

Last updated: 17 November 2009

HOPLISOIDES

Hoplisoides Gribodo, 1884d:276. Type species: *Hoplisoides intricans* Gribodo, 1884, by monotypy.

Icuma Cameron, 1905b:21. Type species: *Icuma sericea* Cameron, 1905, by monotypy [= *Gorytes vespoides* F. Smith, 1873]. Synonymized with *Hoplisoides* by R. Bohart in R. Bohart and Menke, 1976:53

Keys: Alayo Dalmau, 1976:13 (Cuba); Nemkov, 1995c:133 (former Soviet Union); R. Bohart, 1997b (North America).

Revision: R. Bohart, 2000:221 (Neotropical species); Buck, 2007 (Canadian species).

Review of biology: Kazenas, 2001b:227.

1. *aglaia* (Handlirsch)

Gorytes aglaia Handlirsch, 1895:887, ♂ (as *Aglaia*, incorrect original capitalization). Holotype: ♂, South Africa: Cape Province (ZMHU). – Dalla Torre, 1897:536 (in catalog of world Sphecidae); Handlirsch, 1901b:427 (additional description); Maidl and Klima, 1939:87 (in catalog of world Astatinae and Bembicinae). – **As *Arpactus aglaia***: Arnold, 1929a:237 (new combination, in revision of Afrotropical *Arpactus*, description of ♀), 1930:18 (in checklist of Afrotropical Sphecidae). – **As *Hoplisoides aglaia***: R. Bohart and Menke, 1976:520 (new combination, listed); Gess, 1981:20 (South Africa: 18 km WNW Grahamstown; nesting in sandy soils); Evans and O'Neil, 2007:60 (the species is associated with sandy soils according to Gess, 1981).

Gorytes euphrosyne Handlirsch, 1895:888, ♀ (as *Euphrosyne*, incorrect original capitalization). Holotype: ♀, Africa: no specific locality (ZMHU). Synonymized with *Gorytes aglaia* by Arnold, 1929a:237. – Dalla Torre, 1897:541 (in catalog of world Sphecidae).

2. *alaya* (Pate)

Psammaecius alaya Pate, 1947h:96, ♀, ♂. Holotype: ♂, Dominican Republic (as San Domingo): no specific locality (originally ANSP, now lost?). – H. Allen, 1995:15 (type missing in ANSP collection). – **As *Hoplisoides alaya***: R. Bohart and Menke, 1976:520 (new combination, listed); R. Bohart, 1997b:649 (in revision of North American *Hoplisoides*); R. Bohart, 2000:224 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

3. *arispilos* R. Bohart

Hoplisoides arispilos R. Bohart, 2000:224, ♀. Holotype: ♀, Dominican Republic: Azua Province: Tortuguero (FSCA). – Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

4. *ater* (Gmelin)

Crabro tricinctus Fabricius, 1775:375, sex not indicated. Lectotype: ♀, South America: no specific locality (ZMK), designated by van der Vecht, 1961a:49. – Fabricius, 1781:472 (redescription), 1787:297 (redescription); Christ, 1791:292 (redescription); Olivier, 1792:518 (redescription); Fabricius, 1793:299 (redescription), 1796:51 (in Index to his Entomologia Systematica, 1793), 1804:313 (redescription, may be a *Mellinus*); Lepeletier de Saint Fargeau and Brullé, 1835:807 (discussion of species identity); Dahlbom, 1844:343 (original description copied), 1845:525 (in key, unknown to the author); Cresson, 1962:236 (in catalog of North American Hymenoptera); Dalla Torre, 1897:632 (in catalog of world Sphecidae). – **As *Vespa tricincta***: Gmelin, 1790:2749 (new combination, redescription). – **As *Mellinus tricinctus***: Fabricius, 1804:299 (new combination, redescription).

Vespa atra Gmelin, 1790:2765, substitute name for *Vespa tricincta* (Fabricius, 1775) Gmelin, 1790, secondary homonym of *Vespa tricincta* Fabricius, 1775 (now in *Sphecius*). – **As *Hoplisoides ater***: Alayo Dalmau, 1976:13 (new combination, in key to Cuban *Hoplisoides*), 28 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:520 (listed); Sánchez and J.A. Genaro, 1992:150 (nesting behavior); Snelling, 1993:18 (British Virgin Islands: Guana

Island), 1993b:13 (specimens previously recorded by Snelling from Virgin Island can be *Hoplisoides tricinctus*); R. Bohart, 1997b:649 (in revision of North American *Hoplisoides*), 2000:224 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Fernández, Sariol, Vega, Ricardo, González, and Portuondo, 2002:46 (Cuba: Provincia Granma); Portuondo and Fernández, 2004:134 (Cuba: Sierra Maestra); Genaro, 2006:52 (in checklist of Cuban Sphecidae and Crabronidae; other countries: Bahamas: Providence Island, Puerto Rico, Virgin Gorda Island, Guana Island); Evans and O'Neil, 2007:60 (summary of information on nesting habits).

Vespa tristrigata Fabricius, 1794:459, sex not indicated. Lectotype: ♀, South American Islands: no specific locality (ZMK), designated by van der Vecht, 1961a:49. Synonymized with *Hoplisus tricinctus* by Dahlbom, 1845:XXV. – Fabricius, 1796:174 (in Index to his Entomologia Systematica, 1794, as *tristriata*). – **As *Mellinus tristrigatus***: Fabricius, 1798:266 (new combination, redescription), 1799:32 (in Index to his Supplementum, 1798), 1804:299 (redescription). – **As *Hoplisus tristrigatus***: Dahlbom, 1845:XXV (new combination, study of type material), 483 (in key). – **As *Gorytes tristrigatus***: F. Smith, 1856:364 (new combination, in catalog of Hymenoptera in British Museum); Handlirsch, 1888b:392 (revision), 1895:880 (additional description of ♂); Dalla Torre, 1897:555 (in catalog of world Sphecidae); Maidl and Klima, 1939:61 (in catalog of world Astatinae and Bembicinae). – **As *Harpactus tristrigatus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae).

Lestiphorus behni Dahlbom, 1842:11, ♀ (as *Behni*, incorrect original capitalization). Holotype: ♀, origin unknown (ZMK, coll. Fabricius). Synonymized with *Hoplisus tristrigatus* by Dahlbom, 1845:483. – **As *Hoplisus behni***: Dahlbom, 1843:165 (new combination, redescription).

Harpactus scitulus Cresson, 1865a:147, ♀. Holotype: ♀, Cuba: no specific locality (IZAC). Synonymized with *Gorytes tristrigatus* by Handlirsch, 1888b:392. – Packard, 1867:444 (listed); Gundlach, 1886:138 (...); Ashmead, 1900:307 (in checklist of Caribbean Hymenoptera); Cresson, 1916:98 (holotype in Gundlach collection). – **As *Hoplisoides scitulus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae). – **As *Hoplisus scitulus***: Wolcott, 1951:840 (new combination, Puerto Rico). – **As *Psammaecius scitulus***: Pate, 1947h:93 (new combination, recorded from Cuba); Alayo Dalmau, 1969:11 (revision), 1973:187 (in catalog of Cuban Hymenoptera).

5. *azuae* R. Bohart

Hoplisoides azuae R. Bohart, 2000:226, ♀. Holotype: ♀, Dominican Republic: Azua Province: Tortuguero (FSCA). – Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

6. *bandraensis* (Giner Mari)

Gorytes bandraensis Giner Mari, 1945c:856, ♂. Holotype: ♂, India: Maharashtra: Bandra near Bombay (MNCN). – **As *Hoplisoides bandraensis***: R. Bohart and Menke, 1976:520 (new combination, listed).

7. *basutorum* (Arnold)

Gorytes basutorum Arnold, 1958:133, ♂. Syntypes: Lesotho: Mamathes, Leribe; South Africa: North West Province: Lichtenburg (SAM). – **As *Hoplisoides basutorum***: R. Bohart and Menke, 1976:520 (new combination, listed); Hancock, Chahwanda, and Mhlanga, 1995:38 (paratype in Bulawayo Museum).

8. *bipustulatus* (Arnold)

Gorytes bipustulatus Arnold, 1945:55, ♀, ♂. Syntypes: Madagascar: Behara, Bekily (MNHN). – Leclercq, 1960a:100 (Madagascar). – **As *Hoplisoides bipustulatus***: R. Bohart in R. Bohart and Menke, 1976:520 (new combination, listed); Leclercq, 1990b:119 (Madagascar; prey: Tettigometridae); Pulawski, 2003b:796 (in checklist of Malagasy Sphecidae).

9. *boranensis* (Guiglia)

Arpactus boranensis Guiglia, 1939d:65, ♂. Holotype: ♂, Ethiopia: Sidamo: Moyale (MSNG). – **As *Hoplisoides boranensis***: R. Bohart and Menke, 1976:520 (new combination, listed).

10. braunsii (Handlirsch)

Gorytes braunsii Handlirsch, 1901b:429, ♀ (as *Braunsii*, incorrect original capitalization). Holotype: ♀, Mozambique: Delagoa Bay, now Maputo Bay (NHMW). – Maidl and Klima, 1939:87 (in catalog of world Astatinae and Bembicinae); – **As *Hoplisoidea braunsii***: R. Bohart and Menke, 1976:520 (new combination, listed).

11. calliope (Arnold)

Arpactus calliope Arnold, 1936:8, ♀. Holotype: ♀, Zaire: Lubutu, 0°40'S, 26°40' (SAM). – **As *Gorytes calliope***: Maidl and Klima, 1939:87 (new combination, in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea calliope***: R. Bohart and Menke, 1976:520 (new combination, new combination, listed).

12. capitatus (Nurse)

Gorytes capitatus Nurse, 1902:86, "♀" = ♂. Holotype: ♂, India: Gujarat: Deesa (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). – **As *Hoplisoidea capitatus***: Bohart in R. Bohart and Menke, 1976:521 (new combination, as new synonym of *Hoplisoidea pictus*); Krombein, 1985a:28 (valid species).

13. carinatus R. Bohart

Hoplisoidea carinatus R. Bohart, 1968b:287, ♀, ♂. Holotype: ♂, USA: Arizona: Santa Cruz County: Madera Canyon (UCD). Paratypes: Mexico: Sonora. – R. Bohart and Menke, 1976:520 (listed); Krombein, 1979b:1699 (in catalog of North American Hymenoptera); R. Bohart, 1997b:649 (in revision of North American *Hoplisoidea*); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae).

14. cazieri R. Bohart

Hoplisoidea cazieri R. Bohart, 1968b:288, ♀, ♂. Holotype: ♂, USA: Arizona: Carr Canyon in Huachuca Mts. (AMNH). – R. Bohart and Menke, 1976:520 (listed); Krombein, 1979b:1699 (in catalog of North American Hymenoptera); R. Bohart, 1997b:649 (in revision of North American *Hoplisoidea*); Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

15. confertus (W. Fox)

Gorytes confertus W. Fox, 1896a:525, ♀, ♂. Lectotype: ♀, USA: Montana: no specific locality (ANSP), designated by Cresson, 1928:47. – Maidl and Klima, 1939:90 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius confertus***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera). – **As *Hoplisoidea confertus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); H. Smith, 1908b:343 (in revision of Nebraskan Sphecidae); Mickel, 1918b:353 (in catalog of Nebraskan Sphecidae); R. Bohart and Menke, 1976:520 (listed); Krombein, 1979b:1700 (in catalog of North American Hymenoptera, nesting sites, list of prey); R. Bohart, 1997b:650 (in revision of North American *Hoplisoidea*); Amarante, 2002:15 (in catalog of Neotropical Crabronidae), 2005a:9 (correction to his 2002 catalog).

Gorytes imperialensis Bradley, 1920:117, ♂. Holotype: ♂, USA: California: Imperial County: Brawley (Cornell Univ.). Synonymized with *Hoplisoidea confertus* by R. Bohart in R. Bohart and Menke, 1976:520. – Maidl and Klima, 1939:90 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius imperialensis***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera).

As *Hoplisoidea barbatulus*: H. Smith, 1908:344 (in revision of Nebraskan Sphecidae, description of ♀), corrected to *Hoplisoidea confertus* by Mickel, 1918b:353.

16. confusus (Dutt)

Gorytes confusus Dutt, 1921:29, ♂. Holotype: ♂, India: Bihar: Chapra (BMNH). – Maidl and Klima, 1939:88 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea confusus***: R. Bohart and Menke, 1976:520 (new combination, listed).

