and Menke, 1976:503 (new combination, in checklist of world Sphecidae).

#### 48. *ocellatus* (R. Bohart)

*Pseudoplisus ocellatus* R. Bohart, 1969b:401, ♀, ♂. Holotype: ♂, USA: California: Inyo County: Big Pine (UCD). – R. Bohart, 1969b:393 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1695 (in catalog of North American Hymenoptera); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae). – As *Gorytes ocellatus*: Nemkov and Pulawski, 2009:7 (new combination, in cladistic analysis of Gorytina).

#### 49. *pieli* Yasumatsu

*Gorytesieli* Yasumatsu, 1943:15, ♀. Holotype: ♀, China: Inner Mongolia: Chahar: Yangkianping (Heude Mus., Shanghai). – R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Nemkov, 1989:72 (first record from Russia: Primorskiy Krai and Chita Oblast'), 1989:69, 70 (in key to *Gorytes* of Siberia and Russian Far East), 1990b:683 (in key to *Gorytes* of former USSR); Nemkov in Nemkov, Kazenas, Budrys, et Antropov, 1995:463, 464 (in key to Sphecidae of Russian Far East); Hua, 2006:280 (in list of Chinese insects, geographic distribution); Nemkov, 2008b:24 (in catalog of Crabronidae of Asiatic Russia), 2009b:136 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia), 2012c:446 (in catalog of Crabronidae of Russian Far East); J.-K. Kim, 2014:422 (in catalog of Sphecidae s.l. of Korean Peninsula); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:223 (in catalog of Bembicinae of Russia).

*Gorytes takeuchii* Tsuneki, 1963a:18, ♂. Holotype: ♂, North Korea: Kazan (originally Kyoto Mus., now Hyogo Mus.). Synonymized with *Gorytesieli* by Nemkov, 1989:72. – Tsuneki, 1963a:5 (in key to Gorytini of Japan and Korea), 1965c:32 (in key to Bembicinae of Japan and Korea); R. Bohart and Menke, 1976:502 (in checklist of world Sphecidae); Tsuneki, 1982b:18 (known from Korea); Paik, 1985:202 (in list of Sphecidae of Korea); Tano, 1995:43 (holotype in K. Tsuneki collection); Hashimoto and Nakanishi, 1997:23 (holotype transferred to Hyogo Mus.).

#### 50. *planifrons* (Wesmael)

*Hoplisis planifrons* Wesmael, 1852:100, ♀. Holotype: ♀, Belgium: Bruxelles area (Bruxelles). – Kirchner, 1867:220 (in catalog of European Hymenoptera); Dours, 1874:150 (in catalog of Hymenoptera of France); Mercet, 1906a:119 (description of ♀), 139 (in key to Spanish *Gorytes*); de Gaulle, 1908:120 (in catalog of French Hymenoptera); Bondroit, 1932:32 (Belgium: recorded from Bruxelles area by Wesmael); Maneval, 1936:22 (France: Haute-Loire: Puy), 1939:57 (nesting, prey, description of larva); Blüthgen, 1949:89 (Germany: Oberbayern: Ellmau). – As *Gorytes planifrons*: F. Smith, 1856:362 (new combination, in catalog of Hymenoptera in British Museum); Kohl, 1883e:668 (Switzerland); Handlirsch, 1888b:466 (new combination, in revision of world Bembicinae); Dalla Torre, 1897:550 (in catalog of world Sphecidae); Mocsáry, 1897:82 (Kingdom of Hungary, localities are in today's Croatia and Romania); Antiga and Bofill, 1904:16 (Spain: Cataluña Province); Mercet, 1906a:133 (in key to Spanish

*Gorytes*); Schmiedeknecht, 1907:219 (in key to Hymenoptera of Central Europe); Dubois, 1921c:202, 294 (in key to Belgian Sphecidae); Berland, 1925d:88 (in Sphecidae Fauna of France); Schmiedeknecht, 1930:681, 68 (in key to Hymenoptera of North and Central Europe); Crèvecoeur and Maréchal, 1936:253 (in catalog of Belgian Hymenoptera); Maidl and Klima, 1939:69 (in catalog of world Astatinae and Bembicinae); Giner Marí, 1943a:178 (in Sphecidae Fauna of Spain); de Beaumont, 1945:475 (Switzerland; diagnostic characters); Šnoflák in Zavadil and Šnoflák, 1948:73, 74 (in key to Sphecidae of Czechoslovakia, not yet found in Czechoslovakia); de Beaumont, 1953f:172 (in revision of western Palearctic *Gorytes*), 1954e:89 (Italy); Grandi, 1954:233 (Italy); Ceballos, 1956:383 (in catalog of Hymenoptera of Spain); Evans and Lin, 1956b:45 (description of larva by Maneval, 1939); Bajári, 1957a:106, 109 (in key to Hungarian Sphecidae); Ceballos, 1959:229 (in supplement to catalog of Spanish Sphecidae); Wolf, 1959b:30 (known from Germany, but not from Nassau); Noskiewicz and Puławski, 1960:91, 93 (in key to Polish Sphecidae, not yet found in Poland); de Beaumont, 1964c:48 (in Sphecidae Fauna of Switzerland); Evans, 1966d:67 (synopsis of behavioral observations by Maneval, 1939); Gauss, 1967:552 (Germany: Baden-Württemberg); Stritt, 1968:110 (Germany: Baden-Württemberg); Schmidt, 1969:162 (Germany: Rhein-Main area: Marburg); Oehlke, 1970:689 (occurrence in Democratic Germany questionable); Balthasar, 1972:315 (in Sphecidae Fauna of Czechoslovakia); Scobiola Palade, 1972b:252 (Romania); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Pulawski, 1978:202, 203 (in key to Sphecidae of European part of former USSR); Schmidt, 1979:348 (Germany); Gayubo, 1982b:41 (Spain: Salamanca: Aldeacipreste, Colmenar de Montemayor, Peñacaballera); Westrich and Schmidt, 1985a:117 (Germany: Baden-Württemberg); Westrich and Schmidt, 1985b:111 (Germany: endangered in Baden-Württemberg); Piek and Spanjer, 1986:184 (in list of Sphecidae with known prey); Steiner, 1986:109 (references to publications on nesting habits); Jacobs and Oehlke, 1990:122 and 212 (occurrence in Democratic Germany questionable); Nemkov, 1990b:682, 685 (in key to *Gorytes* of former USSR); Pagliano, 1990:70 (in catalog of Italian Sphecidae); Day, 1991:xv (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:200 (in key to Sphecidae of North and Central Europe); Gusenleitner, 1991:647 (Austria: Kärnten: Steuerberg); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Pagliano, 1992:37, 39 (in key to Italian Bembicinae); Józán, 1993:415 (Hungary: Bükk National Park); Negrisoló in Minelli, Ruffo, and La Posta, 1995b:4 (in catalog of Italian fauna); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: endangered); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:195 (in Sphecidae Fauna of Western Europe); Pagliano and Alma, 1997:178 (known prey listed); Schmidt and Schmid-Egger, 1997:15 (in checklist of German Sphecidae); Pauly, 1999:111 (in catalog of Belgian aculeates); Blösch, 2000:383 (in Sphecidae Fauna of Germany); Ljubomirov, 2000:12 (Bulgaria, specimens in N. Nedelkov collection); Schmid-Egger, 2000b:275, 279 (Germany: Baden-Württemberg: shores of Rhine River); Ohl et al., 2001:139 (distribution in Germany by provinces); Salzmann-Wandeler and Rezbanyai-Reser, 2001:157 (Switzerland: Tessin Canton: Meride area); Martínez de Murguía, Vázquez, and Nieves Aldrey, 2002:202 (Spain: Navarra: Artikutza Forest Reserve at 43°09'28"–43°14'52"N 0°1'45'35"–01°49'30"E); Reder, 2002:1453 (Germany: first record from Rheinland-Pfalz: Monsheim); Schmid-Egger, 2002b:180 (in revision of western Palearctic *Gorytes*); Drewes, 2003:138 (Germany: Bayern: Erlangen); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:66 (in catalog of wasps and bees of Bayern, Germany); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:195 (Germany: Bayern: no longer endangered); Deván, 2004:147 (western Slovakia); Zettel, 2004:5 (photograph of digging female), 7 (Austria: Niederösterreich: Gumpoldskirchen); Gusenleitner, 2005:1204 (Austria: Burgenland: Eisenstadt); Jacobs, 2005a:445 (Bulgaria: Sandanski); Quest and Kuhlmann, 2005:33 (Germany: Bayern: Bayerischer Wald National Park); Pagliano and Negrisoló, 2005:143 (in Sphecidae Fauna of Italy); Reder, 2005:949 (Germany: Rheinland-Pfalz: Monsheim); Jacobs, 2007:173, 175 (in key to Crabronidae of Germany); Tischendorf, 2007:34 (distribution in Germany; nest parasite: *Nysson niger* Chevrier; prey: *Issus coleoptratus* (Fabricius), an issid; male diagnostic characters); Gayubo, González, Tormos, and Asís, 2008:137 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); U. Frommer, 2009a:27 (Germany: in checklist of Sphecidae of Hessen), 35 (Germany: Hessen: Marburg an der Lahn); Józán, 2009:166 (Croatia: Sveta Jelena); Bitsch, 2010:112 (in supplement to vol. II of Faune de France, 1997: recent records from Bulgaria and Germany);

diagnostic characters in male flagellum; France: first records from Loiret: Ardon, also Haute-Garonne: Toulouse et Saint-Lys); Schmid-Egger, 2010a:16 (in red list of Aculeata of Germany: very rare); Bogusch, Straka, Macek, Dvořák, Vepřek, and Říha, 2011:94 (Czech Republic: Praha-Nusle); Gogala, 2011:27 (Slovenia); Józán, 2011:183 (in checklist of Sphecidae s.l. of Hungary); Tischendorf, Frommer, Flügel et al., 2011:137 (Germany: Hessen: not endangered); Boillat, 2012:227 (Switzerland: in checklist of insects of Canton de Genève); Nemkov, 2012b:120 (review of known prey); U. Frommer, 2014:27 (Germany: Hessen: Lorch); Nemkov, 2017:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae).

### 51. *pleuripunctatus* (A. Costa)

*Hoplisis pleuripunctatus* A. Costa, 1859:31, ♀, ♂. Lectotype: ♂, Italy: Lecce (NAPOLI), designated by de Beaumont, 1953i:4. – A. Costa, 1867c:62 (in revision of Italian Sphecidae); Kirchner, 1867:220 (in catalog of European Hymenoptera); A. Costa, 1869b:78 (in revision of Italian Sphecidae); Kohl, 1883e:667 (Switzerland); Radoszkowski, 1892:582 (male genitalia); De Stefani Perez, 1895:227 (in catalog of Sicilian Hymenoptera); de Gaulle, 1908:120 (in catalog of French Hymenoptera); Coulon, 1925:119 (Elbeuf Museum, origin unknown). – **As *Gorytes pleuripunctatus***: Handlirsch, 1888b:482 (new combination, in revision of world Bembicinae); Kohl, 1888b:728 (Austria: Tirol, now Italy: Alto Adige); Gasperini, 1889:70 (Dalmatia: Spalato, now Croatia: Split); Radoszkowski, 1891:582 (male genitalia); Kohl, 1893a:27 (Austria: Niederösterreich: Piesting); Schletterer, 1894:32 (Istria Peninsula, now part of Croatia, Slovenia, and Italy); Handlirsch, 1895:921 (additional bibliography); Schmiedeknecht, 1896:149 (Algeria: Oran Province); Dalla Torre, 1897:550 (in catalog of world Sphecidae); Mocsáry, 1897:82 (Kingdom of Hungary, some localities are in today's Croatia and Romania); Handlirsch, 1899b:488 (Algeria); de Cobelli, 1903:113 (Italy: Trentino: Faver in Val di Cembra); Antiga and Bofill, 1904:16 (Spain: Cataluña Province); W. Schulz, 1904b:97 (Azerbaijan: Talysh Mountains); Mercet, 1906a:134, 139 (in key to Spanish *Gorytes*); Dusmet y Alonso, 1906:7 (Spain); Schmiedeknecht, 1907:219, 221 (in key to Hymenoptera of Central Europe); nec Dittrich, 1911b:23 (= *Argogorytes fargeii*); Graeffe, 1911:46 (Italy: Trieste area); Morice, 1911:112 (Algeria: Bône, Constantine); Dusmet, 1915:88 (Spain: Aragón); Maidl, 1922:71 (Croatia); Berland, 1925d:89 (in Sphecid Fauna of France); Schmiedeknecht, 1930:681, 683 (in key to Hymenoptera of North and Central Europe); Bernard, 1933:62 (France: Drôme: Dieulefit); Grandi, 1934:59 (prey: *Dictyophara europaea* Linnaeus, a fulgorid), 129 (Italy: Toscana: San Vincenzo); Zavadil, 1934:188 (Slovakia); Bernard, 1935:63 (France: Var: Fréjus area); Zavadil, Šusterka, and Ba'ta, 1937:191 (in catalog of Sphecidae of Czechoslovakia); Maidl and Klima, 1939:95 (in catalog of world Astatinae and Bembicinae); Zavadil, 1939:121 (Czech Republic: Morava: Čejč, Kobylí; Slovakia: Filakovo); Dvornar-Zapolskiy, 1940:304 (Russia: Kursk Oblast'); Guiglia, 1941c:164 (Italy: Calabria: Grande Sila); Giner Marí, 1943a:179 (in Sphecid Fauna of Spain); Guiglia, 1944b:20 (Italy); Balthasar, 1948:141 (Slovakia: Kovačov); Šnoflák in Zavadil and Šnoflák, 1948:69, 71 (in key to Sphecidae of Czechoslovakia); de Beaumont, 1950f:402 (Algeria), 1951g:312 (Italy), 1953f:184 (in revision of western Palearctic *Gorytes*), 1953g:113 (Morocco); Móczár, 1953:310 (Hungary); Balthasar, 1954b:270 (Palestine: Alonim near Haifa); Vogrin, 1955:35 (Yugoslavia); Ceballos, 1956:383 (in catalog of Hymenoptera of Spain); Bajári, 1957a:107, 109 (in key to Hungarian Sphecidae); Nouvel and Ribaut, 1958:11 (France: Pyrénées-Orientales: Banyuls-sur-Mer); Pulawski, 1958a:167 (Bulgaria: Kurilo); de Beaumont, 1959a:20 (Italy); de Beaumont and Bytinski-Salz, 1959:101 (Israel); Noskiewicz and Puławski, 1960:92, 94 (in key to Polish Sphecidae, not yet found in Poland); Grandi, 1961:112 (nesting habits); de Beaumont, 1964c:49 (in Sphecid Fauna of Switzerland), 1965a:36 (Greece), 1967a:314 (Turkey); J. Heinrich, 1967:71 (Germany: Bayern: Marktheidenfeld); de Beaumont, 1969:84 (Turkey); Benedek, 1969a:83 (Hungary: marshy meadow); Oehlke, 1970:689 (not found in Democratic Germany); Balthasar, 1972:309 (in Sphecid Fauna of Czechoslovakia); Scobiola-Palade, 1972:149 (Romania); Diniz, 1973:45 (Portugal: Coimbra, Portalagre); Erlandsson, 1974:65 (Yugoslavia); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Kazenas, 1978b:75, 77 (in key to Sphecidae of Kazakhstan and Central Asia); Marion, 1978:87 (France: Nièvre Department); Pulawski, 1978:202, 203 (in key to Sphecidae of European part of former USSR); Benedek, 1979:230 (Hungary: Bakony Mountains);

Gayubo, 1982b:41 (Spain: Ávila and Salamanca provinces); Dollfuss, 1983b:23 (Austria: Niederösterreich); Gayubo, 1983e:234 (Spain: Salamanca Province); Józán, 1985b:61 (Hungary S Lake Balaton), 81 (floral records), 84 (ecological and zoogeographic characteristics); Scobiola-Palade, 1985:96 (Romania: delta of Danube); Gayubo, 1986d:119 (Spain: Zamora Province), 1986e:992 (teratological specimen); Gayubo and Sanza, 1986:76 (Spain: Burgos); Józán, 1986:373 (Hungary: Kiskunság National Park); Gayubo, Asís, and Tormos, 1990b:78 (Spain: Cáceres and Toledo Provinces); Pádr in Šedivý, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Jacobs and Oehlke, 1990:212 (unknown from Democratic Germany); Pagliano, 1990:71 (in catalog of Italian Sphecidae); Nemkov, 1990b:681, 684 (in key to *Gorytes* of former USSR, as *pleuripunctatus pleuripunctatus*), 688 (Russia: Orenburg and Volgograd Oblasts, Krasnodar Kray; Georgia, Azerbaijan, Kazakhstan); Schwammberger and Priesner, 1990:552 (Austria: Kärnten); Dollfuss, 1991:200 (in key to Sphecidae of North and Central Europe); Gayubo, Bor-sato, and Osella, 1991:414 (Italy: Piemonte: Asti); Józán, 1992a:229 (Hungary: Béda-Karapanca Protected Area), 1992c:290 (Hungary: Zselic Hills); Pagliano, 1992:37, 39 (in key to Italian Bembicinae); Negrisolo in Minelli, Ruffo, and La Posta, 1995b:4 (in catalog of Italian fauna); Gusenleitner, 1996a:10 (Austria: Steiermark, first collected since 1871), 1996b:812 (Austria: Burgenland, Steiermark); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:196 (in Sphecid Fauna of Western Europe); Pagliano and Alma, 1997:178 (known prey listed); Dollfuss, Gusenleitner, and Bregant, 1998:523 (Austria: summary of collecting records from Burgenland); Gonzáles, Gayubo, and Torres, 1998:74, 75 (Spain: Valladolid Province); Gayubo, García, Torres, and González, 1999:91 (Spain: Soria Province); Gonzáles, Gayubo, and Torres, 1999:356 (Spain: Valladolid: Viana de Cega); M. Schwarz, 1999:88 (Austria: Oberösterreich: city of Linz area); Blösch, 2000:383 (in Sphecid Fauna of Germany); Gayubo, González, and Torres, 2000:187 (Spain: Salamanca Province); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:109 (Greece); Józán, 2000:113 (Hungary: Bakony Mountains); Shkuratov, 2000:57 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Józán, 2001:281 (Hungary: Somogy County); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:121 (geographic distribution, collecting localities in Kazakhstan); Schmid-Egger, 2002b:180 (in revision of western Palearctic *Gorytes*); Drewes, 2003:138 (Croatia: Mošćenicka Draga, Šibenik); Shkuratov, 2004a:75 (Russia: Rostov Oblast'), 2004b:165 (Russia: Rostov Oblast': Gosudarstvennyi Muzey-Zapovednik M.A. Sholokhova); Gayubo and Özbek, 2005:17 (Turkey: Erzincan: Agricultural Research Station; Erzurum: Ilýca; İddýr); Jacobs, 2005a:445 (Bulgaria: Arkutino near Burgas, Zvechen near Hissarya); Pagliano and Negrisolo, 2005:144 (in Sphecid Fauna of Italy); Shorenko, 2005a:167 (Ukraine: Crimea, as *pleuripunctatus pleuripunctatus*), 2005b:97 (Ukraine: Crimea: Karadagh Nature Reserve, as *pleuripunctatus pleuripunctatus*); Yildirim and Ljubomirov, 2005:1792 (Turkey: Erzurum: Tortum); Gorobchishin, 2006:141 (Ukraine: Kyiv Oblast': village Kruglyk); Standfuss and Standfuss, 2006c:305 (Greece: Thessalia: Magnisia Peninsula at 39°N 23°E); Jacobs, 2007:174, 175 (in key to Crabronidae of Germany, not yet found in Germany); Józán, 2007:180 (Hungary: Zselic hills); Vepřek and Straka, 2007:208 (in catalog of Sphecidae of Czech Republic and Slovakia, known from Moravia and Slovakia only); Yildirim and Ljubomirov, 2007:117 (Turkey: Erzurum and Kars Provinces); Ljubomirov and Yildirim, 2008:80 (in catalog of Crabronidae of Turkey); Gayubo, González, Tormos, and Asís, 2009:364 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); González, Gayubo, Asís, and Tormos, 2009:625 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Józán, 2009:166 (Croatia: 3 km north of Brseč); Shorenko, 2009:368 (in list of Sphecidae s.l. of Crimea); Bitsch, 2010:112 (in supplement to vol. II of Faune de France, 1997: recent records from Bulgaria, Croatia, and France reported; France: first record from Vaucluse: Rous-sillon); Rudoiskatel', 2010:151 (Russia: southern Ural Mountains); Shorenko and Konovalov, 2010:15 (Ukraine: Lugansk Oblast'); van der Smissen, 2010b:384 (France: Ardèche: Saint-Maurice-d'Ibie; Gard: Collias); Gogala, 2011:27 (Slovenia); Józán, 2011:183 (in checklist of Sphecidae s.l. of Hungary); Prisniy, 2012:51 (Russia: Belgorod Oblast'); Yildirim, 2012:76 (Turkey: Erzurum, Iğdir, and Kars provinces); Dyuzhaeva, 2013:117 (Russia: Samara Oblast': Zhiguli Nature Reserve, determination tentative); Bitsch, 2014:398 (record from France by van der Smissen, 2010b noted); Yildirim, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Koçak

and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); P. Rosa and Pagliano, 2015:101 (Italy: Lombardia and Piemonte: Parco del Ticino); Mokrousov and Popov, 2016:567 (Russia: Krasnodarskiy Krai, color variation); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:13 (Turkey: Erzurum Province: several localities); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:223 (in catalog of Bembicinae of Russia, as *pleuripunctatus pleuripunctatus*); Shorenko, 2017:79 (in Crimea collected in June and July).

*Hoplisis pleuripunctatus* A. Costa var. *tirolensis* Kohl, 1880:226, ♀, ♂. Syntypes: Austria: near Bozen, now Italy: Bolzano: Gries, St. Anton, and St. Justina (NHMW). Synonymized with *Gorytes pleuripunctatus* by Handlirsch, 1888b:482. – Kohl, 1880:172 (Italy: Trentino-Alto Adige).

### **ssp. barbarus de Beaumont**

*Gorytes pleuripunctatus barbarus* de Beaumont, 1953f:186, ♀, ♂. Holotype: ♂, Morocco: Ifrane (Lausanne). – R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Nemkov, 1990b:681, 684 (in key to *Gorytes* of former USSR), 688 (Armenia, Azerbaijan).

### **ssp. fraternus Mercet**

*Gorytes fraternus* Mercet, 1906a:119, ♀. Syntypes: Spain: Madrid: Aranjuez, Escorial, Madrid, Montarco (Museo Nacional de Ciencias Naturales, Madrid). – Mercet, 1906a:135 (in key to Spanish *Gorytes*); Dusmet y Alonso, 1935:49 (Spain: Madrid: Montarco and Vaciamadrid), 63 (Spain: Cuenca: Belinchón); Maidl and Klima, 1939:94 (in catalog of world Astatinae and Bembicinae); Giner Marí, 1943a:179 (in Sphecid Fauna of Spain); Ceballos, 1956:382 (in catalog of Hymenoptera of Spain); R. Bohart and Menke, 1976:501 (as synonym of *Gorytes pleuripunctatus*); Martin Albaladeo and Izquierdo Moya, 2006:121 (type in Museo Nacional de Ciencias Naturales). – **As *Gorytes pleuripunctatus fraternus***: de Beaumont, 1953f:184 (new status, in revision of western Palearctic *Gorytes*); Ceballos, 1959:229 (in supplement to catalog of Spanish Sphecidae).

