

Last updated: 11 June 2010

BEMBIX

variant but improper spellings: *Bembex* and *Bembyx*

(transfer from *Bembex* to *Bembix* does not require parentheses for the author: Article 51.3.1)

Bembix Fabricius, 1775: *Characteres Generum*, p. [= xxiii], no included species. Type species: *Bembex rostrata* of Fabricius, 1781 [= *Apis rostrata* Linnaeus, 1758], designated by Latreille, 1810:438 (one of three species included in *Bembyx* by Fabricius, 1775:361). Morice and Durrant (1915:400) gave the first type species designation for the spelling of *Bembix*: *Apis rostrata* Linnaeus, 1757.

Bembyx Fabricius, 1775:361. Lapsus for *Bembix* Fabricius, 1775.

Bembex Fabricius, 1777:122. Emendation of *Bembix* Fabricius, 1775.

Apobembex Pate, 1937c:9. Type species: *Bembex oculata* of Latreille, 1805 [= *Bembex oculata* Panzer, 1801], by original designation.

Epibembex Pate, 1937c:26. Type species: *Apis rostrata* Linnaeus, 1758, by original designation.

R. R. Bohart and Menke (1976:54) provide the following comment: According to Pate (1937c:13, footnote 13) *Bembix* is the etymologically correct spelling. *Bembyx* appears to be a printer's lapsus, since Fabricius did not use or refer to this spelling in later works. However, *Bembex* is the spelling that he used in all of his later publications, and we agree with the evidence outlined by Pate (1937c:13, footnote 29) that it was an emendation of his earlier *Bembix*. Is this reasoning is not accepted then the situation is more complicated. Latreille's 1810 type species designation is for the *Bembex* spelling, and since Fabricius (1776) included only *Vespa signata* Linnaeus, 1758, in *Bembex*, the taxon is monotypic if *Bembex* is not considered an emendation of *Bembix*. Latreille's designation would therefore be invalid, and *Bembex* would replace *Stictia*.

Revisions: Handlirsch, 1893c (world species); Priesner, 1958, and Gadallah, 1979 (Egypt); Evans and Matthews, 1968b (North America) and 1973b (Australia); R. Bohart and Horning, 1971 (California); Krombein and van der Vecht, 1987 (Sri Lanka and South India); Guichard, 1989a (Arabian Peninsula); Evans, 1990:30 (key to males of *promontorii* group); Tsuneki et al., 1992c:32 (Philippines).

Key: Leclercq, 1961d (Madagascar).

Detailed redescription of genus: Lohrmann, 1948:432

Definition of *papua* group: Lohrmann, 1939:139.

Review of nesting habits: Ferton, 1912a:397 (oviposition in empty cell is primitive, the next evolutionary step is progressive provisioning), Gess, 1986:155-159; Evans and O'Neil, 2007:159.

Evolution of *Bembix*: Ferton, 1923:100 (two essential forms: *Bembix* with long wings and these with short wings).

Key to larvae: Evans, 1959b:154

Nest structure: Barth, 1910:120.

Benson, 1934:75 (*Bembix regnata* preying on an adult hesperids, pierids, and nymphalids in East Africa).

Review of biology: Kazenas, 2001b:236.

A correction: *Bembix jordanicus* of R. R. Bohart and Menke, 1976:546 is in fact *Stizus jordanicus* Lohrmann, 1942.

1. *abercornensis* Arnold

Bembex abercornensis Arnold, 1960a:462, ♂. Holotype: ♂: Zambia: Abercorn, now Mbala (SAM). – R. R. Bohart and Menke, 1976:545 (listed).

2. *abragensis* Priesner

Bembyx abragensis Priesner, 1958:31, ♀, ♂. Syntypes: se. Egypt: Wadi Abrag and Gebel Elba: Wadi Kansisrob (Ministry of Agriculture, Cairo). – **As *Bembix abragensis***: R. Bohart and Menke, 1976:545 (listed); Gadallah, 1997:262 (in revision of Egyptian *Bembix*), 2002:65 (in key to Egyptian *Bembix* based on male genitalia, as *Bembex*).

3. *admirabilis* Radoszkowski

Bembex admirabilis Radoszkowski, 1893a:65, ♀, ♂ (♀ = *Bembix transcaspica*). Syntypes: Turkmenistan: Serax (Kraków). – Handlirsch, 1893c:802 (in revision of world Bembicinae); Dalla Torre, 1897:501 (in catalog of world Sphecidae). – **As *Bembix admirabilis***: R. Bohart and Menke, 1976:545 (listed); Kazenas, 2001b:49 (in checklist of Sphecidae of Kazakhstan and Central Asia).

4. *affinis* Dahlbom

Bembex affinis Dahlbom, 1844:182, ♂. Holotype: ♂, origin unknown (LUND). – Dahlbom, 1845:487 (in key to world *Bembix*); F. Smith, 1856:331 (in catalog of Hymenoptera in British Museum); Handlirsch, 1893c:904 (original description copied); Dalla Torre, 1897:502 (in catalog of world Sphecidae). – **As *Bembix affinis***: R. Bohart and Menke, 1976:545 (listed).

5. *afra* Handlirsch

Bembex afra Handlirsch, 1893c:741, ♂. Holotype: ♂, South Africa: Cape Province: no specific locality (Stuttgart Mus.). – Handlirsch, 1895:1002 (Cape Province); Dalla Torre, 1897:502 (in catalog of world Sphecidae); Arnold, 1929b:342 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix afra***: R. Bohart and Menke, 1976:545 (listed).

6. *agrestis* J. Parker

Bembix agrestis J. Parker, 1929:135, ♀, ♂. Holotype: ♂, Eritrea: near Asmara (ZMHU). – Arnold, 1931:216 (original description copied); Scott in Arnold, 1933a:371 (Eritrea: Loddo Hawash and Asmara); Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembix*); Arnold, 1951:138 (Ethiopia: Dessie, Lake Bishoftu); R. Bohart and Menke, 1976:545 (listed).

7. *alacris* J. Parker

Bembix alacris J. Parker, 1929:99, ♂. Holotype: ♂, Somalia: Salakle (ZMHU). – Arnold, 1931:215 (original description copied); Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembix*); R. Bohart and Menke, 1976:545 (listed).

8. *albata* J. Parker

Bembix albata J. Parker, 1929:127, ♀, ♂. Holotype: ♂, Namibia: Lüderitz Bay (ZMHU). – Lohrmann, 1948:449 (member of *arnoldi* species group of *Bembix*); R. Bohart and Menke, 1976:545 (listed, as *abata*).

Bembex albopilosa Arnold, 1929b:378, ♂. Holotype: ♂, South Africa: Gauteng: Klipfontein (SAM). Paratype: Namibia: Swakopmund (SAM). Synonymized with *Bembix albata* by Arnold, 1931:209 and 216. – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix albopilosa***: R. Bohart and Menke, 1976:545 (listed).