17. *costalis* (Cresson)

Gorytes costalis Cresson, 1873:225, ♀. Holotype: ♀: USA: Texas: Dallas County: no specific locality (MCZ). – Cresson, 1887:279 (in catalog of North American Hymenoptera); Handlirsch, 1888b:382 (revision); W. Fox, 1896a:528 (in revision of North American *Gorytes*); Dalla Torre, 1897:540 (in catalog of world Sphecidae); Ashmead, 1899d:329 (in checklist of North American Crabronidae); Cresson, 1916:98 (type in MCZ); Rau, 1922:19 (nesting in ground); J. Ch. Bradley, 1928:1015 (in catalog of New York Sphecidae); Maidl and Klima, 1939:58 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisus costalis***: Rohwer, 1916b:657 (new combination, in catalog of Hymenoptera of Connecticut); Reinhard, 1925a:107 (nesting habits). – **As *Psammaecius costalis***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera); Krombein, 1953a:286 (prey) 334 (North Carolina); Evans, 1959b:151 (description of larva); Krombein, 1959e:196 (nest, prey); L. Davis, 1978:217 (North Carolina: Kill Devil Hills, data from Krombein, 1953a). – **As *Hoplisoidea costalis***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); Rau, 1922:19 (USA: Missouri: St. Louis); Evans, 1966d:49 (nesting behavior); R. Bohart and Menke, 1976:520 (listed); Hanson and Menke, 1995:645 (known from Costa Rica); R. Bohart, 1997b:650 (in revision of North American *Hoplisoidea*); Finnamore, 1997:894 (expected to occur in Yukon, as *costalis costalis*); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Deyrup and Eisner, 2003:522 (a Floridian, red-marked species); Buck, 2004:27 (in checklist of Crabronidae of Ontario, Canada), 31 (distribution within Ontario), 67 (first record from Canada: Ontario: list of localities); 2007:76 (in revision of Canadian *Hoplisoidea*).

Gorytes knabi Rohwer, 1911b:569, ♂. Holotype: ♂, Mexico: Yucatan: Progreso (USNM). Tentatively synonymized with *Hoplisoidea costalis* by R. Bohart, 1997b:650. – Maidl and Klima, 1939:91 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea knabi***: R. Bohart and Menke, 1976:521 (new combination, listed); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae).

18. *craverii* (A. Costa)

Hoplisus craverii A. Costa, 1867c:67, ♀, ♂ (as *Craverii*, incorrect original capitalization). Syntypes: Italy: Piemonte: Brà (NAPOLI). – A. Costa, 1871c:95 (description), pl. III fig. 5 (color illustration of ♀); Baldini, 1894:68 (Italy: Modena area). – **As *Gorytes craverii***: Handlirsch, 1888b:395 (new combination, as synonym of *Gorytes punctuosus*); Ceballos, 1956:381 (in catalog of Hymenoptera of Spain); Bajári, 1957a:104 (in key to Hungarian Sphecidae); de Beaumont, 1959a:21 (Italy); Noskiewicz and Puławski, 1960:95 (in key to Polish Sphecidae, not yet found in Poland); de Beaumont, 1965a:30 (Greece), 1967a:312 (Turkey), 1969a:85 (Turkey); Balthasar, 1972:313 (in Sphecid Fauna of Czechoslovakia); Pulawski, 1978:204 (in key to Sphecidae of European part of former USSR); Pádr in Šedivý, 1989:167 (in checklist of Czechoslovakian Sphecidae, as *craverii*). – **As *Hoplisoidea craverii***: de Beaumont, 1952d:223 (new combination, in revision of Mediterranean *Hoplisoidea*), 224 (nominotypical subspecies); R. Bohart and Menke, 1976:521 (listed); Józán, 1985b:61 (recorded from Balatonszéplak by Bajári, 1957), 71 (map of distribution in Hungary), 84 (ecological and zoogeographic characteristics); Pagliano, 1990:73 (in catalog of Italian Sphecidae); Dollfuss, 1991:205 (in key to Sphecidae of North and Central Europe); Pagliano, 1992:42 (in key to Italian Nyssoninae); Negrisoló in Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Nemkov, 1995c:134 (in key to *Hoplisoidea* of former USSR), 135 (distribution in former Soviet Union); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:226 (in Sphecid Fauna of Western Europe); Shkuratov, 2000:57 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Kazenas, 2001b:47 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:125 (geographic distribution, collecting localities in Kazakhstan); Kazenas, 2004b:110 (Kazakhstan: western Tien Shan); Gayubo and Özbek, 2005:20 (Turkey: Erzurum: Oltu); Pagliano and Negrisoló, 2005:164 (in Sphecid Fauna of Italy); Standfuss and Standfuss, 2006c:305 (Greece: Thessalia: Magnissia Peninsula at 39°N 23°E); Gayubo, González, Tormos, and Asís, 2008:137 (Spain:

Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov and Yildirim, 2008:91 (in catalog of Crabronidae of Turkey).

Hoplisis craverii A. Costa, 1869b:83, ♀, ♂ (as *Craverii*, incorrect original capitalization). Objective synonym of *Hoplisis craverii* A. Costa, 1867c:67.

Hoplisis ottomanus Mocsáry, 1879:136, ♀ (as *Ottomanus*, incorrect original capitalization). Holotype or syntypes: ♀, Asia Minor, now Turkey: no specific locality (TMB). Synonymized with *Hoplisoidea craverii* by de Beaumont, 1952d:223. – **As *Gorytes ottomanus***: Handlirsch, 1888b:395 (new combination, as synonym of *Gorytes punctuosus*), 1894:32 (Progr. Gymn. Pola), 1895:882 (valid species, redescription); Dalla Torre, 1897:549 (in catalog of world Sphecidae); Mocsáry, 1900:82 (Hungary: Budapest: Csepel Island); Schmiedeknecht, 1907:218, 220 (in key to Hymenoptera of Central Europe); Strand, 1919:45 (Macedonia: Čaška); Schmiedeknecht, 1930:680, 682 (in keys to Hymenoptera of North and Central Europe); Zavadil, Šusterka, and Baťa, 1937:190 (in catalog of Sphecidae of Czechoslovakia); Maidl and Klima, 1939:85 (in catalog of world Astatinae and Bembicinae); Šnoflak in Zavadil and Šnoflak, 1948:69 (in key to Sphecidae of Czechoslovakia); Balthasar, 1952:66 (Slovakia). 1958:337 (Slovakia: Gbelce, Štúrovo). – **As *Hoplisoidea ottomanus***: Tsuneki, 1971k:189 (new combination, Mongolia).

ssp. *merceti* (de Beaumont)

Gorytes merceti de Beaumont, 1950a:63, ♀, ♂. Holotype: ♂, Spain: El Escorial (MNCN). – Martin Albaladeo and Izquierdo Moya, 2006:124 (type in Museo Nacional de Ciencias Naturales). – **As *Gorytes craverii* var. *merceti***: Ceballos, 1956:381 (new status, in catalog of Hymenoptera of Spain). – **As *Gorytes craverii merceti***: Nouvel and Ribaut, 1958:12 (new status, France: Pyrénées-Orientales: Banyuls-sur-Mer); Suárez, 1959:56 (Spain: Almería Province); de Beaumont, 1962b:23 (Spain); Ceballos, 1964:90 (in supplement to catalog of Spanish Sphecidae); Diniz, 1973:45 (Portugal: Coimbra). – **As *Hoplisoidea craverii merceti***: de Beaumont, 1952d:223 (new status), 224 (in revision of Mediterranean *Hoplisoidea*); R. Bohart and Menke, 1976:521 (listed); Gayubo, 1982b:45 (Spain: Ávila and Salamanca provinces), 1982e:107 (Spain: Cádiz Province), 1983e:234 (Spain: Salamanca Province); Gayubo and Sanza, 1986:78 (Spain: Burgos).

As *Gorytes punctatus*: Mercet, 1906:131, 137 (in key to Spanish *Gorytes*), corrected to *Gorytes merceti* by de Beaumont, 1950a:63.

19. *dentatus* (W. Fox)

Gorytes dentatus W. Fox, 1893b:116, ♂. Lectotype: ♂, USA: Arizona: Grand Canyon (ANSP), designated by Cresson, 1928:47. – Handlirsch, 1895:896 (original description translated into German); W. Fox, 1896a:528 (in revision of North American *Gorytes*); Dalla Torre, 1897:540 (in catalog of world Sphecidae); Maidl and Klima, 1939:90 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius dentatus***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera). – **As *Hoplisoidea dentatus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); R. Bohart and Menke, 1976:521 (listed); R. Bohart, 1997b:650 (in revision of North American *Hoplisoidea*); Krombein, 1979b:1700 (in catalog of North American Hymenoptera).

20. *denticulatus* (Packard)

Gorytes denticulatus Packard, 1867:430, ♀, actually ♂ (R. Bohart, 1997b:651). Lectotype: ♂, USA: Louisiana: no specific locality (ANSP), designated by Cresson, 1928:47. – Cresson, 1887:279 (in catalog of North American Hymenoptera); Handlirsch, 1888b:410 (original description translated into German); W. Fox, 1896a:530 (in revision of North American *Gorytes*); Dalla Torre, 1897:540 (in catalog of world Sphecidae); Brimley, 1938:446 (North Carolina: Raleigh, Tarboro); Maidl and Klima, 1939:90 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius denticulatus***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera); Krombein, 1953a:334 (North Carolina), 1953b:123 (visiting foliage of *Quercus virginiana*), 125 (attracted to a grass), 133 (North Carolina: Kill Devil Hills); Krombein and Evans, 1954:234 (Florida), 1955:233 (Florida); Krombein, 1959e:196 (prey); L. Davis, 1978:217 (North Carolina: Kill Devil Hills, data from

Krombein, 1953a). – **As *Hoplisoidea denticulatus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); Mickel, 1918b:354 (in catalog of Nebraskan Sphecidae); Evans, 1966b:56 (review of behavioral observations by Krombein, 1959); R. Bohart and Menke, 1976:521 (new combination, listed); Callan, 1977a:329 (Trinidad: St. Augustine); Ahlstrom, 1995:112 (in checklist of insects of North Carolina); Krombein, 1979b:1700 (in catalog of North American Hymenoptera); Hanson and Menke, 1995:645 (known from Costa Rica); R. Bohart, 1997b:651 (in revision of North American *Hoplisoidea*), 2000:227 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Deyrup and Eisner, 2003:522 (a Floridian, red-marked species); Starr and Hook, 2003:18 (in catalog of Aculeata of Trinidad, West Indies).

Gorytes barbatulus Handlirsch, 1888b:408, ♀, ♂. Syntypes: USA: Illinois and Texas: no specific localities (MHNG); Louisiana: New Orleans (coll. von Schulthess, Zurich). Synonymized with *Hoplisoidea denticulatus* by R. Bohart in R. Bohart and Menke, 1976:521. – W. Fox, 1896a:530 (in revision of North American *Gorytes*); Dalla Torre, 1897:537 (in catalog of world Sphecidae); nec H. Smith, 1908:344 (= *Hoplisoidea confertus*); Mickel, 1918b:354 (in catalog of Nebraskan Sphecidae); Bradley, 1920:115 (USA: Georgia); Moidl and Klima, 1939:89 (in catalog of world Astatinae and Bembicinae); Dollfuss, 1989:10 (type material in NHMW). – **As *Hoplisoidea barbatulus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae). – **As *Psammaecius barbatulus***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera)

Gorytes hypenetes Handlirsch, 1895:894, ♂. Syntypes: ♂, "Columb.", probably Colombia: no specific locality, and "mexicanus Laguirra" (ZMHU), synonymized with *Hoplisoidea denticulatus* by R. Bohart, 1997b:651. – Dalla Torre, 1897:543 (in catalog of world Sphecidae); Moidl and Klima, 1939:91 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea denticulatus hypenetes***: R. Bohart in R. Bohart and Menke, 1976:521 (new combination, new status, listed).

21. *diversus* (W. Fox)

Gorytes diversus W. Fox, 1896a:527, ♀, ♂. Syntypes: USA: California: Los Angeles (USNM). – Moidl and Klima, 1939:101 (in catalog of world Astatinae and Bembicinae, in subgenus *Hoplisus*). – **As *Hoplisus diversus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae). – **As *Psammaecius diversus***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera). – **As *Hoplisoidea diversus***: R. Bohart and Menke, 1976:521 (new combination, listed); Krombein, 1979b:1700 (in catalog of North American Hymenoptera); R. Bohart, 1997b:651 (in revision of North American *Hoplisoidea*).

22. *dominicanus* R. Bohart

Hoplisoidea dominicanus R. Bohart, 2000:228, ♂. Holotype: ♂, Dominican Republic: Playa Portuquero (UCD). – Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

23. *elotae* R. Bohart

Hoplisoidea elotae R. Bohart, 1997b:651, ♀, ♂. Holotype: ♂, Mexico: Sinaloa: 8 mi SE Elota (UCD). – Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

24. *emeryi* (Gribodo)

Hoplisus emeryi Gribodo, 1894c:130, ♂ (as *Emeryi*, incorrect original capitalization). Holotype: ♂, Mozambique: Magnarra River (Mus. Zool. Univ. Bologna). – Tommasini and Marini, 1984:42 (type depository). – **As *Gorytes emeryi***: Handlirsch, 1895:889 (new combination, original description copied); Dalla Torre, 1897:541 (in catalog of world Sphecidae); Moidl and Klima, 1939:87 (in catalog of world Astatinae and Bembicinae). – **As *Arpactus emeryi***: Arnold, 1929a:237 (new combination, Gribodo's description from Handlirsch translated into English), 1930:18 (in checklist of Afrotropical Sphecidae). – **As *Hoplisoidea emeryi***: R. Bohart and Menke, 1976:521 (new combination, listed).

25. eurynome (Arnold)

Gorytes eurynome Arnold, 1955:754, ♀, ♂. Holotype: sex not indicated, Lesotho: Mamathes (SAM). – **As *Hoplisoidea eurynome***: R. Bohart and Menke, 1976:521 (new combination, listed); Hancock, Chahwanda, and Mhlanga, 1995:38 (paratype in Bulawayo Museum).