## **52. procrustes Handlirsch**

*Gorytes procrustes* Handlirsch, 1888b:490, ♂, ♀ (as *Procrustes*, incorrect original capitalization). Syntypes: many localities in Austro-Hungary, Croatia, Greece, Italy (NHMW). – F. Morawitz, 1891a:218 (Russia: Astrakhan Government); Kohl, 1893a:27 (Austria: Niederösterreich: Marchfeld); Schletterer, 1894:32 (Istria Peninsula, now part of Croatia, Slovenia, and Italy); Handlirsch, 1895:921 (Kazakhstan: Ryn-Peski; Armenia); Dalla Torre, 1897:550 (in catalog of world Sphecidae); Mocsáry, 1897:82 (Kingdom of Hungary, localities are in today's Croatia and Romania); Antiga and Bofill, 1904:16 (Spain: Cataluña Province); Mercet, 1906a:134, 142 (in key to Spanish *Gorytes*); Schmiedeknecht, 1907:219, 221 (in key to Hymenoptera of Central Europe); Birula, 1912:540 (Ukraine: Zhytomyr Oblast: Radomyshl'); Zavattari, 1912:3 (Italy: Sardegna: Pantaleo); Fahringer, 1922:180 (Turkey); Schmiedeknecht, 1930:681, 683 (in key to Hymenoptera of North and Central Europe); Zavadil, 1937a:72 (eastern Slovakia); Zavadil, Šusterka, and Baťa, 1937:191 (in catalog of Sphecidae of Czechoslovakia); Kuntze and Noskiewicz, 1938:377 (in Poland known only from Podole region, now Ukraine); Móczár, 1938b:62 (Hungary); Maidl and Klima, 1939:95 (in catalog of world Astatinae and Bembicinae); Šnoflák in Zavadil and Šnoflák, 1948:69, 72 (in key to Sphecidae of Czechoslovakia); Giner Marí, 1943a:181 (in Sphecid Fauna of Spain); de Beaumont, 1951g:315 (Italy; determination?), 1953f:196 (in revision of western Palearctic *Gorytes*), 1954e:89 (Italy); Grandi, 1954:233 (Italy; determination?); Vogrin, 1955:35 (Yugoslavia); Ceballos, 1956:383 (in catalog of Hymenoptera of Spain); Morel, Nouvel, and Ribaut, 1956:338 (France: Département des Pyrénées-Orientales); Bajári, 1957a:108, 110 (in key to Hungarian Sphecidae); Puławski, 1958a:167 (Bulgaria: Kniazhevo near Sofia); Ceballos, 1959:229 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1959a:21 (Italy); Noskiewicz and Puławski, 1960:92 (in key to Polish Sphecidae, not yet found in Poland); Lehrer and Scutaru, 1963:286 (Romania: Moldova: Mircești in Iași District); de Beaumont, 1965a:36 (Greece); Scobiola-Palade, 1967b:48 (Romania); Romanova, 1969:134 (Russia: North Caucasus); Balthasar, 1972:309 (in Sphecid Fauna of Czechoslovakia); Kazenas, 1972b:152 (Kazakhstan); Diniz, 1973:45 (Portugal: Algarve: Bela Vista as *procrustes*); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Kazenas, 1978b:75, 77 (in key to Sphecidae of Kazakhstan and Central Asia); Puławski,

1978:202, 203 (in key to Sphecidae of European part of former USSR); Benedek, 1979:230 (Hungary: Bakony Mountains); Pagliano, 1980:116 (Italy: Piemonte); Gayubo, 1982b:41 (Spain: Ávila, Cáceres, and Salamanca provinces); Dollfuss, 1983b:23 (Austria: Niederösterreich; not observed since 1882); Józán, 1985b:61 (Hungary S Lake Balaton), 81 (floral records), 84 (ecological and zoogeographic characteristics); Gayubo, 1983e:234 (Spain: Salamanca Province), 1986d:119 (Spain: Zamora Province); Józán, 1986:373 (Hungary: Kiskunság National Park); Dollfuss, 1989:9 (type material in NHMW); Pádr in Šedivý, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Gayubo, Asís, and Tormos, 1990b:78 (Spain: León Province); Nemkov, 1990b:680, 685 (in key to *Gorytes* of former USSR), 689 (Russia: Kostroma, Vladimir, and Yaroslavl Oblasts, Krasnodar Krai; Siberia: Chelabinsk Oblast; Kazakhstan); Pagliano, 1990:71 (in catalog of Italian Sphecidae); Dollfuss, 1991:200 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:414 (Italy: Veneto: Lovadina), 1992:287 (Greece: Tymphristos); Pagliano, 1992:37, 39 (in key to Italian Bembicinae); Negrisolo in Minelli, Ruffo, and La Posta, 1995b:4 (in catalog of Italian fauna); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:198 (in Sphecid Fauna of Western Europe); Esenbekova and Kazenas, 2000:61 (southeastern Kazakhstan: no specific locality); Józán, 2000:113 (Hungary: Bakony Mountains), 2001:281 (Hungary: Somogy County); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia); Józán, 2002:54 (Hungary: Mecsek Mountains); Kazenas, 2002a:121 (geographic distribution, collecting localities in Kazakhstan); Schmid-Egger, 2002b:181 (in revision of western Palearctic *Gorytes*); Shkuratov, 2002b:139 (Russia: Rostov Oblast: Rostovskiy Nature Reserve at 46°27'N 42°41'E); Schmid-Egger, 2003:753 (Italy: Sicilia: Randazzo); Shkuratov, 2004a:75 (Russia: Rostov Oblast'), 2004b:165 (Russia: Rostov Oblast': Gosudarstvennyi Muzei-Zapovednik M.A. Sholokhova); Gayubo and Özbek, 2005:18 (Turkey: Erzurum: University campus); Jacobs, 2005a:446 (Bulgaria: Arkutino near Burgas); Pagliano and Negrisolo, 2005:144 (in Sphecid Fauna of Italy); Shorenko, 2005a:167 (Ukraine: Crimea), 2005b:97 (Ukraine: Crimea: Karadagh Nature Reserve); Gorobchishin, 2006:141 (Ukraine: Kyiv); Józán, 2006:284 (Hungary: Balatonföldvár, Hetes, Kereki, Somogyeszi); Vepřek and Straka, 2007:208 (in catalog of Sphecidae of Czech Republic and Slovakia, known from Moravia and Slovakia only); Yildirim and Ljubomirov, 2007:117 (Turkey: Erzurum: University campus); Kazenas, 2008a:105 (Southeastern Kazakhstan: near Alma Ata and locality Bartogay on Chilik River); Ljubomirov and Yildirim, 2008:80 (in catalog of Crabronidae of Turkey); Józán, 2009:166 (Croatia: Petehi); Pagliano, 2009:178 (Italy: Molise: Guardafiera); Shorenko, 2009:368 (in list of Sphecidae s.l. of Crimea); Baghirov, 2010:678 (Russia: Altai Territories: villages Chemal and Savvushka); Bitsch, 2010:112 (in supplement to vol. II of Faune de France, 1997: first record from Sicily by Schmid-Egger, 2003, reported); Mokrousov, 2010a:61 (Russia: Kostroma and Yaroslavl' Oblast's, Tatarstan: no specific localities), 2010b:100 (Russia: Tatarstan: no specific locality); Rudoiskatel', 2010:151 (Russia: recorded from Ural Mountains); Shorenko and Konovalov, 2010:15 (Ukraine: Khar'kov Oblast': Khar'kov; Lugansk Oblast': Trekhizbenka); van der Smissen, 2010b:384 (France: Ardèche: Saint-Morice-d'Ibie); Baghirov, 2011b:142 (Russia: Altayskiy Krai: Savvushka; Altay Republic: Chemal); Józán, 2011:183 (in checklist of Sphecidae s.l. of Hungary); Mokrousov, Berezin, and Egorov, 2011:67 (Russia: Chuvash Republic); Prisniy, 2012:51 (Russia: Belgorod Oblast'); Bitsch, 2014:398 (record from France by van der Smissen noted); Mokrousov and Vafin, 2014:55 (Russia: Republic of Tatarstan); Protsenko, Fateryga, and Ivanov, 2014:31 (Crimea: no specific locality); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); Mokrousov and Popov, 2016:568 (Russia: Krasnodarskiy Krai); Yildirim, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Haris, 2016:21 (in list of species described by A. Handlirsch from Carpathian Basin); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:223 (in catalog of Bembicinae of Russia); Shorenko, 2017:80 (in Crimea collected in June). – **As *Hoplisis procrustes***: Noskiewicz, 1930:93 (new combination, Poland: Podole Region: Wołkowce near Mielnica, now Ukraine).

As *Gorytes quinquefasciatus*: A. Costa, 1869b:79 (in revision of Italian Sphecidae), corrected to *Gorytes procrustes* by Handlirsch, 1888b:490.



**53. *prosopis* R. Bohart**

*Gorytes prosopis* R. Bohart, 1971:449, ♀. Holotype: ♀, USA: California: Napa County: Samuel Springs, now bottom of Lake Beryessa (UCD). – R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1694 (in catalog of North American Hymenoptera).

**54. *provancheri* Handlirsch**

*Gorytes laticinctus* Provancher, 1888:1141, ♀, junior secondary homonym of *Gorytes laticinctus* (Lepelletier, 1832). Holotype or syntypes: ... (lost: Gahan and Rohwer, 1917:427). – Taylor, 1884:80 (Canada: British Columbia: Vancouver Island).

*Gorytes provancheri* Handlirsch, 1895:945 (as *Provancheri*, incorrect original capitalization). Substitute name for *Gorytes laticinctus* Provancher. – Handlirsch, 1895:945 (Provancher's original description translated into German); Dalla Torre, 1897:550 (in catalog of world Sphecidae); Maidl and Klima, 1939:102 (in catalog of world Astatinae and Bembicinae); Krombein in Muesebeck et al., 1951:991 (as synonym of *Gorytes angustus*); Horning and Barr, 1970:105 (USA: Idaho: Craters of the Moon National Monument); Evans, 1973c:149 (Wyoming: Jackson Hole); R. Bohart in R. Bohart and Menke, 1976:501 (resurrected from synonymy, in checklist of world Sphecidae); Krombein, 1979b:1694 (in catalog of North American Hymenoptera); Rust, Menke, and Miller, 1985:47 (California: Channel Islands); Ratzlaff, 2016:24 (Canada: British Columbia: after Provancher, 1988 and Krombein, 1979). – **As *Hoplilus provancheri***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae).

**55. *quadrifasciatus* (Fabricius)**

*Mellinus quadrifasciatus* Fabricius, 1804:298, sex not indicated (as *4.fasciatus*, incorrect original spelling). Holotype: ♂, Germany: no specific locality (ZMUC). – Panzer, 1805, Heft 98:17 (in revision of German insects). – **As *Arpactus quadrifasciatus***: Panzer, 1806:166 (new combination, in critical review of his earlier work); Jurine, 1807:194 (listed). – **As *Hoplilus quadrifasciatus***: Dahlbom, 1843:159 (new combination, in revision of Sphecidae and Pompilidae), 1845:XXIII (study of type material), 482 (in key to European *Hoplilus*); Eversmann, 1849:393 (Russia: Kazan' and Orenburg provinces, also southern Ural Mountains); von Kiesenwetter, 1849:89 (Germany: Kingdom of Saxony); Wissmann, 1849:12 (Germany: Kingdom of Hannover: Hannover, Münden); Tischbein, 1850:8 (Germany: Rheinland-Pfalz: Herrstein in Fürstenthum Birkenfeld); F. Smith, 1851c:38 (Great Britain: Colney Hatch, Highgate); Wesmael, 1852:99 (Belgium); Kirschbaum, 1853:45 (Germany: Herzogtum Nassau: Mainz-Mombach, Weilburg, and Wiesbaden); Kawall, 1857:24 (Kurland, now Latvia, genus name misspelled *Hapliscus*); Ruthe and Stein, 1857:314 (Germany: Berlin area); Schenck, 1857:167 (in revision of fossorial wasps of Nassau Region, Germany); Taschenberg, 1858:89 (in key to Sphecidae of Germany); Assmus, 1859:611 (Russia: Moscow Oblast'); Funk, 1859:59 (Germany: Bayern: Bamberg); Schenck, 1860:148 (Germany: Nassau Region); Brischke, 1862:101 (Germany: Preussen Province, now Poland: Pomorze Region); Taschenberg, 1866:195 (in revision of Hymenoptera of Germany); A. Costa, 1867c:66 (in revision of Italian Sphecidae); Kirchner, 1867:220 (in catalog of European Hymenoptera); Schenck, 1867a:355 (Germany: Nassau Region); Dietrich, 1868:363 (Switzerland: Zurich Canton); Jaenicke, 1868:9 (Germany: Hessen: Büdingen, as *quatrifasciatus*); Wierzejski, 1868:117 (Poland: Kraków, Tatry Mountains; Ukraine: Janów); A. Costa, 1869b:82 (in revision of Italian Sphecidae); von Aichinger, 1870:318 (Austria: Tirol); Thomson, 1870:245 (in revision of Swedish wasps); Dours, 1874:150 (in catalog of Hymenoptera of France); Thomson, 1874:233 (in revision of Hymenoptera of Scandinavia); Wierzejski, 1874:259 (same data as in 1868); Taschenberg, 1875:369 (Germany: Halle); Beuthin, 1876:231 (Germany: Hamburg area); Schlechtendal, 1876:54 (Germany: Sachsen: Zwickau); Girard, 1879:949 (recognition); E. Saunders, 1880:271 (in revision of British Aculeata); Siebke, 1880:65 (Norway, as *4-fasciatus*); Friese, 1883:202 (Germany: Thüringen: Gumperda); Kohl, 1883e:667 (Switzerland, as *4-fasciatus*); Sickmann, 1883:83 (Germany: Niedersachsen: Wellingholthausen); Wüstnei, 1886:41 (Germany: Schleswig-Holstein: Sonderburg); Brischke, 1888b:98 (Germany: Preussen Province, now Poland: Pomorze Region); Westerlund, 1893:26 (Russia: Karelian Republic: northern shore of Lake Ladoga); Baldini, 1894:67 (Italy:

Modena area); Meunier, 1896:272 (Belgium: Bruxelles area, as *quadrifasciatus* Wesmael); Borries, 1897:64 (Denmark: flying in July and August); Lüderwaldt, 1897b:29 (Germany: Gollnow, now Poland: Pomorze Region: Goleniów); Flamary, 1898:45 (France: Saône-et-Loire: Mâcon area); Strand, 1898b:94 (Norway); Chyzer, 1902:34 (Hungary); von Heyden, 1905:81 (Germany: Hessen: Frankfurt); Clerc and Clerc, 1907:79 (Russia: Ekaterinburg district); de Gaulle, 1908:120 (in catalog of French Hymenoptera, as *4-fasciatus*); Cavro, 1910:685 (France: Département du Nord, as *4-fasciatus*); Schirmer, 1912:166 (Germany: Berlin area); Alfken, 1914:279 (NW Germany); Noskiewicz, 1920b:155 (Poland, now Ukraine: forest district Kopanki near Kalusz); A. Wagner, 1920:32 (Germany: Lower Elbe region); Hedicke, 1922:270 (Germany: Brandenburg: Gross Machnower Weinberg); Coulon, 1925:119 (France: Dijon, Rouen; Morocco: Tanger); Schütze, 1925:112 (Germany: Lausitz Region); Stelfox, 1927:305 (records from Ireland are erroneous), 1931:14 (Great Britain: Cambridgeshire); Bondroit, 1932:32 (Belgium: Solbosch), 1933:26 (Belgium: Uccle); Jansson, 1934:290 (Sweden); Richards, 1935a:168 (type, examined, corresponds to current interpretation of species); Spooner, 1935:139 (Great Britain: Northamptonshire: Ashton Wold and Huntingdonshire: Wood Walton); Richards, 1937b:107 (in checklist of British aculeates); Guichard, 1938:72 (Britain: Norfolk coast); de Graham, 1941:99 (Great Britain: Lincolnshire); Hoop, 1941b:70 (Germany: Schleswig-Holstein: Süderhastedt); Schneid, 1941:1040 (Germany: Bayern: Bamberg area); J. Perkins, 1942:199 (Sweden: Skåne: Löderup, as *4-fasciatus*); Spooner, 1942:110 (Great Britain: Bedfordshire), 1943:74 (Great Britain: Hurne); Chambers, 1949:231 (Britain: Bedfordshire); Nouvel and Ribaut, 1953:178 (France: Haute-Garonne: Saint-Béat, Hautes-Pyrénées: Cauterets); Fahlander, 1954:251 (Sweden: Gästrikland Region); Wolf, 1968:11 (Germany: Nordrhein-Westfalen: Siegen, inhabitant of forest edge). – **As *Euspongius quadrifasciatus***: Herrich-Schaeffer, 1840:291 (new combination, Germany: Bayern: Regensburg area); Radoszkowski, 1892:582 (male genitalia). – **As *Gorytes quadrifasciatus***: Spinola, 1806:93 (new combination; Italy: Liguria: near Arcata); Stephens, 1829:363 (in catalog of British insects), 1829b:33 (in checklist of British insects); Vander Linden, 1829:98 (bibliographic references, redescription, Belgium: Bruxelles, Germany, Italy); Shuckard, 1837a:215 (in revision of British Aculeata); von Siebold, 1844:132 (Germany: Preussen: vicinity of Danzig, now Poland: Gdańsk); F. Smith, 1853:65 (in checklist of British Hymenoptera), 1856:360 (in catalog of Hymenoptera in British Museum), 1858c:105 (in review of British Aculeata, redescription); Bold, 1870:147 (Great Britain: Northumberland and Durham); F. Smith, 1871b:11 (in catalog of British Aculeata); Kohl, 1880:171 (Austria: Tirol, and Italy: Trentino–Alto Adige); Handlirsch, 1888b:497 (in revision of world Bembicinae); Kohl, 1888b:727 (Austria: Tirol, now Italy: Alto Adige), 1893:27 (Austria: Niederösterreich); F. Morawitz, 1893a:112 (Russia: Karelian Isthmus); Sickmann, 1893:89 (Germany: Niedersachsen: Iburg); Krieger, 1894:8 (Germany: Kingdom of Saxony); Handlirsch, 1895:915 (additional bibliography; Mongolia); E. Saunders, 1896:107 (in revision of British Aculeata); Dalla Torre, 1897:551 (in catalog of world Sphecidae); Mocsáry, 1897:82 (Kingdom of Hungary, some localities are in today's Croatia, Romania, and Slovakia); Handlirsch, 1898b:488 (Algeria); de Cobelli, 1903:113 (Italy: Province of Trentino); Antiga and Bofill, 1904:15 (Spain: Cataluña Province); Aurivillius, 1904:270 (in revision of Swedish Sphecidae); W. Schulz, 1904b:97 (Czechoslovakia); Kubes, 1905:84 (Czech Republic: Babice); Mosolov, 1905b:19 (Russia: Moscow Government: Mikhailovskoye); Dusmet y Alonso, 1906:7 (Spain); Mercet, 1906a:133, 141 (in key to Spanish *Gorytes*, as *4-fasciatus*); Schmiedeknecht, 1907:219, 221 (in key to Hymenoptera of Central Europe); Morley, 1909:305 (Great Britain: Isle of Wight); Dittrich, 1911b:23 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Graeffe, 1911:46 (Italy: Trieste area); Morley, 1911:24 (Western Ireland: Glendarary); Zavattari, 1911:3 (Italy: Piemonte: Valle del Maira); Birula, 1914:385 (Belarus: Ambrosovich, Korolevo, and Luskopol' near Vitebsk); Haines, 1914:129 (Great Britain: Dorset); Dusmet, 1915:88 (Spain: Aragón); O. Meyer, 1919:153 (Germany: Posen Province, now Poland: Poznań Region); Dubois, 1921c:201, 202, 203 (in key to Belgian Sphecidae); Fahringer, 1922:180 (Turkey); Berland, 1925d:88 (in Sphecid Fauna of France); K. Strohm, 1925:211 (Germany: Baden-Württemberg: Grißheim); Friese, 1926:160 (in key to Sphecidae of Central Europe, short morphological and biological characteristics); Bouwman, 1927:55 (in revision of Sphecidae of Netherlands); Benoist, 1928:409 (France: Alpes-Maritimes, Basses-Alpes, Hautes-Alpes); Schmiedeknecht, 1930:681, 683 (in key to Hymenoptera of North and Central Europe); Pulkkinen, 1931:62 (in revision of Sphecidae of Finland);

Chambers, 1933:188 (Britain: Bedfordshire); Balles, 1934:19 (Germany: Baden-Württemberg: eight localities); Forsius *in* Forsius and Hellén, 1935:11 (in checklist of Hymenoptera of Finland); Crèvecoeur and Maréchal, 1936:253 (in catalog of Belgian Hymenoptera); Drogoszewski, 1936:129 (Poland: Łowicz, as *4-fasciatus*); Zavadil, Šustera, and Bat'a, 1937:190 (in catalog of Sphecidae of Czechoslovakia); Móczár, 1938c:81 (Hungary: Kőszeg Hills); Redikortsev, 1938:144 (Russia: Mordovian State Nature Reserve); A. Wagner, 1938a:121 (northwestern Germany); Maidl and Klima, 1939:70 (in catalog of world Astatinae and Bembicinae); Maréchal, 1939:341 (Belgium: Loën); Balthasar, 1941b:112 (Czech Republic: eastern Moravia); Paul, 1941:44 (Germany: Pommern: Stettin area, now Poland: Województwo Zachodniopomorskie: Szczecin area); Balthasar, 1943:41 (Czech Republic: Moravia: Zlin area); Benno, 1943:66 (Netherlands); Giner Marí, 1943a:178 (in Sphecida Fauna of Spain); Guiglia, 1944b:20 (Italy); Carl and de Beaumont, 1947:68 (Switzerland: Graubünden = Grisons Canton: Swiss National Park); Šnoflák *in* Zavadil and Šnoflák, 1948:73, 74 (in key to Sphecidae of Czechoslovakia); Aerts, 1950b:23 (Germany: Rheinland-Pfalz: Lorelei); Cavro, 1950:34 (France: Département du Nord); Georgel, 1950:64 (France: Seine-et-Oise: Sucy-en-Brie); de Beaumont, 1951g:312 (Italy), 1951h:33 (Switzerland: Neuchâtel area), 1953f:171 (in revision of western Palearctic *Gorytes*), 1954e:89 (Italy); Grandi, 1954:233 (Italy); Kjellander, 1954b:247 (Sweden); Aerts, 1955:62 (Germany: Rheinland); Steiner, 1955:145 (France: Dordogne); Vergne, 1955:4 (France: Auvergne); Vogrin, 1955:35 (Yugoslavia); Ceballos, 1956:384 (in catalog of Hymenoptera of Spain); Bajári, 1957a:106, 109 (in key to Hungarian Sphecidae); Zirngiebl, 1957:181 (Germany: Rheinland-Pfalz: Pfalz region); Benno, 1958b:11 (in review of Dutch Sphecidae); de Beaumont, 1958c:204 (Swiss National Park); Ceballos, 1959:229 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1959a:21 (Italy); Grandi, 1959b:286 (Italy: Trento: Brusago); Wolf, 1959b:30 (Germany: Nassau); Noskiewicz and Puławski, 1960:91, 94 (in key to Polish Sphecidae); Hoop, 1961:65 (Germany: Schleswig-Holstein: Hemmelmarsch, Kiel-Eichhof, Steinfurth); van der Vecht, 1961a:48 (study of type); Grandi, 1962:98 (Italy; as *quattuorfasciatus*); Valkeila, 1962b:67 (southwestern Finland); Lehrer and Scutaru, 1963:286 (Romania: Moldova: Mircești *in* Iași District); Tsuneki, 1963a:3, 6 (in key to Gorytini of Japan and Korea), 15 (in revision of Gorytini of Japan and Korea; Korea); Valkeila, Brander, and Käpylä, 1963:41 (Finland: historical region Lounais-Hämeen = southwest Häme); Babiý, 1964:117 (Austria: Land Salzburg); de Beaumont, 1964c:48 (in Sphecida Fauna of Switzerland); Plavil'shchikov, 1964:122 (Russia: Mordovian State Nature Reserve); Valkeila, Brander, and Käpylä, 1964:75 (Finland: Southern Finland: Forssa); Fæster, 1965:193 (Denmark: Hansted Nature Reserve); B. Klug, 1965:136 (Germany: Baden-Württemberg: Freiburg im Breisgau area); Roberti, Frilli, and Pizzaghi, 1965:109 (Italy: Emilia-Romagna: Piacenza); Tsuneki, 1965c:31, 32 (in key to Bembicinae of Japan and Korea); Bonelli, 1966c:216 (Italy: Trentino-Alto Adige: Brusago, Cavalese/Dolomiti); Benno, 1967:34 (in checklist of Sphecidae of Netherlands); Gauss, 1967:552 (Germany: Baden-Württemberg); J. Heinrich, 1967:71 (Germany: Bayern: Unterfranken District); Niedl and Deneš, 1967:82 (Czech Republic: Třeboň area); Scobiola-Palade, 1967b:48 (Romania); Benedek, 1968:72 (Hungary, visiting flowers of *Pastinaca sativa* L.); Benedek, 1969a:83 (Hungary; marshy meadow); Lefebvre, 1969c:233 (Netherlands: St. Pietersberg = Montagne Saint Pierre); Petit, 1969:72 (Belgium: Val du Rabey); Benedek, 1970:97 (Hungary: Tapolca); Oehlke, 1970:689 (Democratic Germany); Tumšs, 1970:78 (Latvia); Lefebvre, 1971b:222 (Belgium: Kinrooi); Schmidt, 1971b:27 (Germany: Mainz area); Balthasar, 1972:315 (in Sphecida Fauna of Czechoslovakia); Haeseler, 1972:155, 175 (Germany: Schleswig-Holstein; anthropogenic habitats); Kofler, 1972:106 (Austria: eastern Tirol); Lomholdt, 1972:122 (Denmark: Læsø Island); Niedl and Deneš, 1972:153 (Czech Republic: Třeboň area); Oehlke, 1972:136 (Germany: Hiddensee Island); Scobiola-Palade, 1972b:252 (Romania); Erlandsson, 1974:64 (Italy); Simon Thomas and Veenendaal, 1974b:4 (France: Gironde: Andernos-les-Bains); Lomholdt, 1975c:197 (in Sphecida Fauna of Fennoscandia and Denmark); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Haeseler, 1976b:72 (Germany: Friesian Islands: Amrum Island); Merisuo, 1976b:212 (male specimen with 12 flagellomeres); Guichard, 1977:254 (Great Britain: Surrey); Kolesnikov, 1977:317 (Russia: Bryansk Oblast'); Schmidt, 1977:96 (Germany: Baden-Württemberg: Enzklösterle *in* Schwarzwald); Haeseler, 1978b:62 (Germany: Niedersachsen: a bog near Oldenburg); Kazenas, 1978b:75, 76 (in key to Sphecidae of Kazakhstan and Central Asia); Marion, 1978:87 (France: Nièvre Department); Pulawski, 1978:202, 204 (in key to Sphecidae of European part of former