9. *albicapilla* Arnold

Bembix albicapilla Arnold, 1946:93, ♂. Holotype: ♂, Zimbabwe: Insuza River (SAM). – R. Bohart and Menke, 1976:545 (listed).

10. *albidula* R. Turner

Bembex albidula R. Turner, 1917c:438, ♂. Holotype or syntypes: ♂, Sierra Leone: Mussaia (BMNH). – Arnold, 1929b:352 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae). – As *Bembix albidula*: R. Bohart and Menke, 1976:545 (listed).

11. *albofasciata* F. Smith

Bembex albofasciata F. Smith, 1873c:296, ♂. Holotype or syntypes: ♂, South Africa: Kwzulu Natal: Zululand: no specific locality (BMNH). – Handlirsch, 1893c:891 (original description copied); Dalla Torre, 1897:502 (in catalog of world Sphecidae); Arnold, 1929b:336 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae). – As *Bembix albofasciata*: R. Bohart and Menke, 1976:545 (listed); Gess, 1981:21 (South Africa: 18 km WNW Grahamstown; nesting in sandy soils; prey), 40 (use of foretarsal rake), 48 (progressive provisioning); Gess, 1986:148 (nesting habits); Evans and O'Neil, 2007:183 (summary of information on nesting habits).

Bembex karschii Handlirsch, 1893:742, ♀, ♂ (as *Karschii*, incorrect original capitalization). Syntypes: South Africa: Cape Province and former Transvaal: no specific localities (BMNH, MHNG, ZMHU, Stuttgart Mus.). Synonymized with *Bembex albofasciata* by R. Turner, 1912g:373. – Dalla Torre, 1897:507 (in catalog of world Sphecidae).

12. *aldabra* J. Parker

Bembex aldabra J. Parker, 1929:99, ♂. Holotype: ♂, Indian Ocean: Aldabra Island (USNM). – Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembix*); Vesey-Fitzgerald, 1956b:362 (Seychelles); R. Bohart and Menke, 1976:545 (listed).

13. *alfierii* Priesner

Bembyx alferii Priesner, 1958:10, ♀, ♂. Holotype: ♂, Egypt: Kerdasa near Cairo (originally A. Alfieri coll., Cairo, now?). – As *Bembix alferii*: R. Bohart and Menke, 1976:545 (listed); Gadallah, 1997:259 (in revision of Egyptian *Bembix*), 2002:63 (in key to Egyptian *Bembix* based on male genitalia, as *Bembex*).

14. *allunga* Evans and Matthews

Bembex allunga Evans and Matthews, 1973:137, ♀, ♂. Holotype: ♂, Australia: Queensland: Yeppoon (ANIC). – R. Bohart and Menke, 1976:545 (listed); Evans, 1982b:12 (New South Wales); Evans, Evans, and Hook, 1982:76 (nesting habits, prey includes Myrmeleontidae); Cardale, 1985:285 (in catalog of Australian Sphecidae); Naumann, 1993:183 (Australia: Queensland: Heathlands area in Cape York), 1998:184 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E); Evans, 2002a:4 (preying mainly on Diptera, but regularly using non-Diptera); Evans and O'Neil, 2007:195 (summary of information on nesting habits).

15. *americana* Fabricius

Bembex americana Fabricius, 1793:250, sex not indicated. Holotype: ♂, South American islands: no specific locality (ZMK). – Fabricius, 1796:18 (in Index to his Entomologia Systematica, 1793); Dahlbom, 1844:183 (original description copied), 1845:XXII (specimens in collection Fabricius), 490 (in key to world *Bembix*); F. Smith, 1856:330 (in catalog of Hymenoptera in British Museum); Cresson, 1863:316 (in catalog of North American Hymenoptera), 1887:278 (in catalog of North American Hymenoptera); Handlirsch, 1893c:902 (original description translated into German); Dalla Torre, 1897:502 (in catalog of world Sphecidae); Ashmead, 1900:306 (in checklist of Caribbean Hymenoptera); W. Schulz, 1912:95 (study of Dahlbom's specimens); van der Vecht, 1961a:58 (study of holotype); Evans and Matthews, 1968b:1293 (in revision of North American *Bembix*, as *americana americana*); Alcock, 1974a:158 (variation in number of larval cells); R. Bohart and Menke, 1976:545 (listed); O'Neil, 1885:2188 (egg and prey size; sexual dimorphism in size); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); McCorquodale, 1986:1622 (flight characteristics as defense against *Senotainia trilineata*); Sánchez and Genaro, 1992b:150 (Cuba: La Habana: Güines); Spofford and Kurczewski, 1992:1000 (species of

miltogrammine nest parasites listed), 1002 (counter-cleptoparasitic behavior: diversionary flight), 1003 (chasing flight); Snelling, 1993a:18 (British Virgin Islands: Guana Island), 1993b:13 (specimens previously recorded by Snelling from Virgin Island can be *Bembix multipicta*); Kurczewski, 1998d:250 (pine barrens in upstate New York); Skevington et al., 2001:127 (Canada: Ontario: Lambton County); Buck, 2004:27 (in checklist of Crabronidae of Ontario, Canada); Portuendo and Fernández, 2004:134 (Cuba: Sierra Maestra, as *americana* Evans and Matthews); Evans and O'Neil, 2007:159, 171 (summary of information on nesting habits).

Bembix muscicapa Handlirsch, 1893c:828, ♀, ♂. Syntypes: South America: no specific locality (NHMW) and Colombia: no specific locality (Wüstnei coll.). Synonymized with *Bembix americana* by van der Vecht, 1961a:58. – Dalla Torre, 1897:509 (in catalog of world Sphecidae). – **As *Bembix muscicapa***: J. Parker, 1929:119 (in revision of Stizini and Bembicini); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*); Wolcott, 1951:846 (Puerto Rico).

Bembix separanda Handlirsch, 1893c:902, ♀. Syntypes: North America: no specific locality (Lund Univ.). Substitute name for *Bembix americana* of Dahlbom, 1845:183 and 490. Synonymized with *Bembix americana* by Evans and Matthews, 1968b:1293. – Dalla Torre, 1897:514 (in catalog of world Sphecidae).

As *Bembix sayi*: W. Fox, 1895d:359 (description of ♂), corrected to *Bembix foxi* by J. Parker, 1917:96.

Bembix foxi J. Parker, 1917:96, ♀, ♂. Holotype: ♂, USA: Illinois: no specific locality (ANSP). Synonymized with *Bembix muscicapa* by J. Parker, 1929:119. – Cockerell, 1918:60 (holotype and paratype in ANSP); Cresson, 1928:46 (holotype in ANSP). – **As *Epibembex foxi***: Burks in Muesebeck et al., 1951:1000 (new combination, in catalog of North American Hymenoptera).

ssp. *antilleana* Evans and Matthews

Bembix americana antilleana Evans and Matthews, 1968b:1294, ♀, ♂. Holotype: ♂, Cuba: Cabo San Antonio (MCZ). – Alayo Dalmau, 1973:189 (in catalog of Cuban Hymenoptera), 1976:30 (in checklist of Cuban Sphecidae); R. Bohart and Menke, 1976:545 (listed); de Zayas, 1981:79 (Cuba); Alayo Soto, 1989:1 (nesting habits); Genaro, 1995a:271 (nesting habits); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Fernández, Sariol, Vega, Ricardo, González, and Portuendo, 2002:46 (Cuba: Provincia Granma); Amarante, 2005a:9 (correction to his 2002 catalog); Genaro, 2006:53 (in checklist of Cuban Sphecidae and Crabronidae; also: Cayman Islands, Bahamas, Jamaica, Hispaniola, first record from Mona Island).