26. feae (Handlirsch)

Gorytes feae Handlirsch, 1895:890, ♀ (as *Feae*, incorrect original capitalization). Holotype: ♀, Peru: Palon (NHMW). – Dalla Torre, 1897:542 (in catalog of world Sphecidae); Cameron, 1900b:77 (not included in Bingham, 1897); Ramakrishna Aiyar, 1916:556 (in catalog of Indian aculeates described after Bingham, 1897, as *feoe*); Maidl and Klima, 1939:88 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea feae***: R. Bohart and Menke, 1976:521 (new combination, listed); Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

27. ferrugineus (Spinola)

Hoplisis ferrugineus Spinola, 1839:497, ♂. Holotype or syntypes: ♂, Egypt: no specific locality (lost). Neotype: ♀, Egypt: Shubra (BMNH), designated by de Beaumont, 1952d:229. – **As *Gorytes ferrugineus***: Handlirsch, 1888:259 (new combination; original description translated into German); Dalla Torre, 1897:542 (in catalog of world Sphecidae); Maidl and Klima, 1939:50 (in catalog of world Astatinae and Bembicinae); Grandi, 1957:385 (Libya: Tripolitania: Wadi Kaam); de Beaumont and Bytinski-Salz, 1959:102 (Israel); Pulawski, 1964:75 (Egypt: Kom Osheim). – **As *Hoplisoidea ferrugineus***: de Beaumont, 1952d:229 (new combination, in revision of Mediterranean *Hoplisoidea*); R. Bohart and Menke, 1976:521 (listed); Guichard, 1980:229 (Oman); Nemkov, 1995c:133 (in key to *Hoplisoidea* of former USSR); Gadallah and Assery, 2004a:220 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 227 (in catalog of Sphecidae of Saudi Arabia: S and W Jeddah, Obhor N Jeddah), 2004b:1397 (skeletal parts of sting apparatus).

Gorytes imsganensis Nadig, 1933:90, ♂. Syntypes: ♂, Morocco: Agadir (originally coll. Nadig, now Zurich). Synonymized with *Hoplisoidea ferrugineus* by de Beaumont, 1952d:229. – Maidl and Klima, 1939:84 (in catalog of world Astatinae and Bembicinae).

28. floridicus R. Bohart

Hoplisoidea floridicus R. Bohart, 1968b:289, ♀, ♂. Holotype: ♂, USA: Florida: Orlando (UCD). – R. Bohart and Menke, 1976:521 (listed); R. Bohart, 1997b:653 (in revision of North American *Hoplisoidea*); Krombein, 1979b:1700 (in catalog of North American Hymenoptera).

29. fuscus (Taschenberg)

Hoplisis fuscus Taschenberg, 1875:368, ♀. Holotype or syntypes: ♀, Brazil: Rio de Janeiro (Halle). – Schrottky, 1913a:227 (Paraguay); Rohwer, 1916b:657 (in catalog of Hymenoptera of Connecticut). – **As *Gorytes fuscus***: Handlirsch, 1888b:377 (new combination, revision), 1888c:68 (mimicry with *Nectarina lecheguana*); Cameron, 1890a:72 (Yucatán, Guatemala); Handlirsch, 1895:875 (citation of Cameron, 1890a); W. Fox, 1896a:525 (in revision of North American *Gorytes*); Dalla Torre, 1897:542 (in catalog of world Sphecidae); W. Fox, 1897b:380 (Brazil: Santarém); W. Schulz, 1906:200 (Brazil: Santa Catarina: Therezopolis, mimicry with *Nectarina*); Maidl and Klima, 1939:58 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisis fuscus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae). – **As *Hoplisoidea fuscus***: R. Bohart in R. Bohart and Menke, 1976:521 (new combination, raised from synonymy, listed); R. Bohart, 2000:228 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

30. gazagnairei (Handlirsch)

Gorytes gazagnairei Handlirsch, 1893a:CLVI, ♂, ♀ (as *Gazagnairei*, incorrect original capitalization). Syntypes: Algeria: Némours, now Ghazaouet (depository not indicated). – Handlirsch, 1895:885 (original description translated into Latin); Dalla Torre, 1897:542 (in catalog of world Sphecidae); Morice, 1911:112 (Algeria); von Schulthess, 1926b:216 (Tunisia, Libya); Guiglia, 1934b:301 (Libya: bibliography and summary of locality records);

Maidl and Klima, 1939:84 (in catalog of world Astatinae and Bembicinae); de Beaumont, 1956a:188 (Libya). – **As *Hoplisoidea gazagnairei***: de Beaumont, 1952d:227 (new combination; in revision of Mediterranean *Hoplisoidea*), 228 (nominotypical subspecies); R. Bohart and Menke, 1976:521 (listed); Nemkov, 2008b:25 (in catalog of Crabronidae of Asiatic Russia).

ssp. *distinguendus* (Yasumatsu)

Gorytes distinguendus Yasumatsu, 1939e:12, ♀. Holotype: ♀, China: Heilongjiang: Changchu (FUKUOKA). – Yasumatsu, 1942c:110 (China: Beijing), 1943:18 (China: Inner Mongolia; description of ♂). – **As *Hoplisoidea distinguendus***: Tsuneki, 1963a:2, 4 (in key to Gorytini of Japan and Korea), 10 (new combination, Korea; China: Beijing), 1965c:30 (key), 1967e:2 (China: Manchuria), 3 (China: Heilongjiang: Harbin). – **As *Hoplisoidea gazagnairei distinguendus***: Tsuneki, 1971m:11 (new status, China: Peking: Tiendang), 1974a:361 (Korea); R. Bohart and Menke, 1976:521 (listed); Kazenas, 1980e:84 (Russia: Primorskiy Krai); Tsuneki, 1982b:18 (known from Korea), 1991:199 (Korea); Nemkov, 1995c:134 (in key to *Hoplisoidea* of former USSR), 135 (distribution in former Soviet Union); Nemkov *in* Nemkov, Kazenas, Budrys, et Antropov, 1995:465 (in key to Sphecidae of Russian Far East); Wu and Zhou, 1996a:150 (in revision in Economic Insect Fauna of China); Hua, 2006:280 (in list of Chinese insects, geographic distribution); Nemkov, 2009b:139 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia).

ssp. *maroccanus* (Dusmet)

Gorytes maroccanus Dusmet y Alonso, 1925:246, ♀. Holotype: ♀, Morocco: Rabat (MNCN?). – Maidl and Klima, 1939:85 (in catalog of world Astatinae and Bembicinae); de Beaumont, 1953g:108 (Morocco). – **As *Hoplisoidea gazagnairei maroccanus***: de Beaumont, 1952d:227 (new combination), 228 (new status, in revision of Mediterranean *Hoplisoidea*); R. Bohart and Menke, 1976:521 (listed).

31. *glabratus* R. Bohart

Hoplisoidea glabratus R. Bohart, 1968b:291, ♀, ♂. Holotype: ♂, USA: New Mexico: Granite Pass 18 mi N Rodeo (UCD). – R. Bohart and Menke, 1976:521 (listed); Krombein, 1979b:1700 (in catalog of North American Hymenoptera, nesting sites, prey); R. Bohart, 1997b:653 (in revision of North American *Hoplisoidea*); Ohl and Linde, 2003:150 (number of ovarioles).

32. *hamatus* (Handlirsch)

Gorytes hamatus Handlirsch, 1888b:403, ♂. Holotype: ♂, USA, Colorado: no specific locality (NHMW). – W. Fox, 1896a:529 (in revision of North American *Gorytes*); Dalla Torre, 1897:542 (in catalog of world Sphecidae); Cockerell, 1899a:143 (New Mexico); Maidl and Klima, 1939:90 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisus hamatus***: Rohwer, 1917a:248 (new combination, California: Tahoe). – **As *Psammaecius hamatus***: Krombein *in* Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera). – **As *Hoplisoidea hamatus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); R. Bohart and Menke, 1976:521 (listed); Krombein, 1979b:1700 (in catalog of North American Hymenoptera, nesting sites, list of prey); R. Bohart, 1997b:653 (in revision of North American *Hoplisoidea*); Evans and O'Neil, 2007:60 (summary of information on nesting habits); Buck, 2007:75 (in revision of Canadian *Hoplisoidea*).

Gorytes spilographus Handlirsch, 1895:895, ♂. Holotype: ♂, North America: no specific locality (MHNG). Synonymized with *Hoplisoidea hamatus* by R. Bohart *in* R. Bohart and Menke, 1976:521. – Handlirsch, 1895:902 (reference to Cameron, 1890a); Dalla Torre, 1897:554 (in catalog of world Sphecidae); Ashmead, 1899d:329 (in checklist of North American Crabronidae, generic placement tentative); Maidl and Klima, 1939:92 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius spilographus***: Krombein *in* Muesebeck et al., 1951:991 (new combination, in catalog of North American Hymenoptera). – **As *Hoplisoidea spilographus***: Evans, 1966d:46 (new combination, nesting behavior), 1970:494 (Wyoming: Jackson Hole, nesting behavior, parasite: *Nysson rusticus* Cresson).

Hoplisoides arizonensis C. Baker, 1907:164, ♀. Holotype or syntypes: ♀, USA: Arizona: Prescott (originally Pomona College, now USNM). Synonymized with *Hoplisoides hamatus* by R. Bohart in R. Bohart and Menke, 1976:521. – **As *Gorytes arizonensis***: Maidl and Klima, 1939:89 (new combination, in catalog of world Astatinae and Bembicinae). – **As *Psammaecius arizonensis***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera).

Gorytes adornatus Bradley, 1920:115, ♀ (as *adornata*, incorrect original termination). Holotype: ♀, USA: California: Santa Cruz County: Felton (Cornell Univ.). Synonymized with *Hoplisoides hamatus* by R. Bohart in R. Bohart and Menke, 1976:521. – Maidl and Klima, 1939:89 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius adornatus***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera); Evans, 1959b:141 (description of larva); Powell and Chemsak, 1959b:195 (nesting behavior).

As *Gorytes maculatus*: Provancher, 1888:140 (.), corrected to *Gorytes hamatus* by W. Fox, 1896a:529.

33. *helvolus* R. Bohart

Hoplisoides helvolus R. Bohart, 2000:229, ♀, ♂. Holotype: ♀, Colombia: Antioquia: Rio Porce (KU). – Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

34. *homonymus* (W. Schulz)

Gorytes politus Bingham, 1897:275, ♀, junior primary homonym of *Gorytes politus* F. Smith, 1873. Holotype: ♀, India: Maharashtra: Bombay (BMNH). – Iwata, 1965:107 (number of oocytes).

Gorytes homonymus W. Schulz, 1906:200. Substitute name for *Gorytes politus* Bingham, 1897. – 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). – **As *Hoplisoides homonymus***: R. Bohart and Menke, 1976:521 (new combination, listed); Ohl and Linde, 2003:150 (number of ovarioles).

35. *iheringii* (Handlirsch)

Gorytes iheringii Handlirsch, 1893b:276, ♀ (as *Iheringii*, incorrect original capitalization). Holotype: ♀, Brazil: Rio Grande do Sul: no specific locality (NHMW). – Handlirsch, 1895:876 (original description copied); Dalla Torre, 1897:543 (in catalog of world Sphecidae); Maidl and Klima, 1939:58 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoides iheringii***: R. Bohart and Menke, 1976:521 (new combination, listed); Dollfuss, 1989:10 (type material in NHMW); R. Bohart, 2000:229 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Starr and Hook, 2003:18 (in catalog of Aculeata of Trinidad, West Indies).

Hoplisoides subcostalis R. Bohart, 1997b:658, ♀. Holotype: ♀, Panama: Canal Zone: Barro Colorado (USNM). Synonymized with *Hoplisoides iheringii* by R. Bohart, 2000:229.

36. *impiger* (Bingham)

Gorytes impiger Bingham, 1897:274, ♀. Holotype: ♀, Burma: Tenasserim (BMNH). – Maidl and Klima, 1939:55 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoides impiger***: R. Bohart and Menke, 1976:521 (new combination, listed, illegal designation of lectotype by R. Bohart).

37. *insularis* (Cresson)

Harpactus insularis Cresson, 1865a:146, ♀. Holotype: ♀, Cuba: no specific locality (IZAC). – Packard, 1867:444 (listed); Gundlach, 1886:137 (.); Ashmead, 1900:307 (in checklist of Caribbean Hymenoptera); Cresson, 1916:98 (holotype in Gundlach collection). – **As *Gorytes insularis***: Handlirsch, 1888b:394 (new combination, original description translated into German); Dalla Torre, 1897:543 (in catalog of world Sphecidae); Maidl and Klima, 1939:59 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius insularis***: Pate, 1947h:93 (new combination, recorded from Cuba); Alayo Dalmau, 1969:15 (in revision of Cuban Bembicinae), 1973:188 (in catalog of Cuban Hymenoptera). – **As *Hoplisoides insularis***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); Alayo Dalmau, 1976:13 (in key to Cuban *Hoplisoides*), 29 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:521 (listed); R. Bohart, 1997b:653 (in revision of North American

Hoplisoides); R. Bohart, 2000:230 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Genaro, 2006:52 (in checklist of Cuban Sphecidae and Crabronidae; also: Isla de la Juventud).