USSR); Schwammler, 1978:417 (Germany: Württemberg); Benedek, 1979:230 (Hungary: Bakony Mountains); Lefebvre, 1979:11 (in checklist of Sphecidae of Netherlands), 42 (Netherlands: distribution map); Schmidt, 1979a:54 (Germany: Ost-Holstein), 1979b:349 (Germany: Baden-Württemberg); Kazenas, 1980e:83 (Russia: Far East); Mityaev, Matesova, Kulenova, Kazenas, and Zhdanko, 1980:119 (Russia: Siberia: Altayskiy Krai: basin of Aley River); Pagliano, 1980:116 (Italy: Piemonte); Richards, 1980:81 (in key to Sphecidae of British Isles); Westrich, 1980:629 (record by Schmidt, 1966 from Germany: Baden-Württemberg: Tübingen area, actually refers to *Gorytes laticinctus*); Dollfus and Ressler, 1981:324 (Austria: Niederösterreich: Scheibbs District); Haeseler, 1981:51 (Germany: Friesland: Amrum Island); Woydak, 1981:40 (Germany: Westfalen: Hamm); Axelsson, 1982:79 (Sweden); Donath, 1982:212 (Germany: Cottbus Bezirk); Gayubo, 1982b:42 (Spain: Salamanca Province); Skibińska, 1982:123 (Poland: Warszawa area); Tsuneki, 1982b:18 (known from Korea); Dollfus, 1983b:23 (Austria); Gayubo, 1983e:234 (Spain: Salamanca Province); Riemann, 1983:83 (Germany: Bremen-Daverden area); Haack, Tschamtker, and Vidal, 1984:129 (Germany: Hamburg area); Sagvolden, 1984:19 (Norway: Buskerud: Rollag); Haeseler, 1985c:571 (Germany: Friesland); Józán, 1985b:61 (Hungary: Lake Balaton), 71 (map of distribution in Hungary), 81 (floral records), 84 (ecological and zoogeographic characteristics); Lefebvre, 1985:87 (Netherlands: southern Limburg); Nilsson, 1985:43 (Sweden); Paik, 1985:202 (in list of Sphecidae of Korea); Radović, 1985:65 (sting apparatus analyzed); Scobiola-Palade, 1985:97 (Romania: delta of Danube); Gayubo and Sanza, 1986:77 (Spain: Burgos, Segovia); Józán, 1986:374 (Hungary: Kiskunság National Park); Nemkov, 1986:108 (Russia: Siberia: Irkutsk Oblast'); Skibińska, 1986b:168 (Poland: Warszawa: green areas of housing estates), 174 (various green urban habitats); Vikberg, 1986:78 (Finland); Haeseler, 1988:211 (Germany: Friesland); Kowalczyk, 1988a:45 (Poland: Rogów), 1988b:64 (Poland: environs of Łódź); Wolf, 1988b:141 (Germany: Rheinland-Westfalen); Jacobs, 1989:27 (Germany: Mecklenburg-Vorpommern); Nemkov, 1989:68, 70, 71 (in key to *Gorytes* of Siberia and Russian Far East); Nilssen, 1989:47 (Sweden); Pádr in Šedivý, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Gayubo, Asís, and Tormos, 1990b:78 (Spain: Province); Jacobs and Oehlke, 1990:212 (new records from Democratic Germany); Kowalczyk, 1990:291 (Poland: Góry Świętokrzyskie); Kuznetsova, 1990:19 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve); Nemkov, 1990b:682, 685 (in key to *Gorytes* of former USSR); Pádr, 1990:71 (Czech Republic: Praha area); Pagliano, 1990:71 (in catalog of Italian Sphecidae); Schwammler and Priesner, 1990:552 (Austria: Kärnten); Dollfus, 1991:200 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:414 (Italy); Kowalczyk, 1991a:89, 97, 100, 101 (Poland: Łódź), 1991b:120 (Poland: Augustów Forest); Archer, 1992b:21 (Great Britain: Yorkshire: Skipwith Common); Budrys, 1992:27 (in list of Sphecidae of Lithuania); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Józán, 1992b:176 (Hungary: Boronka-melléki Protected Area), 1992c:290 (Hungary: Zselic Hills); Nemkov, 1992b:250 (Russia: Far East: Natalino near Khingan Nature Reserve); Pagliano, 1992:37, 39 (in key to Italian Bembicinae); K. Weber, 1992:87 (Germany: Bayern: Bamberg District); Kuhlmann, 1993:75 (Germany: known from Westfalen); Wiśniowski, 1993a:98 (Poland: in checklist of Sphecidae of Białowieża Primeval Forest); Blagoveshchenskaya, 1994:91 (Russia: Ul'yanovsk Oblast'); Gayubo and Borsato, 1994:217 (Italy: Veneto); Kowalczyk, 1994:73 (Poland: Łagiewniki forest in Łódź); Theunert, 1994c:41 (summary of records from Niedersachsen and Bremen, Germany); Archer, 1995a:23 (Great Britain: Yorkshire: frequency); Archer and Burn, 1995:59 (Great Britain: Yorkshire: Crow Wood near Finningley); Józán, 1995:105 (Hungary: projected Duna-Dráva National Park); Kazenas and Esenbekova, 1995:80 (Kazakhstan; bibliographic reference to leafhopper prey); Negrisolo in Minelli, Ruffo, and La Posta, 1995b:4 (in catalog of Italian fauna); Nemkov in Nemkov, Kazenas, Budrys, et Antropov, 1995:461, 464 (in key to Sphecidae of Russian Far East); Schmid-Egger, Risch, and Niehuis, 1995:185 (summary of records from Germany: Rheinland-Pfalz); Wolf, 1995:16 (Germany: Rheinland-Pfalz: near Lorelei Rock on Rhein River); Yeo and Corbet, 1995:41 (in field guide to British solitary wasps); Archer, 1996b:37 (Great Britain: Nottinghamshire: Sherwood Forest); Doronin, 1996:18 (Latvia: Sigulda, nest parasitized by *Euchrum roseum* Rossi., a chrysidid); Fowles, 1996:36 (Great Britain: in checklist of aculeates of Wales); Harvey and Plant, 1996:80 (Great Britain: summary of records from Essex); Jakubzik, 1996:252 (Germany: Köln); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: endangered); Voblenko, Gorobchishin, and

Nesterov, 1996:15 (Ukraine: Polesye Region); Witt, 1996:106 (Germany: Brandenburg); Woydak, 1996:95 (Germany: Westfalen: summary of distribution and nesting behavior); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:199 (in Sphecidae Fauna of Western Europe); Celary, 1997:60 (in checklist of Animals of Poland); Lauterbach, 1997c:85 (Germany: Nordrhein-Westfalen: Bielefeld); Pagliano and Alma, 1997:178 (known prey listed); Riemann, 1997:49 (Germany: Achim 14 km SE Bremen); Schmidt and Schmid-Egger, 1997:15 (in checklist of German Sphecidae); Shlyakhtenok, Blinov, and Belyavskaya, 1997:151 (Belarus: Pripyatskiy National Park); Dollfuss, Gusenleitner, and Bregant, 1998:523 (Austria: summary of collecting records from Burgenland); Flügel, 1998:60 (Germany: Brandenburg: Unteres Odertal National Park); Józán, 1998:312 (Hungary: Duna-Dráva National Park); Lefebvre, 1998:182 (Netherlands: Limburg: Sint-Pietersberg near Maastricht at 50°50'N 5°41'E); Salzman-Wandeler, 1998b:102 (Switzerland: Schwyz Canton: Gersau-Oberholz); M. Schwarz, 1999:88 (Austria: Oberösterreich: city of Linz area); van der Smitten, 1998:60 (Germany: Niedersachsen, Schleswig-Holstein); K. Weber, 1998:140 (Germany: Bayern: Bamberg area); Kuhlmann, Wolf, and Woydak, 1999:569 (threatened with extinction in Nordrhein-Westfalen State of Germany); Mandery, 1999:105 (Germany: Bayern: Coburg area); Neumayer, Schwarz, and Bregant, 1999:224 (Austria: in checklist of Sphecidae of Land Kärnten); Pauly, 1999:111 (in catalog of Belgian aculeates); Skibińska, 1999:96 (in Białowieża Primeval Forest, Poland, not recorded since Bischoff, 1925); Archer, 2000c:115 (Great Britain: Lincolnshire); Blösch, 2000:384 (in Sphecidae Fauna of Germany); Esenbekova and Kazenas, 2000:61 (southeast Kazakhstan: 2-8 km S Alma Ata); Gibbs, 2000:13 (Great Britain: Bristol: Troopers Hill); Jacobs, 2000:7 (Germany: Land Mecklenburg-Vorpommern: not endangered); Józán, 2000:113 (Hungary: Bakony Mountains); Mokrousov, 2000b:31 (Russia: Nizhniy Novgorod Oblast'); Wiśniowski, 2000:162 (Poland: Bieszczady Mountains); Dillier and Neumeyer, 2001:29, 33 (Switzerland: delta of Reuss River on Lake Uri); Edwards and Telfer, 2001:82 (Great Britain: distribution, status, habitat, flight period, prey, nesting habits, flower visiting, parasites, and distribution map); Haeseler, 2001:266 (Germany: Niedersachsen: Brookdeich near Oldenburg); Józán, 2001:281 (Hungary: Somogy County); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia), 223 (review of known biology); Kazenas and Esenbekova, 2001:135 (Kazakhstan: Almatinskiy Nature Reserve); Mazzucco, 2001:203 (Austria: Niederösterreich: Steinfeld); Ohl et al., 2001:139 (distribution in Germany by provinces); Skibińska, 2001:220 (Poland: Białowieża Primeval Forest); van der Smitten, 2001:61 (Germany: Schleswig-Holstein: not endangered); Wolf, 2001a:171 (Germany: Bayern: Lech valley from Augsburg to Donau); Zettel, Gross, and Mazzucco, 2001:80 (Austria: Wien, not collected since 1886); Archer, 2002b:128 (Great Britain: Watsonian Yorkshire: distribution map); Archer and Edwards, 2002:103 (Great Britain: West Sussex: Ambersham and Iping commons); Józán, 2002:54 (Hungary: Mecsek Mountains); Kazenas, 2002a:121 (geographic distribution, collecting localities in Kazakhstan); Kowalczyk, Szczepko, and Świątek, 2002:155 (Poland: Kampinos National Park near Warszawa); C. Schlüter, 2002:141 (Germany: Niedersachsen: anthropogenic habitats in Ammerland District); Schmid-Egger, 2002b:181 (in revision of western Palearctic *Gorytes*); Shlyakhtenok and Skibinska, 2002:35 (Belarus: no specific locality); Wiśniowski, 2002:73 (Poland: Ojców National Park); Haeseler, 2003:339 (Germany: Niedersachsen: Harriersand Island near Bremen); Józán, 2003:228 (Hungary: Látányi Pusztá Nature Conservation Area); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:66 (Germany: in catalog of wasps and bees of Bayern); Reder, 2003:25 (Germany: in Rheinland-Pfalz: previously considered extinct, rediscovered in Eisenberg area); von der Heide and Metscher, 2003:102 (Germany: Niedersachsen: Emsland area); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:196 (Germany: Bayern: strongly endangered); Wiśniowski in Dylewska and Wiśniowski, 2003:178 (Poland: Ojców National Park); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:262 (Germany: in checklist of Sphecidae of Nordrhein-Westfalen); Kazenas, 2004b:110 (Kazakhstan: western Tien Shan); Salzman-Wandeler and Rezbanyai-Reser, 2004:27 (central Switzerland); Shkuratov, 2004a:75 (Russia: Rostov Oblast'), 2004b:165 (Russia: Rostov Oblast': Gosudarstvennyi Muzei-Zapovednik M.A. Sholokhova); Skibińska in Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:355 (in catalog of Polish Crabronidae); Stolle et al., 2004:371 (Germany: Sachsen-Anhalt: in red list of Sphecidae); Tischendorf and Frommer, 2004:69 (Germany: Hessen: near Lorch); van Achterberg and Peeters, 2004:32 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:51 and

62 (in checklist of Polish Sphecidae); Archer, 2005:30 (Great Britain: Watsonian Yorkshire); Burger, 2005:33 (Germany: Thüringen); Cruz-Sánchez, Gayubo, González, and Torres, 2005:219 (Spain: Salamanca: San Martín del Castañar); Gayubo and Özbek, 2005:18 (Turkey: Erzurum: Palandöken, Olur); Haeseler, 2005:629 (Germany: Niedersachsen: Steller Heide near Bremen); Jacobs, 2005a:446 (first record from Bulgaria: Predel Pass in Pirin Mountains.); Kofler, 2005:184 (Austria: Tirol: Lienz District: Unteralkus in Ainet Common, Mittewald in Anras Common, Heinfels, Forchach in Lavant Common, Nikolsdorf); Nemkov, 2005a:159 (Russia: Sakhalin Island); Pagliano and Negrisolò, 2005:145 (in Sphecidae Fauna of Italy); Reder, 2005:949 (Germany: Rheinland-Pfalz: Eisenberg, Monshheim); Riemann and Hohmann, 2005:558 (Germany: Niedersachsen: city of Bremen and adjacent area); Saure, 2005:15 (Germany: Berlin); Theunert, 2005a:17 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Yildirim and Ljubomirov, 2005:1792 (Turkey: Erzurum Province); Archer, 2006a:21 (Great Britain: Lincolnshire: Rauceby Warren National Park); Feitz, Gloden, Melchior, and Schneider, 2006:82 (Luxemburg: Baggerweieren area in Haff Réimech Nature Reserve); Gorobchishin, 2006:140 (Ukraine: Cherkasy Oblast': Kaniv Nature Reserve; Kyiv Oblast': village Kruglyk); Nemkov, 2006b:169 (Russia: Primorskiy Krai: Kedrovaya Pad' Nature Reserve); Standfuss and Standfuss, 2006a:86 (Germany: Nordrhein-Westfalen: Dortmund), 2006c:305 (Greece: Thessalia: Magnisia Peninsula at 39°N 23°E); Baghirov, 2007:93 (Russia: southwestern Siberia); Burger, 2007:59 (Germany: Thüringen: the correct origin of the specimen is Suhl); Evans and O'Neil, 2007:55 (reference to Jacob and Oehlke, 1990, reporting *Philaenus spumarius* as prey); Jacobs, 2007:173, 176 (in key to Crabronidae of Germany); Józán, 2007:180 (Hungary: Zselic hills); Lee and Scott, 2007:22 (Great Britain: East Anglian wetlands); Saure, 2007:82 (Germany: in checklist of Aculeata of Land Brandenburg); Vago, 2007:174 (France: départements du Nord, Pas-de-Calais, and Somme); Venne, Bleidorn, and Lauterbach, 2007:301 (Germany: Nordrhein-Westfalen: Bielefeld); Vepřek and Straka, 2007:208 (in catalog of Sphecidae of Czech Republic and Slovakia); Winkler, 2007:29 (Germany: Niedersachsen: eastern Friesland); Yildirim and Ljubomirov, 2007:117 (Turkey: Artvin, Erzurum and Kars provinces); Haeseler, 2008:308 (Germany: Friesian Islands); Kazenas, 2008b:114 (Kazakhstan: foothills of Zailiskiy Alatau: sometimes found on loess cliffs); Ljubomirov and Yildirim, 2008:81 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:24 (in catalog of Crabronidae of Asiatic Russia); Theunert, 2008:41 (Germany: map of distribution in Niedersachsen and Bremen); Belkheir, 2009:18 (France: Pyrénées-Orientales: commune d'Eyne); U. Frommer, 2009a:27 (Germany: in checklist of Sphecidae of Hessen); Kowalczyk, Kurzac, and Nadolski, 2009:62 (Poland: between Warta and Widawka rivers); Nemkov, 2009b:136 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia), 2009c:238 (Russia: Primorskiy Krai: Lazovsky Nature Reserve); Ødegaard, Sverdrup-Thygeson, Hansen, Hanssen, and Öberg, 2009:71 (Norway: locality records); Ruchin, Antropov, and Shibayev, 2009:170 (Russia: Republic of Mordovia); Bitsch, 2010:113 (in supplement to vol. II of Faune de France, 1997: recent record from Bulgaria reported; France: first records from Lozère: Saint-Etienne-Vallée-Française, and Vendée: L'Ile d'Yeu); Esser, Fuhrmann, and Venne, 2010:36 (Germany: in checklist of aculeates of Nordrhein-Westfalen); Falk, 2010:93 (Great Britain: heathland sites in West Midlands region); Johansson, 2010:121 (Sweden: Småland: upper Emå river valley); Mokrousov, 2010a:61 (Russia: Kirov, Kostroma, Nizhniy Novgorod, and Yaroslavl' Oblast's, Chuvash Republic, Tatarstan: no specific localities); Rudoiskatel', 2010:150 (Russia: central and southern Ural Mountains); Schmid-Egger, 2010a:16 (in red list of Aculeata of Germany: rare); van der Smissen, 2010a:342p (Germany: Schleswig-Holstein: locality records), 2010c:396 (Sweden: Öland: Högsrum); Baghirov, 2011b:142 (Russia: Altayskiy Krai and Altay Republic); Gogala, 2011:27 (Slovenia); Józán, 2011:183 (in checklist of Sphecidae s.l. of Hungary); Mokrousov, Berezin, and Egorov, 2011:67 (Russia: Chuvash Republic); Schmid-Egger, 2011a:38 (France: Parc National du Mercantour: Le Pra); Theunert, 2011a:20 (Germany: in checklist of aculeates of Niedersachsen including city of Bremen); Tischendorf, Frommer, Flügel et al., 2011:81 (Germany: Hessen: threatened to unknown degree); Amolin, 2012:29 (Ukraine: Donetsk); Archer, 2012:183 (Great Britain: urban York); Boillat, 2012:227 (Switzerland: in checklist of insects of Canton de Genève); Nemkov, 2012b:120 (review of known prey), 2012c:446 (in catalog of Crabronidae of Russian Far East); Prismaniy, 2012:51 (Russia: Belgorod Oblast'); Shibayev and Polumordvinov, 2012:278 (Russia: Penza Oblast'); Shlyakhtenok, 2012a:171 (Russia: Krasnaya Polana near Sochi: collected in private plots); Mokrousov, Ruchin, and

Egorov, 2013:199 (Russia: Republic of Mordovia: Mordovian State Nature Reserve); Pankov, 2013:229 (Russia: Ivanovo Oblast'); Saure, 2013:19 (Berlin: Treptow-Köpenick: Gosener Wiesen); Shlyakhtenok, 2013:233 (in annotated catalog of aculeate wasps of Belarus'); Wiśniowski and Szczepko, 2013:35 (Poland: Kampinos National Park near Warszawa); Bitsch, 2014:queci (France: Hérault: Cambon); U. Frommer, 2014:27 (Germany: Hessen: Lorch); Hellqvist, Abenius, and Norén, 2014:90 (in catalog of Ampulicidae, Sphecidae, and Crabronidae of Sweden, by provinces); J.-K. Kim, 2014:422 (in catalog of Sphecidae s.l. of Korean Peninsula); Mokrousov and Vafin, 2014:55 (Russia: Republic of Tatarstan); Ruchin and Antropov, 2014:37 (Russia: Republic of Mordovia); Yıldırım, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey, as *quaqdrifasciatus*); P. Rosa and Pagliano, 2015:101 (Italy: Lombardia and Piemonte: Parco del Ticino); Mokrousov and Popov, 2016:568 (Russia: Krasnodarskiy Krai); Stolle and Saure, 2016:923 (Germany: in list of Sphecidae s.l. of Sachsen-Anhalt); Wiśniowski, 2016:128 (Poland: Ojców National Park); Yıldırım, Ljubomirov, Özbek, and Yüksel, 2016:14 (Turkey: Erzurum Province: several localities); Magdalou, 2017:15 (France: Pyrénées-Orientales: Réserves Naturelles Catalanes: Vallée d'Eyne); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:223 (in catalog of Bembicinae of Russia).

*Euspongus vicinus* Lepeletier de Saint Fargeau, 1832:68, ♂, ♀ (as *Vicinus*, incorrect original capitalization). Holotype: ♀, France: Paris area (Torino). Synonymized with *Mellinus quadrifasciatus* by Wesmael, 1839:78. – Lepeletier de Saint Fargeau, 1845:69 (in revision of world Hymenoptera); Acloque, 1897:83 (in Sphecid Fauna of France and Algeria). – **As *Hoplisis vicinus***: Bradley, 1957:49 (new combination, Lepeletier's specimens in Turin); Casolari and Casolari Moreno, 1980:121 (specimens in M. Spinola collection); Pagliano, 2014:89 (specimens in M. Spinola collection, Torino, are *Gorytes quadrifasciatus*, *Gorytes quinquecinctus*, *Gorytes sulcifrons*, and *Argogorytes* sp.).

*Hoplisis montivagus* Mocsáry, 1878:250, ♂. Holotype or syntypes: ♂, Hungary: Liptó or Zolyóm Comitát: Korytniczá; now Slovakia: Korytnica 21 km NNE Banská Bystrica (TMB). Synonymized with *Gorytes quadrifasciatus* by Handlirsch, 1888b:468. – Haris, 2016:16 (in list of species described by S. Mocsáry from Carpathian Basin). – **As *Gorytes quadrifasciatus* var. *montivagus***: Mocsáry, 1897:82 (new combination, new status, Kingdom of Hungary: Koritnicza, now Korytnica, Slovakia).

As *Gorytes quatuor fasciatus* Panzer: Dufour, 1841a:507 and 1841b:243 (digestive tract), 1841a:508 and 1841b:244 (male reproductive system), 1841a:509 and 1841b:245 (female reproductive system).

As *Gorytes albidulus* (partim): Yıldırım and Ljubomirov, 2005:1791 (Turkey: Artvin and Erzurum Provinces), corrected to *Gorytes quadrifasciatus* by Nemkov in Yıldırım and Ljubomirov, 2007:117.