As *Bembix insularis* (Dahlbom) which actually is a *Stictia*, corrected to *Bembix americana antilleana* by Evans and Matthews, 1968b:1294: Handlirsch, 1893:826 (new combination, revision); Dalla Torre, 1897:506 (in catalog of world Sphecidae); W. Schulz, 1903:477 (Haiti); and J. Parker, 1929:95 (in revision of Stizini and Bembicini), 1942:204 (description of Cuban specimens). – **As *Epibembex insularis***: Alayo Dalmau, 1969:25 (new combination, in revision of Cuban Bembicinae). – **As *Bembix insularis***: Lohrmann, 1948:444 (member of *spinolae* group of *Bembix*).

ssp. *comata* J. Parker

Bembix comata J. Parker, 1917:100, ♀, ♂. Holotype: ♂, USA: California: no specific locality (USNM), see Cockerell, 1918:60. – J. Parker, 1925:189 (nesting habits), 1929:124 (in revision of Stizini and Bembicini); Rodeck, 1934:1 (USA: Nevada); G. Bohart and MacSwain, 1940b:92 (nest parasite: *Parnopes edwardsii* (Cresson), a chrysidid); Cockerell, 1940a:135 (California: Santa Cruz Island); Strickland, 1947: 130 (Canada: Alberta: Lethbridge); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*); Evans and Lin, 1956b:59 (description of larva); Evans, 1957c:36 (study of behavior); Stainer, 1959:66 (Canada: British Columbia: Cherry Point, Hornby Island, Nanaimo). – **As *Epibembex comata***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera). – **As *Bembix americana comata***: Evans and Matthews, 1968b:1295 (new status, in revision of North American *Bembix*); R. Bohart and Horning, 1971:13 (in revision of California Bembicini); R. Bohart and Menke, 1976:17 (listed); Krombein, 1979b:1712 (in catalog of North American Hymenoptera, nesting sites, list of prey); Rust, Hanks, and Bechtel, 1983:406 (Nevada: Churchill County: Sand Mountain); Rust, Menke, and

Miller, 1985:46 (California: Channel Islands), 57 (prey); Lane, Anderson, and Rogers, 1986:258 (nest provisioning); Parks, 1986:35 (Torrey Pines State Reserve); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:665 (in checklist of Mexican Sphecidae).

Bembix comata var. *nevadensis* Rodeck, 1934:1, ♂. Holotype: ♂, USA: Nevada: Fallon (AMNH). Synonymized with *Bembix americana comata* by Evans and Matthews, 1968b:1295. – **As *Epibembix comata* var. *nevadensis***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera). – **As *Bembix nevadensis***: Lohrmann, 1948:424 (in checklist of recently described *Bembix*).

ssp. *dugi* Menke

Bembix americana dugi Menke in Rust, Menke, and Miller, 1985:46, ♂, ♀. Holotype: ♂, California: Los Angeles County: San Clemente Island: Eel Point (USNM).

ssp. *hamata* C. Fox

Bembix hamata C. Fox, 1923a:6, ♂. Holotype: ♂, USA: California: Santa Barbara County: San Miguel Island (CAS). – J. Parker, 1929:109 (in revision of Stizini and Bembicini); Cockerell, 1938:150 (California: San Miguel Island), 1940a:135 (California Channel Islands), 1940b:290 (California: San Miguel Island); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*). – **As *Epibembex hamata***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera). – **As *Bembix hamata hamata***: Evans and Matthews, 1968b:1296 (new status, in revision of North American *Bembix*). – **As *Bembix americana hamata***: R. Bohart and Horning, 1971:16 (new status, in revision of California Bembicini); R. Bohart and Menke, 1976:545 (listed); Krombein, 1979b:1712 (in catalog of North American Hymenoptera); Rust, Menke, and Miller, 1985:46 (California: Channel Islands), 58 (prey).

Bembix hamata lucida C. Fox, 1923a:7, ♂. Holotype: ♂, USA: Santa Barbara County: Santa Cruz Island (CAS). Synonymized with *Bembix hamata* by Evans and Matthews, 1968b:1296. – **As *Epibembex hamata lucida***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera).

Bembix sanctaerosae Cockerell, 1940a:135, ♂ (as *sanctae-rosae*, incorrect original hyphenation). Holotype or syntypes: ♂, USA: California: Santa Rosa Island (LACM). Synonymized with *Bembix hamata* by Evans and Matthews, 1968b:1296 – **As *Epibembex sanctaerosae***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera).

ssp. *nicolai* Cockerell

Bembex nicolai Cockerell, 1938:150, ♀, ♂. Holotype: ♂, USA: California: Ventura County: San Nicolas Island (CAS). – Cockerell, 1940b:290 (California: San Nicolas Island). – **As *Epibembex nicolai***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera). – **As *Bembix hamata nicolai***: Evans and Matthews, 1968b:1296 (new status, in revision of North American *Bembix*). – **As *Bembix americana nicolai***: R. Bohart and Horning, 1971:17 (new status, in revision of California Bembicini); R. Bohart and Menke, 1976:545 (listed); Krombein, 1979b:1712 (in catalog of North American Hymenoptera); Rust, Menke, and Miller, 1985:46 (California: Channel Islands), 58 (prey).

ssp. *spinolae* Lepeletier de Saint Fargeau

Bembex spinolae Lepeletier de Saint Fargeau, 1845:277, ♂. Holotype or syntypes: ♂, North America: no specific locality (M. Spinola coll.). – F. Smith, 1856:331 (as synonym of *Bembex fasciata*); Cresson, 1863:316 (in catalog of North American Hymenoptera); Handlirsch, 1893c:825 (in revision of world Bembicinae), 1895:1003 (reference to Provancher, 1889); W. Fox, 1895d:357 (in revision of North American Bembicini); Dalla Torre, 1897:514 (in catalog of world Sphecidae); Ashmead, 1899d:239 (in checklist of North American Crabronidae); Cockerell, 1899a:142 (New Mexico), 1901:43 (visiting flowers of *Vicia* sp.); Harrington, 1902:221 (Canada: Ontario: Ottawa); W. Schulz, 1903:477 (Martinique); Viereck, 1903a:67 (New Mexico: Beulah); Hart, 1907:256 (Illinois); Barth, 1908a:134 (nest structure); Cameron, 1908c:237 (California, Colorado, New Mexico); Johnson and Rohwer,