38. *intricans* Gribodo

Hoplisoides intricans Gribodo, 1884:276, ♂. Holotype or syntypes: ♂, South Africa: Eastern Cape Province: Port Elizabeth (MSNG). – Handlirsch, 1888b:542 (original description copied); Gribodo, 1894c:132 (description of ♀). – R. Bohart and Menke, 1976:521 (listed). – **As *Gorytes intricans***: Handlirsch, 1895:893 (new combination, Gribodo's, 1894, description of ♀ copied); Dalla Torre, 1897:543 (in catalog of world Sphecidae); Maidl and Klima, 1939:87 (in catalog of world Astatinae and Bembicinae). – **As *Arpactus intricans***: Arnold, 1929a:236 (new combination, original description copied), 1930:18 (in checklist of Afrotropical Sphecidae).

39. *iridipennis* (F. Smith)

Gorytes iridipennis F. Smith, 1856:363, ♀. Holotype or syntypes: ♀, Brazil: Pará: Santarém (BMNH or OXUM). – Handlirsch, 1888b:533 (original description translated into German), 1895:877 (redescription of ♀); Dalla Torre, 1897:543 (in catalog of world Sphecidae); Ducke, 1907b:91 (Brazil: Maranhão State: São Luiz de Maranhão); Maidl and Klima, 1939:59 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoides iridipennis***: R. Bohart and Menke, 1976:521 (new combination, listed); Callan, 1977a:328 (nesting habits); Nascimento and Overall, 1980:6 (Brazil); Hanson and Menke, 1995:645 (known from Costa Rica); R. Bohart, 1997b:654 (in revision of North American *Hoplisoides*), 2000:230 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Starr and Hook, 2003:18 (in catalog of Aculeata of Trinidad, West Indies); Evans and O'Neil, 2007:61 (summary of information on nesting habits).

Gorytes fasciatipennis Cameron, 1890a:75, [♀]. Holotype or syntypes: ♀, Mexico: Yucatán: Temax (BMNH). Synonymized with *Hoplisoides iridipennis* by R. Bohart in R. Bohart and Menke, 1976:521. – Handlirsch, 1895:949 (original description translated into German); Dalla Torre, 1897:541 (in catalog of world Sphecidae); Maidl and Klima, 1939:102 (in catalog of world Astatinae and Bembicinae, in subgenus *Hoplisus*). – **As *Hoplisus fasciatipennis***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae);

Gorytes maculipennis Cameron, 1890a:73, [♀], junior secondary homonym of *Hoplisus maculipennis* Giraud, 1861. Holotype or syntypes: ♀, Panama: Bugaba (BMNH). Synonymized with *Hoplisoides iridipennis* by R. Bohart, 1997b:654. – Handlirsch, 1895:900 (original description translated into German). – **As *Hoplisus maculipes* [sic]**: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae). – **As *Hoplisoides maculipennis***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae).

Gorytes panamensis Maidl and Klima, 1939:91. Substitute name for *Gorytes maculipennis* Cameron, 1890 nec *Gorytes maculipennis* (Giraud, 1861) Handlirsch, 1895. – **As *Hoplisoides panamensis***: R. Bohart and Menke, 1976:521 (new combination, listed).

40. *jaumei* (Alayo Dalmau)

Psammaecius jaumei Alayo Dalmau, 1969:17, ♀. Holotype: ♀, Cuba: Pinar del Río: Rangel (IZAC). – Alayo Dalmau, 1973:188 (in catalog of Cuban Hymenoptera). – **As *Hoplisoides jaumei***: Alayo Dalmau, 1976:13 (new combination, in key to Cuban *Hoplisoides*), 29 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:521 (listed); Sánchez and J.A. Genaro, 1992:152 (nesting behavior); Reyes and Hernández, 1995:3 (holotype in Inst. Ecol. Sist., La Havana, Cuba); R. Bohart, 1997b:654 (in revision of North American *Hoplisoides*); R. Bohart, 2000:231 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Genaro, 2006:52 (in checklist of Cuban Sphecidae and Crabronidae); Evans and O'Neil, 2007:61 (summary of information on nesting habits).

41. *jentinki* (Handlirsch)

Gorytes jentinki Handlirsch, 1895:891, ♀ (as *Jentinki*, incorrect original capitalization). Holotype or syntypes: ♀, Indonesia: Timor: no specific locality (RMNH). – Dalla Torre, 1897:543 (in catalog of world Sphecidae); W. Schulz, 1906:200 (reference to Handlirsch, 1896); Maidl and Klima, 1939:89 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea jentinki***: R. Bohart and Menke, 1976:521 (new combination, listed).

Gorytes jentinki Handlirsch, 1896:108, ♀ (as *Jentinki*, incorrect original capitalization). Objective synonym of *Gorytes jentinki* Handlirsch, 1895.

42. *jibacoa* (Alayo Dalmau)

Psammaecius jibacoa Alayo Dalmau, 1969:12, ♀, ♂. Syntypes: Cuba: many localities (IZAC). – Alayo Dalmau, 1973:187 (in catalog of Cuban Hymenoptera). – **As *Hoplisoidea jibacoa***: Alayo Dalmau, 1976:13 (new combination, in key to Cuban *Hoplisoidea*), 29 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:521 (listed); Reyes and Hernández, 1995:3 (holotype in Inst. Ecol. Sist., La Havana, Cuba); R. Bohart, 1997b:654 (in revision of North American *Hoplisoidea*), 2000:231 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Genaro, 2006:52 (in checklist of Cuban Sphecidae and Crabronidae).

43. *jordani* (Handlirsch)

Gorytes jordani Handlirsch, 1895:875, ♀, ♂ (as *Jordani*, incorrect original capitalization). Syntypes: Paraguay: no specific locality (NHMW, ZMHU). – Dalla Torre, 1897:543 (in catalog of world Sphecidae); Schrottky, 1903b:177 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay); Maidl and Klima, 1939:59 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisus jordani***: Schrottky, 1913a:227 (new combination, Paraguay). – **As *Hoplisoidea jordani***: R. Bohart and Menke, 1976:521 (new combination, listed); R. Bohart, 2000:232 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae), 2005a:9 (correction to his 2002 catalog).

Gorytes asuncionis Strand, 1910a:152, ♀. Syntypes: Paraguay: Asunción: Asunción and Villa Morra (ZMHU). Synonymized with *Hoplisoidea jordani* by R. Bohart, 2000:232. – Maidl and Klima, 1939:57 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea asuncionis***: R. Bohart and Menke, 1976:520 (new combination, listed).

44. *latifrons* (Spinola)

Gorytes latifrons Spinola, 1808:247, ♀. Lectotype: ♀, Italy: Liguria (Torino), designated by de Beaumont, 1952e:41. – Vander Linden, 1829:95 (bibliographic references, Italy: Genova); Gasperini, 1887:17 (recorded from Dalmatia, now Croatia, by Kirchner, 1869); Handlirsch, 1888b:400 (revision); F. Morawitz, 1893b:420 (Uzbekistan: Pyandjikent); Handlirsch, 1895:884 (reference to Radoszkowski, 1891); Schmiedeknecht, 1896:149 (Algeria: Oran Province); Dalla Torre, 1897:544 (in catalog of world Sphecidae); Mocsáry, 1900:82 (Kingdom of Hungary, some localities are in today's Croatia); Antiga and Bofill, 1904:15 (Spain: Cataluña Province); E. Saunders, 1904c:607 (Spain: Majorca); W. Schulz, 1905b:43 (Algeria); Mercet, 1906a:131, 138 (in key to Spanish *Gorytes*); Schmiedeknecht, 1907:218, 220 (in key to Hymenoptera of Central Europe); Dubois, 1920:88 (Belgium: Noville-sur-Méhaigne, to be confirmed), 1921c:200, 201, 203 (in key to Belgian Sphecidae); Gribodo, 1924a:262 (Libya: Derna); Berland, 1925d:88 (in Sphecid Fauna of France); Grandi, 1926:306 (nesting habits), 1927:198 (prey); Schmiedeknecht, 1930:680, 682 (in keys to Hymenoptera of North and Central Europe); Dusmet y Alonso, 1931:8 (Portugal: Mitra); nec Nadig, 1933:90 (= *Hoplisoidea punctuosus*); Guiglia, 1934b:300 (Libya: bibliography and summary of locality records); Crèvecoeur and Maréchal, 1936:253 (in catalog of Belgian Hymenoptera); Zavadil, Šustera, and Bat'a, 1937:189 (in catalog of Sphecidae of Czechoslovakia); Móczár, 1938c:81 (Hungary: Kőszeg Hills); Maidl and Klima, 1939:84 (in catalog of world Astatinae and Bembicinae); Šnoflak in Zavadil and Šnoflak, 1948:68 (in key to Sphecidae of Czechoslovakia); Giner Marí, 1943a:172 (in Sphecid Fauna of Spain); Giordani Soika, 1944:9 (Italy: Sicilia: Fiumetorto); Balthasar, 1948:141 (Slovakia: Kovačov); de Beaumont, 1951g:307 (Italy); Grandi, 1954:148 (prey: several species of *Tettigometra*), 231 (Italy); Vogrin, 1955:35 (Yugoslavia); Ceballos, 1956:383 (in catalog of Hymenoptera of Spain); Bajári, 1957a:103, 104 (in key to Hungarian

Sphecidae); de Beaumont, 1959a:21 (Italy); Diniz, 1959:30 (Portugal: Mitra); Suárez, 1959:56 (Spain: Almería Province); Diniz, 1960:31 (Portugal: Silves); Noskiewicz and Puławski, 1960:95, 96 (in key to Polish Sphecidae, not yet found in Poland); Grandi, 1961:110 (nesting habits); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:50 (in Sphecid Fauna of Switzerland), 1965a:30 (Greece; citation of Handlirsch, 1888); Roberti, Frilli, and Pizzaghi, 1965:109 (Italy: Emilia-Romagna: Piacenza); Scobiola-Palade, 1966b:392 (Romania: Tulcea District: C.A. Rosetti); de Beaumont, 1967a:312 (Turkey); Scobiola-Palade, 1967b:48 (Romania), 1968b:142 (Romania: Island of Letea in delta of Danube); Benedek, 1979:230 (Hungary: Bakony Mountains); Balthasar, 1972:312 (in Sphecid Fauna of Czechoslovakia); Kazenas, 1978b:77 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:204 (in key to Sphecidae of European part of former USSR); Scobiola-Palade, 1985:96 (Romania: delta of Danube); Pádr *in* Šedivy, 1989:167 (in checklist of Czechoslovakian Sphecidae). – **As *Hoplissus latifrons***: nec Dahlbom, 1843:164 and 1845:482 (new combination = *Gorytes quinquecinctus*); Eversmann, 1849:393 (Russia: Kazan' and Orenburg provinces, also southern Ural Mts.); Kiesenwetter, 1849:89 (Germany: Kingdom of Saxony, almost certainly a misidentification); A. Costa, 1867c:69 (in revision of Italian Sphecidae); Kirchner, 1867:220 (in catalog of European Hymenoptera); A. Costa, 1869b:85 (in revision of Italian Sphecidae); Aichinger, 1870:318 (Austria: Tirol); Dours, 1874:150 (in catalog of Hymenoptera of France); Radoszkowski, 1877:42 (Tajikistan: Zaravshan valley; Uzbekistan: between Syr-Darya and Tashkent); Marquet, 1881:182 (France: Haute-Garonne: Toulouse); E. Saunders, 1881:165 (Portugal: Silves); DeStefani, 1895:227 (in catalog of Sicilian Hymenoptera); de Gaulle, 1908:120 (in catalog of French Hymenoptera); Maneval, 1935:75 (France: Haute-Loire: Puy), 1936:20 (nesting habits), 1937:163 (nesting habits, description of larva); Casolari and Casolari Moreno, 1980:121 (specimens in M. Spinola collection). – **As *Psammaecius latifrons***: nec Radoszkowski, 1892:12 (new combination = *Gorytes quinquecinctus*); Evans and Lin, 1956b:45 (larva's description by Maneval, 1937). – **As *Hoplisoidea latifrons***: de Beaumont, 1952d:225 (new combination, in revision of Mediterranean *Hoplisoidea*); Evans, 1966d:56 (review of known behavioral information); R. Bohart and Menke, 1976:521 (listed); Leclercq, 1978b:map 1191 (distribution in Belgium); Pagliano, 1980:116 (Italy: Molise, Sicilia); Gayubo, 1982b:46 (Spain: Salamanca: Béjar); Dollfuss, 1983b:23 (in catalog of Sphecidae of Austria); Józán, 1985b:61 (Hungary: Kaposvár: Cser), 84 (ecological and zoogeographic characteristics); Gayubo and Sanza, 1986:79 (Spain: Burgos); Józán, 1986:374 (Hungary: Kiskunság National Park); Dollfuss, 1987:24 (Austria); Józán, 1989:102 (Hungary: Tihany Natural Reserve); Pagliano, 1990:73 (in catalog of Italian Sphecidae); Dollfuss, 1991:205 (in key to Sphecidae of North and Central Europe); Józán, 1992c:290 (Hungary: Zselic Hills); Pagliano, 1992:42 (in key to Italian Nyssoninae); Dollfuss, 1994:102 (endangered in Austria); Kazenas and Esenbekova, 1995:80 (Kazakhstan; bibliographic reference to leafhopper prey); Negrisol *in* Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Nemkov, 1995c:134 (in key to *Hoplisoidea* of former USSR), 135 (distribution in former Soviet Union); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:227 (in Sphecid Fauna of Western Europe); Dollfuss, Gusenleitner, and Bregant, 1998:523 (Austria: summary of collecting records from Burgenland); Pauly, 1999:111 (in catalog of Belgian aculeates); Kazenas, 2001b:47 (in checklist of Sphecidae of Kazakhstan and Central Asia), 228 (review of known biology), 2002a:125 (geographic distribution, collecting localities in Kazakhstan), 2004b:110 (Kazakhstan: western Tien Shan); Gayubo and Özbek, 2005:20 (Turkey: Erzincan); Pagliano and Negrisol, 2005:165 (in Sphecid Fauna of Italy); Shoreenko, 2005a:167 (Ukraine: Crimea), 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve); Yildirim and Ljubomirov, 2005:1792 (Turkey: Kars: Sankamış); Zsolt, 2006:284 (Hungary: Balatonszemes, Cser, Gamás, Kaposvár, Kereki, Pecs); Gayubo, González, Tormos, and Asís, 2008:137 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov and Yildirim, 2008:92 (in catalog of Crabronidae of Turkey).