## 56. *quinquecinctus* (Fabricius)

*Mellinus quinquecinctus* Fabricius, 1793:287, ♀ (as *5.cinctus*, incorrect original spelling). Lectotype: ♀, northern Europe: no specific locality (ZMUC), designated by de Beaumont, 1953f:178. – Fabricius, 1796:98 (in Index to his Entomologia Systematica, 1793); Panzer, 1799, Heft 72:14 (in revision of German insects, illustration of habitus); Fabricius, 1804:299 (redescription, northern Europe). – **As *Ceropales quinquecinctus***: Latreille, 1804:54 (new combination). – **As *Arpactus quinquecinctus***: Panzer, 1806:166 (new combination, in critical review of his earlier work); Jurine, 1807:194 (listed). – **As *Larra quinquecincta***: Lamarck, 1817:118 (new combination). – **As *Hoplisis quinquecinctus***: Lepeletier de Saint Fargeau, 1832:61 (new combination, in revision of Gorytini of western Europe); Dahlbom, 1843:162 (in revision of Sphecidae and Pompilidae), 1845:XXIII (study of type material), 482 (in key to European *Hoplisis*); Wesmael, 1839:77 (comments on Lepeletier's interpretation); Herrich-Schaeffer, 1840:291 (Germany: Bayern: Regensburg area); Lepeletier de Saint Fargeau, 1845:60 (in revision of world Hymenoptera); Wissmann, 1849:12 (Germany: Kingdom of Hannover: Regenstein in Harz Mountains); Wesmael, 1852:102 (Belgium); Ruthe and Stein, 1857:314 (Germany: Berlin area); Schenck, 1857:170 (in revision of fossorial wasps of Nassau Region, Germany); A. Costa, 1858:20 (Italy: Campania: Monti Partenii in Benevento Region); Taschenberg, 1858:89 (in key to Sphecidae of Germany); A. Costa, 1859:33 (in revision of Sphecidae of Kingdom of Naples, Italy); Funk, 1859:59 (Germany: Bayern: Bamberg); Schenck, 1860:148 (Germany: Nassau Region), 1861:142

(Germany: Hessen: Weilburg); Brischke, 1862:101 (Germany: Preussen Province, now Poland: Pomorze Region); A. Costa, 1863:66 (Italy: Calabria Ulteriore: no specific locality); Taschenberg, 1866:195 (in revision of Hymenoptera of Germany); A. Costa, 1867a:23 (Italy: Campania: Montagne di Cava), 1867c:63 (in revision of Italian Sphecidae); Kirchner, 1867:220 (in catalog of European Hymenoptera); Palma, 1867:40 (Italy: Sicilia settentrionale); Schenck, 1867a:355 (Germany: Nassau Region); Dietrich, 1868:364 (Switzerland: Zurich Canton); nec Wierzejski, 1868:117 (= ? *Hoplisoides punctuosus*); A. Costa, 1869b:82 (in revision of Italian Sphecidae); nec A. Costa, 1869b:79 (= *Gorytes procrustes*); von Aichinger, 1870:318 (Austria: Tirol); Thomson, 1870:246 (in revision of Swedish wasps); Schlechtendal, 1872:37 (Germany: Zwickau); Dours, 1874:150 (in catalog of Hymenoptera of France); Mocsáry, 1874:120 (Siebenbürgen, now Romania: Transylvania: no specific locality); Thomson, 1874:236 (in revision of Hymenoptera of Scandinavia); Wierzejski, 1874:259 (Ukraine: L'viv, Sinków, now Sinkiv, Warwaryńce in Trembovla Distric, now Terebovlyat); Marquet, 1875:209 (France: Haute-Garonne: Toulouse); Taschenberg, 1875:369 (Germany: Halle); Beuthin, 1876:231 (Germany: Hamburg area); Schmiedeknecht, 1876:186 (Germany: Thüringen: Rothensteiner Felsen); Radoszkowski, 1877:41 (Uzbekistan); Marquet, 1881:182 (southern France); Yaroshevskiy, 1881:126 (Ukraine: Khar'kiv Oblast': Khar'kiv); Friese, 1883:202 (Germany: Sachsen-Anhalt: Weissenfels); Kohl, 1883e:667 (Switzerland, as *5-cinctus*); Sickmann, 1883:84 (Germany: Niedersachsen: Wellingholthausen); von Heyden, 1884:118 (Germany: Frankfurt am Main); Brischke, 1888b:98 (Germany: Preussen Province, now Poland: Pomorze Region); Radoszkowski, 1892:582 (male genitalia); Baldini, 1894:66 (Italy: Modena area); De Stefani Perez, 1895:228 (in catalog of Sicilian Hymenoptera); Meunier, 1896:272 (Belgium: Bruxelles area, as *quinquecinctus* Wesmael); Acloque, 1897:83 (in Sphecid Fauna of France and Algeria); Lüderwaldt, 1897b:28 (Germany: Gollnow, now Poland: Pomorze Region: Goleniów); Flamary, 1898:45 (France: Saône-et-Loire: Mâcon area); Lange, 1898:70 (Germany: Sachsen: Annaberg-Buchholz); N. 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Spinola collection, as *5-cinctus*); Pagliano, 2014:86 (specimens in M. Spinola collection, Torino, are *Gorytes quinquecinctus*, *Gorytes quinquefasciatus*, and *Gorytes sulcifrons*), 87 (specimens in M. Spinola collection, Torino, are *Gorytes quinquecinctus* and *Gorytes sulcifrons*). – **As *Gorytes quinquecinctus***: Latreille, 1809:89 (new combination); nec Stephens, 1829:363 (in catalog of British insects) and 1829b:33 (in checklist of British insects) = *Argogorytes fargeii*; Vander Linden, 1829:101 (bibliographic references, redescription, Belgium: Bruxelles, Italy); F. Smith, 1856:361 (in catalog of Hymenoptera in British Museum); Girard, 1879:948 (recognition); Kohl, 1880:172 (Austria: Tirol, and Italy: Trentino–Alto Adige); Handlirsch, 1888b:495 (in revision of world Bembicinae); Kohl, 1888b:727 (Austria: Tirol, now Italy: Alto Adige); A. Costa, 1893b:8 (Tunisia); Kohl, 1893a:27 (Austria: Niederösterreich); F. 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Reserve); Scobiola-Palade, 1989:88 (Romania: delta of Danube); Gayubo, Asís, and Tormos, 1990b:78 (Spain: Cáceres Province); Jacobs and Oehlke, 1990:212 (new records from Democratic Germany); Kuznetzova, 1990:19 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve); Nemkov, 1990b:681, 685 (in key to *Gorytes* of former USSR); Pádr, 1990:71 (Czech Republic: Praha area); Pagliano, 1990:71 (in catalog of Italian Sphecidae); Schwammler and Priesner, 1990:552 (Austria: Kärnten); Dollfuss, 1991:200 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:415 (Italy); Józán, 1991:604 (Hungary: Bátorliget Nature Reserve); Kowalczyk, 1991a:89 (Poland: Łódź), 1991b:120 (Poland: Augustów Forest); Negrisolo, 1991:323 (Italy: Gorizia, Treviso and Udine Provinces); Budrys, 1992:28 (in list of Sphecidae of Lithuania); Delarze, 1992:67 (Switzerland: Valais: Les Follatères); Józán, 1992a:229 (Hungary: Béda-Karapanca Protected Area), 1992b:176 (Hungary: Boronka-melléki Protected Area), 1992c:290 (Hungary: Zselic Hills); Pagliano, 1992:39 (in key to Italian Bembicinae); K. Weber, 1992:87 (Germany: Bayern: Bamberg District); Józán, 1993:415 (Hungary: Bükk National Park); Kuhlmann, 1993:75 (Germany: known from Westfalen); Torregrosa, Gayubo, Tormos, and Asís, 1993:20 (Spain: Alicante Province); Blagoveshchenskaya, 1994:91 (Russia: Ul'yanovsk Oblast'); Gayubo and Borsato, 1994:217 (Italy: Piemonte, Veneto, Friuli, Emilia); Kowalczyk, 1994:73 (Poland: Łagiewniki forest in Łódź); Gorobchishin, 1995:18 (Ukraine: Kanev Nature Reserve); Józán, 1995:105 (Hungary: projected Duna-Dráva National Park); Krasnobayev et al., 1995:139 (Russia: Zhiguli Hills NW Samara); Negrisolo, 1995a:22 (Italy: Veneto); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:4 (in catalog of Italian fauna); Nemkov *in* Nemkov, Kazenas, Budrys, et Antropov, 1995:463, 465 (in key to Sphecidae of Russian Far East); Pagliano and Pesarini, 1995:91 (Italy: Ferrara Province); Scharrer, 1995:29 (Austria: Wien area; Germany: Baden-Württemberg: Sulzbach. Bayern: Aschaffenburg, Obernau; Slovenia: Portorož); Schmid-Egger, 1995:61 (Germany: NW Baden-Württemberg); Schmid-Egger, Risch, and Niehuis, 1995:185 (summary of records from Germany: Rheinland-Pfalz State); Arens, 1996:442 (Germany: Bayern: Bayreuth area); Doronin, 1996:18 (Latvia: Kalngale, nest parasitized by *Hedychrum nobile* Scopoli., a chrysidid); Gorobchishin, 1996:53 (Ukraine: Kanev Nature Reserve); Jakobzik, 1996:252 (Germany: Köln); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: not endangered); Voblenko, Gorobchishin, and Nesterov, 1996:15 (Ukraine: Polesye Region); Witt, 1996:106 (Germany: Brandenburg), 108 (locality records); Woydak, 1996:96 (Germany: Westfalen: summary of distribution and nesting behavior), 104 (not recorded after 1950); Wu and Zhou, 1996a:144 (in revision in Economic Insect Fauna of China); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:200 (in Sphecid Fauna of Western Europe); Celary, 1997:60 (in checklist of Animals of Poland); Pagliano and Alma, 1997:178 (known prey listed); Petit, 1997:351 (Belgium: Liège Province: Lanaye: colonization of new habitat); Schmidt and Schmid-Egger, 1997:15 (in checklist of German Sphecidae); Shlyakhtenok, Blinov, and Belyavskaya, 1997:151 (Belarus': Pripyatskiy National Park); Dollfuss, Gusenleitner, and Bregant, 1998:523 (Austria: summary of collecting records from Burgenland); Flügel, 1998:60 (Germany: Brandenburg: Unteres Odertal National Park); Lefebvre, 1998:182 (Netherlands: Limburg: Sint-Pietersberg near Maastricht at 50°50'N 5°41'E); Salzmann-Wandeler, 1998b:102 (Switzerland: Schwyz Canton: Gersau-Oberholz); K. Weber, 1998:140 (Germany: Bayern: Bamberg area); Anan'eva and Kochetkov, 1999:7 (Russia: Ryazan Oblast': no specific locality); Gusenleitner, 1999:601 (Austria: Vorarlberg: Koblach); Kuhlmann, Wolf, and Woydak, 1999:568 (extinct or presumably extinct in Nordrhein-Westfalen State of Germany); Ljubomirov, 1999b:57 (Bulgaria: Mount Vitoshka near Sofia); Majzlan, Rychlík, and Deván, 1999:146 (Slovakia: Čenkovská Step Nature Reserve); Mandery, 1999:105 (Germany: Bayern: Coburg area); Neumayer, Schwarz, and Bregant, 1999:224 (Austria: in checklist of Sphecidae of Land Kärnten); Pauly, 1999:111 (in catalog of Belgian aculeates); Zehnder and Zettel, 1999:131 (Switzerland: recolonization of flooded area in Valais Canton); M. Schwarz, 1999:88 (Austria: Oberösterreich: city of Linz area); Blösch, 2000:384 (in Sphecid Fauna of Germany); Esenbekova and Kazenas, 2000:10 km S Alma Ata (southeast Kazakhstan); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:109 (Greece); Jacobs, 2000:7, 16 (Germany: Land Mecklenburg-Vorpommern: close to extinction); Józán, 2000:113 (Hungary: Bakony Mountains); Ljubomirov,

2000:12 (Bulgaria, specimens in N. Nedelkov collection); Mokrousov, 2000b:31 (Russia: Nizhniy Novgorod Oblast'); Neumeyer, 2000:99 (Switzerland: Basel); Schmid-Egger, 2000b:275 (Germany: Baden-Württemberg: shores of Rhine River); Shkuratov, 2000:56 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Dillier and Neumeyer, 2001:29, 33 (Switzerland: delta of Reuss River on Lake Uri); Józán, 2001:281 (Hungary: Somogy County); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia); Kazenas and Esenbekova, 2001:135 (Kazakhstan: Almatinskiy Nature Reserve); Ljubomirov, 2001b:53 (Bulgaria: Mount Vitoshka near Sofia); Ohl et al., 2001:139 (distribution in Germany by provinces); Salzmänn-Wandeler and Rezbanyai-Reser, 2001:157 (Switzerland: Tessin Canton: Meride area); Tischendorf, 2001:30 (Germany: Hessen: Kühkopf-Knoblochsaue Nature Reserve); Wolf, 2001a:171 (Germany: Bayern: Lech valley from Augsburg to Donau); Zettel, Gross, and Mazzucco, 2001:80 (Austria: Wien); Bieri, 2002:76 (Liechtenstein); Herrmann and Zinnert, 2002:25 (Germany: Baden-Württemberg: Bettenberg near Konstanz, as *quincecinctus*); Józán, 2002:54 (Hungary: Mecsek Mountains); Kazenas, 2002a:121 (geographic distribution, collecting localities in Kazakhstan); Kowalczyk, Szczepko, and Świątek, 2002:155 (Poland: Kampinos National Park near Warszawa); Schmid-Egger, 2002b:182 (in revision of western Palearctic *Gorytes*); Shlyakhtenok and Skibinska, 2002:35 (Belarus': no specific locality); Wiśniowski, 2002:73 (Poland: Ojców National Park); Ziska, 2002:8 (Germany: Berlin-Köpenick: Krumme Lake); Drewes, 2003:138 (France: Haute-Savoie: mouth of Dranse; Hungary: Hortobágy; Italy: Trentino: Lago di Tenno, Nago, Torbole); Józán, 2003:228 (Hungary: Látványi Puszta Nature Conservation Area); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:66 (Germany: in catalog of wasps and bees of Bayern); Protsenko, 2003:68, 69 (Ukraine: Odessa Oblast': Malyy Tataru island in Danube delta at 45.21°N 29.00°E); Tischendorf and Treiber, 2003:121 (Germany: Hessen: 15 km southwest of Frankfurt am Main: nesting under high power lines); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:197 (Germany: Bayern: approaching endangered status); Wiśniowski in Dylewska and Wiśniowski, 2003:178 (Poland: Ojców National Park); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:262 (Germany: in checklist of Sphecidae of Nordrhein-Westfalen); Hellrigl, 2004a:173 (Italy: Trentino-Alto Adige, as Südtirol: Vinschgau = Val Venosta: Lichtenberg near Prad); Litt, 2004:222 (Switzerland: Valais: Vissoie); Majzlan and Deván, 2004:32 (Slovakia: Malacky-Široké); Salzmänn-Wandeler and Rezbanyai-Reser, 2004:27 (central Switzerland); Shkuratov, 2004a:75 (Russia: Rostov Oblast'), 2004b:165 (Russia: Rostov Oblast': Gosudarstvennyi Muzei-Zapovednik M.A. Sholokhova); Skibińska in Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:355 (in catalog of Polish Crabronidae); Stolle et al., 2004:371 (Germany: Sachsen-Anhalt: in red list of Sphecidae); van Achterberg and Peeters, 2004:32 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:51 and 62 (in checklist of Polish Sphecidae); Burger, 2005:33 (Germany: Thüringen); Cruz-Sánchez, Gayubo, González, and Torres, 2005:219 (Spain: Salamanca: San Martín del Castañar); Fallahzadeh, Ostovan, and Shojaei, 2009:43 (first record from Iran: Fars: Jahrom); Gayubo and Özbek, 2005:18 (Turkey: eight localities); Jacobs, 2005a:446 (Bulgaria); Kofler, 2005:184 (Austria: Tirol: Lienz District: several localities); Kowalczyk and Kurzac, 2005:105 (Poland: Botanical Garden in Łódź); Mandery, 2005:174 (Germany: Bayern: Hainberg Nature Reserve near Nürnberg); Mokrousov and Selivanova, 2005:753 (Russia: Voronezh Oblast'); Pagliano and Negrisolo, 2005:145 (in Sphecidae Fauna of Italy); Saure, 2005:16 (Germany: Berlin); Theunert, 2005a:17 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Yildirim and Ljubomirov, 2005:1792 (Turkey: Artvin, Bayburt, and Erzurum provinces); Feitz, Gloden, Melchior, and Schneider, 2006:82 (Luxemburg: Baggerweieren area in Haff Réimech Nature Reserve); Gorobchishin, 2006:140 (Ukraine: Cherkasy Oblast': Kaniv Nature Reserve; Kyiv Oblast': village Svityl'ne; Vinnytsya Oblast': village Dubovets'); Hua, 2006:280 (in list of Chinese insects, geographic distribution); Liebig, 2006:38 (Germany: Sachsen: Muskauer Heide); Ljubomirov, 2006:540 (Bulgaria: Rhodope Mountains: Narechenski Bani Village, Velingrad; Greece: records from Rhodope Mountains by Schmidt and Westrich, 1983, reported; as *quincecinctus quincecinctus*); Shlyakhtenok, 2006:113 (Belarus': Polesye Radiological Nature Reserve); Standfuss and Standfuss, 2006c:305 (Greece: Thessalia: Magnisia Peninsula at 39°N 23°E); Tomarchio and Turrisi, 2006:955 (Italy: first record from Sicilia: Mount Etna); Vepřek, 2006:510 (Czech Republic: Kokořínsko area); Dvořák, Straka, Smetana, Halada, Vepřek, and Karas, 2007:168 (Czech Republic: Vyšenské

Kopce National Nature Reserve); Evans and O'Neil, 2007:55 (K. Schmidt reported *Philaenus* sp. as prey); Herrmann, 2007b:94 (Germany: Baden-Württemberg: Fürstenberg in Konstanz); Jacobs, 2007:174, 178 (in key to Crabronidae of Germany); Jansen and Kaluza, 2007:24 (Germany: northwestern Sachsen); Józán, 2007:180 (Hungary: Zselic hills); Kowalczyk and Nadolski, 2007:283 (Poland: Łódź: railway areas); Saure, 2007:82 (in checklist of Aculeata of Land Brandenburg, Germany); Shorenko, 2007b:258 (Ukraine: Crimea: Feodosiya); Vago, 2007:174 (France: départements du Nord, Pas-de-Calais, and Somme); Vepřek and Straka, 2007:208 (in catalog of Sphecidae of Czech Republic and Slovakia); Vicidomini and Pignataro, 2007:2 (Italy: Salerno: known from Parco Nazionale del Cilento e Vallo di Diano), 15 (Italy: Provincia di Salerno: ubiquitous); Yildirim and Ljubomirov, 2007:118 (Turkey: Erzincan and Erzurum provinces); Livory, Chevin, Lair, Sagot, and Baldock, 2008:35 (France: Département de la Manche); Ljubomirov and Yildirim, 2008:81 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:24 (in catalog of Crabronidae of Asiatic Russia); Protsenko and Drozdovskaya, 2008:128 (Ukraine: Sumy Oblast': Mogritsa village); Fallahzadeh, Ostovan, and Saghaei, 2009:237 (Iran: Fars: Jahrom), 243 (color photograph); U. Frommer, 2009a:27 (Germany: in checklist of Sphecidae of Hessen); Józán, 2009:166 (Croatia: Podhum, Most-Raša); Kowalczyk, Kurzac, and Nadolski, 2009:62 (Poland: between Warta and Widawka rivers); Nemkov, 2009b:137 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Pagliano, 2009:178 (Italy: recorded from Sicilia by Tomarchio and Turrisi, 2006); Ruchin, Antropov, and Shibayev, 2009:170 (Russia: Republic of Mordovia); Shorenko, 2009:368 (in list of Sphecidae s.l. of Crimea); Esser, Fuhrmann, and Venne, 2010:36 (Germany: in checklist of aculeates of Nordrhein-Westfalen); Hable, von der Dunk, and Knipfer, 2010:65 (Germany: Bayern: vicinity of Dietfurt); Hable, Wickl, Krauss, and von der Dunk, 2010:27 (Germany: Bayern: Sulz- and Ottmaringer Tal); Mokrousov, 2010a:61 (Russia: Kirov, Kostroma, Nizhniy Novgorod, Vladimir Oblast's, Chuvash Republic, Mordovian Republic, Tatarstan: no specific localities); Rudoiskatel', 2010:150 (Russia: central and southern Ural Mountains); Schmid-Egger, 2010a:16 (in red list of Aculeata of Germany: relatively common); Shorenko and Konovalov, 2010:15 (Ukraine); Smetana, Roller, Beneš, Bogusch, Dvořák, Holý, Karas, Macek, Straka, Šima, Tyrner, Vepřek, and Zeman, 2010:101 (Western Slovakia: recorded from Borská Nížina); Treiber, 2010:135 (France: départements du Bas-Rhin and du Haut-Rhin); Tüzün and Yüksel, 2010:4473 (Turkey: Niğde Province); van der Smissen, 2010b:384 (France: Vaucluse: Le Beaucet-Venasque); Wurdack and Gack, 2010:153 (Germany: Baden-Württemberg: Kaiserstuhl); Baghirov, 2011b:142 (Russia: Altayskiy Krai and Altay Republic); Gogala, 2011:27 (Slovenia); Józán, 2011:183 (in checklist of Sphecidae s.l. of Hungary); Mokrousov, Berezin, and Egorov, 2011:67 (Russia: Chuvash Republic); Saure, 2011c:198 (Germany: Berlin-Spandau: Fort Hahneberg); Shlyakhtenok, 2011:95 (Belarus': city of Minsk); Theunert, 2011a:20 (Germany: in checklist of aculeates of Niedersachsen including city of Bremen); Tischendorf, Frommer, Flügel et al., 2011:71 (Germany: Hessen: endangered), 103 (may be endangered); Boillat, 2012:227 (Switzerland: in checklist of insects of Canton de Genève); Cölln, Jakubzik, and Kinkler, 2012:24 (Germany: Nordrhein-Westfalen: Leverkusen); Gerth, Mayer, Hering, Wolf, Schaffer, and Bleidorn, 2012:9 (Germany: Sachsen: Bienitz in Leipzig); Shlyakhtenok, 2012a:171 (Belarus': collected in private plots); Strumia, Pagliano, and Gayubo, 2012:56 (Italy: Toscana: Riserva di San Rossore); Yildirim, 2012:76 (Turkey: Bayburt, Iğdir, and Kars provinces); Bayındır, Gürbüz, Ljubomirov, and Pohl, 2013:146 (Turkey: Isparta: Kasnak Oak Forest Nature Reserve); Dyuzhaeva, 2013:117 (Russia: Samara Oblast': Zhiguli Nature Reserve); Mokrousov, Ruchin, and Egorov, 2013:199 (Russia: Mordovian Republic: Mordovian State Nature Reserve); Pankov, 2013:229 (Russia: Ivanovo Oblast'); Saure, 2013:19 (Berlin: Treptow-Köpenick: Gosener Wiesen); Shlyakhtenok, 2013:234 (in annotated catalog of aculeate wasps of Belarus'); Wiśniowski and Szczepko, 2013:35 (Poland: Kampinos National Park near Warszawa); U. Frommer, 2014:27 (Germany: Hessen: Lorch); Hellqvist, Abenius, and Norén, 2014:90 (in catalog of Ampulicidae, Sphecidae, and Crabronidae of Sweden, by provinces); Mokrousov and Vafin, 2014:55 (Russia: Republic of Tatarstan); Protsenko, Fateryga, and Ivanov, 2014:31 (Crimea: several localities); Yildirim, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); P. Rosa and Pagliano, 2015:101 (Italy: Lom-

bardia and Piemonte: Parco del Ticino); Samin, Bagriacik, and Monaem, 2015:196 (Iran: East Azarbaijan: Khomarloo); Simon, Lorthiois, and Macé, 2015:54 (France: alluvial terraces in Eure Department: Courcelles-sur-Seine and Seine-Maritime Department: Anneville-Ambourville); Mokrousov and Popov, 2016:568 (Russia: Krasnodarskiy Kray); Saure, 2016a:8 (Germany: Brandenburg: Uckermark District: dry slopes near Altgalow-Stützkow), 2016b:49 (Germany: Sachsen-Anhalt: fruit orchards); Stolle and Saure, 2016:923 (Germany: in list of Sphecidae s.l. of Sachsen-Anhalt); Wiśniowski, 2016:128 (Poland: Ojców National Park); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:14 (Turkey: Artvin, Bayburt, Erzurum, Giresun, Kars, and Tunceli provinces); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:37 (Iran: known from East Azerbaijan and Fars provinces); Jansen, 2017:8 (Germany: Sachsen: Leipzig); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:223 (in catalog of Bembicinae of Russia, as *quinquecinctus quinquecinctus*); Shorenko, 2017:80 (in Crimea collected in June and July).