- 1908:378 (Colorado: Boulder, Pueblo); H. Smith, 1908b:386 (in revision of Nebraskan Sphecidae); Rohwer, 1909b:245 (Colorado: Boulder County); Barber, 1915:187 (cocoon parasitized by *Macrosiagon flavipennis*, a rhipiphorid); Rohwer, 1917a:249 (Ohio or Texas); Carter, 1925:133 (Canada: Alberta; as *spinolae* Say); J.Ch. Bradley, 1928:1018 (in catalog of New York Sphecidae); Hendrickson, 1930:159 (Iowa); Brimley, 1938:448 (North Carolina: Cumberland and Edgecombe counties westward); Dreisbach, 1951:102, 104 (in key to *Bembix* of Michigan), 106 (Michigan: locality records); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection). – **As *Epibembex spinolae***: Burks in Muesebeck et al., 1951:1000 (new combination, in catalog of North American Hymenoptera); K. Cooper, 1953:34 (Massachusetts: Penikese Island); Krombein, 1953a:298 (visiting flowers of *Cephalanthus occidentalis*), 336 (North Carolina); Krombein and Evans, 1954:235 (Florida); L. Davis, 1978:216 (North Carolina: Kill Devil Hills, data from Krombein, 1953a). – **As *Bembix spinolae***: Rohwer, 1916b:694 (in catalog of Hymenoptera of Connecticut); Mickel, 1917:286 (USA: Nebraska); J. Parker, 1917:98 (in revision of Bembicini in America north of Mexico), 127 (nesting habits); Stevens, 1917:422 (North Dakota); Mickel, 1918b:441 (in catalog of Nebraskan Sphecidae); Rau, 1922:28 (USA: Missouri: Chestney Island), 29 (USA: Missouri: St. Louis, nest construction); J. Parker, 1929:122 (in revision of Stizini and Bembicini); Dow, 1930a:99 (the Yellowish Wasp of Pennsylvania described by J. Bartram is probably *Bembix spinolae*); Rodeck, 1934:2 (USA: Colorado); Krombein, 1936:95 (dipteran prey), 99 (floral records); Strickland, 1947: 130 (Canada: Alberta, as *spinolae* Say); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*); Krombein and Evans, 1955:234 (Florida: Fort Pierce); Evans and Lin, 1956b:58 (description of larva); Evans, 1957c:17 (study of behavior), 1958e:452 (behavioral evolution), 1959c:381 (nesting habits), 1963c:fig. 8 after p. 38 (photograph of adult on flowers), 69 (nesting habits); Krombein, 1963f:277 (Maryland: Plummers Island near Washington, D.C.); Kurczewski and Kurczewski, 1963:148 (Pennsylvania: Presque Isle State Park); Evans, 1964b:270 (additional description of larva); Chandler, 1966:146 (in revision of Bembicini and Stizini of Indiana); Evans, 1966d:311 (nesting habits); Kurczewski and Harris, 1968: 82 (New York: Groton, relative abundance); Horning and Barr, 1970:105 (USA: Idaho: Craters of the Moon National Monument); Amarante, 2002:8 (in catalog of Neotropical Crabronidae). – **As *Bembix americana spinolae***: Evans and Matthews, 1968b:1295 (new status, in revision of North American *Bembix*); Evans, 1970:495 (Wyoming: Jackson Hole, nesting habits), 1975a:264 (slow colonizer of new habitats); R. Bohart and Menke, 1976:545 (listed); Krombein, 1979b:1712 (in catalog of North American Hymenoptera, nesting sites, list of prey); Finnamore, 1982:231 (in Sphecid Fauna of Southern Quebec); Kurczewski and Acciavatti, 1990:61 (New York: Cayuga County); Ahlstrom, 1995:113 (in checklist of insects of North Carolina); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument).
- Bembex similans* W. Fox, 1895d:358, ♀, ♂ Lectotype: ♂, USA: New Mexico: Las Cruces (ANSP), designated by Cresson, 1928:44. Synonymized with *Bembix americana spinolae* by Evans and Matthews, 1968b:1295. – Ashmead, 1899d:239 (in checklist of North American Crabronidae); Cockerell, 1899a:142 (New Mexico); Brimley, 1938:448 (North Carolina: Carolina Beach, Wilmington, Wrightsville, as *similans*). – **As *Epibembex similans***: Burks in Muesebeck et al., 1951:1000 (new combination, in catalog of North American Hymenoptera); Krombein and Evans, 1954:235 (Florida). – **As *Bembix similans***: J. Parker, 1917:103 (in revision of Bembicini in America north of Mexico), 1929:125 (in revision of Stizini and Bembicini); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*);
- Bembex connexa* W. Fox, 1895d:360, ♀, ♂ (as *connexus*, incorrect original termination). Lectotype: ♂, USA: Utah: no specific locality (ANSP), designated by Cresson, 1928:46. Synonymized with *Bembix amoena* by Evans and Matthews, 1968b:1291, and with *Bembix americana spinolae* by R. R. Bohart and Menke, 1976:545. – Ashmead, 1899d:239 (in checklist of North American Crabronidae, as *convexus*). – **As *Bembix connexa***: J. Parker, 1917:115 (in revision of Bembicini in America north of Mexico), 1929:121 (in revision of Stizini and Bembicini); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*). – **As *Epibembex connexa***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera).

Bembix primaestate Johnson and Rohwer, 1908:378, ♀. Holotype or syntypes: ♀, USA: Colorado: Denver (..). Synonymized with *Bembix americana spinolae* by Evans, 1957c:18. – Rohwer, 1912:466 (description of ♂, Idaho). – Dreisbach, 1951:103, 104 (in key to *Bembix* of Michigan). – **As *Bembix primaestate***: Mickel, 1917:287 (USA: Nebraska); J. Parker, 1917:101 (in revision of Bembicini in America north of Mexico); Mickel, 1918b:441 (in catalog of Nebraskan Sphecidae); Webb and Wells, 1924:32 (...); Carter, 1925:133 (Canada: Alberta: Cassils); J. Parker, 1929:124 (in revision of Stizini and Bembicini); Strickland, 1947: 130 (Canada: Alberta); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*). – **As *Epibembix primaestate***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera).

As *Bembix fasciata*: Faull, 1913:384 (Canada: Toronto region), corrected to *Bembix americana spinolae* by Buck, 2004:76.