Hoplissus pulchellus Wesmael, 1852:103, ♂, ♀. Syntypes: Switzerland: Genève (Bruxelles?). Synonymized with *Gorytes latifrons* by Handlirsch, 1888b:400. – A. Costa, 1867c:68 (in revision of Italian Sphecidae); Kirchner, 1867:220 (in catalog of European Hymenoptera); Palma, 1867:40 (Italy: Sicilia settentrionale); A. Costa, 1869b:84

(in revision of Italian Sphecidae); Wierzejski, 1874:259 (Ukraine: Podole). – **As *Gorytes pulchellus***: F. Smith, 1856:362 (new combination, in catalog of Hymenoptera in British Museum).

Hoplisus minutus Mocsáry, 1879:136, ♀, ♂. Syntypes: Hungary: Debreczen and Nagyvárad (TMB). Synonymized with *Gorytes latifrons* by Handlirsch, 1888b:400.

45. *liberiensis* (Arnold)

Arpactus liberiensis Arnold, 1936:6, ♀, ♂. Syntypes: Liberia: Moala (SAM). – **As *Gorytes liberiensis***: Maidl and Klima, 1939:88 (new combination, in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea liberiensis***: R. Bohart and Menke, 1976:521 (new combination, listed).

46. *manjikuli* Tsuneki

Hoplisoidea punctatus manjikuli Tsuneki, 1963c:23, ♀. Holotype: ♀, Thailand: Chiangmai (Sasayama). – Iwata, 1964b:357 (nesting behavior in Thailand). – Iwata, 1965:107 (number of oocytes); Evans, 1966d:56 (review of observations by Iwata, 1964b). – **As *Hoplisoidea manjikuli***: R. Bohart and Menke, 1976:521 (new status, listed); Ohl and Linde, 2003:150 (number of ovarioles).

47. *marshalli* (R. Turner)

Arpactus marshalli R. Turner, 1915:287, ♂. Holotype or syntypes: ♂, Zimbabwe: Chirinda Forest, Gazaland (BMNH). – Arnold, 1929a:239 (in revision of southern African Sphecidae), 1930:18 (in checklist of Afrotropical Sphecidae). – **As *Gorytes marshalli***: Maidl and Klima, 1939:88 (new combination, in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea marshalli***: R. Bohart and Menke, 1976:521 (new combination, listed).

48. *mendozanus* (Brèthes)

Gorytes mendozanus Brèthes, 1913:129, ♀. Holotype: ♀, Argentina: Mendoza: La Paz (MACN). – Maidl and Klima, 1939:59 (in catalog of world Astatinae and Bembicinae); Genise, 1990:26 (type material in MACN). – **As *Hoplisoidea mendozanus***: R. Bohart and Menke, 1976:521 (new combination, listed); R. Bohart, 2000:232 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

49. *metapleura* R. Bohart

Hoplisoidea metapleura R. Bohart, 2000:233, ♀, ♂. Holotype: ♀, Costa Rica: Guanacaste: 14 km S Cañas (USU). – Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

50. *montivagus* (Arnold)

Gorytes thalia montivagus Arnold, 1951:125, ♂, ♀. Syntypes: Ethiopia: River Hawash (BMNH). – **As *Hoplisoidea montivagus***: R. Bohart and Menke, 1976:521 (new combination, new status, listed).

51. *mweruensis* (Arnold)

Gorytes mweruensis Arnold, 1952:471, ♀. Syntypes: Zambia: Lake Mweru and Zaire: Musosa (SAM, BMNH). – **As *Hoplisoidea mweruensis***: R. Bohart and Menke, 1976:521 (new combination, listed).

52. *nebulosus* (Packard)

Gorytes nebulosus Packard, 1867:422, ♀. Lectotype: ♀, USA: New Jersey: no specific locality (ANSP), designated by Cresson, 1928:48. – Cresson, 1887:279 (in catalog of North American Hymenoptera); Handlirsch, 1888b:411 (original description translated into German); W. Fox, 1896a:529 (in revision of North American *Gorytes*); Dalla Torre, 1897:548 (in catalog of world Sphecidae); J.Ch. Bradley, 1920:115 (USA: Georgia), 1928:1015 (in catalog of New York Sphecidae); Brimley, 1938:446 (North Carolina: Havelock, Kingsboro, Raleigh); Maidl and Klima, 1939:91 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisus nebulosus***: Rohwer, 1916b:657 (new combination, in catalog of Hymenoptera of Connecticut); Stevens, 1917:421 (North Dakota); Peckham, 1934b:259 (digging in sand). – **As *Psammaecius nebulosus***: Krombein, 1950a:271 (new combination, North Carolina: Dare County); Krombein *in* Muesebeck et al., 1951:990 (as new combination, in catalog of North

American Hymenoptera); Krombein, 1953a:286 (nest and prey), 295 (visiting foliage of *Pinus serotina*), 297 (visiting foliage of *Liquidambar styraciflua*), 335 (North Carolina), 1953b:122 (visiting foliage of *Quercus marilandica*), 123 (visiting foliage of *Quercus virginiana*), 133 (North Carolina: Kill Devil Hills); Evans and Lin, 1956b:45 (description of larva); Krombein, 1959e:196 (prey); Evans, 1963:fig. 2 after p. 38 (photograph of female with prey), fig. 3 (nest content with an egg of a *Nysson*); L. Davis, 1978:217 (North Carolina: Kill Devil Hills, data from Krombein, 1953a). – **As *Hoplisoides placidus nebulosus***: R. Bohart in R. Bohart and Menke, 1976:521 (new status, listed); Krombein, 1979b:1701 (in catalog of North American Hymenoptera, nesting sites, list of prey); Finnamore, 1982:226 (in Sphecidae Fauna of Southern Quebec); Ahlstrom, 1995:112 (in checklist of insects of North Carolina); R. Bohart, 1997b:656 (in revision of North American *Hoplisoides*). – **As *Hoplisoides nebulosus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); Harrington, 1902:223 (Canada: Ontario: Ottawa); Pate, 1946h:99 (prey: immature membracid); Evans, 1966d:34 (nesting behavior), 1975a:263 (slow colonizer of new habitats); Buck, 2004:27 (in checklist of Crabronidae of Ontario, Canada), 68 (full species status), 2007:68 (in revision of Canadian species, full species status).

Gorytes armatus Provancher, 1887:272, ♀, actually ♂ (M. Buck, 3 Apr 2003, pers. comm.). Lectotype: ♀, Canada: Ontario: Ottawa (Laval Univ.), designated by Gahan and Rohwer, 1917:427. Synonymized with *Gorytes placidus nebulosus* by R. Bohart in R. Bohart and Menke, 1976:521. – Handlirsch, 1895:897 (original description translated into German); W. Fox, 1896a:530 (in revision of North American *Gorytes*); Dalla Torre, 1897:537 (in catalog of world Sphecidae); Maidl and Klima, 1939:89 (in catalog of world Astatinae and Bembicinae). **As *Hoplisoides armatus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae). – **As *Psammaecius armatus***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera).

Philanthus harringtonii Provancher, 1888:278, sex not indicated. Holotype: ♂ (as indicated by description), Canada: Ontario: Ottawa (not located: Gahan and Rower, 1918:134; Laval Univ., now destroyed: M. Buck, 2007:69). Neotype: ♀, Canada: Ontario: Ottawa (CNC), designated by Buck, 2007:69. Synonymized with *Gorytes placidus nebulosus* by R. Bohart in R. Bohart and Menke, 1976:521. – Kohl, 1891:368 (listed); Dalla Torre, 1897:487 (in catalog of world Hymenoptera); Strandtmann, 1946:99 (unrecognizable species); Burks in Muesebeck et al., 1951:1002 (in catalog of North American Hymenoptera).

Gorytes microcephalus Handlirsch, 1888b:405, ♂. Lectotype: ♂, USA: Georgia: no specific locality (MHNG), designated by Buck, 2007:73. Synonymized with *Gorytes placidus nebulosus* by R. Bohart in R. Bohart and Menke, 1976:521, and with *Hoplisoides placidus pergandei* by Buck, 2007:73. – W. Fox, 1891e:196 (New Jersey); Handlirsch, 1895:894 (Fox's opinion about this species status mentioned); W. Fox, 1896a:529 (in revision of North American *Gorytes*); Dalla Torre, 1897:546 (in catalog of world Sphecidae); Maidl and Klima, 1939:91 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoides microcephalus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); H. Smith, 1908b:344 (in revision of Nebraskan Sphecidae); Mickel, 1918b:354 (in catalog of Nebraskan Sphecidae); Dollfuss, 1989:10 (type material in NHMW). – **As *Psammaecius microcephalus***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera).

ssp. *spilopterus* (Handlirsch)

Gorytes spilopterus Handlirsch, 1888b:414, ♀. Syntypes: USA: Nevada: no specific locality (NHMW). – Cameron, 1890a:77 (Mexico: northern Sonora); W. Fox, 1896a:530 (in revision of North American *Gorytes*); W. Fox, 1894c:106 (Mexico: Baja California); Dalla Torre, 1897:554 (in catalog of world Sphecidae); Cockerell, 1899a:143 (New Mexico); Bradley, 1920:117 (in key to *spilopterus* and three similar species); Maidl and Klima, 1939:92 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius spilopterus***: Strickland, 1947:127 (new combination, Canada: Alberta: Leithbridge, Medicine Hat); Krombein in Muesebeck et al., 1951:991 (in catalog of North American Hymenoptera). – **As *Hoplisoides spilopterus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); Johnson and Ledig, 1918:24 (California: Claremont); Mickel,

1918b:354 (in catalog of Nebraskan Sphecidae); Carter, 1925:131 (Canada: Alberta: Lethbridge; determination tentative); Pate, 1946h:99 (prey: *Stictocephala wickhami*, a membracid); Evans, 1966d:55 (nesting behavior); G. Bohart, Nye, and Hawthorn, 1970:48 (Utah: Logan, onion pollinator); Evans, 1970:494 (Wyoming: Yellowstone National Park); R. Bohart and Menke, 1976:521 (listed); Krombein, 1979b:1701 (in catalog of North American Hymenoptera, nesting sites, list of prey); Dollfuss, 1989:10 (holotype in NHMW); R. Bohart, 1997b:657 (in revision of North American *Hoplisoides*); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument). – **As *Hoplisoides nebulosus spilopterus***: Buck, 2007:72 (new status, in revision of Canadian *Hoplisoides*).

Gorytes maculatus Provancher, 1895:140, ♀. Lectotype: ♂ [sic], USA: California: Los Angeles (Laval Univ.), designated by Gahan and Rohwer, 1917:427. Synonymized with *Hoplisoides spilopterus* by R. Bohart in R. Bohart and Menke, 1976:521 (as *maculatus* Handlirsch). – Nec Provancher, 1888:140 (= *Hoplisoides hamatus*).

Gorytes pogonodes Bradley, 1920:114, ♂. Holotype: ♂, USA: California: Tulare County: Lemon Cove (Cornell Univ.). Synonymized with *Hoplisoides spilopterus* by R. Bohart in R. Bohart and Menke, 1976:521. – Maidl and Klima, 1939:92 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius pogonodes***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera).

53. *niger* R. Bohart

Hoplisoides niger R. Bohart, 1997b:654, ♀. Holotype: ♀, Puerto Rico: Maracao (USNM). – R. Bohart, 2000:234 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

54. *nigripes* R. Bohart

Hoplisoides nigripes R. Bohart, 2000:234, ♀. Holotype: ♀, Ecuador: Napo: Limoncocha (UCD). – Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

55. *notialis* R. Bohart

Hoplisoides notialis R. Bohart, 2000:235, ♂. Holotype: ♂, Argentina: Tucumán: Amaicha (UCD). – Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

56. *orientalis* (Handlirsch)

Gorytes tricolor F. Smith, 1875:40, ♀, ♂, junior primary homonym of *Gorytes tricolor* Cresson, 1868. Syntypes: India: no specific locality (OXUM). – Bingham, 1897:275 (as synonym of *Gorytes pictus*). – **As *Hoplisus tricolor***: Casolari and Casolari Moreno, 1980:121 (new combination, specimens in M. Spinola collection).