? *Crabro calceatus* Rossi, 1794:122, sex not indicated. Holotype or syntypes: Italy: Etruria, now Toscana: no specific locality (lost). Synonymized with *Hoplisis quinquecinctus* by Lepeletier de Saint Fargeau, 1832:65. – de Beaumont, 1953f:198 (discussion of identity).

? *Mellinus arenarius* Panzer, 1798, Heft 53:12 [♀]. Holotype or syntypes: ♀, Austria: no specific locality (lost during World War 2 ?). – de Beaumont, 1953f:198 (discussion of identity). – *As Arpactus arenarius*: Jurine, 1807:194 (new combination, listed). – *As Hoplisis arenarius*: Wissmann, 1849:12 (new combination, Germany: Kingdom of Hannover: Münden); Kirchner, 1867:220 (in catalog of European Hymenoptera). – *As Gorytes arenarius*: Stephens, 1829:363 (in catalog of British insects), 1829b:33 (in checklist of British insects); Vander Linden, 1829:99 (new combination, bibliographic references, redescription, Belgium: Bruxelles, Germany); Herrich-Schaeffer, 1840:290 (Germany: Bayern: Regensburg area).

As *Gorytes cinctus*: Latreille, [1805]:308 (redescription; the name is a lapsus for *quinquecinctus*, because it refers to *Mellinus quinquecinctus* Fabricius, and because it should be a translation of “Goryte à cinq bandes”), 1806:pl. XIII, fig. 11 (illustration); Spinola, 1806:92 (Italy: Liguria); Becker, 1880:151 (Russia: Sarepta, now Krasnoarmeysk south of Volgograd); de Beaumont, 1953f:198 (the name is a typographic error).

? *Gorytes ruficornis* Latreille, [1805]:309, ♀. Holotype or syntypes: ♀, France: no specific locality (depository?). – de Beaumont, 1953f:200 (discussion of identity). – Spinola, 1808:175 (Italy: Genova area). – *As Stizus ruficornis*: Klug in Waltl, 1835:88 (new combination, in list of Hymenoptera of Andalusia). – *As Hoplisis ruficornis*: Casolari and Casolari Moreno, 1980:121 (new combination, specimens in M. Spinola collection); Pagliano, 2014:86 (specimens in M. Spinola collection, Torino are *Gorytes sulcifrons* and *Gorytes quinquefasciatus*).

As *Hoplisis ?punctuosus*: Wierzejski, 1868:117 (Ukraine: Podole, Lvov), corrected to *Hoplisis quinquecinctus* by Wierzejski, 1874:259.

*Gorytes proximus* Handlirsch, 1893b:280, ♀. Holotype: ♀, Azerbaijan: Helenendorf, now Khanlar (NHMW). Synonymized with *Gorytes quinquecinctus* by Nemkov, 1989:72. – Handlirsch, 1895:923 (original description copied); Dalla Torre, 1897:550 (in catalog of world Sphecidae); Maidl and Klima, 1939:96 (in catalog of world Astatinae and Bembicinae); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Dollfuss, 1989:9 (type material in NHMW).

As *Hoplisis latifrons*: Dahlbom, 1843:164 (in revision of European Hymenoptera) and 1845:482 (in key to European *Hoplisis*), corrected to *Hoplisis quinquecinctus* by Thomson, 1870:246.

As *Psammaecius latifrons*: Radoszkowski, 1892:582 (male genitalia), corrected to *Gorytes quinquecinctus* by Handlirsch, 1895:922.

### **ssp. *sinuatus* (A. Costa)**

*Hoplisis sinuatus* A. Costa, 1867c:64, ♀, ♂. Syntypes: Italy: Napoli area and Toscana: no specific localities (Napoli). – Baldini, 1894:67 (Italy: Modena area); de Beaumont, 1953i:4 (study of the only surviving syntype, a ♀). – *As Gorytes sinuatus*: Handlirsch, 1888b:181 (new combination, in revision of world Bembicinae); R. Bohart and

Menke, 1976:501 (as synonym of *Gorytes quinquecinctus*). – **As *Gorytes quinquecinctus sinuatus***: de Beaumont, 1951g:312 (new status, Italy), 1953f:177 (in revision of western Palearctic *Gorytes*); Grandi, 1954:233 (Italy). – **As *Gorytes quinquecinctus* var. *sinuatus***: Bajári, 1957a:107, 110 (new status, in key to Hungarian Sphecidae).

*Hoplisis sinuatus* A. Costa, A. Costa, 1869b:81. Objective synonym of *Hoplisis sinuatus* A. Costa, 1867c:64.

### 57. *quinquefasciatus* (Panzer)

*Mellinus quinquefasciatus* Panzer, 1798, Heft 53:13, [♀]. Holotype or syntypes: ♀, Austria: no specific locality (depository?). – Panzer, 1806:166 (as junior synonym of *Arpactus quadrifasciatus*, in critical review of his earlier work). – **As *Euspongus quinquefasciatus***: Herrich-Schaeffer, 1840:291 (new combination, Germany: Bayern: Regensburg area). – **As *Hoplisis quinquefasciatus***: A. Costa, 1867c:61 and 1869b:80 (new combination, in revision of Italian Sphecidae), 1883:57 (Italy: Sardegna: Oschiri); Baldini, 1894:67 (Italy: Modena area; as *quinquefasciata*); de Gaulle, 1908:120 (in catalog of French Hymenoptera, as *5-fasciatus*); Schirmer, 1912:166 (Germany: Berlin area); Noskiewicz, 1918:137 (Galicia, now western Ukraine: Brzuchowice near Lwów); Dubois, 1920:88 (specimen in coll. Wesmael); Hedicke, 1922:271 (Germany: Brandenburg: Gross Machnower Weinberg); Schneid, 1941:1040 (Germany: Bayern: Bamberg area); Bat'a, 1944b:91 (Czech Republic: Veselí); Szulczewski, 1950:107 (Poland: Wielkopolski National Park 15 km south of Poznań); Bischoff and Stadler, 1954:126 (Germany: Bayern: Romberg); Hamann, 1960:198 (Austria: Oberösterreich: Mönchgraben at 48°13'N 14°21'E). – **As *Gorytes quinquefasciatus***: nec Stephens, 1829:363 (new combination, in catalog of British insects) and 1829b:33 (in checklist of British insects) = *Argogorytes fargeii*; Handlirsch, 1888b:486 (in revision of world Bembicinae); Kohl, 1888b:728 (Austria: Tirol, now Italy: Alto Adige); Gasperini, 1889:70 (= *Hoplisis eburneus* Chevrier); Kohl, 1893a:27 (Austria: Niederösterreich); Handlirsch, 1895:921 (Germany: Mecklenburg: Fürstenberg); Dalla Torre, 1897:553 (in catalog of world Sphecidae); Mocsáry, 1897:82 (Kingdom of Hungary, some localities are in today's Croatia and Romania); Handlirsch, 1898b:488 (Algeria); de Cobelli, 1903:113 (Italy: Province of Trentino); Mosolov, 1905b:19 (Russia: Moscow Government: Mikhailovskoye); Mercet, 1906a:135, 142 (in key to Spanish *Gorytes*, as *5-fasciatus*); Schmiedeknecht, 1907:219, 221 (in key to Hymenoptera of Central Europe); Ferton, 1908:558 (habitat and nest structure); Šusterka, 1909:34 (Czech Republic: vicinity of Praha); Dittrich, 1911b:23 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Birula, 1912:540 (Ukraine: Zhytomyr Oblast': Radomyshl'), 1914:385 (Belarus': Ambrosovichy near Vitebsk); O. Meyer, 1919:153 (Germany: Posen Province, now Poland: Poznań Region); Dubois, 1921c:201, 202, 204 (in key to Belgian Sphecidae); Maidl, 1922:71 (Croatia); Berland, 1925d:89 (in Sphecid Fauna of France); Bischoff, 1925:300 (Poland: Grajewo area); Lauterborn, 1926:7 (Germany: Baden-Württemberg: Kaiserstuhl); Benoist, 1928:409 (France: Hautes-Alpes: Le Monétier); Schmiedeknecht, 1930:681, 683 (in key to Hymenoptera of North and Central Europe); Pulkkinen, 1931:63 (in revision of Sphecidae of Finland, not yet found in Finland); Grandi, 1934:129 (Italy: Emilia-Romagna: vicinity of Bologna, and Lazio: Acilia); Blüthgen, 1937:236 (Germany: Saale River valley: Naumburg); Goebel, 1937:42 (Poland: Poznań District: Poznań-Dębina); Maidl and Klima, 1939:98 (in catalog of world Astatinae and Bembicinae); Paul, 1941:44 (Germany: Pommern: common in Central and East Pommern: no specific locality, now Poland: Województwo Zachodniopomorskie: Pomorze środkowe i wschodnie); Giner Marí, 1943a:180 (in Sphecid Fauna of Spain); Šnoflák, 1944a:144 (Czech Republic: serpentine steppe near Mohelno); de Beaumont, 1945:475 (Switzerland); van Lith, 1947:106 (Netherlands); Balthasar, 1948:141 (Slovakia: Kovačov, Parkan); Šnoflák in Zavadil and Šnoflák, 1948:70, 72 (in key to Sphecidae of Czechoslovakia); Aerts, 1950a:51 (Germany: Nordrhein-Westfalen: Rheidter Wertchens near Köln); de Beaumont, 1951g:314 (Italy); Koornneef, 1951:245 (first record from Netherlands: Velp); Caruel, 1952a:62 (France: Marne Department); de Beaumont, 1953f:191 (in revision of western Palearctic *Gorytes*); Guiglia, 1953b:12 (Italy: Lucania-Calabria: Colloreto); de Beaumont, 1954e:89 (Italy); Grandi, 1954:233 (Italy); Aerts, 1955:62 (Germany: Rheinland); Atanassov, 1955:200 (Bulgaria: four localities); Steiner, 1955:145 (France: Dordogne); Vergne, 1955:4 (France: Auvergne); Vogrin, 1955:35 (Yugoslavia); Ceballos, 1956:384 (in catalog of Hymenoptera of Spain); Morel, Nouvel, and Ribaut, 1956:338 (France: Département des Pyrénées-Orientales); Bajári,

1957a:108, 110 (in key to Hungarian Sphecidae); Grandi, 1957:385 (Italy); Zirngiebl, 1957:181 (Germany: Rheinland-Pfalz: Birkenheide, Dürkheimer Bruch); Benno, 1958b:11 (in review of Dutch Sphecidae); Puławski, 1958a:167 (Bulgaria: Kniazhevo near Sofia); de Beaumont, 1959a:20 (Italy); Wolf, 1959b:30 (Germany: Nassau); Noskiewicz and Puławski, 1960:93, 94 (in key to Polish Sphecidae); Grandi, 1962:98 (Italy); Babiý, 1964:117 (Austria: Land Salzburg); de Beaumont, 1964c:49 (in Sphecid Fauna of Switzerland), 1965a:36 (Greece); B. Klug, 1965:136 (Germany: Baden-Württemberg: Freiburg im Breisgau area); nec Schmidt, 1966:... (= *Gorytes laticinctus*); Balthasar, Hrubant, and Hrubant, 1967:172 (Bulgaria: Slanchev Bryag near Nessebyr); Benno, 1967:34 (in checklist of Sphecidae of Netherlands); de Beaumont, 1967a:315 (Turkey); Gauss, 1967:552 (Germany: Baden-Württemberg); J. Heinrich, 1967:72 (Germany: Bayern: Unterfranken District); Niedl and Deneš, 1967:82 (Czech Republic: Třeboň area); Scobiola-Palade, 1967b:48 (Romania), 1968c:384 (Romania: Budești); Schmidt, 1969:162 (Germany: Rhein-Main area); Oehlke, 1970:691 (Democratic Germany); Lefeber, 1971b:222 (Belgium: Mechelse Heide); Schmidt, 1971b:28 (Germany: Rheinland-Pfalz: Mainzer Sand); Balthasar, 1972:308 (in Sphecid Fauna of Czechoslovakia); Niedl and Deneš, 1972:153 (Czech Republic: Třeboň area); Scobiola-Palade, 1972a:150 (Romania: delta of Danube: Caraorman); Diniz, 1973:45 (Portugal: Mata do Fundão, Soalheira); Erlandsson, 1974:65 (Yugoslavia); Kazenas, 1974b:110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, in Kazakhstan); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Kolesnikov, 1977:317 (Russia: Bryansk Oblast'); Kazenas, 1978b:75, 77 (in key to Sphecidae of Kazakhstan and Central Asia); Puławski, 1978:203 (in key to Sphecidae of European part of former USSR); Benedek, 1979:230 (Hungary: Bakony Mountains); Leclercq, Gaspar and Verstraeten, 1979:map 1479 (distribution in Belgium); Lefeber, 1979:11 (in checklist of Sphecidae of Netherlands), 40 (Netherlands: distribution map); Schmidt, 1979b:350 (Germany: Baden-Württemberg); Pagliano, 1980:115 (Italy: Piemonte); Dollfuss and Ressler, 1981:324 (Austria: Niederösterreich: Scheibbs District); Donath, 1982:213 (Democratic Germany: Cottbus Bezirk); Gayubo, 1982b:42 (Spain: Ávila, Cáceres, and Salamanca provinces), 1982e:106 (Spain: Cádiz Province); Skibińska, 1982:119, 123 (Poland: Mazovian Voivodship: Wola Mrokowska); Dollfuss, 1983b:23 (Austria); Chevin and Chevin, 1985:39 (France: Aude); Józán, 1985b:61 (Hungary S Lake Balaton), 84 (ecological and zoogeographic characteristics); Lefeber, 1985:87 (Netherlands: southern Limburg); Scobiola-Palade, 1985:96 (Romania: delta of Danube); Westrich and Schmidt, 1985b:111 (Germany: endangered in Baden-Württemberg); Gayubo, 1986a:65 (Spain: Ciudad Real), 1986d:120 (Spain: Zamora Province); Gayubo and Sanza, 1986:77 (Spain: Burgos, Segovia); Gayubo and Tormos, 1986a:13 (Spain: Castellón de la Plana); Józán, 1986:374 (Hungary: Kiskunság National Park); Nemkov, 1986:108 (Russia: Siberia: Irkutsk Oblast'); Schmidt and Westrich, 1987:359 (Germany: Mainz area); Asís and Jiménez, 1988:274 (Spain: Castellón Province); Dollfuss, 1988:19 (Austria: Bisamberg); Kowalczyk, 1988b:65 (Poland: environs of Łódź); Józán, 1989:102 (Hungary: Tihany Natural Reserve); Nemkov, 1989:69, 70 (in key to *Gorytes* of Siberia and Russian Far East); Pádr *in* Šedivý, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Gayubo, Asís, and Tormos, 1990b:78 (Spain: Avila, Cáceres, Salamanca Provinces); Jacobs and Oehlke, 1990:212 (new records from Democratic Germany); Kuznetzova, 1990:19 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve); Nemkov, 1990b:683, 684 (in key to *Gorytes* of former USSR, as *quinquefasciatus quinquefasciatus*); Pádr, 1990:71 (Czech Republic: Praha area); Pagliano, 1990:71 (in catalog of Italian Sphecidae); Schwammlberger and Priesner, 1990:552 (Austria: Kärnten); Day, 1991:xv (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:201 (in key to Sphecidae of North and Central Europe); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Gayubo, Borsato, and Osella, 1991:415 (Italy); Budrys, 1992:28 (in list of Sphecidae of Lithuania); Gayubo, Borsato, and Osella, 1992:288 (Greece: Tymphristos); Józán, 1992b:176 (Hungary: Boronka-melléki Protected Area); Pagliano, 1992:37, 39 (in key to Italian Bembicinae); K. Weber, 1992:87 (Germany: Bayern: Bamberg District); Józán, 1993:415 (Hungary: Bükk National Park); Gayubo and Borsato, 1994:217 (Italy: Lombardia); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:4 (in catalog of Italian fauna); Nemkov *in* Nemkov, Kazenas, Budrys, et Antropov, 1995:463, 464 (in key to Sphecidae of Russian Far East); Scharrer, 1995:29 (Austria: Niederösterreich: Donauauen; Germany: Bayern: Kahl, Mainfranken); Schmid-Egger, Risch, and Niehuis, 1995:188 (summary of records from Germany: Rheinland-Pfalz State); Blösch,



1996:7 (Germany: Bayern: Tennenloher Forst Nature Reserve near Erlangen); Pawlikowski and Kruszyński, 1996:86 (Poland: Toruń Basin); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: endangered); Voblenko, Gorobchishin, and Nesterov, 1996:15 (Ukraine: Polesye Region); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:201 (in Sphecida Fauna of Western Europe); Celary, 1997:60 (in checklist of Animals of Poland); Schmidt and Schmid-Egger, 1997:15 (in checklist of German Sphecidae); Stoyanov and Ljubomirov, 1997:27 (Bulgaria: Rila Mountains); Dollfuss, Gusenleitner, and Bregant, 1998:523 (Austria: summary of collecting records from Burgenland); Flügel, 1998:60 (Germany: Brandenburg: Unteres Odertal National Park); K. Weber, 1998:141 (Germany: Bayern: Bamberg area); Anan'eva and Kochetkov, 1999:7 (Russia: Ryazan Oblast': no specific locality); Neumayer, Schwarz, and Bregant, 1999:224 (Austria: in checklist of Sphecidae of Land Kärnten); Pauly, 1999:111 (in catalog of Belgian aculeates); M. Schwarz, 1999:88 (Austria: Oberösterreich: city of Linz area); Blösch, 2000:384 (in Sphecida Fauna of Germany); Dressler, 2000:32 (Germany: Hessen: Darmstadt area); Esenbekova and Kazenas, 2000:61 (southeast Kazakhstan: near Alma Ata, 5 km south, 6 km southwest, and 20-23 km west of Alma Ata, 3-8 km south of Talgar, 3 km southwest of Temirbastau); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:109 (Greece); Gonzáles, Gayubo, and Tormos, 2000:21 (Andorra: Santa Coloma); Józán, 2001:281 (Hungary: Somogy County); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia); Kazenas and Esenbekova, 2001:135 (Kazakhstan: Almatinskiy Nature Reserve); Ohl et al., 2001:139 (distribution in Germany by provinces); van der Smissen, 2001:61 (Germany: Schleswig-Holstein: extinct); Wolf, 2001a:171 (Germany: Bayern: Lech valley from Augsburg to Donau); Zettel, Gross, and Mazzucco, 2001:80 (Austria: Wien); Józán, 2002:54 (Hungary: Mecsek Mountains); Kazenas, 2002a:121 (geographic distribution, collecting localities in Kazakhstan); Schmid-Egger, 2002b:182 (in revision of western Palearctic *Gorytes*); Shlyakhtenok and Skibinska, 2002:35 (Belarus': no specific locality); Venne and Bleidorn, 2002:10 (Germany: Nordrhein-Westfalen: Moosheide Nature Reserve); Drewes, 2003:138 (Hungary: Hortobagy); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:66 (Germany: in catalog of wasps and bees of Bayern); Nieves-Aldrey, Fontal-Cazalla, Garrido-Torres, and Rey del Castillo, 2003:42 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Schmid-Egger, 2003:753 (Italy: Sicilia: six localities); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:195 (Germany: Bayern: no longer endangered); Dathe and Blank, 2004:181 (Germany: Nordrhein-Westfalen, addition to Ohl et al., 2001); Deván, 2004:147 (western Slovakia); Esser, Jakubzik, and Sonnenburg, 2004:18 (Germany: Nordrhein-Westfalen); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:262 (Germany: in checklist of Sphecidae of Nordrhein-Westfalen); Gayubo et al. 2004:130 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Skibińska in Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:355 (in catalog of Polish Crabronidae); Stolle et al., 2004:371 (Germany: Sachsen-Anhalt: in red list of Sphecidae); van Achterberg and Peeters, 2004:32 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:51 and 62 (in checklist of Polish Sphecidae); Blösch, 2005:8 (Germany: Bayern: Tennenloher Forst Nature Reserve near Erlangen); Burger, 2005:33 (Germany: Thüringen); Gayubo and Özbek, 2005:18 (Turkey: Erzurum: University campus, Ýspir); Jacobs, 2005a:446 (Bulgaria); Mandery, 2005:174 (Germany: Bayern: Hainberg Nature Reserve near Nürnberg); Pagliano and Negrisoló, 2005:146 (in Sphecida Fauna of Italy); Reder, 2005:950 (Germany: Rheinland-Pfalz: Eisenberg); Saure, 2005:16 (Germany: Berlin); Shoreenko, 2005a:167 (Ukraine: Crimea, as *quinquefasciatus quinquefasciatus*), 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve, as *quinquefasciatus quinquefasciatus*); Theunert, 2005a:17 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Venne and Bleidorn, 2005:43 (Germany: Nordrhein-Westfalen: Moosheide Nature Reserve); Gorobchishin, 2006:140 (Ukraine: Kyiv); Liebig, 2006:38 (Germany: Sachsen: Muskauer Heide); Ljubomirov, 2006:540 (Bulgaria: earlier records from Rhodope Mountains summarized, as *quinquefasciatus quinquefasciatus*); Jacobs, 2007:174, 177 (in key to Crabronidae of Germany); Saure, 2007:82 (in checklist of Aculeata of Land Brandenburg, Germany); Theunert, 2007c:96 (Germany: Niedersachsen: Braunschweig); Vepřek and Straka, 2007:208 (in catalog of Sphecidae of Czech Republic and Slovakia); Yildirim and Ljubomirov, 2007:118 (Turkey: Artvin and Erzurum provinces); Gayubo, González, Tormos, and Asís, 2008:137 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra

de Francia); Ljubomirov and Yildirim, 2008:82 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:24 (in catalog of Crabronidae of Asiatic Russia); Theunert, 2008:41 (Germany: map of distribution in Niedersachsen and Bremen); U. Frommer, 2009a:27 (Germany: in checklist of Sphecidae of Hessen); Gayubo, González, Tormos, and Asís, 2009:364 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); González, Gayubo, Asís, and Tormos, 2009:625 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Guéorguiev and Ljubomirov, 2009:262 (Bulgaria: Maleshevska Planina); Józán, 2009:166 (Croatia: 3 km north of Brseč); Kowalczyk, Kurzac, and Nadolski, 2009:62 (Poland: between Warta and Widawka rivers); Nemkov, 2009b:137 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Pagliano, 2009:178 (Italy: Molise: Campolieto, Guardafiera); Ruchin, Antropov, and Shibayev, 2009:170 (Russia: Republic of Mordovia); Shorenko, 2009:368 (in list of Sphecidae s.l. of Crimea); Bitsch, 2010:113 (in supplement to vol. II of Faune de France, 1997: recent record from Corsica reported); Esser, Fuhrmann, and Venne, 2010:36 (Germany: in checklist of aculeates of Nordrhein-Westfalen); Hable, Wickl, Krauss, and von der Dunk, 2010:27 (Germany: Bayern: Sulz- and Ottmaringer Tal); Mokrousov, 2010a:61 (Russia: Nizhniy Novgorod and Vladimir Oblast's, Chuvash Republic, Mordovian Republic: no specific localities); Saure, 2010b:175 (Germany: Berlin-Reinickendorf: airport Tempel and Flughafensee Protected Area); Schmid-Egger, 2010a:16 (in red list of Aculeata of Germany: rare); Smetana, Roller, Beneš, Bogusch, Dvořák, Holý, Karas, Macek, Straka, Šima, Tyrner, Vepřek, and Zeman, 2010:89 (Western Slovakia: Borská Nížina), 101 (Western Slovakia: recorded from Borská Nížina); van der Smissen, 2010b:384 (France: Drôme: Dieulefit; Vaucluse Bédoin, Le Beaucet-Venasque); Bogusch, Straka, Macek, Dvořák, Vepřek, and Říha, 2011:94 (Czech Republic: Moravia: Mikulov); Cruz-Sánchez, Asís, Gayubo, Tormos, and González, 2011:500 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park: effects of wildfire), 501 (exclusive species of control areas); Gogala, 2011:28 (Slovenia); Józán, 2011:183 (in checklist of Sphecidae s.l. of Hungary); Mokrousov, Berezin, and Egorov, 2011:67 (Russia: Chuvash Republic); Saure, 2011a:6 (Germany: Berlin: former airport Tempelhof), 2011c:198 (Germany: Berlin-Spandau: Fort Hahneberg); Shlyakhtenok, 2011:95 (Belarus: city of Minsk); Theunert, 2011a:20 (Germany: in checklist of aculeates of Niedersachsen including city of Bremen); Boillat, 2012:227 (Switzerland: in checklist of insects of Canton de Genève); Nemkov, 2012c:446 (in catalog of Crabronidae of Russian Far East); Saure, 2012b:229 (Germany: Berlin-Spandau: Spandauer Forst); Strumia, Pagliano, and Gayubo, 2012:56 (Italy: Toscana: Riserva di San Rossore); Bayındır, Gürbüz, Ljubomirov, and Pohl, 2013:146 (Turkey: Isparta: Kasnak Oak Forest Nature Reserve); Kazenas, 2013b:497 (southeastern Kazakhstan: foothills, low mountains, Ili River valley); Shlyakhtenok, 2013:234 (in annotated catalog of aculeate wasps of Belarus); Vieira, Oliveira, Brewster, and Gayubo, 2013:15 (Portugal: Douro International Natural Park); Wiśniowski and Szczepko, 2013:35 (Poland: Kampinos National Park near Warszawa); Bitsch, 2014:398 (France: Ardèche: Saint-Remèze); Mokrousov and Vafin, 2014:55 (Russia: Republic of Tatarstan); Protsenko, Fateryga, and Ivanov, 2014:31 (Crimea: Opuksk Nature Reserve); Yıldırım, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); P. Rosa and Pagliano, 2015:101 (Italy: Lombardia and Piemonte: Parco del Ticino); Saure, 2015:13 (Germany: Berlin-Lichterfelde); Mokrousov and Popov, 2016:568 (Russia: Krasnodarskiy Krai); Stolle and Saure, 2016:923 (Germany: in list of Sphecidae s.l. of Sachsen-Anhalt); Yıldırım, Ljubomirov, Özbek, and Yüksel, 2016:14 (Turkey: Erzurum: Pazaryolu: Kumaşkaya, as *quinquefasciatus quinquefasciatus*); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:223 (in catalog of Bembicinae of Russia, as *quinquefasciatus quinquefasciatus*); Shorenko, 2017:80 (in Crimea collected in June).