16. *amoena* Handlirsch

Bembix amoena Handlirsch, 1893c:769, ♀, ♂. Lectotype: ♂, USA: Nevada: no specific locality (NHMW), designated by R. Bohart, 1970a:205. – W. Fox, 1895d:357 (in revision of North American Bembicini); Dalla Torre, 1897:502 (in catalog of world Sphecidae); Ashmead, 1899d:239 (in checklist of North American Crabronidae); Johnson and Rohwer, 1908:378 (Colorado: Alamosa, Rocky Ford); Dreisbach, 1951:102, 103 (in key to *Bembix* of Michigan). – **As *Epibembix amoena***: Burks in Muesebeck et al., 1951:998 (new combination, in catalog of North American Hymenoptera). – **As *Bembix amoena***: J. Parker, 1917:88 (in revision of Bembicini in America north of Mexico), 1929:104 (in revision of Stizini and Bembicini); Lohrmann, 1948:445 (member of *amoena* species group of *Bembix*); Evans, 1957c:59 (list of prey), 1962c:6 (nesting around hot springs and geysers in Yellowstone National Park), 1964b:270 (additional description of larva), 1966b:466 (illustration of nest entrance), 467 (nesting habits), 1966d:269 (nesting habits); Evans and Matthews, 1968b:1292 (in revision of North American *Bembix*); G. Bohart, Nye, and Hawthorn, 1970:12, 18, 48 (Utah: Logan, onion pollinator); Evans, 1970:494 (Wyoming: Jackson Hole, list of prey); Horning and Barr, 1970:105 (USA: Idaho: Craters of the Moon National Monument); R. Bohart and Horning, 1971:10 (in revision of California Bembicini); R. Bohart and Menke, 1976:544 (listed); Krombein, 1979b:1710 (in catalog of North American Hymenoptera, nesting sites, list of prey); Hilchie, 1982:110 (accessory burrows reviewed); Dollfuss, 1989:7 (lectotype in NHMW); Evans and O'Neil, 2007:162 (summary of information on nesting habits).

17. *anomalipes* Arnold

Bembix anomalipes Arnold, 1929b:334, ♂. Holotype: Zimbabwe: Penkrige near eastern border of country (SAM). Paratype: Zaire: Thysville, now Mbanza-Ngungu (MRAC). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:545 (listed).

18. *antoni* Krombein and van der Vecht

Bembix antoni Krombein and van der Vecht, 1987:19, ♂, ♀. Holotype: ♂, Sri Lanka: Sabaragamuwa Province: Induruwa Jungle: Gilimale (USNM). – Krombein and van der Vecht, 1987:6 (nesting habits); Evans and O'Neil, 2007:179 (summary of information on nesting habits).

19. *arenaria* Handlirsch

Bembix arenaria Handlirsch, 1893a:823, ♀, ♂. Syntypes: Syria: no specific locality (NHMW, TMB, Marquet coll., Wüstnei coll.). – Dalla Torre, 1897:502 (in catalog of world Sphecidae); Balthasar, 1954b:277 (Palestine: Jordan valley); Smits van Burgst, 1913a:319 (Tunisia). – **As *Bembix arenaria***: Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembix*); de Beaumont and Bytinski-Salz, 1955:48 (Israel); R. Bohart and Menke, 1976:545 (listed); Guichard, 1980:229 (Oman), 1989a:144 (Saudi Arabia); Roche and Zalat, 1994:116 (Egypt: Sinai Peninsula); Gadallah, 1997:264 (in revision of Egyptian *Bembix*); Gadallah and Assery, 2004a:219 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 229 (in catalog of Sphecidae of Saudi Arabia), 2004b:1397 (skeletal parts of sting

apparatus); Yildirim and Ljubomirov, 2007:118 (first record from Turkey: İçel: Aydınçık); Ljubomirov and Yildirim, 2008:116 (in catalog of Crabronidae of Turkey).

Bembex houskai Balthasar, 1954b:277, ♂. Holotype: ♂, Israel: Yarkon Esser Torchanot near Tel Aviv (originally V. Balthasar coll., now Národní Muzeum Praha). Synonymized with *Bembex arenaria* by Bytinski-Salz in de Beaumont and Bytinski-Salz, 1955:48. – R. Bohart and Menke, 1976:546 (listed).

20. *arlettae* de Beaumont

Bembex arlettae de Beaumont, 1970c:11, ♂. Holotype: ♂, Iran: Khuzestan: 18 km NE Shadegan (Ludwigsburg). – R. Bohart and Menke, 1976:545 (listed).

21. *arnoldi* Arnold

Bembex arnoldi Arnold, 1929:353, ♀, ♂ (as *Arnoldi*, incorrect original capitalization; authorship attributed to Brauns).

Syntypes: South Africa: Western Cape Province: Zwartkops and Jeffrey's Bay (TMP). – Arnold, 1936:27 (redescription of ♀), 1930:21 (in checklist of Afrotropical Sphecidae); not listed by R. Bohart and Menke, 1976. – As

Bembex arnoldi: Lohrmann, 1948:449 (member of *arnoldi* species group of *Bembex*); Gess, 1986:151 (nesting habits); Evans and O'Neil, 2007:183 (summary of information on nesting habits).

22. *atra* Kazenas

Bembex atra Kazenas, 1978b:86, ♀. Syntypes: Kazakhstan: no specific locality (depository not indicated).

Bembex atra Kazenas, 1980c:137, ♀. Holotype: ♀, Kazakhstan: Alma Ata Oblast': Boguty Mountains (depository not indicated, probably ZIN). – Nazarova, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve); Nazarova and Baratov, 1981:98 (Tajikistan: Garavuty, Tigrovaya Balka Nature Reserve; preying on tabanids); Kazenas, 2001b:49 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:130 (geographic distribution, collecting localities in Kazakhstan).

23. *atrifrons* F. Smith

Bembex atrifrons F. Smith, 1856:327, ♀. Holotype or syntypes: ♀, Australia: Western Australia: Swan River (BMNH). – Froggatt, 1892:223 (in catalog of Australian Hymenoptera); Handlirsch, 1893c:899 (original description translated into German); Dalla Torre, 1897:502 (in catalog of world Sphecidae); R. Turner, 1910a:353 (description of ♂), 1915e:440 (in revision of Australian *Bembex*). – As ***Bembex atrifrons***: J. Parker, 1929:140 (in revision of Stizini and Bembicini); nec Evans, 1966:357 and 488 (= *Bembex coonundura*); Evans and Matthews, 1973:154 (in revision of Australian *Bembex*), 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:545 (listed); Cardale, 1985:285 (in catalog of Australian Sphecidae); Kifune and Hirashima, 1987:157 (parasite in Australia: *Paraxenos occidentalis* Kifune and Hirashima); McCorquodale and Thomson, 1989:95 (citation of Evans and Matthews, 1973); Evans and O'Neil, 2007:196 (summary of information on nesting habits).

Bembex flavilabris F. Smith, 1873c:299, ♀. Holotype or syntypes: ♀, Australia: Western Australia: no specific locality (BMNH). Tentatively synonymized with *Bembex atrifrons* by R. Turner, 1910a:353, definitely synonymized by R. Turner, 1915e:441. – Froggatt, 1892:223 (in catalog of Australian Hymenoptera); Handlirsch, 1893c:900 (original description translated into German); Dalla Torre, 1897:505 (in catalog of world Sphecidae).

Bembex funebris R. Turner, 1910a:353, ♂. Syntypes: Australia: West Australia: South Perth (BMNH). Synonymized with *Bembex atrifrons* by Evans and Matthews, 1973:155. – R. Turner, 1915e:442 (in revision of Australian *Bembex*); Lohrmann, 1948:423 (in checklist of recently described *Bembex*).