Gorytes orientalis Handlirsch, 1888b:537. Substitute name for *Gorytes tricolor* F. Smith. – Handlirsch, 1888b:537 (original description of *Gorytes tricolor* F. Smith translated into German); Cameron, 1890b (redescription; India: Bengal: Barrackpore); Handlirsch, 1895:892 (Cameron's redescription translated into German); Dalla Torre, 1897:549 (in catalog of world Sphecidae); Maidl and Klima, 1939:89 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoides orientalis***: R. Bohart and Menke, 1976:521 (new combination, listed).

57. *ovatus* R. Bohart

Hoplisoides ovatus R. Bohart, 2000:235, ♀. Holotype: ♀, Costa Rica: Guanacaste: Finca Montezuma 3 km SE Río Naranja (USU). – Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

58. *parkeri* R. Bohart

Hoplisoides parkeri R. Bohart, 1997b:655, ♀, ♂. Holotype: ♂, Mexico: Sinaloa: 4 mi NW Choix (UCD). – R. Bohart, 2000:236 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

59. *peruvicus* R. Bohart

Hoplisoidea peruvicus R. Bohart, 2000:236, ♀, ♂. Holotype: ♀, Peru: La Libertad: Samne 40 km NE Trujillo (IML). – Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

60. *philippinus* Tsuneki

Hoplisoidea philippinus Tsuneki in Tsuneki et al, 1992c:5, ♂. Holotype: ♂, Philippines: Mindanao: Bukidnon, Taklag (USNM). – Nuhn and Menke, 1994:26 (holotype in USNM).

61. *pictus* (F. Smith)

Gorytes pictus F. Smith, 1856:365, ♀. Holotype or syntypes: ♀, India: Madras: no specific locality (BMNH). – Handlirsch, 1888b:537 (original description translated into German); Cameron, 1890b:240 (*pictus* may be a variety of *orientalis*); Handlirsch, 1895:893 (Cameron's opinion mentioned); Bingham, 1897:275 (redescription); Dalla Torre, 1897:549 (in catalog of world Sphecidae); Maidl and Klima, 1939:89 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea pictus***: R. Bohart and Menke, 1976:521 (new combination, listed, incorrectly synonymized *capitatus*); Krombein, 1985a:27 (Sri Lanka, India, Pakistan; redescription).

62. *placidus* (F. Smith)

Gorytes placidus F. Smith, 1856:368, ♀, ♂. Syntypes: USA: eastern Florida: 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:530 (original description translated into German); W. Fox, 1896a:530 (in revision of North American *Gorytes*); Dalla Torre, 1897:550 (in catalog of world Sphecidae); Maidl and Klima, 1939:92 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius placidus***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera). – **As *Hoplisoidea placidus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); R. Bohart and Menke, 1976:521 (listed); Krombein, 1979b:1701 (in catalog of North American Hymenoptera); Kurczewski and Acciavatti, 1990:61 (New York: Cayuga County); R. Bohart, 1997b:655 (in revision of North American *Hoplisoidea*); Deyrup and Eisner, 2003:522 (a Floridian, red-marked species).

Gorytes rufipes F. Smith, 1856:369, ♀. Holotype or syntypes: ♀, USA: Florida: St. John's Bluff, now Jacksonville (BMNH). Synonymized with *Hoplisoidea placidus* by Ashmead, 1899d:328. – Cresson, 1862:235 (in catalog of North American Hymenoptera); Packard, 1867:432 (listed); Cresson, 1887:279 (in catalog of North American Hymenoptera).

***ssp. placidus birkmanni* (C. Baker)**

Gorytes birkmanni C. Baker, 1907:166. ♀ (as *Birkmanni*, incorrect original capitalization). Holotype or syntypes: ♀, USA: Texas: Lee County: Fedor (originally Pomona College, now USNM). Synonymized with *Gorytes placidus nebulosus* by R. Bohart, 1997b:658. – Maidl and Klima, 1939:89 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius birkmanni***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera). – **As *Hoplisoidea placidus birkmanni***: R. Bohart in R. Bohart and Menke, 1976:521 (new combination, new status, listed); Krombein, 1979b:1701 (in catalog of North American Hymenoptera); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Buck, 2007:74 (subspecies status of *Hoplisoidea placidus* confirmed).

Gorytes pruinosus C. Baker, 1907:166, ♀. Holotype or syntypes: ♀, USA: Texas: Lee County: Fedor (originally Pomona College, now USNM). Synonymized with *Gorytes placidus birkmanni* by R. Bohart in R. Bohart and Menke, 1976:521. – Maidl and Klima, 1939:92 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius pruinosus***: Krombein in Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera).

ssp. *pergandei* (Handlirsch)

Gorytes pergandei Handlirsch, 1888b:407, ♂ (as *Pergandei*, incorrect original capitalization). Lectotype: ♂, USA: Illinois: no specific locality (MHNG), designated by Buck, 2007:73. – W. Fox, 1896a:529 (in revision of North American *Gorytes*); Dalla Torre, 1897:549 (in catalog of world Sphecidae); Maidl and Klima, 1939:92 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea pergandii* [sic]**: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae). – **As *Psammaecius pergandei***: Krombein, 1951a:143 (new combination, Virginia: Dunn Loring; visiting tulip-tree honeydew); Krombein *in* Muesebeck et al., 1951:990 (as new combination, in catalog of North American Hymenoptera); Krombein, 1952a:95 (USA: Virginia: Westmoreland State Park). – **As *Hoplisoidea placidus pergandei***: Buck, 2004: 27 (new status, in checklist of Crabronidae of Ontario, Canada), 31 (distribution within Ontario), 67 (first record from Canada: Ontario, Quebec: list of localities), 2007:73 (as new status, in revision of Canadian *Hoplisoidea*).

63. *projectus* R. Bohart

Hoplisoidea projectus R. Bohart, 1968b:290, ♀, ♂. Holotype: ♂, USA: California: Merced County: Los Banos (CAS). – R. Bohart and Menke, 1976:521 (listed); R. Bohart, 1997b:656 (in revision of North American *Hoplisoidea*); Krombein, 1979b:1701 (in catalog of North American Hymenoptera); .

64. *punctifrons* (Cameron)

Gorytes punctifrons Cameron, 1890a:74, ♀. Holotype or syntypes: ♀, Mexico: Presidio (BMNH). – Handlirsch, 1895:898 (original description translated into German). – Dalla Torre, 1897:551 (in catalog of world Sphecidae); Maidl and Klima, 1939:92 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea punctifrons***: R. Bohart and Menke, 1976:521 (new combination, listed); Krombein, 1979b:1701 (in catalog of North American Hymenoptera); R. Bohart, 1997b:656 (in revision of North American *Hoplisoidea*); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Buck, 2007:76 (in revision of Canadian *Hoplisoidea*).

Gorytes gulielmi Viereck, 1908:408, ♀, actually ♂ (R. Bohart, 1997b:656). Holotype: ♂, USA: Arizona: Bill Williams's Fork (Kansas Univ.). Synonymized with *Hoplisoidea punctifrons* by R. Bohart *in* R. Bohart and Menke, 1976:521. – Maidl and Klima, 1939:90 (in catalog of world Astatinae and Bembicinae); LaBerge, 1956:526 (holotype in Snow Entomological Museum). – **As *Psammaecius gulielmi***: Krombein *in* Muesebeck et al., 1951:990 (new combination, in catalog of North American Hymenoptera); Horning and Barr, 1970:105 (USA: Idaho: Craters of the Moon National Monument).

65. *punctuosus* (Eversmann)

Hoplisus punctuosus Eversmann, 1849:393, ♀, ♂. Lectotype: ♀, Russia: Spasskoye 120 km E Orenburg (ZIL), designated by Nemkov, 1995c:134. – Schenck, 1857:171 (in revision of fossorial wasps of Nassau Region, Germany), 1860:148 (Germany: Nassau Region); Funk, 1864:156 (Germany: Bayern: Bamberg); Kirchner, 1867:220 (in catalog of European Hymenoptera); nec Wierzejski, 1868:117 (= *Gorytes quinquecinctus*); Schmiedeknecht, 1876:186 (Germany: Thüringen: Rothensteiner Felsen); De-Stefani, 1895:228 (in catalog of Sicilian Hymenoptera); de Gaulle, 1908:120 (in catalog of French Hymenoptera, as *punctuosus* Handlirsch). – **As *Gorytes punctuosus***: Handlirsch, 1888b:395 (new combination, revision); Gasperini, 1889:69 (Dalmatia: Lesina, now Croatia: Hvar); F. Morawitz, 1891a:218 (Russia: Astrakhan Government), 1894:358 (Turkmenistan: Chuli); Krieger, 1894:8 (Germany: Kingdom of Saxony); Dalla Torre, 1897:551 (in catalog of world Sphecidae); Handlirsch, 1895:883 (as species distinct from *punctatus* Kirschbaum, redescription); de Cobelli, 1900c:188 (Italy: Trentino: Rovereto, preying on *Tettigometra obliqua* Panzer); Ferton, 1901a:105 (nesting habits), 106 (list of prey), 107 (preying on Fulgoridae); de Cobelli, 1903:112 (Italy: Province of Trentino: Rovereto); Ferton, 1908:558 (habitat and nest structure, prey); Graeffe, 1911:46 (Italy: Trieste area); Bischoff, 1933:4 (Morocco); Grandi, 1934:129 (Italy: Lazio: Acilia as *punctuosus* Handlirsch); Maidl and Klima, 1939:87 (in catalog of world Astatinae and Bembicinae); Zirngiebl, 1957:181 (Germany: Rheinland-Pfalz: Birkenheide); Puławski, 1965c:571 (synonymy);

de Beaumont, 1967a:312 (Turkey), 1969a:85 (Turkey); Oehlke, 1970:691 (Democratic Germany); Schmidt, 1971b:28 (Germany: Mainz area); Kazenas, 1978b:78 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:204 (in key to Sphecidae of European part of former USSR); Preuss, 1980:23 (Germany; endangered); Scobiola-Palade, 1987:65 (Romania: Dobrogea); Pádr *in* Šedivy, 1989:167 (in checklist of Czechoslovakian Sphecidae); Delarze, 1992:68 (Switzerland: Valais: Les Follatères). – *As Hoplisoidea punctuosus*: Dietrich, 1868:363 (new combination, Switzerland: Zurich Canton); de Beaumont, 1952d:224 (discussion of identity); R. Bohart and Menke, 1976:521 (listed); Schmidt, 1979b:352 (Germany); Pagliano, 1980:116 (Italy: Lombardia); Gayubo, 1882e:107 (Spain: Cádiz Province); Dollfuss, 1983b:23 (in catalog of Sphecidae of Austria: Niederösterreich: Guntramsdorf); Józán, 1985b:61 (Hungary: Pécs: Cserkút), 72 (map of distribution in Hungary), 84 (ecological and zoogeographic characteristics); Westrich and Schmidt, 1985b:111 (Germany: extinct in Baden-Württemberg); Gayubo, 1986a:65 (Spain: Ciudad Real Province), 1986d:120 (Spain: Zamora Province); Gayubo and Sanza, 1986:79 (Spain: Burgos); Schmidt and Westrich, 1987:359 (Germany: Mainz area); Jacobs, 1989:27 (Germany: Mecklenburg-Vorpommern); Jacobs and Oehlke, 1990:122 (not collected in Democratic Germany after 1960), 214 (previous records from Democratic Germany); Pagliano, 1990:73 (in catalog of Italian Sphecidae); SchwamMBERGER and Priesner, 1990:553 (Austria: Kärnten); Day, 1991:xv (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:205 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:416 (Italy: Calabria: Rossano); Józán, 1992b:176 (Hungary: Boronka-melléki Protected Area), 1992c:290 (Hungary: Zselic Hills); Pagliano, 1992:42 (in key to Italian Nyssoninae); K. Weber, 1992:87 (Germany: Bayern: Bamberg District); 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:5 (in catalog of Italian fauna); Nemkov, 1995c:134 (in key, distribution in former Soviet Union); Scharrer, 1995:29 (Germany: Bayern: Kahl); Schmid-Egger, Risch, and Niehuis, 1995:189 (summary of records from Germany: Rheinland-Pfalz State); Gusenleitner, 1996a:10 and 1996b:812 (Austria: Burgenland, Steiermark); Schmid-Egger, Schmidt, and Doczkal, 1996:377 (Germany: Baden-Württemberg: last collected in 1952); Asís, Gayubo, and Tormos, 1997a:2 (description of adult larva); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:228 (in Sphecidae Fauna of Western Europe); Celary, 1997:60 (in checklist of Animals of Poland); Pagliano and Alma, 1997:179 (known prey listed); Schmidt and Schmid-Egger, 1997:16 (in checklist of German Sphecidae); Dollfuss, Gusenleitner, and Bregant, 1998:523 (Austria: summary of collecting records from Burgenland); K. Weber, 1998:141 (Germany: Bayern: Bamberg area); Blösch, 2000:387 (in Sphecidae Fauna of Germany); Gayubo, González, and Torres, 2000:187 (Spain: Salamanca Province); Giachino, Grosso, Marchetti, Pagliano, Scaramozzino, and Vailati, 2000:109 (Greece); Jacobs, 2000:8, 16 (Germany: Land Mecklenburg-Vorpommern: extinct); Kazenas, 2001b:47 (in checklist of Sphecidae of Kazakhstan and Central Asia), 228 (review of known biology); Kazenas and Esenbekova, 2001:136 (Kazakhstan: Almatinskiy Nature Reserve); Ohl et al., 2001:139 (distribution in Germany by provinces); Kazenas, 2002a:125 (geographic distribution, collecting localities in Kazakhstan); Generani, Pagliano, Scaramozzino, and Strumia, 2003:64 (Italy: Arcipelago Toscano); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:66 (in catalog of wasps and bees of Bayern, Germany); Schmid-Egger, 2003:754 (Italy: Sicilia: Armerina, Gela, Linguaglossa, Madonie, Ragusa); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:195 (Germany: Bayern: extinct or no longer collected); Kazenas, 2004b:110 (Kazakhstan: western Tien Shan); Skibińska *in* Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:356 (in catalog of Polish Crabronidae); Stolle et al., 2004:371 (Germany: Sachsen-Anhalt: last collected before 1942); Wiśniowski, 2004:52 and 62 (in checklist of Polish Sphecidae); Cruz-Sánchez, Gayubo, González, and Torres, 2005:220 (Spain: Salamanca: San Martín del Castañar); Gayubo and Özbek, 2005:20 (Turkey: Erzincan; Erzurum: University campus, Palandöken, Güzelova, Oltu); Jacobs, 2005a:447 (Bulgaria: Starosel near Hisarya); Pagliano and Negrisoló, 2005:165 (in Sphecidae Fauna of Italy); Magdalou, 2006b:109 (France: Pyrénées-Orientales: Mas Larrieu Nature Reserve near Argelès-sur-Mer); Standfuss and Standfuss, 2006c:305 (Greece: Thessalia: Magnissia Peninsula at 39°N 23°E); Evans and O'Neil, 2007:62 (summary of information on nesting