*Hoplisis lacordairei* Lepeletier de Saint Fargeau, 1832:64, ♂ (as *Lacordairei*, incorrect original capitalization). Holotype: ♂, France: Paris (Torino). Synonymized with *Gorytes quinquefasciatus* by Handlirsch, 1888b:486. – Wesmael, 1839:77 (unknown to the author, as *Lacorderei*); Lepeletier de Saint Fargeau, 1845:64 (in revision of world Hymenoptera); Acloque, 1897:83 (in Sphecid Fauna of France and Algeria); de Beaumont, 1953f:200 (discussion of identity); Bradley, 1957:48 (Lepeletier's specimens in Turin); Casolari and Casolari Moreno, 1980:121 (specimens in

M. Spinola collection, Torino); Pagliano, 2014:87 (specimens in M. Spinola collection, Torino, is *Gorytes planifrons*). – **As *Gorytes lacordairei***: F. Smith, 1856:362 (new combination, in catalog of Hymenoptera in British Museum); Handlirsch, 1888b:486 (new combination, in revision of world Bembicinae).

*Hoplisis anceps* Mocsáry, 1879:133, ♀, ♂. Syntypes: Hungary: Budapest, Nagyvárad; Romania: Mehadia (TMB). Synonymized with *Gorytes quinquefasciatus* by Handlirsch, 1888b:486. – Haris, 2016:16 (in list of species described by S. Mocsáry from Carpathian Basin).

*Hoplisis quinquecinctus* varietas *geminatus* A. Costa, 1867c:63, ♀. Syntypes: ♀, Italy: Sicilia: no specific locality (Napoli). Synonymized with *Gorytes quinquefasciatus* by R. Bohart and Menke 1976:501. – Šnoflák in Zavadil and Šnoflák, 1948:72 (in key to Sphecidae of Czechoslovakia).

*Hoplisis quinquecinctus* varietas *geminatus* A. Costa, 1869b:79, ♀. Objective synonym of *Hoplisis quinquecinctus* varietas *geminatus* A. Costa, 1867c:63.

As *Gorytes maculicornis*: Yildirim and Ljubomirov, 2005:1792 (Turkey: Erzurum: Ilıca: Çataldere, Rizekent, and Tortum), corrected to *Gorytes quinquefasciatus* by P. Nemkov in Yildirim and Ljubomirov, 2007:118.

### **ssp. *eburneus* (Chevrier)**

*Hoplisis eburneus* Chevrier, 1870:270, ♂, ♀. Syntypes: Switzerland: Vaud: Nyon (MHNG). – Gasperini, 1887:17 (Dalmatia: Lesina Island, now Croatia: Hvar Island). – **As *Gorytes eburneus***: Kohl, 1880:172 (new combination, Austria: Tirol: Greut, Mühlau, Mutters), 227 (redescription of ♂), 1883e:667 (Switzerland); Handlirsch, 1888b:486 (as new synonym of *Gorytes quinquefasciatus*); R. Bohart and Menke, 1976:501 (as synonym of *Gorytes quinquefasciatus*). – **As *Gorytes quinquefasciatus eburneus***: de Beaumont, 1953f:191 (new status, in revision of western Palearctic *Gorytes*).

### **ssp. *intercedens* Handlirsch**

*Gorytes intercedens* Handlirsch, 1893b:281, ♂. Holotype: ♂, Spain: Madrid (MNCN). – Handlirsch, 1895:930 (original description copied); Dalla Torre, 1897:543 (in catalog of world Sphecidae); Mercet, 1906a:121 (description of ♀), 135, 140, and 141 (in key to Spanish *Gorytes*); Maidl and Klima, 1939:50 (in catalog of world Astatinae and Bembicinae); Giner Marí, 1943a:180 (in Sphecid Fauna of Spain); Ceballos, 1956:382 (in catalog of Hymenoptera of Spain); R. Bohart and Menke, 1976:501 (as synonym of *Gorytes quinquefasciatus*). – **As *Gorytes quinquefasciatus intercedens***: de Beaumont, 1953f:191 (new status, in revision of western Palearctic *Gorytes*); Ceballos, 1959:229 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1962b:24 (Spain); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); Suárez, 1969:30 (Spain: Almería Province).

### **ssp. *levantinus* Pulawski**

*Gorytes quinquefasciatus levantinus* Pulawski, 1961b:93, ♀, ♂. Holotype: ♀, Lebanon: Becharré (originally W.J. Pulawski coll., now CAS). Paratype: Syria. – R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Nemkov, 1990b:683, 684 (in key to *Gorytes* of former USSR), 685 (Lebanon, Syria, Turkey, Kazakhstan, Kyrgyzstan, Tajikistan, Uzbekistan); Yildirim and Ljubomirov, 2005:1792 (Turkey: Erzurum Province), 2007:121 (discussion of status); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:14 (Turkey, doubt the validity of his subspecies).

### **ssp. *mauritanicus* Handlirsch**

*Gorytes quinquefasciatus* var. *mauritanicus* Handlirsch, 1898:489, ♂, ♀ (as *mauritanica*, incorrect original termination). Syntypes: Algeria: El Kantour (NHMW) – Maidl and Klima, 1939:94 (in catalog of world Astatinae and Bembicinae, as *mauretanicus*); R. Bohart and Menke, 1976:501 (as synonym of *Gorytes quinquefasciatus*, as *mauretanicus*). – **As *Gorytes quinquefasciatus mauritanicus***: de Beaumont, 1953f:195 (new status, in revision of western Palearctic *Gorytes*), 1953g:114 (Morocco).

### **58. *ranosahae* (Arnold)**

*Gorytes ranosahae* Arnold, 1945:54, ♀, ♂ (as *Ranosahae*, incorrect original capitalization). Syntypes: Madagascar: Ambositra, Ivondro, Rogez (MNHN). – Leclercq, 1960a:100 (Madagascar), 1961d:102 (Madagascar); Nemkov and

Pulawski, 2009:9 (reverted to *Gorytes*, in cladistic analysis of Gorytina). – **As *Pseudoplisus ranosahae***: R. Bohart in R. Bohart and Menke, 1976:503 (new combination); Leclercq, 1990b:119 (Madagascar); Callan, 1991d:1612 (nesting habits); Pulawski, 2003b:796 (in checklist of Malagasy Sphecidae); Evans and O’Neil, 2007:57 (summary of information on nesting habits); Madl, 2014a:945 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Malagasy subregion, with synonymy and locality records).

### 59. *rubiginosus* Handlirsch

*Gorytes rubiginosus* Handlirsch, 1888b:502, ♀, ♂ Syntypes: Mexico: Morelos: Cuernavaca (NHMW). – Cameron, 1890a:77 (listed); Dalla Torre, 1897:553 (in catalog of world Sphecidae); Maidl and Klima, 1939:113 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Nemkov and Pulawski, 2009:9 (reverted to *Gorytes*, in cladistic analysis of Gorytina). – **As *Pseudoplisus rubiginosus***: Ashmead, 1899:328 (new combination, in checklist of North American Crabronidae); R. Bohart, 1969b:394 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Dollfuss, 1989:12 (type material in NHMW); Amarante, 2002:17 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae).

### 60. *rufomaculatus* (W. Fox)

*Gorytes rufomaculatus* W. Fox, 1896a:538, ♀, ♂. Lectotype: ♀, USA: Dakota: no specific locality (ANSP), designated by Cresson, 1928:48. – Maidl and Klima, 1939:113 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Krombein in Muesebeck et al., 1951:993 (in catalog of North American Hymenoptera); Nemkov and Pulawski, 2009:9 (reverted to *Gorytes*, in cladistic analysis of Gorytina). – **As *Pseudoplisus rufomaculatus***: H. Smith, 1908b:349 (in revision of Nebraskan Sphecidae); Mickel, 1918b:358 (in catalog of Nebraskan Sphecidae); R. Bohart, 1969b:394 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1696 (in catalog of North American Hymenoptera); Hook, 1998:252 (first record from Texas: Dimmit County: Chaparral Wildlife Management Area).

### 61. *samiatus* (R. Bohart)

*Pseudoplisus samiatus* R. Bohart, 1969b:396, ♀, ♂. Holotype: ♂, Mexico: Jalisco: 3 mi SE Plan de Barrancas (UCD). – R. Bohart, 1969b:393 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Amarante, 2002:17 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae). – **As *Gorytes samiatus***: Nemkov and Pulawski, 2009:7 (new combination, in cladistic analysis of Gorytina).

### 62. *schlettereri* Handlirsch

*Gorytes schlettereri* Handlirsch, 1893b:281, ♀ (as *Schlettereri*, incorrect original capitalization). Holotype: ♀, Austria: Tirol: Reschen Pass, now Italy: Trentino–Alto Adige: Resia (NHMW). – Handlirsch, 1895:925 (original description copied); Dalla Torre, 1897:554 (in catalog of world Sphecidae); Schmiedeknecht, 1907:220 (in key to Hymenoptera of Central Europe); Kohl, 1912a:63 (Austria: Südtirol: Reschen, now Italy: Trentino–Alto Adige Region: Resia); Schmiedeknecht, 1930:682 (in key to Hymenoptera of North and Central Europe); Maidl and Klima, 1939:99 (in catalog of world Astatinae and Bembicinae); de Beaumont, 1939:487 (Switzerland; description of ♂); Carl and de Beaumont, 1947:68 (Switzerland: Graubünden = Grisons Canton: Swiss National Park); de Šnoflák in Zavadil and Šnoflák, 1948:70 (in key to Sphecidae of Czechoslovakia, not yet found in Czechoslovakia); de Beaumont, 1953f:175 (in revision of western Palearctic *Gorytes*), 1958c:204 (Swiss National Park), 1964c:48 (in Sphecid Fauna of Switzerland); Romanova, 1969:133 (Russia: Caucasus Nature Reserve); Noskiewicz and Puławski, 1960:91, 94 (in key to Polish Sphecidae, not yet found in Poland); Balthasar, 1972:307 (in Sphecid Fauna of Czechoslovakia: can be expected in the country); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Pulawski, 1978:202, 203 (in key to Sphecidae of European part of former USSR); Pagliano, 1980:116 (Italy: Piemonte); Dollfuss, 1983b:23 (records from Austria questionable), 1989:9 (type material in NHMW); Pagliano, 1990:71 (in catalog

of Italian Sphecidae); Dollfuss, 1991:201 (in key to Sphecidae of North and Central Europe); Pagliano, 1992:37, 39 (in key to Italian Bembicinae); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:4 (in catalog of Italian fauna); Blösch, 2000:385 (in Sphecidae Fauna of Germany); Schmid-Egger, 2002b:184 (in revision of western Palearctic *Gorytes*); Gayubo and Özbek, 2005:18 (Turkey: Ardahan: Hanak; Artvin: Borçka); Pagliano and Negrisolo, 2005:146 (in Sphecidae Fauna of Italy); Jacobs, 2007:173, 177 (in key to Crabronidae of Germany, not yet found in Germany); Pagliano, 2009:178 (Italy: recorded from Trentino-Alto Adige by Schmid-Egger, 2002); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); Mokrousov and Popov, 2016:568 (Russia: Krasnodarskiy Kray); Nemkov, 2017:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae).

### **ssp. *ponticus* de Beaumont**

*Gorytes schlettereri ponticus* de Beaumont, 1967a:314, ♀, ♂. Holotype: ♀, Turkey: Trabzon: Zigana Dagi (BMNH). – R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Dathe, 1980:208 (Russia: northern Caucasus: Teberda); Nemkov, 1990b:680, 685 (in key to *Gorytes* of former USSR), 688 (Georgia); Yildirim and Ljubomirov, 2005:1792 (Turkey: Artvin: Savşat); Ljubomirov and Yildirim, 2008:83 (in catalog of Crabronidae of Turkey); Yildirim, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces), 19 (is an endemic of Turkey); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:14 (Turkey: Rize: İkizdere: Sivrikaya).

### **63. *schmidti* Schmid-Egger**

*Gorytes schmidti* Schmid-Egger, 2002b:185, ♀, ♂. Holotype: ♂, Turkey: Karadut in Nemrut Dagi at 37°57'N 38°40'E (OÖLM). – Ljubomirov and Yildirim, 2008:83 (in catalog of Crabronidae of Turkey); Yildirim, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces), 19 (is an endemic of Turkey); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); Nemkov, 2017:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae).

### **64. *schmiedeknechti* Handlirsch**

*Gorytes schmiedeknechti* Handlirsch, 1888b:492, ♂ (as *Schmiedeknechti*, incorrect original capitalization). Lectotype: ♂, Greece: Parnassus (NHMW), designated by de Beaumont, 1953f:181. – Dalla Torre, 1897:554 (in catalog of world Sphecidae); Mairl and Klima, 1939:99 (in catalog of world Astatinae and Bembicinae); Ceballos, 1949:101 (Spain); de Beaumont, 1953f:180 (in revision of western Palearctic *Gorytes*); Ceballos, 1956:384 (in catalog of Hymenoptera of Spain); de Beaumont, 1965a:36 (Greece), 1967a:313 (Turkey; ♀); Balthasar, 1972:308 (in Sphecidae Fauna of Czechoslovakia: can be expected in the country); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Dollfuss, 1989:9 (type material in NHMW); Nemkov, 1990b:680, 685 (in key to *Gorytes* of former USSR), 688 (Azerbaijan); Schmid-Egger, 2002b:184 (in revision of western Palearctic *Gorytes*); Gayubo and Özbek, 2005:18 (Turkey: Erzurum: Olur, Oltu); Yildirim and Ljubomirov, 2005:1792 (Turkey: Artvin and Erzurum provinces); Standfuss and Standfuss, 2006c:305 (Greece: Thessalia: Magnisia Peninsula at 39°N 23°E); Ljubomirov and Yildirim, 2008:83 (in catalog of Crabronidae of Turkey); Bitsch, 2010:113 (in supplement to vol. II of Faune de France, 1997: not included in the volume, but occurring in Bulgaria and Greece); Yildirim, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); Mokrousov and Popov, 2016:568 (Russia: Krasnodarskiy Kray); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:15 (Turkey: Antalya and Erzurum provinces); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae); 2017b:223 (in catalog of Bembicinae of Russia).

### **65. *simillimus* F. Smith**

*Gorytes simillimus* F. Smith, 1856:367, ♀. Holotype or syntypes: ♀, Canada: Nova Scotia: no specific locality (BMNH). – Cresson, 1862:235 (in catalog of North American Hymenoptera); Packard, 1867:428 (listed); Cresson, 1887:280 (in catalog of North American Hymenoptera); Handlirsch, 1888b:500 (in revision of world Bembicinae), 1895:926 (reference to Provancher, 1888); W. Fox, 1896a:536 (in revision of North American *Gorytes*); Dalla Torre, 1897:554 (in catalog of world Sphecidae); J. Smith, 1900:521 (in list of insects of New Jersey), 1910:680 (in new list of insects

of New Jersey); J. Ch. Bradley, 1928:1015 (in catalog of New York Sphecidae); Krombein, 1936:93 (prey: *Gypsona octolineata* var. *striata* Burm., a cicadellid); Brimley, 1938:446 (North Carolina: Benson, Raleigh); Maidl and Klima, 1939:102 (in catalog of world Astatinae and Bembicinae); Strickland, 1947:126 (Canada: Alberta: Red Deer, Saint Paul); Krombein, 1951a:143 (Virginia: Dunn Loring; visiting tulip-tree honeydew); Krombein in Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera); Krombein, 1952a:95 (USA: Virginia: Westmoreland State Park; nesting behavior), 1952b:181 (USA: West Virginia: Lost River State Park), 1954a:6 (West Virginia: Lost River State Park); Kurczewski and Kurczewski, 1963:147 (Pennsylvania: Presque Isle State Park); Evans, 1966d:66 (nesting behavior); Kurczewski and Kurczewski, 1971b:336 (prey record); G. Bohart, Nye, and Hawthorn, 1970:48 (Utah: Logan, onion pollinator); Horning and Barr, 1970:105 (USA: Idaho: Craters of the Moon National Monument); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Krombein, 1979b:1694 (in catalog of North American Hymenoptera, list of prey); Finnamore, 1982:221 (in Sphecid Fauna of Southern Quebec); Radović, 1985:65 (sting apparatus analyzed); Ahlstrom, 1995:112 (in checklist of insects of North Carolina); Kurczewski, 1998d:250 (pine barrens in upstate New York); Wcislo, 1998:181 (proportions of antennae in relations to parasitic/non-parasitic behavior); Buck, 2004:27 (in checklist of Crabronidae of Ontario, Canada); Evans and O'Neil, 2007:56 (summary of information on nesting habits); Nemkov, 2012b:120 (review of known prey); Ratzlaff, 2016:24 (Canada: British Columbia: after Buck, 2004). – ***As Hoplisus simillimus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); Harrington, 1902:223 (new combination, Canada: Ontario: Ottawa); H. Smith, 1908b:345 (in revision of Nebraskan Sphecidae); Mickel, 1918b:356 (in catalog of Nebraskan Sphecidae); J.Ch. Bradley, 1926:175 (New York: Lloyd-Cornell Reservation near McLean).

*Gorytes ephippiatus* Packard, 1867:426, ♂. Lectotype: ♂, USA: Illinois: no specific locality (ANSP), designated by Cresson, 1928:47. Synonymized with *Gorytes simillimus* by Handlirsch, 1888b:500. – Provancher, 1883b:637 (in revision of Canadian Hymenoptera); Faull, 1913:384 (Canada: Toronto region). – ***As Hoplisus ephippipatus***: Cresson, 1887:279 (new combination, in catalog of North American Hymenoptera).

*Gorytes gypsonacinus* Rohwer, 1911b:568, ♀, ♂. Holotype: sex not indicated, USA: District of Columbia: Washington (USNM). Synonymized with *Gorytes simillimus* Krombein, 1958f:194 and by R. Bohart in R. Bohart and Menke, 1976:501. – Maidl and Klima, 1939:112 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Krombein in Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera).

## 66. *smithii* Cresson

*Gorytes smithii* Cresson, 1880b:xviii, ♀, actually ♂ (W. Fox, 1896a:537) (as *Smithii*, incorrect original capitalization). Lectotype: ♀, USA: Illinois: no specific locality (ANSP), designated by Cresson, 1916:98. – Cresson, 1887:280 (in catalog of North American Hymenoptera); Handlirsch, 1888b:531 (original description translated into German); W. Fox, 1896a:537 (in revision of North American *Gorytes*); Dalla Torre, 1897:554 (in catalog of world Sphecidae); Maidl and Klima, 1939:113 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Krombein in Muesebeck et al., 1951:993 (in catalog of North American Hymenoptera); Nemkov and Pulawski, 2009:9 (reverted to *Gorytes*, in cladistic analysis of Gorytina). – ***As Pseudoplisus smithii***: Ashmead, 1899:328 (new combination, in checklist of North American Crabronidae); H. Smith, 1908b:350 (in revision of Nebraskan Sphecidae); R. Bohart, 1969b:394 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1696 (in catalog of North American Hymenoptera); Ahlstrom, 1995:112 (in checklist of insects of North Carolina); Hook, 1998:252 (first record from Texas: Travi County: Austin; and Kansas: Lawrence).

*Pseudoplisus infumatus* Mickel, 1916a:402, ♂. Holotype: ♂, USA: Nebraska: Haigaler (UNL). Synonymized with *Gorytes smithii* by Krombein in Muesebeck et al., 1951:993. – Mickel, 1918b:357 (in catalog of Nebraskan Sphecidae); Maidl and Klima, 1939:112 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Muma, 1952:22 (type in UNL), 28 (paratypes in UNL).

**ssp. floridanus (W. Fox)**

*Hoplisis foveolata* W. Fox, 1890:106, ♀, incorrect original termination, junior secondary homonym of *Gorytes foveolatus* Handlirsch, 1888. Syntypes: ♀, USA: Florida: no specific locality (ANSP).

*Gorytes floridanus* W. Fox, 1891e:196. Substitute name for *Gorytes foveolatus* (W. Fox, 1890). – W. Fox, 1891c:196 (explanation for proposing substitute name); Handlirsch, 1895:945 (original description translated into German); W. Fox, 1896a:537 (in revision of North American *Gorytes*); Dalla Torre, 1897:542 (in catalog of world Sphecidae); Brimley, 1938:446 (North Carolina: Raleigh); Maidl and Klima, 1939:112 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisis*); Krombein in Muesebeck et al., 1951:992 (listed); Krombein, 1952a:951 (USA: Virginia: Westmoreland State Park), 1958f:195 (in supplement to catalog of North American Hymenoptera: Maryland, Virginia, Louisiana). – **As *Pseudoplisis floridanus***: Ashmead, 1899:328 (new combination, in checklist of North American Crabronidae); H. Smith, 1908b:350 (in revision of Nebraskan Sphecidae). – **As *Pseudoplisis smithii floridanus***: R. Bohart and Menke, 1976:503 (new status, in checklist of world Sphecidae); Krombein, 1979b:1696 (in catalog of North American Hymenoptera).