As *Bembex severa*: F. Smith, 1873c:297, ♂ only. Corrected to *Bembex funebris* by R. Turner, 1915e:441.

24. *atrospinosa* R. Turner

Bembex atrospinosa R. Turner, 1917f:289, ♀, ♂ (as *atrospinusus*, incorrect original termination). Syntypes: South Africa: Eastern Cape Province: Willowmore (BMNH or TMP?). – Arnold, 1929b:335 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae). – As ***Bembex atrospinosa***: R. Bohart and Menke, 1976:545 (listed).

25. aureofasciata R. Turner

Bembex aureofasciata R. Turner, 1910a:354, ♂. Holotype or syntypes: ♂, Australia: Western Australia: South Perth (BMNH). – R. Turner, 1915e:442 (in revision of Australian *Bembix*). – **As *Bembix aureofasciata***: Lohrmann, 1948:423 (in checklist of recently described *Bembix*); Evans and Matthews, 1973:131 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:545 (listed); Cardale, 1985:286 (in catalog of Australian Sphecidae); Pagliano, 2003a:506 (Australia: Northern Territory and Queensland).

26. barbara Handlirsch

Bembex barbara Handlirsch, 1893c:717, ♀, ♂. Syntypes: Algeria: no specific locality (MHNG, ZMHU). – Dalla Torre, 1897:502 (in catalog of world Sphecidae); Handlirsch, 1898b:490 (Algeria: Oran Province); Strand, 1910e:218 (Algeria: Constantine Province, now Qasantīnah Province); Morice, 1911:129 (Algeria: Constantine, now Qasantīnah, Médéa); Ferton, 1912a:396 (Algeria: Tebessa; prey: *Anthrax* sp.); von Schulthess, 1926b:218 (Morocco, Algeria, Tunisia); Bischoff, 1933:4 (Morocco); de Beaumont, 1951e:270 (Morocco); R. Bohart and Menke, 1976:545 (listed).

27. baringa Evans and Matthews

Bembex baringa Evans and Matthews, 1973:47, ♀, ♂. Holotype: ♂, Australia: Western Australia: Wiluna (ANIC). – R. Bohart and Menke, 1976:545 (listed); Cardale, 1985:286 (in catalog of Australian Sphecidae).

28. bataviana Strand

Bembex bataviana Strand, 1910c:47, ♂. Holotype: ♂, Indonesia: Java: Batavia, now Djakarta (Städtisches Mus. Wiesbaden). – Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 449 (member of *papua* species group of *Bembix*); R. Bohart and Menke, 1976:545 (listed).

29. baumanni Handlirsch

Bembex baumanni Handlirsch, 1893c:813, ♂ (as *Baumanni*, incorrect original capitalization). Holotype: ♂, South Africa: former Transvaal: no specific locality, may be in Gauteng, Mpumalanga, Limpopo, or part of North West Province (MHNG). – Dalla Torre, 1897:502 (in catalog of world Sphecidae); Arnold, 1929b:359 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix baumanni***: de Beaumont, 1967b:506 (Namibia); R. Bohart and Menke, 1976:545 (listed).

30. bazilanensis Yasumatsu

Bembex bazilanensis Yasumatsu, 1933:255, ♀, ♂. Holotype: ♀, Philippines: Basilan: Maloong (Kyushu Univ.). – Lohrmann, 1939:139 (member of *papua* species group of *Bembix*), 1948:422 (in checklist of recently described *Bembix*); Baltazar, 1966:350 (in catalog of Hymenoptera of Philippines); R. Bohart and Menke, 1976:545 (listed); Tsuneki et al., 1992c:32, 33 (in key to *Bembix* of Philippines, as *bazilanensis*), 38 (bibliographic references).

31. belfragei Cresson

Bembex belfragei Cresson, 1873:220, ♂ (as *Belfragei*, incorrect original capitalization). Lectotype: ♂, USA: Texas: Bosque County: no specific locality (ANSP), designated by Cresson, 1916:97. – Cresson, 1887:278 (in catalog of North American Hymenoptera); Handlirsch, 1893:793 (as synonym of *Bembex insignis*); W. Fox, 1895d:357 (in revision of North American Bembicini); Ashmead, 1899d:239 (in checklist of North American Crabronidae); Hartman, 1905:32 (nesting habits); H. Smith, 1908b:385 (in revision of Nebraskan Sphecidae); Brimley, 1938:448 (North Carolina: Fayetteville, Southern Pines); Dreisbach, 1951:102, 103 (in key to *Bembix* of Michigan), 106 (Michigan: locality records). – **As *Epibembex belfragei***: Burks in Muesebeck et al., 1951:998 (new combination, in catalog of North American Hymenoptera). – **As *Bembix belfragei***: Mickel, 1917:286 (USA: Nebraska); J. Parker, 1917:92 (in revision of Bembicini in America north of Mexico), 131 (nesting habits); Mickel, 1918b:441 (in catalog of Nebraskan Sphecidae); J. Parker, 1929:103 (in revision of Stizini and Bembicini); Evans and Lin, 1956b:61 (description of larva); Evans, 1957c:59 (mating, nest, prey, egg, life cycle), 1958e:452 (behavioral evolu-

tion), 1964b:270 (additional description of larva), 1966d:315 (nesting habits); Evans and Matthews, 1968b:1290 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:545 (listed); Ahlstrom, 1995:113 (in checklist of insects of North Carolina); Krombein, 1979b:1709 (in catalog of North American Hymenoptera, nesting sites, list of prey).

Bembix cressonis Handlirsch, 1893c:792, ♀, ♂ (as *Cressonis*, incorrect original capitalization). Syntypes: USA: Texas: no specific locality (coll. Wüstnei and TMB). Synonymized with *Bembix belfragei* by W. Fox, 1985d:357. – Dalla Torre, 1897:503 (in catalog of world Sphecidae, as *Bembix cressonii*, misspelling or emendation)

Bembix insignis Handlirsch, 1893c:793, ♀, ♂. Syntypes: USA: Georgia: no specific locality (NHMW, ZMHU, TMB, MHNG). Synonymized with *Bembix belfragei* by J. Parker, 1917:92. – W. Fox, 1985d:357 (in revision of North American Bembicini); Dalla Torre, 1897:506 (in catalog of world Sphecidae); Ashmead, 1899d:239 (in checklist of North American Crabronidae).

32. *bellatrix* J. Parker

Bembix bellatrix J. Parker, 1929:151, ♀. Holotype: ♀, Brazil: Santa Catarina: Joinville (ZMHU). – R. Bohart and Menke, 1976:545 (listed); Amarante, 2002:8 (in catalog of Neotropical Crabronidae).