habits); Jacobs, 2007:178 (in key to Crabronidae of Germany); Saure, 2007:82 (in checklist of Aculeata of Brandenburg Land, Germany); Danilov and Tshernyshev, 2008:42 (Russia: Novosibirsk Oblast': Karasuk area); Gayubo, González, Tormos, and Asis, 2008:137 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov and Yildirim, 2008:92 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:25 (in catalog of Crabronidae of Asiatic Russia), 2008c:10 (Russia: first record from Kemerovo Oblast': Yurga), 2009b:139 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Pagliano, 2009:178 (Italy: Molise: Campolieto; Sardegna: Platamona).

Hoplisus punctatus Kirschbaum, 1853:45, ♀. Holotype or syntypes: ♀, Germany: Herzogtum Nassau: Mainz-Mombach (WIESBADEN). Synonymized with *Gorytes punctuosus* by Handlirsch, 1888b:395, synonymy confirmed by Pulawski, 1965c:571. – Schenck, 1861:143 (Germany: Bayern: Bamberg); Kirchner, 1867:220 (in catalog of European Hymenoptera); Schenck, 1867a:355 (Germany: Nassau Region); Kohl, 1883e:668 (Switzerland); Radoszkowski, 1892:582 (male genitalia); Handlirsch, 1895:881 (bibliography, morphology, geographic distribution); de Gaulle, 1908:120 (in catalog of French Hymenoptera); Ferton, 1912a:369 (Algeria, list of prey); Schirmer, 1912:166 (Germany: Berlin area); Noskiewicz, 1922b:231 (Poland: Podole Region: Dobrowlany, now Ukraine); Minkiewicz, 1935:196, 202 (Poland: Kazimierz on Wisła, 51°20'N 21°58'E); Schneid, 1941:1040 (Germany: Bayern: Bamberg area); Blüthgen, 1942:10 (Germany: Sachsen: known from Saal Valley but not from Kyffhäuser); Głowacki, 1953:519 (Poland: Podkowa Leśna near Warszawa). – **As *Gorytes punctatus***: Kohl, 1880:171 (new combination, Austria: Tirol: Mutters); Handlirsch, 1895:881 (valid species, additional bibliography, additional description); Dalla Torre, 1897:550 (in catalog of world Sphecidae); Handlirsch, 1898b:487 (Algeria); E. Saunders, 1902b:143 (British Channel Islands: Jersey Island; determination?; record obviously in error for geographic reasons); Antiga and Bofill, 1904:15 (Spain: Cataluña Province); Mantero, 1905:70 (Italy: Toscana: Isola del Giglio); nec Mercet, 1906:131, 137 (= *Hoplisoides craverii merceti*); Schmiedeknecht, 1907:218, 220 (in key to Hymenoptera of Central Europe); Ferton, 1910:152 (all previous observations refer to *Gorytes punctatus*), 1912a:369 (list of prey); Zilahi Kiss, 1915:80 (Hungary: Versecz); Berland, 1921:533 (Greece); Ferton, 1923:320 (preys exclusively on *Solenocephalus obsoletus*, as *punctulatus*); Berland, 1924:89 (France: Var: Callian), 1925d:88 (in Sphecid Fauna of France); Schmiedeknecht, 1930:680, 682 (in keys to Hymenoptera of North and Central Europe); Berland, 1932a:23 (France: Var Department; utilizing old charcoal preparation sites for nesting); Dulac, 1937:10 (France: Saône-et-Loire: Saint-Laurent d'Andenay); Zavadil, 1932:95 (Czechoslovakia); Zavadil, Šustera, and Bat'a, 1937:189 (in catalog of Sphecidae of Czechoslovakia); Maidl and Klima, 1939:86 (in catalog of world Astatinae and Bembicinae); Guiglia, 1941c:163 (Italy: Calabria: Grande Sila); Šnoflak in Zavadil and Šnoflak, 1948:69 (in key to Sphecidae of Czechoslovakia); Giner Mari, 1943a:172 (in Sphecid Fauna of Spain); Guiglia, 1943b:71 (Albania: Kopliku); Giordani Soika, 1944:9 (Italy: Sicilia: Falcone); Guiglia, 1944b:21 (Italy); Noskiewicz and Chudoba, 1949:421 (Poland: Dolny Śląsk: Sułów); de Beaumont, 1951g:307 (Italy); Caruel, 1952b:101 (France: Marne Department); de Beaumont, 1953g:108 (Morocco); Leininger, 1953:18 (Germany: Baden-Württemberg: Sandhausen); de Beaumont, 1954e:88 (Italy); Grandi, 1954:231 (Italy); Vergne, 1955:4 (France: Auvergne); 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:104 (in key to Hungarian Sphecidae); Nouvel and Ribaut, 1958:12 (France: Pyrénées-Orientales: Banyuls-sur-Mer); de Beaumont, 1959a:21 (Italy); de Beaumont and Bytinski-Salz, 1959:102 (Israel); Diniz, 1959:29 (Portugal: Aldeia Nova de S. Bento, Lisboa); Scobiola-Palade, 1959:497 (first record from Romania: Constanța Region: Techirghiol); Noskiewicz and Puławski, 1960:95 (in key to Polish Sphecidae); Atanassov, 1962:124 (Bulgaria: Petrich area); de Beaumont, 1962b:23 (Spain); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1964c:49 (in Sphecid Fauna of Switzerland), 1965a:29 (Greece); Balthasar, Hrubant, and Hrubant, 1967:172 (Bulgaria: Slanchev Bryag near Nessebar); Gauss, 1967:552 (Germany: Baden-Württemberg); Scobiola-Palade, 1967b:48 (Romania); Romanova, 1969:134 (Russia: North Caucasus); Atanassov, 1972a:191 (Bulgaria: Stara Planina Mountains), 1972b:32, 48 (Bulgaria: Stara Planina Mountains); Balthasar, 1972:312 (in Sphecid Fauna of Czechoslova-

cia); Diniz, 1973:45 (Portugal: Coimbra, Lisboa); Skibińska, 1982:123 (Poland: Warszawa area). – **As *Hoplisoidea punctatus***: de Beaumont, 1952d:222 (new combination, in revision of Mediterranean *Hoplisoidea*); Noskiewicz, 1954:314 (in Poland known from Kazimierz on Wisła and Sułów on Barycz); Wolf, 1959b:30 (Germany: Nassau); Evans, 1966d:56 (summary of behavioral observations by Ferton); Heinrich, 1967:72 (Germany: Bayern: Kahl, Obernau, Schweinheim, parasite: *Nysson niger*); Krombein, 1972b:384 (Greece; linear copulation); Richards, 1979:401 (British Channel Islands).

Hoplisoidea crassicornis A. Costa, 1859:53, ♂. Syntypes: ♂, Italy: Calabria: Aspromonte and Sangiovaniflore (NAPOLI). Synonymized with *Gorytes punctuosus* by Handlirsch, 1888b:395 and with *Hoplisoidea punctatus* by de Beaumont, 1952d:219. – A. Costa, 1867c:68 (in revision of Italian Sphecidae); Kirchner, 1867:220 (in catalog of European Hymenoptera); A. Costa, 1869b:84 (in revision of Italian Sphecidae).

Hoplisoidea maculipennis Giraud in Frauenfeld, 1861: 103, 106, ♂. Holotype or syntypes: Croatia: Dalmatia: no specific locality (NHMW). Synonymized with *Gorytes punctuosus* by Handlirsch, 1888b:395. – Gasperini, 1887:17 (recorded from Dalmatia, now Croatia, by Frauenfeld, 1861).

Gorytes ibericus Mercet, 1906a:117, ♂, ♀. Syntypes: Spain: Madrid: Escorial and Montarco; and Valladolid: Jaramiel, Vaciamadrid, Villaverde (MNCN). Synonymized with *Hoplisoidea punctatus* by de Beaumont, 1950a:63, synonymy confirmed in 1952d:219. – Mercet, 1906a:131, 138 (in key to Spanish *Gorytes*); Dusmet y Alonso, 1935:49 (Spain: Madrid: Montarco and Vaciamadrid), 51 (Spain: Madrid: Villaverde), 75 (Spain: Valladolid: Jaramiel); Maidl and Klima, 1939:84 (in catalog of world Astatinae and Bembicinae); Giner Mari, 1942a:70 (Spain: Valencia Province), 1943a:172 (in Sphecid Fauna of Spain); de Andrade, 1949:18 (Portugal).

As *Gorytes latifrons*: Nadig, 1933:90 (Morocco: Ifrane), corrected to *Gorytes punctatus* by de Beaumont, 1953g:108.

ssp. *curtulus* (A. Costa)

Gorytes curtulus A. Costa, 1893a:100, ♂. Holotype or syntypes: ♂, Tunisia: no specific locality (Napoli). – Handlirsch, 1895:886 (redescription of ♂); Dalla Torre, 1897:54o (in catalog of world Sphecidae); Maidl and Klima, 1939:84 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea punctatus curtulus***: de Beaumont, 1952d:219 and 222 (new combination, new status; in revision of Mediterranean *Hoplisoidea*); R. Bohart and Menke, 1976:521 (listed).

Gorytes curtulus A. Costa, 1893b:7, ♂. Objective synonym of *Gorytes curtulus* A. Costa, 1893a:100.

66. *pygidialis* (W. Fox)

Gorytes pygidialis W. Fox, 1896a:528, ♀, ♂. Lectotype: ♀, USA: Montana: no specific locality (ANSP), designated by Cresson, 1928:48. – Cockerell, 1899a:143 (New Mexico); Maidl and Klima, 1939:92 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius pygidialis***: Strickland, 1947:127 (new combination, Canada: Alberta: Medicine Hat); Krombein in Muesebeck et al., 1951:991 (as new combination, in catalog of North American Hymenoptera). – **As *Hoplisoidea pygidialis***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); H. Smith, 1908b:344 (in revision of Nebraskan Sphecidae); Mickel, 1918b:354 (in catalog of Nebraskan Sphecidae); R. Bohart, 1997b:657 (in revision of North American *Hoplisoidea*, as full species); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Buck, 2007:77 (in revision of Canadian *Hoplisoidea*). – **As *Hoplisoidea costalis pygidialis***: R. Bohart in R. Bohart and Menke, 1976:520 (new status, listed); Krombein, 1979b:1700 (in catalog of North American Hymenoptera); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae).

67. *quedenfeldti* (Handlirsch)

Gorytes quedenfeldti Handlirsch, 1895:884, ♂ (as *Quedenfeldti*, incorrect original capitalization). Holotype: ♂, Algeria: Blida-Medea (ZMHU). – Dalla Torre, 1897:552 (in catalog of world Sphecidae); Handlirsch, 1898b:487 (Algeria); Maidl and Klima, 1939:87 (in catalog of world Astatinae and Bembicinae); de Beaumont, 1950f:402 (Algeria: Tagramaret), 1953g:108 (Morocco). – **As *Hoplisoidea quedenfeldti***: de Beaumont, 1952d:226 (new combination; in

revision of Mediterranean *Hoplisoidea*); R. Bohart and Menke, 1976:521 (listed); Nemkov, 1995c:134 (in key to *Hoplisoidea* of former USSR).

68. *rasilis* R. Bohart

Hoplisoidea rasilis R. Bohart, 2000:237, ♂. Holotype: ♂, Peru: Lima: Cupiche (FSCA). – Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

69. *remotus* (R. Turner)

Arpactus remotus R. Turner, 1917e:182, ♀. Holotype: ♀, India: Punjab: Jummoo (BMNH). – **As *Gorytes remotus***: Maidl and Klima, 1939:89 (new combination, in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea remotus***: R. Bohart and Menke, 1976:521 (new combination, listed).