**67. *sulcifrons* (A. Costa)**

*Hoplisis sulcifrons* A. Costa, 1867c:65, ♀. Holotype or syntypes: ♀, Italy: Sardegna: no specific locality (Napoli). – A. Costa, 1883:57 (Italy: Sardegna: Tissi), 91 (description of ♂); de Gaulle, 1908:120 (in catalog of French Hymenoptera); Schneid, 1941:1041 (Germany: Bayern: Bamberg area); de Beaumont, 1953i:4 (type study). – **As *Gorytes sulcifrons***: Handlirsch, 1888b:498 (new combination, in revision of world Bembicinae); Kohl, 1888b:728 (Austria: Tirol, now Italy: Alto Adige); F. Morawitz, 1893b:421 (Tajikistan: Kol in Yagnob River valley), 1894:358 (Turkmenistan: Hodja-kala); Handlirsch, 1895:925 (Hungary, Italy, Armenia, Spain, Turkmenistan, Uzbekistan); Dalla Torre, 1897:555 (in catalog of world Sphecidae); Mocsáry, 1897:82 (Hungary: Budapest); Handlirsch, 1898b:489 (Algeria: Oran; Egypt: Helwan); de Cobelli, 1903:113 (Italy: Province of Trentino); Antiga and Bofill, 1904:17 (Spain: Cataluña Province); W. Schulz, 1904b:97 (France: Alpes-Maritimes); Ferton, 1905:71 (prey); W. Schulz, 1905b:44 (Algeria); Dusmet y Alonso, 1906:7 (Spain); Mercet, 1906a:137, 140 (in key to Spanish *Gorytes*); Schmiedeknecht, 1907:220, 221 (in key to Hymenoptera of Central Europe); Zavattari, 1912:3 (Italy: Sardegna: Pantaleo); Dusmet, 1915:88 (Spain: Aragón); Dubois, 1920:88 (first record from Belgium: Heyst, probably accidental), 1921c:200, 201, 203 (in key to Belgian Sphecidae); Berland, 1925d:90 (in Sphecid Fauna of France); Schmiedeknecht, 1930:682, 683 (in key to Hymenoptera of North and Central Europe); Bischoff, 1931:9 (Spain); Bernard, 1933:62 (France: Drôme: Dieulefit); Nadig, 1933:90 (Morocco: Ifrane); Zavadil, 1934:188 (Slovakia); Bernard, 1935:63 (France: Var: Fréjus area); Crèvecoeur and Maréchal, 1936:253 (not part of Belgian fauna); Zavadil, Šusterka, and Bat'a, 1937:192 (in catalog of Sphecidae of Czechoslovakia); Maidl and Klima, 1939:99 (in catalog of world Astatinae and Bembicinae); Guiglia, 1941c:164 (Italy: Calabria: Grande Sila); Giner Marí, 1943a:181 (in Sphecid Fauna of Spain); Guiglia, 1944b:21 (Italy); Villiers, 1946:12 (France: Haute-Savoie: Samoëns area); Šnoflák in Zavadil and Šnoflák, 1948:71 (in key to Sphecidae of Czechoslovakia); de Andrade, 1949:18 (Portugal); Cavo, 1950:35 (France: Département du Nord); Caruel, 1951:100 (France: Marne Department); de Beaumont, 1951g:313 (Italy); Balthasar, 1952:66 (Slovakia); de Beaumont, 1953f:176 (in revision of western Palearctic *Gorytes*), 1953g:112 (Morocco: Port Lyautey, now Kenitra, and El Moudzine), 1953i:4 (study of holotype); Móczár, 1953:310 (Hungary); de Beaumont, 1954e:89 (Italy); Vogrin, 1955:35 (Yugoslavia); Ceballos, 1956:384 (in catalog of Hymenoptera of Spain); Bajári, 1957a:107, 110 (in key to Hungarian Sphecidae); Grandi, 1957:385 (Italy: Abruzzi, Sardinia); Ceballos, 1959:229 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1959a:20 (Italy); Diniz, 1959:30 (Portugal: Lisboa, S. João do Estoril, Torre da Marinha); Noskiewicz and Puławski, 1960:92, 94 (in key to Polish Sphecidae, not yet found in Poland); de Beaumont, 1962b:24 (Spain), 35 (geographic variation); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:48 (in Sphecid Fauna of Switzerland), 1965a:35 (Greece); Roberti, Frilli, and Pizzaghi, 1965:110 (Italy: Emilia-Romagna: Piacenza); J. Heinrich, 1967:71 (Germany: Goldbach); Benedek, 1968:72 (Hungary, visiting flowers of *Pastinaca sativa* L.); Scobiola-Palade,

1968c:384 (Romania: Copăceni); Benedek, 1969a:83 (Hungary: marshy meadow), 1970:97 (Hungary: Tapolca); Balthasar, 1972:307 (in Sphecida Fauna of Czechoslovakia); Kazenas, 1972b:152 (Kazakhstan), 1974b:110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, in Kazakhstan); R. Bohart and Menke, 1976:502 (in checklist of world Sphecidae); Guichard, 1978:270 (Greece); Kazenas, 1978b:75, 77 (in key to Sphecidae of Kazakhstan and Central Asia); Marion, 1978:87 (France); Pulawski, 1978:202, 203 (in key to Sphecidae of European part of former USSR); Benedek, 1979:230 (Hungary: Bakony Mountains); Schmidt, 1979b:350 (Germany: Baden-Württemberg); Pagliano, 1980:115 (Italy: Piemonte); Gayubo, 1982b:44 (Spain: Ávila, Cáceres, and Salamanca provinces); Dollfuss, 1983b:23 (Austria: Niederösterreich: Oberweiden); Gayubo, 1983e:234 (Spain: Salamanca Province); Gayubo and Tormos, 1984:21 (Spain: Valencia); Gayubo, 1985c:171 (Spain: Valladolid: Valladolid); Józán, 1985b:61 (Hungary: S Lake Balaton), 84 (ecological and zoogeographic characteristics); Gayubo, 1986a:65 (Spain: Ciudad Real Province), 1986b:40 (Spain: Andalucía), 1986d:12 (Spain: Zamora Province); Gayubo and Heras, 1986:61 (Spain: Segovia Province; floral records); Gayubo and Sanza, 1986:78 (Spain: Burgos, Segovia); Gayubo and Tormos, 1986a:13 (Spain: Castellón de la Plana); Islamov, 1986:522 (Uzbekistan: Tashkent Oblast'); Józán, 1986:374 (Hungary: Kiskunság National Park); Asís and Jiménez, 1988:274 (Spain: Castellón Province); Chevin, 1988:16 (France: La Manche Department); Dollfuss, 1988:30 (Austria: Niederösterreich: Oberweiden); Karsai, 1988:101 (Hungary: Kiskunság National Park); Pádr *in* Šedivý, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Gayubo, Asís, and Tormos, 1990b:78 (Spain); Pagliano, 1990:71 (in catalog of Italian Sphecidae); Day, 1991:xv (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:201 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:415 (Italy); Nemkov, 1990b:680, 685 (in key to *Gorytes* of former USSR, as *sulcifrons sulcifrons*), 688 (south of European USSR, Kazakhstan, Tajikistan, Uzbekistan); Delarze, 1992:68 (Switzerland: Valais: Les Follatères); Gayubo, Borsato, and Osella, 1992:288 (Greece: Tymphristos); Pagliano, 1992:37, 39 (in key to Italian Bembicinae); K. Weber, 1992:87 (Germany: Bayern: Bamberg District); Negrisolo and Pagliano, 1993:91 (Italy: Sardegna); Dollfuss, 1994:99 (endangered in Austria); Gayubo and Borsato, 1994:217 (Italy: Veneto); Tormos, Asís, and Gayubo, 1994:189, 219 (Spain: Albacete Province); Kazenas and Esenbekova, 1995:80 (Kazakhstan; bibliographic reference to leafhopper prey); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:4 (in catalog of Italian fauna); Gusenleitner, 1996a:10 (Austria: Burgenland); Scharrer, 1995:29 (Austria: Niederösterreich: Oberweiden); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: not collected after 1929); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:202 (in Sphecida Fauna of Western Europe); Pagliano and Alma, 1997:178 (known prey listed); Schmidt and Schmid-Egger, 1997:15 (in checklist of German Sphecidae); Dollfuss, Gusenleitner, and Bregant, 1998:523 (Austria: summary of collecting records from Burgenland); Gayubo, García, Torres, and González, 1999:91 (Spain: Soria Province); Pauly, 1999:111 (in catalog of Belgian aculeates); Blösch, 2000:385 (in Sphecida Fauna of Germany); Gayubo, González, and Torres, 2000:187 (Spain: Salamanca Province); Shkuratov, 2000:57 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Esenbekova and Kazenas, 2000:61 (southeast Kazakhstan: seven localities); Józán, 2001:281 (Hungary: Somogy County); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia), 223 (review of known biology); Kazenas and Esenbekova, 2001:134 (Kazakhstan: Almatinskiy Nature Reserve); Mazzucco, 2001:203, 196 (Austria: Niederösterreich: Steinfeld, endangered); Ohl et al., 2001:139 (distribution in Germany by provinces); Kazenas, 2002a:122 (geographic distribution, collecting localities in Kazakhstan); Schmid-Egger, 2002b:186 (in revision of western Palearctic *Gorytes*); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavaler); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:66 (in catalog of wasps and bees of Bayern, Germany); Nieves-Aldrey, Fontal-Cazalla, Garrido-Torres, and Rey del Castillo, 2003:42 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:195 (Germany: Bayern: extinct or no longer collected); Gayubo et al. 2004:130 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Kazenas, 2004b:110 (Kazakhstan: western Tien Shan); Shkuratov, 2004a:75 (Russia: Rostov Oblast' and Ukraine: Donetsk Oblast'), 2004b:165 (Russia: Rostov Oblast': Gosudarstven-



nyi Muzej-Zapovednik M.A. Sholokhova); Cruz-Sánchez, Gayubo, González, and Torres, 2005:219 (Spain: Salamanca: San Martín del Castañar); Gayubo and Özbek, 2005:19 (Turkey: Erzurum: Palandöken); Pagliano and Negrisoló, 2005:147 (in Sphecidae Fauna of Italy); Shorenko, 2005a:167 (Ukraine: Crimea); Yildirim and Ljubomirov, 2005:1792 (Turkey: Erzurum and Konya provinces); Józán, 2006:284 (Hungary: Zamardi); Baños-Picón, Gayubo, Asís, and González, 2007:255, 258 (Spain: Zamora: Cabañas de Aliste); Jacobs, 2007:174, 177 (in key to Crabronidae of Germany); Roche, 2007a:114 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:8 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Vago, 2007:174 (France: département de Somme); Vepřek and Straka, 2007:208 (in catalog of Sphecidae of Czech Republic and Slovakia, known from Slovakia only); Yildirim and Ljubomirov, 2007:118 (Turkey: Erzurum Province); Gayubo, González, Tormos, and Asís, 2008:137 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Kazenas, 2008b:114 (Kazakhstan: foothills of Zailiskiy Alatau: found along roads and on loess cliffs); Livory, Chevin, Lair, Sagot, and Baldock, 2008:35 (France: Département de la Manche); Ljubomirov and Yildirim, 2008:83 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:24 (in catalog of Crabronidae of Asiatic Russia); Zettel, Wiesbauer, and Zimmermann, 2008:136 (Austria: Burgenland: Illmitz, Leithagebirge; Niederösterreich: Oberweiden; Wien: Alte Schanzen); Gayubo, González, Tormos, and Asís, 2009:364 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); González, Gayubo, Asís, and Tormos, 2009:625 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Shorenko, 2009:368 (in list of Sphecidae s.l. of Crimea, as *sulcifrons sulcifrons*); Bitsch, 2010:113 (in supplement to vol. II of Faune de France, 1997: recent records from Italy reported); Mokrousov, 2010a:61 (Russia: Tatarstan: no specific localities), 2010b:100 (Russia: Tatarstan: no specific locality); Rudoiskatel', 2010:150 (Russia: central and southern Ural Mountains); Schmid-Egger, 2010a:16 (in red list of Aculeata of Germany: extinct, last collected in 1964); van der Smissen, 2010b:385 (France: Ardèche: Plateau du Coiron); Cruz-Sánchez, Asís, Gayubo, Tormos, and González, 2011:500 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park: effects of wildfire); Józán, 2011:183 (in checklist of Sphecidae s.l. of Hungary); Schmid-Egger, 2011a:38 (France: Parc National du Mercantour: Isola; Italy: Parco delle Alpi Marittime: Lago Rovino, San Lorenzo); Tischendorf, Frommer, and Flügel et al., 2011:43 (Germany: extinct in Hessen, last collected in 1955); Boillat, 2012:227 (Switzerland: in checklist of insects of Canton de Genève); Nemkov, 2012b:120 (review of known prey); Strumia, Pagliano, and Gayubo, 2012:56 (Italy: Toscana: Riserva di San Rossore); Yildirim, 2012:76 (Turkey: Artvin, Bayburt, Erzurum, and Iğdir provinces); Kazenas, 2013a:108 (color photograph of adult wasp, short information on geographic distribution and nesting habits), 2013b:497 (southeast Kazakhstan: Ili River valley); Vieira, Oliveira, Brewster, and Gayubo, 2013:15 (Portugal: Douro International Natural Park and Serras de Aire e Candeeiros Natural Park); Ebrahimi, 2014:33 (Iran: Āzarbāijān-e Sharghi, Kordestān, and Tehrān provinces); Kazenas, 2014a:137 (Kazakhstan: Karatau Mountain Range); Mokrousov and Vafin, 2014:55 (Russia: Republic of Tatarstan); Yildirim, Ljubomirov, and Lelej, 2014:6 (distribution in Turkey by biogeographic provinces); Koçak and Kemal, 2015:144 (in checklist of Hymenoptera of Turkey); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:15 (Turkey: Erzurum, Giresun, and Tunceli provinces); Jahantigh, Rakhshani, Mokhtari, and Ramroodi, 2017:37 (Iran: known from east Azerbaijan, Kordestan, and Tehran provinces); Magdalou, 2017:15 (France: Pyrénées-Orientales: Réserves Naturelles Catalanes: Julols); Nemkov, 2017a:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae), 2017b:223 (in catalog of Bembicinae of Russia, as *sulcifrons sulcifrons*); Shorenko, 2017:80 (in Crimea collected in June).

*Hoplisus sulcifrons* A. Costa, 1869b:81. Objective synonym of *Hoplisus sulcifrons* A. Costa, 1867c:65.

As *Gorytes albidulus* (partim): Yildirim and Ljubomirov, 2005:1791 (Turkey: Artvin and Erzurum Provinces), corrected to *Gorytes sulcifrons* by Nemkov in Yildirim and Ljubomirov, 2007:118.

### **ssp. *laevigatus* (Kohl)**

*Hoplisus laevigatus* Kohl, 1880:229, ♂. Syntypes: ♂, Austria: near Bozen, now Italy: Bolzano: Gries, St. Justina (NHMW). – Kohl, 1880:172 (Italy: Trentino–Alto Adige: Gries, St. Justina), 1881:90 (description of ♀), 1883e:667 (Switzerland). – As *Gorytes laevigatus*: Handlirsch, 1888b:498 (as new synonym of *Gorytes sulcifrons*); R. Bohart

and Menke, 1976:502 (as synonym of *Gorytes sulcifrons*). – **As *Gorytes sulcifrons laevigatus***: de Beaumont, 1953f:177 (new status, in revision of western Palearctic *Gorytes*); Nouvel and Ribaut, 1958:11 (France: Pyrénées-Orientales: Banyuls-sur-Mer); Diniz, 1973:45 (Portugal: seventeen localities).

? *Crabro calceatus* Rossi, 1794:..., ♀. Holotype or syntypes: ♀, Italy: Toscana (lost). – de Beaumont, 1953f:198 (discussion of identity).

? *Gorytes ruficornis* Latreille, 1804b:309, ♀. Holotype or syntypes: ♀, France? (depository?). – de Beaumont, 1953f:199 (discussion of identity).

### **ssp. *mongolicus* Tsuneki**

*Gorytes mongolicus* Tsuneki, 1971k:187, ♀. Holotype: Mongolia: Central aymag: Zuun-Hara (TMB). – Tsuneki, 1971m:10 (China: Inner Mongolia: Apaka); R. Bohart and Menke, 1976:501 (in checklist of world Sphecidae); Nemkov, 1986:108 (Russia: Siberia: Irkutsk Oblast'). – **As *Gorytes sulcifrons mongolicus***: Nemkov, 1989:68, 71 (in key to *Gorytes* of Siberia and Russian Far East), 72 (new status); Nemkov, 1990b:680, 685 (in key to *Gorytes* of former USSR); Nemkov in Nemkov, Kazenas, Budrys, et Antropov, 1995:461, 465 (in key to Sphecidae of Russian Far East); Hua, 2006:280 (in list of Chinese insects, geographic distribution); Nemkov, 2009b:138 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Baghirov, 2011b:142 (Russia: recorded from Altay by Nemkov in Nemkov, Kazenas, Budrys, and Antropov, 1995); Nemkov, 2017b:223 (in catalog of Bembicinae of Russia).

As *Gorytes eous*: Yasumatsu, 1942c:110 (China: Nei Mongol: Apaka at 44°N 114.96°E), corrected to *Gorytes mongolicus* by Tsuneki, 1971m:10.

### **68. *tanythrix* (R. Bohart)**

*Pseudoplisus tanythrix* R. Bohart, 1969b:399, ♂. Holotype: ♂, USA: Oklahoma: Kenton (CAS). – R. Bohart, 1969b:394 (in key to North American *Pseudoplisus*); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1696 (in catalog of North American Hymenoptera). – **As *Gorytes tanythrix***: Nemkov and Pulawski, 2009:7 (new combination, in cladistic analysis of Gorytina).

### **69. *tobiasi* Nemkov**

*Gorytes tobiasi* Nemkov, 1990b:687, ♀, ♂. Holotype: ♀, Uzbekistan: Chatkal Range: urochishche Aksagaty (ZIN). – Nemkov, 1990b:682, 684 (in key to *Gorytes* of former USSR); Esenbekova and Kazenas, 2000:61 (southeast Kazakhstan: 23 km W, 3 km S, and 2 km SW Alma Ata, 3 km SW Temirbastau, 2 km NW Zhabably); Kazenas, 2001b:46 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:122 (geographic distribution, collecting localities in Kazakhstan); Kazenas, 2004b:110 (Kazakhstan: western Tien Shan), 2014a:138 (Kazakhstan: Karatau Mountain Range); Nemkov, 2017:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae).

### **70. *tricinctus* (Pérez)**

*Hoplisis tricinctus* Pérez, 1905a:157, ♀. Holotype or syntypes: ♀, Japan: no specific locality but presumably Tokyo area (MNHN). – Pérez, 1905a:26 (listed). – **As *Gorytes tricinctus***: nec Yano, 1932:280 and 1950:1470 (= *Gorytes maculicornis*); Maidl and Klima, 1939:72 (new combination, in catalog of world Astatinae and Bembicinae); Tsuneki, 1962e:70 (*Gorytes tricinctus* in Iconographia Insectorum Japonicorum, Ed. II is actually *Gorytes eous*), 1963a:3, 5 (in key to Gorytini of Japan and Korea), 12 (in revision of Gorytini of Japan and Korea, Japan: Hokkaido, Hondo); Tsuneki, Iida, Hirai, and Sabi, 1964:60 (Japan: Aomori Prefecture: Towada); Tsuneki, 1965c:31, 32 (in key to Bembicinae of Japan and Korea); Haneda, 1968b:56 (Japan: Nagano Prefecture: Ina District); Itami, 1969:46 (Japan: Niigata Prefecture) Tsuneki, 1970b:9 (Central Japan); Itami, 1971:28 (Japan: new locality records); Nambu, 1973a:152 (Japan: Saitama Prefecture); Suda, 1973:123 (Japan: Yamanashi Prefecture); Nambu, 1975b:71 (Japan: Saitama Prefecture); R. Bohart and Menke, 1976:502 (in checklist of world Sphecidae); Tsuneki, 1982c:1-23 (nesting behavior); Paik, 1985:202 (in list of Sphecidae of Korea); Nemkov, 1989:68, 70 (in key to *Gorytes* of Siberia and Russian Far East; Japan), 1990b:682, 685 (in key to *Gorytes* of former USSR); Haneda and Inoue, 2003:50 (Japan: Fukui Prefecture: Katsumi in City of Obama); Haneda, Nosaka, Tano, Kurokawa, and Murota, 2004:38

(Japan: Gifu Prefecture); Suda, 2004:46 (Japan: Yamanashi Prefecture); Haneda, Nozaka, Tano, Kurokawa, and Murota, 2005:54 (Japan: Gifu Prefecture); Kinota, Haneda, and Tano, 2005:31 (Japan: Hokkaido); Haneda, Nozaka, Tano, Kurokawa, and Murota, 2006a:30 (Japan: Toyama Prefecture); Nagase, 2006a:55 (Japan: Kanagawa Prefecture: Mount Komagatake near Hakone); Terayama, 2006:7, 8, 13 (in key to Japanese Bembicinae); Evans and O'Neil, 2007:56 (summary of information on nesting habits); Okhusa and Tajima, 2010:13 (Japan: Honshu Island: Shiga Prefecture); N. Yamamoto, 2011:14 (Japan: Kyūshū: mainland Nagasaki Prefecture); J.-K. Kim, 2014:422 (previously recorded from Korean Peninsula, but not occurring there); Nemkov, 2017:Table p. 6 (in zoogeographic analysis of Palearctic Bembicinae).

### 71. *umatillae* R. Bohart

*Gorytes vicinus* Handlirsch, 1893b:279, ♀, junior secondary homonym of *Gorytes vicinus* (Lepelletier de Saint Fargeau, 1832). Holotype: USA: Washington: no specific locality (NHMW). – Handlirsch, 1895:917 (original description copied); W. Fox, 1896a:534 (in revision of North American *Gorytes*); Dalla Torre, 1897:556 (in catalog of world Sphecidae); Maidl and Klima, 1939:103 (in catalog of world Astatinae and Bembicinae); Krombein in Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera); Dollfuss, 1989:9 (type material in NHMW). – **As *Hoplisis vicinus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae).

*Gorytes umatillae* R. Bohart, 1971:450. Substitute name for *Gorytes vicinus* Handlirsch, 1893. – R. Bohart and Menke, 1976:502 (in checklist of world Sphecidae); Krombein, 1979b:1694 (in catalog of North American Hymenoptera).

### 72. *venustus* Cresson

*Gorytes venustus* Cresson, 1865b:472, ♀, ♂. Lectotype: ♀, USA: Colorado Territory: no specific locality (ANSP), designated by Cresson, 1916:99. – Packard, 1867:425 (listed); Cresson, 1887:280 (in catalog of North American Hymenoptera); Handlirsch, 1888b:504 (revision); Cameron, 1890a:77 (listed); W. Fox, 1896a:537 (revision); Dalla Torre, 1897:556 (in catalog of world Sphecidae); Cockerell, 1899a:143 (New Mexico); Brimley, 1938:446 (North Carolina: Raleigh); Maidl and Klima, 1939:114 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Krombein in Muesebeck et al., 1951:993 (in catalog of North American Hymenoptera); Nemkov and Pulawski, 2009:9 (reverted to *Gorytes*, in cladistic analysis of Gorytina). – **As *Hoplisis venustus***: Ashmead, 1890:32 (in checklist of Hymenoptera of Colorado). – **As *Pseudoplisus venustus***: Ashmead, 1899:328 (new combination, in checklist of North American Crabronidae); R. Bohart, 1969b:394 (in key); R. Bohart and Menke, 1976:503 (in checklist of world Sphecidae); Krombein, 1979b:1696 (in catalog of North American Hymenoptera); Ahlstrom, 1995:112 (in checklist of insects of North Carolina); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Amarante, 2002:17 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae).

*Gorytes venustiformis* Rohwer, 1911b:568, ♂. Holotype: ♂, USA: Colorado: Boulder (USNM). Synonymized with *Pseudoplisus venustus* by R. Bohart in R. Bohart and Menke, 1976:503. – Maidl and Klima, 1939:114 (in catalog of world Astatinae and Bembicinae, in subgenus *Pseudoplisus*); Krombein in Muesebeck et al., 1951:993 (in catalog of North American Hymenoptera).

### 73. *willcoxi* (Ohl)

*Pseudoplisus willcoxi* Ohl, 2009a:28, ♀, ♂. Holotype: ♂, USA: Arizona: Cochise County: Willcox (ZMB). – **As *Gorytes willcoxi***: Nemkov and Pulawski, 2009:7 (new combination, in cladistic analysis of Gorytina).