33. *bequaerti* Arnold

Bembix bequaerti Arnold, 1929b:350, ♀, ♂. Syntypes: Zaire: Pengo (MRAC). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:96 (Zaire). – As *Bembix bequaerti*: Lohrmann, 1948:447 (member of *diversipennis* species group of *Bembix*); R. Bohart and Menke, 1976:549 (listed).

ssp. dira Arnold

Bembix bequaerti var. *dira* Arnold, 1929b:351, ♂, ♀. Syntypes: Zaire: Stanleyville, now Kisangani (MRAC). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:96 (Zaire), Bequaert, 1932:3 (list of prey at Stanleyville, now Kisangani, Zaire); Oldroyd, 1954:35 (discussion of prey). – As *Bembix bequaerti* var. *dira*: Lohrmann, 1948:447 (member of *diversipennis* species group of *Bembix*). – As *Bembix bequaerti dira*: R. Bohart and Menke, 1976:545 (new status; listed).

34. *berontha* Evans and Matthews

Bembix berontha Evans and Matthews, 1973:176, ♂. Holotype: ♂, Australia: Western Australia: Nilemah Station 50 mi S Denham (ANIC). – R. Bohart and Menke, 1976:545 (listed); Cardale, 1985:286 (in catalog of Australian Sphecidae).

35. *bicolor* Radoszkowski

Bembix bicolor Radoszkowski, 1877:47, ♀, ♂. Syntypes: Uzbekistan: Samarkand; Tajikistan: Varzaminor; Kyrgyzstan: Shakhimardan (ZMMU). – Kohl and Handlirsch, 1889:281 (Turkmenistan.); Handlirsch, 1893c:747 (in revision of world Bembicinae); Dalla Torre, 1897:502 (in catalog of world Sphecidae); Morice, 1921:823 (Iraq: Amara); Gussakovskij, 1934:13 (China: Inner Mongolia), 1935:444 (Tajikistan: Gushary and Du-Oba in Hissar Range); de Beaumont, 1947b:386 (Cyprus); Pittioni, 1950:22 (Cyprus); Islamov, 1970:63 (Uzbekistan: Chirchik Basin). – As *Bembix bicolor*: Lohrmann, 1948:452 (member of *sinuata* species group of *Bembix*); de Beaumont and Bytinski-Salz, 1955:47 (Israel); Bytinski-Salz, 1956:225 (Turkey: Konya); de Beaumont, 1957b:135 (n. Iran), 1961b:274 (Afghanistan), 1965a:23 (Greece), 1967a:298 (Turkey), 1969:83 (Turkey), 1970c:14 (Iran: Khorassan); Tsuneki, 1971k:207 (Mongolia); Balthasar, 1972:378 (in Sphecid Fauna of Czechoslovakia: may be expected in the country); Kazenas, 1972b:141 (Kazakhstan); Myartseva, 1972a:90 (Turkmenistan); Kazenas, 1974b:109 (feeding on flowers of *Tamarix* sp. in Kazakhstan), 110 (feeding on flowers of *Euphorbia* spp., Euphorbiaceae, in Kazakhstan); Georghiou, 1977:189 (Cyprus); R. Bohart and Menke, 1976:545 (listed); Kazenas, 1978b:86, 89 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:208, 209 (in key to Sphecidae of European part of former USSR); Nazarova and Baratov, 1981:98 (Tajikistan: Garavuty and Hissar Range: Kondara, Romit, Varzob; preying on tabanids: list of prey species); Gayubo, Borsato, and Osella, 1991:417 (Italy: Toscana: Alberese),

1992:289 (Turkey); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:270 (in Sphecic Fauna of Western Europe); Nazarova, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve); Ljubomirov, 2000:13 (Bulgaria, specimens in N. Nedelkov collection); Kazenas, 2001b:49, 50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 238 (prey: *Bombylius discoides* F.), 2002a:130 (geographic distribution, collecting localities in Kazakhstan); Nazarova, 2004:108 (Tajikistan: Badakhshan Region: Rushan District: villages Dasht and Siponch in Bartang River valley); Gayubo and Özbek, 2005:22 (Turkey: Antalya: Gazipaşa; Erzurum: Oltu); Nazarova, 2005:94 (alfalfa fields in southwestern Tajikistan); Pagliano and Negrisolo, 2005:187 (in Sphecic Fauna of Italy); Yildirim and Ljubomirov, 2005:1789 (Turkey: Erzurum and Konya provinces); Hua, 2006:277 (in list of Chinese insects, geographic distribution); Ljubomirov and Yildirim, 2008:116 (in catalog of Crabronidae of Turkey); Ghazi-Soltani, Ebrahimi, Iranipour, and Pour Abad, 2010:801 (Iran: East Azarbaijan: Tabriz: Vaniar); Ghazi-Soltani, Khaghaninia, and Shahim, 2010:639 (Iran: East Azerbaijan: Horand Forests).

Bembex femoralis Radoszkowski, 1877:48, ♀, ♂. Syntypes: Kazakhstan: Kyzil-Kum: no specific locality (ZMMU). Synonymized with *Bembex bicolor* by Handlirsch, 1893c:747. – Kohl and Handlirsch, 1889:281 (Turkmenistan: Chuli).

Bembex bipunctata Radoszkowski, 1877:50, ♀, ♂, junior primary homonym of *Bembex bipunctata* Dufour, 1861. Syntypes: Uzbekistan: Zaravshan valley: no specific locality, and Fan or Fana (ZMMU). Synonymized with *Bembex bicolor* by Handlirsch, 1893c:747. – Radoszkowski, 1887a:44 (China: Tsinghai: Tsaidam region: no specific locality), 1893a:66 (Turkmenistan).

Bembex barbiventris F. Morawitz, 1889a:142, ♂. Syntypes: ♂, Mongolia: Gaotai (ZIN). Synonymized with *Bembex bicolor* by Handlirsch, 1893c:747. – F. Morawitz, 1893b:423 (Tajikistan: Takfan in Yagnob River valley); Pérez, 1907:495 (Oman: Dibba).

As *Bembex sinuata*? Radoszkowski, 1877:51 (Tajikistan: Varzaminor); Pulawski, 1958:169 (Bulgaria: Aitos), present correction; Balthasar, Hrubant, and Hrubant, 1967:175 (Bulgaria: Aitos), present correction.