70. *ruficeps* R. Bohart

Hoplisoidea ruficeps R. Bohart, 2000:237, ♀, ♂. Holotype: ♀, Argentina: Catamarca: Andalgalá (UCD). – Amarante, 2002:15 (in catalog of Neotropical Crabronidae).

71. *schubotzii* (Arnold)

Arpactus schubotzii Arnold, 1932:30, ♀ (as *Schubotzii*, incorrect original capitalization). Holotype: ♀, Congo Brazzaville: Fort Possil (Zool. Mus. Hamburg). – **As *Gorytes schubotzi***: Maidl and Klima, 1939:88 (new combination, in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea schubotzii***: R. Bohart and Menke, 1976:521 (new combination, listed).

72. *semipunctatus* (Taschenberg)

Hoplisus semipunctatus Taschenberg, 1875:367, ♀. Holotype or syntypes: ♀, Argentina: Mendoza: Mendoza (Halle). – Schrottky, 1913a:227 (Argentina: Mendoza). – **As *Gorytes semipunctatus***: Handlirsch, 1888b:383 (new combination, revision), 1895:877 (variation); Dalla Torre, 1897:554 (in catalog of world Sphecidae); Schrottky, 1903b:177 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay); Strand, 1910a:152 (Paraguay); Jörgensen, 1912:291 (Argentina: Mendoza Province); Maidl and Klima, 1939:60 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea semipunctatus***: Evans and Matthews, 1974:130 (new combination, nesting behavior); R. Bohart and Menke, 1976:521 (new combination, listed); Krombein, 1979b:1701 (in catalog of North American Hymenoptera); R. Bohart, 1997b:657 (in revision of North American *Hoplisoidea*), 2000:238 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Evans and O'Neil, 2007:56 (summary of information on nesting habits).

73. *splendidulus* (Bradley)

Gorytes splendidulus Bradley, 1920:113, ♀, ♂ (as *splendidula*, incorrect original termination). Holotype: ♂, USA: California: Imperial County: Brawley (Cornell Univ.). – Maidl and Klima, 1939:92 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius splendidulus***: Krombein in Muesebeck et al., 1951:991 (new combination, in catalog of North American Hymenoptera). – **As *Hoplisoidea splendidulus***: R. Bohart and Menke, 1976:521 (new combination, listed); Rubink, 1977:1 (nesting behavior, prey: fulgoroid *Acanalonia similis* Doering); Krombein, 1979b:1701 (in catalog of North American Hymenoptera); Frommer, 1988:94 (California: Riverside County: Deep Canyon); R. Bohart, 1997b:657 (in revision of North American *Hoplisoidea*); Evans and O'Neil, 2007:62 (summary of information on nesting habits).

74. *thalia* (Handlirsch)

Gorytes thalia Handlirsch, 1895:888, ♀ (as *Thalia*, incorrect original capitalization). Holotype: ♀, South Africa: Cape Province: no specific locality (ZMHU). – Dalla Torre, 1897:555 (in catalog of world Sphecidae); Handlirsch, 1901b:428 (description of ♂); Schouteden, 1930:96 (Zaire); Maidl and Klima, 1939:88 (in catalog of world Astatinae and Bembicinae); de Beaumont, 1967b:508 (South Africa: Basutoland). – **As *Arpactus thalia***: Arnold, 1929a:241 (new combination, revision), 1930:19 (in checklist of Afrotropical Sphecidae), 1935a: 503 (South Af-

rica: Kalahari). – **As *Hoplisoidea thalia***: R. Bohart and Menke, 1976:521 (new combination, listed); Gess, 1981:20 (South Africa: 18 km WNW Grahamstown; nesting in friable soils).

Gorytes transvaalensis Cameron, 1910:143, ♀. Holotype or syntypes: ♀, South Africa: Transvaal: van der Merwe (TMP). Synonymized with *Arpactus thalia* by Arnold, 1929a:241. – Brauns, 1917:241 (type in TMP).

75. *tricolor* (Cresson)

Gorytes tricolor Cresson, 1868:380, ♀. Holotype: ♀, USA: New Mexico: no specific locality (ANSP). – Cresson, 1887:279 (in catalog of North American Hymenoptera); Handlirsch, 1888b:415 (original description translated into German); W. Fox, 1892:149 (description of ♀); Handlirsch, 1895:902 (W. Fox's description of ♀ translated into German); Dalla Torre, 1897:555 (in catalog of world Sphecidae); Cockerell, 1899a:143 (New Mexico); Cresson, 1916:99 (holotype in ANSP); Maidl and Klima, 1939:93 (in catalog of world Astatinae and Bembicinae). – **As *Psammaecius tricolor***: Krombein in Muesebeck et al., 1951:991 (new combination, in catalog of North American Hymenoptera); Evans, Lin, and Yoshimoto, 1954:6 (nesting behavior). – **As *Hoplisoidea tricolor***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae); H. Smith, 1908b:344 (in revision of Nebraskan Sphecidae); Mickel, 1918b:353 (in catalog of Nebraskan Sphecidae, new combination); Evans, 1966d:53 (nesting behavior); R. Bohart and Menke, 1976:521 (listed); Krombein, 1979b:1701 (in catalog of North American Hymenoptera, nesting sites, prey); Frommer, 1988:94 (California: Riverside County: Deep Canyon); R. Bohart, 1997b:658 (in revision of North American *Hoplisoidea*); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Buck, 2007:77 (in revision of Canadian *Hoplisoidea*).

Gorytes helianthi Rohwer, 1911b:569, ♀. Holotype: ♀, USA: Colorado: Boulder (USNM). Synonymized with *Psammaecius tricolor* by Krombein in Muesebeck et al., 1951:991. – Maidl and Klima, 1939:90 (in catalog of world Astatinae and Bembicinae).

Hoplisus rufocaudatus Mickel, 1916a:401, ♂. Holotype: ♂, USA: Nebraska: Mitchell (UNL). Synonymized with *Hoplisoidea tricolor* by R. Bohart in R. Bohart and Menke, 1976:521. – Mickel, 1918b:356 (in catalog of Nebraskan Sphecidae); Muma, 1952:19 (type in UNL). – **As *Gorytes rufocaudatus***: Maidl and Klima, 1939:102 (new combination, in catalog of world Astatinae and Bembicinae, in subgenus *Hoplisus*); Krombein in Muesebeck et al., 1951:992 (in catalog of North American Hymenoptera).

76. *umtalicus* (Arnold)

Arpactus umtalicus Arnold, 1929a:240, ♀. Holotype: ♀, Zimbabwe: Umtali (SAM). Paratype: South Africa: Natal: Pinetown (TMP). – Arnold, 1936:10 (description of ♂), 1930:19 (in checklist of Afrotropical Sphecidae); Hancock, Chahwanda, and Mhlanga, 1995:37 (non-type specimen in Bulawayo Museum). – **As *Gorytes umtalicus***: Maidl and Klima, 1939:88 (new combination, in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea umtalicus***: R. Bohart and Menke, 1976:521 (new combination, listed).

77. *vespoides* (F. Smith)

Gorytes vespoides F. Smith, 1873c:407, ♀. Holotype or syntypes: ♀, Brazil: Amazonas: Ega, now Tefé (BMNH). – Dalla Torre, 1897:556 (in catalog of world Sphecidae); Ducke, 1907b:91 (Brazil: Maranhão State: Alcantara, determination tentative), Ducke, 1910:110 (Brazil: Maranhão State). – **As *Hoplisoidea vespoides***: R. Bohart and Menke, 1976:521 (new combination, listed); Callan, 1977a:326 (nesting habits); Nascimento and Overal, 1980:6 (Brazil); Callan, 1991a:12 (Trinidad); Hanson and Menke, 1995:645 (known from Costa Rica); R. Bohart, 1997b:659 (in revision of North American *Hoplisoidea*), 2000:239 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Starr and Hook, 2003:18 (in catalog of Aculeata of Trinidad, West Indies); Evans and O'Neil, 2007:62 (summary of information on nesting habits); Buys, 2008b:208 (nesting habits, mimicked by stratiomyid fly *Hoplitimyia mutabilis* (Fabricius)); Jacobi, 2008:12 (nesting habits in Costa Rica, prey: membracid *Umbonia crassicornis* (Amyot and Serville), mimicking a vespid *Brachygastra mellifica* (Say)).

Gorytes robustus Handlirsch, 1888b:380, ♀. Syntypes: Brazil: Santa Catarina: Blumenau (NHMW); Mexico: Tamaulipas: Tampico (MHNG). Synonymized with *Hoplisoidea vespoides* by R. Bohart in R. Bohart and Menke, 1976:521. – Handlirsch, 1888c:68 (mimicry with *Odynerus paredesii* de Saussure); Cameron, 1890a:73 (listed); Dalla Torre, 1897:553 (in catalog of world Sphecidae); Strand, 1910a:155 (Paraguay); Maidl and Klima, 1939:59 (in catalog of world Astatinae and Bembicinae); Dollfuss, 1989:10 (type material in NHMW). – **As *Hoplisoidea robustus***: Ashmead, 1899d:328 (new combination, in checklist of North American Crabronidae). – **As *Hoplisus robustus***: Schrottky, 1913a:227 (new combination, Paraguay).

Icuma sericea Cameron, 1905b:21, ♀. Holotype or syntypes: ♀, Panama: Pacific side: no specific locality (BMNH). Synonymized with *Hoplisoidea vespoides* by R. Bohart in R. Bohart and Menke, 1976:521.

Gorytes morrensis Strand, 1910a:153, ♀. Holotype: ♀, Paraguay: Asunción: Villa Morra (ZMHU). Synonymized with *Hoplisoidea vespoides* by R. Bohart, 2000:239. – Maidl and Klima, 1939:59 (in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea morrensis***: R. Bohart and Menke, 1976:521 (new combination, listed).

Gorytes auropilosellus Cameron, 1912a:430, ♀. Holotype or syntypes: ♀, Guyana: Demerara: no specific locality (BMNH). Synonymized with *Hoplisoidea vespoides* by R. Bohart in R. Bohart and Menke, 1976:521. – Maidl and Klima, 1939:57 (in catalog of world Astatinae and Bembicinae).

Hoplisoidea umbonida Pate, 1941e:1, ♀, ♂. Holotype: ♀, Trinidad: Caura Valley (ANSP). Synonymized with *Hoplisoidea vespoides* by R. Bohart, 1997b:659. – Callan, 1950:206 (occurring in Trinidad, preying on Membracidae); Evans, 1966:56 (prey data in Pate, 1941e); R. Bohart and Menke, 1976:521 (listed); Callan, 1977a:325 (nesting habits), 1991a:12 (Trinidad); H. Allen, 1995:15 (type in ANSP, as *umboniada*); Starr and Hook, 2003:18 (in catalog of Aculeata of Trinidad, West Indies).

78. *whitei* (Cameron)

Hoplisus whitei Cameron, 1905f:210, ♂ (as *Whitei*, incorrect original capitalization). Holotype or syntypes: ♂, South Africa: Cape Province: Brak Kloof (AMG). – Jacot-Guillarmod, 1961:12 (type in Albany Museum, Grahamstown). – **As *Gorytes whitei***: Maidl and Klima, 1939:88 (new combination, in catalog of world Astatinae and Bembicinae). – **As *Hoplisoidea whitei***: R. Bohart and Menke, 1976:521 (new combination, listed).

79. *xerophilus* Alayo Dalmau

Psammaecius confusus Alayo Dalmau, 1969:14, ♀, ♂, junior secondary homonym of *Hoplisoidea confusus* (Dutt, 1921). Syntypes: Cuba: many localities (IZAC). – Alayo Dalmau, 1973:188 (in catalog of Cuban Hymenoptera). – **As *Hoplisoidea confusus***: R. Bohart and Menke, 1976:520 (new combination, listed); Reyes and Hernández, 1995:3 (holotype in Inst. Ecol. Sist., La Havana, Cuba).

Hoplisoidea xerophilus Alayo Dalmau, 1976:29. Substitute name for *Hoplisoidea confusus* (Alayo Dalmau). – Alayo Dalmau, 1976:13 (in key to Cuban *Hoplisoidea*); R. Bohart, 1997b:659 (in revision of North American *Hoplisoidea*), 2000:240 (in revision of Neotropical Gorytini); Amarante, 2002:15 (in catalog of Neotropical Crabronidae); Genaro, 2006:52 (in checklist of Cuban Sphecidae and Crabronidae).

sp.

Hartman, 1905:39 (nesting habits); Hurd and Linsley, 1975:116 (Arizona: Cochise County: Douglas and Portal; on flowers of *Larrea tridentata* (De Candolle) Coville, Zygophyllaceae); Amarante, 1993:20 (ne. Brazil); Cambra, 1993:16 (Peru: Pakitza, 11°57'S 71°17'W); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument).

SPECIES DESCRIBED IN HOPLISOIDEA AND TRANSFERRED TO OTHER GENERA

clavatus C. Baker, 1907 = *Arigorytes*

umbonatus C. Baker, 1907 = *Oryttus*

SPECIES RECENTLY REMOVED FROM *HOPLISOIDES*

bifasciatus Brèthes, 1909 = *Allogorytes*