### sp.

W. Fox, 1894c:106 (Mexico: Baja California); Ducke, 1908b:82 (Brazil: Ceará State); Bischoff, 1933:4 (Morocco); Callan, 1954:25 (Venezuela: Paria Peninsula: Cristóbal Colón); Hilchie, 1982:107 (Canada: Alberta: Empress); Quicke, Ingram, Baillie, and Gattens, 1992:386 (sperm structure and ultrastructure); Finnermore, 1994:210 (Canada: Alberta: Wagner Natural Area 8 km W Edmonton), 1997:892 (Canada: Yukon); Ebermann and Hall, 2004:942

(parasite: scutacarid mite *Imparipes breganti* Ebermann and Hall), 2005:190 (parasite: scutacarid mite *Imparipes apicola* (Banks, 1914)); Kazenas, 2007a:92 (Kazakhstan: Akkala Oblast': Kurgandzhin Nature Reserve and vicinity, sp. aff. *procrustes*); Horta-Vega, Vanoye-Eligio, García-Gutiérrez, Coronado-Blanco, and Barrientos-Lozano, 2013:383 (Mexico: Tamaulipas: Ciudad Victoria: Cañón del Novillo, as *Pseudoplisus* sp.).

#### SPECIES DESCRIBED IN *GORYTES* AND TRANSFERRED TO *SAYGORYTES*

*Gorytes apicalis* F. Smith, 1856

*Gorytes phaleratus* Say, 1837

#### SPECIES DESCRIBED IN *PSEUDOPLISUS* AND TRANSFERRED TO *SAYGORYTES*

*guadalajarae* R. Bohart, 1969

*notipilis* R. Bohart, 1969

*oraclensis* R. Bohart, 1969

*tritospilus* R. Bohart, 1969

*wernerii* R. Bohart, 1969

#### NOMEN NUDUM IN *PSEUDOPLISUS*

*Pseudoplisus occidentalis* Bohart: Parks, 1986:35 (Torrey Pines State Reserve).

#### UNRECOGNIZABLE NAMES IN *GORYTES*

*Gorytes quadricinctus* Dahlbom: Coulon, 1925:119 (Germany).

*Gorytes quadricinctus* Fabricius: Plavil'shchikov, 1964:122 (Russia: Mordovian State Nature Reserve).

#### FOSSIL *GORYTES*

##### 1. *archoryctes* (Cockerell)

*Hoplisis archoryctes* Cockerell, 1922:13, sex not indicated. Holotype: sex unknown, USA: Colorado: Bear Gulch 12 mi. from Una (USNM). Age: Eocene. – Evans, 1966d:394 (original description copied, redescription and photograph, may be a member of *Harpactostigma*); R. Bohart and Menke, 1976:31 (in checklist of world Sphecidae, may be a member of *Psammaletes*).

#### NAME OF UNCERTAIN STATUS

*Gorytes nemoralis* Klug: von Siebold, 1844:132 (Germany: Preussen: vicinity of Danzig, now Poland: Gdańsk).

#### NOMINA NUDA IN *GORYTES*

*Hoplisis bisects* [sic] Spinola: Pagliano, 2014:91 (specimens in M. Spinola collection, Torino, are *Lestiphorus bicinctus* and *Ammatomus coarctatus*)

*Hoplisis crassicornis* A. Costa, 1863:66 (Italy: Calabria Ulteriore: Aspromonte).

*Hoplisis fasciatus* Spinola: Casolari and Casolari Moreno, 1980:121 (specimens in M. Spinola collection); Pagliano, 2014:90 (specimens in M. Spinola collection, Torino, are *Gorytes quadrifasciatus* and *Gorytes* sp.)

*Hoplisis giacomellii* Schrottky: Schrottky, 1913a:227 (Argentina: La Rioja).

*Hoplisis* (*Pseudoplisus*) *gryponacinus* Rohwer: A. Brown, 1934:264 (Canada: Ontario: Timagami).

*Gorytes libithinus* Curtis: Wesmael, 1839:78.

*Hoplisis puncticollis*: Casolari and Casolari Moreno, 1980:121 (specimens in M. Spinola collection); Pagliano, 2014:91 (specimen in M. Spinola collection, Torino, is *Hoplisis* sp.).

*Hoplisis pyriformis*: Casolari and Casolari Moreno, 1980:121 (specimens in M. Spinola collection); Pagliano, 2014:88 (specimen in M. Spinola collection, Torino, is *Gorytes planifrons*).

*Gorytes ratus* Kohl: Dollfuss, 1989:9 (type material in NHMW).

*Gorytes rubidus*: Casolari and Casolari Moreno, 1980:116 (specimens in M. Spinola collection); Pagliano, 2011:135 (specimen in coll. Spinola, Torino, is a *Hoplisoides* sp. from Egypt).

*Gorytes variabilis* Gussakovskij: Kazenas, 1972b:148 (Kazakhstan).

*Hoplisis tricolor* Spinola: Pagliano, 2014:86 (specimen in M. Spinola collection is *Gorytes sulcifrons*).

#### SPECIES DESCRIBED IN *GORYTES* AND TRANSFERRED TO OTHER GENERA

*adornatus* Bradley, 1920 = *Hoplisoides hamatus* (Handlirsch, 1888)

*adventicus* de Beaumont, 19967 = *Harpactus*

*aegyptiacus* Schulz, 1904 = *Harpactus laevis aegyptiacus* (Schulz, 1904)

*aeratus* Taschenberg, 1875 = *Argogorytes*

*aeneus* Handlirsch, 1888 = *Clitemnestra*

*affinis* Spinola, 1808 = *Harpactus*

*aglaia* Handlirsch, 1895 = *Hoplisoides*

*albitomentosus* Bradley, 1920 = *Hapalomellinus*

*alicantinus* Mercet, 1906 = *Harpactus laevis alicantinus* Mercet, 1906)

*alipes* Bingham, 1897 = *Ammatomus*

*alpestris* Cameron, 1890 = *Saygorytes phaleratus* (Say, 1837)

*alticola* Cameron, 1890 = *Saygorytes phaleratus* (Say, 1837)

*amatorius* F. Smith, 1875 = *Ammatomus*

*apicalis* F. Smith, 1856 = *Saygorytes*

*areatus* Taschenberg, 1875 = *Argogorytes*

*arenarum* de Beaumont, 1953 = *Harpactus*

*armatus* Provancher, 1887 = *Hoplisoides nebulosus* (Packard, 1867)

*arnoldi* Benoit, 1951 = *Oryttus*

*asuncionis* Strand, 1910 = *Hoplisoides jordani* (Handlirsch, 1895)

*aureus* de Beaumont, 1959 = *Harpactus*

*auropilosellus* Cameron, 1912 = *Hoplisoides vespoides* (F. Smith, 1873)

*austerus* Handlirsch, 1893 = *Sagenista*

*austrinus* Bingham, 1912 = *Ammatomus*

*balteatus* Cameron, 1890 = *Stenogorytes*

*barbatulus* Handlirsch, 1888 = *Hoplisoides denticulatus* (Packard, 1867)

*basalis* F. Smith, 1860 = *Argogorytes*

*basutorum* Arnold, 1958 = *Hoplisoides*

*bellicosus* F. Smith, 1862 = *Austrogorytes*

*belfragei* Cresson, 1872 = *Tanyoprymnus moneduloides* (Packard, 1867)

*bergii* Handlirsch, 1901 = *Stenogorytes specialis* (F. Smith, 1873)

*bifasciatus* Brèthes, 1909 = *Allogorytes*

*bigeloviae* Cockerell, 1897 = *Psammaletes*

*bipunctatus* Say, 1824 = *Clitemnestra*

*bipustulatus* Arnold, 1945 = *Hoplisoides*

*capitatus* Nurse, 1902 = *Hoplisoides*

*bollii* Cresson, 1872 = *Argogorytes nigrifrons* (F. Smith, 1856)

*brasiliensis* Shuckard, 1838 = *Sagenista*  
*braunsii* Handlirsch = *Hoplisoides*  
*bruchi* Schrottky, 1909 (*Hoplisus*) = *Stenogorytes*  
*carbonarius* F. Smith, 1856 = *Argogorytes*  
*castor* Handlirsch, 1898 = *Harpactus*  
*cayennensis* (Spinola, 1841) (*Hoplisus*) = *Sagenista*  
*cearensis* Ducke, 1910 = *Stenogorytes bruchi* (Schrottky, 1909)  
*caerulescens* R. Turner, 1914 = *Argogorytes*  
*centralis* Cameron, 1890 = *Megistommum splendidum* (Handlirsch, 1888)  
*championi* Cameron, 1890 = *Clitemnestra*  
*ciliatus* Handlirsch, 1895 = *Austrogorytes*  
*coarctatus* Spinola, 1808 = *Ammatomus*  
*coccineus* Balthasar, 1954 = *Harpactus*  
*cockerelli* Rohwer, 1909 = *Lestiphorus*  
*coloratus* W. Fox, 1893 = *Clitemnestra*  
*confertus* W. Fox, 1895 = *Hoplisoides*  
*consanguineus* Handlirsch, 1888 = *Harpactus transiens* A. Costa, 1887  
*constrictus* F. Smith, 1859 = *Argogorytes*  
*coquilletti* W. Fox, 1896 = *Argogorytes*  
*cordobensis* Fritz, 1964 = *Liogorytes*  
*costalis* Cresson, 1872 = *Hoplisoides*  
*crassicornis* Mantero, 1917 = *Ammatomus*  
*creticus* de Beaumont, 1965 = *Harpactus*  
*cribratus* F. Morawitz, 1892 = *Oryttus*  
*croceipes* Eversmann, 1849 = *Argogorytes mystaceus* (Linnaeus, 1761)  
*crucis* Cockerell, 1897 = *Psammaletes*  
*curtulus* A. Costa, 1893 = *Hoplisoides punctatus curtulus*  
*cygnorum* R. Turner, 1908 = *Austrogorytes*  
*cyrenaicus* de Beaumont, 1956 = *Harpactus*  
*delicatulus* Morice, 1911 = *Harpactus*  
*decoratus* Handlirsch, 1888 = *Ammatomus*  
*densipunctatus* Yasumatsu, 1943 = *Lestiphorus*  
*dentatus* W. Fox, 1893 = *Hoplisoides*  
*denticulatus* Packard, 1867 = *Hoplisoides*  
*distinguendus* Yasumatsu, 1943 = *Hoplisoides*  
*diversus* W. Fox, 1896 = *Hoplisoides*  
*dizonus* Handlirsch, 1895 = *Austrogorytes belliosus* (F. Smith, 1856)  
*duboulayi* R. Turner, 1908 = *Clitemnestra*  
*egregius* Handlirsch, 1893 = *Lestiphorus*  
*elegans* Lepeletier de Saint Fargeau, 1832 = *Harpactus*  
*escalerae* R. Turner, 1912 = *Harpactus*  
*euphrosyne* Handlirsch, 1895 = *Hoplisoides*  
*eurynome* Arnold, 1955 = *Hoplisoides*  
*exiguus* Handlirsch, 1888 = *Harpactus*  
*eximius* Provancher, 1889 = *Hapalomellinus*  
*facilis* F. Smith, 1873 = *Stenogorytes*

*fairmairei* Handlirsch, 1893 = *Argogorytes*  
*fasciatipennis* Cameron, 1890 = *Hoplisoides iridipennis* (F. Smith, 1856)  
*feae* Handlirsch, 1895 = *Hoplisoides*  
*femoratus* Bradley, 1920 = *Oryttus umbonatus* Baker, 1907  
*ferrugatus* Gussakovskij, 1928 = *Harpactus formosus ferrugatus* (Gussakovskij, 1928)  
*fertoni* Handlirsch, 1910 = *Harpactus*  
*fiebrigi* Brèthes, 1909 = *Sagenista*  
*flavicornis* Packard, 1867 = *Saygorytes phaleratus* (Say, 1837)  
*flaviventris* F. Morawitz = *Psammaecius luxuriosus* Radoszkowski, 1877  
*foxii* Handlirsch, 1901 = *Stenogorytes*  
*frenchi* R. Turner, 1908 = *Austrogorytes*  
*fulvipennis* F. Smith, 1856 = *Saygorytes phaleratus* (Say, 1837)  
*fulvohirtus* Tsuneki, 1963 = *Eogorytes*  
*fumipennis* F. Smith, 1856 = *Stenogorytes*  
*funereus* Giner Marí, 1945 = *Harpactus*  
*fuscipennis* Cameron, 1890 = *Stenogorytes notabilis* (Handlirsch, 1888)  
*fuscus* Taschenberg, 1875 (*Hoplisus*) = *Hoplisoides*  
*gayi* Spinola, 1851 = *Clitemnestra*  
*gazagnairei* Handlirsch, 1893 = *Hoplisoides*  
*gaoganus* Sonan, 1940 (*Hoplisus*) = *Eogorytes*  
*gracilis* Patton, 1879 (*Hoplisus*) = *Oryttus*  
*grandis* Gussakovskij, 1932 = *Argogorytes mystaceus grandis*  
*greeni* Bingham, 1897 = *Lestiphorus*  
*guichardi* de Beaumont, 1968 = *Harpactus*  
*gulielmi* Viereck, 1908 = *Hoplisoides punctifrons* (Cameron, 1890)  
*hamatus* Handlirsch, 1988 = *Hoplisoides*  
*handlirschi* F. Morawitz, 1890 = *Ammatomus coarctatus* (Spinola, 1808)  
*helianthi* Rohwer, 1911 = *Hoplisoides tricolor* (Cresson, 1868)  
*hirtus* Handlirsch, 1888 = *Clitemnestra*  
*hispanicus* Mercet, 1906 = *Argogorytes*  
*hissaricus* Gussakovskij, 1952 = *Harpactus*  
*houskai* Balthasar, 1954 = *Harpactus*  
*hypenethes* Handlirsch, 1895 = *Hoplisoides denticulatus hypenethes*  
*ibericus* Mercet, 1906 = *Hoplisoides punctuosus* (Eversmann, 1849)  
*icariiformis* Bingham, 1908 = *Lestiphorus*  
*icarioides* R. Turner, 1908 = *Ammatomus*  
*ifranensis* Nadig, 1933 = *Harpactus quadrisignatus ifranensis* (Nadig, 1933)  
*iheringi* Handlirsch, 1893 = *Hoplisoides*  
*imitator* Handlirsch, 1901 = *Aroliagorytes*  
*imperialensis* Bradley, 1920 = *Hoplisoides confertus* (W. Fox, 1896)  
*impiger* Bingham, 1897 = *Hoplisoides*  
*impudens* Nurse, 1903 = *Harpactus*  
*infernalis* Handlirsch, 1888 = *Oryttus*  
*insolitus* W. Fox, 1896 = *Arigorytes*  
*iridipennis* F. Smith, 1856 = *Hoplisoides*  
*jentinki* Handlirsch, 1895 = *Hoplisoides*

*joergenseni* Brèthes, 1910 = *Liogorytes*  
*jordani* Handlirsch, 1895 = *Hoplisoides*  
*karooensis* Brauns, 1911 = *Harpactus vicarius karooensis* (Brauns, 1911)  
*kostjuki* Nesterov, 1993 = *Oryttus kaszabi* Tsuneki, 1971  
*knabi* Rohwer, 1911 = *Hoplisoides costalis* (Cresson, 1973)  
*kraepelini* Brauns, 1899 = *Oryttus*  
*laminiferus* W. Fox, 1896 = *Oryttus*  
*lateritius* Handlirsch, 1888 = *Harpactus*  
*latifrons* Spinola, 1808 = *Hoplisoides*  
*lenis* Nurse, 1903 = *Ammatomus*  
*lepidus* Arnold, 1944 = *Harpactus*  
*lucidulus* R. Turner, 1908 = *Clitemnestra*  
*lugubris* de Beaumont, 1960 = *Harpactus quadrisignatus lugubris* (de Beaumont, 1960)  
*maculatus* Provancher, 1895 = *Hoplisoides spilopterus* (Handlirsch, 1888)  
*maculipennis* Cameron, 1890 = *Hoplisoides*  
*maroccanus* Dusmet, 1925 = *Hoplisoides*  
*matangensis* R. Turner, 1914 = *Argogorytes*  
*megalommiformis* Strand = *Stenogorytes*  
*megalophtalmus* Handlirsch, 1895 = *Clitemnestra*  
*mellinoides* W. Fox, 1896 = *Lestiphorus*  
*mendicus* Handlirsch, 1893 = *Harpactus*  
*mendozanus* Brèthes, 1913 = *Hoplisoides*  
*merceti* de Beaumont, 1950 = *Hoplisoides craverii merceti*  
*mesostenus* Handlirsch, 1888 = *Ammatomus*  
*mexicanus* Handlirsch, 1888 = *Psammaletes*  
*microcephalus* Handlirsch, 1888 = *Hoplisoides placidus nebulosus* (Packard, 1867)  
*mimetes* Handlirsch, 1901 = *Epigorytes*  
*minutus* Mocsáry, 1879 (*Hoplisus*) = *Hoplisoides latifrons* (Spinola, 1808)  
*mirandus* W. Fox, 1892 = *Oryttus*  
*mitjaevi* Kazenas, 1972 = *Ammatomus coarctatus* (Spinola, 1808)  
*modestus* Cresson, 1865 = *Saygorytes phaleratus* (Say, 1837)  
*moneduloides* Packard, 1867 = *Tanyoprymnus*  
*monstrosus* Handlirsch, 1894 = *Afrogorytes*  
*moravicus* Šnoflák, 1946 = *Harpactus morawitzi* Radoszkowski, 1884  
*morrensis* Strand, 1910 = *Hoplisoides vespoides* (F. Smith, 1873)  
*mundus* de Beaumont, 1950 = *Harpactus*  
*nebulosus* Packard, 1867 = *Hoplisoides placidus nebulosus* (Packard)  
*neglectus* Rohwer, 1911 = *Argogorytes nigrifrons* (F. Smith, 1856)  
*nigrifrons* F. Smith, 1856 = *Argogorytes*  
*notabilis* Handlirsch, 1888 = *Stenogorytes*  
*obscurus* de Beaumont, 1969 = *Harpactus*  
*orientalis* Handlirsch, 1888 = *Hoplisoides*  
*osdroene* de Beaumont, 1969 = *Harpactus*  
*ornatus* F. Smith, 1868 = *Ammatomus decoratus* (Handlirsch, 1888)  
*papagorum* Viereck, 1907 = *Saygorytes phaleratus* (Say, 1923)  
*partitus* W. Fox, 1897 = *Stenogorytes specialis* (F. Smith, 1873)



*parvulus* Handlirsch, 1888 = *Clitemnestra aenea* (Handlirsch, 1888)  
*pergandei* Handlirsch, 1888 = *Hoplisoides placidus nebulosus* (Packard, 1867)  
*persimilis* R. Turner, 1926 = *Lestiphorus*  
*perkinsi* R. Turner, 1912 = *Austogorytes*  
*phaleratus* Handlirsch, 1888 = *Saygorytes*  
*pictus* F. Smith, 1856 = *Hoplisoides*  
*placidus* F. Smith, 1856 = *Hoplisoides*  
*piceus* Handlirsch, 1888 = *Lestiphorus*  
*pogonodes* Bradley, 1920 = *Hoplisoides spilopterus* (Handlirsch, 1888)  
*politus* Bingham, 1897 = *Hoplisoides*  
*pollux* Handlirsch, 1898 = *Harpactus*  
*polybia* Handlirsch, 1895 = *Liogorytes*  
*procerus* Handlirsch, 1888 = *Megistommum*  
*procerulides* Strand, 1910 = *Epigorytes*  
*propinquus* Cresson, 1868 = *Saygorytes apicalis* (F. Smith, 1856)  
*punctifrons* Cameron, 1890 = *Hoplisoides*  
*punctulatus* Vander Linden, 1829 = *Psammaecius*  
*pygidialis* W. Fox, 1896 = *Hoplisoides costalis pygidialis*  
*pygmaeus* Brèthes, 1913 = *Pluto*  
*pyrrhobasis* Morice, 1911 = *Harpactus*  
*quedenfeldti* Handlirsch, 1895 = *Hoplisoides*  
*rhopalocerus* Handlirsch, 1895 = *Ammatomus mesostenus rhopalocerus*  
*robustus* Handlirsch, 1888 = *Hoplisoides*  
*rogenhoferi* Handlirsch, 1888 = *Ammatomus*  
*ruficornis* Provancher, 1888 = *Oryttus laminiferus* (W. Fox, 1896)  
*rufipes* F. Smith, 1856 = *Hoplisoides placidus* F. Smith, 1856  
*rufithorax* Brauns, 1911 = *Harpactus*  
*rufocinctus* W. Fox, 1992 = *Lestiphorus*  
*rufoluteus* Packard, 1867 = *Saygorytes phaleratus* (Say, 1837)  
*rufomixtus* R. Turner, 1914 = *Argogorytes*  
*rufulicornis* Maidl and Klima, 1939 = *Oryttus laminiferus* (W. Fox, 1896)  
*sanguinolentus* R. Turner, 1908 = *Clitemnestra*  
*saharae* Handlirsch, 1895 = *Ammatomus rufonodis* (Radoszkowski, 1877)  
*saharae* Giner Marí, 1945 = *Harpactus laevis saharae* (Giner Marí, 1945)  
*sapellonis* Baker, 1907 = *Argogorytes*  
*sareptanus* Handlirsch, 1888 = *Harpactus tauricus* Radoszkowski, 1884  
*schrottkyi* Fritz, 1964 = *Liogorytes*  
*schwarzi* de Beaumont, 1965  
*scutellaris* (Spinola, 1841) (*Hoplisus*) = *Sagenista*  
*scutellaris* F. Smith, 1851 = *Sagenista scutellaris* (Spinola, 1841).  
*seminiger* (Dahlbom, 1843) (*Hoplisus*) = *Sagenista*  
*sepulchralis* Handlirsch, 1888 = *Sagenista*  
*sepultus* (Cockerell, 1906) = *Psammaecius*  
*sericatus* F. Smith, 1856 = *Sagenista*  
*siculus* de Beaumont, 1968 = *Harpactus elegans siculus* (de Beaumont, 1968)  
*similicolor* Dow, 1933 = *Argogorytes*

*silverlocki* R. Turner, 1913 = *Afrogorytes monstrosus* (Handlirsch, 1894)  
*specialis* F. Smith, 1873 = *Stenogorytes*  
*sphaerosoma* Handlirsch, 1895 = *Clitemnestra*  
*spilographus* Handlirsch, 1888 = *Hoplisoides hamatus* (Handlirsch, 1888)  
*spilopterus* Handlirsch, 1888 = *Hoplisoides*  
*spiniferus* du Buysson, 1897 = *Ammatomus*  
*splendidulus* Bradley, 1920 = *Hoplisoides*  
*splendidus* Handlirsch, 1888 = *Megistommum*  
*stenopygus* Handlirsch, 1895 = *Argogorytes*  
*subtilis* Handlirsch, 1895 = *Clitemnestra aenea* (Handlirsch, 1888)  
*taiwanus* Tsuneki, 1971 = *Eogorytes*  
*tarsatus* F. Smith = *Austrogorytes*  
*tener* Handlirsch, 1895 = *Clitemnestra sphaerosoma* (Handlirsch, 1895)  
*thalia* Handlirsch, 1895 = *Hoplisoides*  
*tonkinensis* Yasumatsu, 1943 = *Argogorytes*  
*transcaspicus* Kokujev, 1909 = *Harpactus*  
*transvaalensis* Cameron, 1910 = *Hoplisoides thalia* (Handlirsch, 1895)  
*triangularis* F. Smith, 1873 = *Pterygorytes*  
*trichiosoma* Cameron, 1888 = *Argogorytes carbonarius* (F. Smith, 1856)  
*tricolor* Cresson, 1868 = *Hoplisoides*  
*tricolor* F. Smith, 1875 nec Cresson, 1868 = *Hoplisoides*  
*unicinctus* Brèthes, 1913 = *Liogorytes*  
*vagus* F. Smith, 1859 = *Argogorytes*  
*valens* W. Fox, 1897 = *Pterygorytes*  
*velutinus* Spinola, 1851 (*Hoplisus*) = *Harpactostigma*  
*vespoides* F. Smith, 1873 = *Hoplisoides*  
*vicarius* Handlirsch, 1895 = *Harpactus*  
*violaceus* Handlirsch, 1888 = *Clitemnestra*  
*walteri* Handlirsch, 1888 = *Harpactus*