36. *bidentata* Vander Linden

Bembex bidentata Vander Linden, 1829:13, ♂, also tentatively ♀. Holotype: ♂, southern France: no specific locality (Inst. Roy. Sci. Nat. Belgique, Bruxelles). – Ghiliani, 1842:24 (listed from Italy: Sicilia); Dahlbom, 1844:178 (re-description), 1845:488 (in key to world *Bembix*); Lepeletier de Saint Fargeau, 1845:262 (in revision of world Hymenoptera); F. Smith, 1856:319 (in catalog of Hymenoptera in British Museum); A. Costa, 1867b:97 and 1867c:41 (in revision of Italian Sphecidae); Kirchner, 1867:218 (in catalog of European Hymenoptera); Palma, 1867:39 (Italy: Sicilia settentrionale); A. Costa, 1872b:4 (in revision of Sphecidae of Kingdom of Naples, Italy); Dours, 1874:148 (in catalog of Hymenoptera of France); A. Costa, 1883:57 (Italy: Sardegna: Cagliari); Gasperini, 1887:16 (Dalmatia: Lesina Island: Brusije and Verbagno, now Croatia: Hvar Island: Brusje and Vrbanj); Handlirsch, 1893c:773 (in revision of world Bembicinae), 1895:1003 (n. Iran); Acloque, 1897:94 (in Sphecic Fauna of France and Algeria); Dalla Torre, 1897:502 (in catalog of world Sphecidae); Mocsáry, 1897:83 (Kingdom of Hungary, some localities are in today's Romania and Slovakia); Chyzer, 1902:34 (Hungary); Antiga and Boffill, 1904:19 (Spain: Cataluña Province); Mercet, 1904a:348, 355 (in key to Spanish species); W. Schulz, 1904b:94 (France, Greece, Spain, Turkey); Medina, 1905:136 (Spain: Cádiz: Chiclana); Váγγελ, 1905:167 (Hungary); W. Schulz, 1906:45 (Greece: Island of Crete); Móczár and Henter, 1907:206 (Hungary: Tiszaalpár); Schmiedeknecht, 1907:214, 215 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:120 (in catalog of Hymenoptera of France); Graeffe, 1911:46 (Italy: Trieste area); Zavattari, 1912:3 (Italy: Sardegna: Pantaleo); Dusmet y Alonso, 1915:87 (Spain: Aragón); Fahringer and Friese, 1921:160 (Turkey: Erzurum: Iyrbashi in Amanus Mts. = Gavur Dağları); Fahringer, 1922:179 (Turkey); Maidl, 1922:72 (Albania, Croatia); Morice, 1921:823 (Iran: Talish); Berland, 1925d:71 (in Sphecic Fauna of France); Picard, 1930:42 (France: Bouche-du-Rhône: Marseille; Gard: Générac; Var: Beausset); Schmiedeknecht, 1930:677 (in keys to Hymenoptera of North and Central Europe); Dre-

nowski, 1934:178 (Bulgaria: Ali-Botush); Giner Marí, 1934:132 (Spain); Nadig, 1934:32 (Italy: Sardegna: Cagliari); Zavadil, 1934:187 (Slovakia); Bernard, 1935:63 (France: Var: Fréjus area), 1936c:287 (France: Aude: Ile Sainte-Lucie; Bouches-du-Rhône: Camargue; Var: Fréjus); Zavadil, Šusterka, and Bařa, 1937:185 (in catalog of Sphecidae of Czechoslovakia); Giner Marí, 1943a:197 (in Sphecid Fauna of Spain), 1943b:31 (Spain; redescription); de Andrade, 1949:20 (Portugal); Scobiola, 1950:18 (first record from Romania: Vasile Roaită-Constanța); de Beaumont, 1954e:87 (Italy); Grandi, 1954:235 (Italy); Atanassov, 1955:198 (Bulgaria: Parangalitsa Nature Reserve in Rila Mts., Nesebyr); Vogrin, 1955:34 (Yugoslavia); Bajári, 1957a:20, 22 (in key to Hungarian Sphecidae); Čingovski, 1960:6 (Macedonia: Bansko, Katlanovo); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); Casolari and Casolari Moreno, 1980:114 (specimens in M. Spinola collection). – *As Bembix bidentata*: J. Parker, 1929:182 (in revision of Stizini and Bembicini); Grandi, 1934:128 (Italy: Lazio: Acilia); Lohrmann, 1948:426 (illustration of head in frontal view), 452 (member of *bidentata* species group of *Bembix*); Šnoflak in Zavadil and Šnoflak, 1948:82, 83 (in key to Sphecidae of Czechoslovakia); Hertzog, 1954:100 (France: Bouches-du-Rhône: Camargue); Bytinski-Salz, 1956:225 (Turkey: Dinar, İzmir, Kemer); Ceballos, 1956:384 (in catalog of Hymenoptera of Spain); Morel, Nouvel, and Ribaut, 1956:338 (France: Département des Pyrénées-Orientales), 1958:10 (France: Pyrénées-Orientales: Banyuls-sur-Mer area); Pulawski, 1958a:169 (Bulgaria: Aitos, Kurilo, Nessebar, mouth of Ropotamo River, Sozopol, Varna); de Beaumont, 1959a:17 (Italy); Grandi, 1959b:286 (Italy: Sardegna: Bosco Marina in Nuoro district); Suárez, 1959:54 (Spain: Almería Province); de Beaumont, 1960a:9 (Greece: Island of Rhodes); Atanassov, 1962:122 (Bulgaria: Petrich area); de Beaumont, 1962b:22 (Spain); Scobiola, 1963:825 (Romania: Periprava); de Beaumont, 1965a:24 (Greece); Balthasar, Hrubant, and Hrubant, 1967:175 (Bulgaria: Slanchev Bryag near Nessebar); de Beaumont, 1967a:298 (Turkey; variation); Scobiola-Palade, 1967b:37 (Romania: Island of Letea in delta of Danube), 1968b:141 (Romania); Romanova, 1969:134 (Russia: North Caucasus); Zangheri, 1969:1702 (Italy: in catalog of flora and fauna of Romagna Region); Leclercq and Leclercq, 1970:267 (collecting tabanids *Hybomitra expollicata* (Pandellé) from horses' legs and sides); Atanassov, 1972a:190 (Bulgaria: Stara Planina Mountains), 1972b:32, 49 (Bulgaria: Stara Planina Mountains); Balthasar, 1972:377 (in Sphecid Fauna of Czechoslovakia); Scobiola-Palade, 1972a:148 (Romania: delta of Danube: Caraorman); Simon-Thomas, 1972:180 (France: Landes); Diniz, 1973:47 (Portugal: nine localities); Erlandsson, 1974:66 (Italy, Yugoslavia), Scobiola-Palade, 1974:144 (Romania: Sărăturile sandbank in Danube delta); R. Bohart and Menke, 1976:545 (listed); Simon Thomas, 1976:5 (France: Lot-et-Garonne); Guichard, 1978:270 (Greece); Kazenas, 1978b:89 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:208, 209 (in key to Sphecidae of European part of former USSR); Pagliano, 1980:118 (Italy: Calabria); Gayubo, 1982b:47 (Spain: Ávila, Cáceres, and Salamanca provinces), 1982e:108 (Spain: Cádiz Province), 1983e:235 (Spain: Salamanca Province), 1984c:380 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:22 (Spain: Valencia); Scobiola-Palade, 1985:95 (Romania: delta of Danube); Gayubo, 1986b:40 (Spain: Andalucía), 1986d:121 (Spain: Zamora Province); Gayubo and Heras, 1986:63 (Spain: Segovia Province; floral records); Gayubo and Sanza, 1986:80 (Spain: Burgos, Soria); Gayubo and Tormos, 1986a:13 (Spain: Castellón de la Plana), 1986b:7 (Spain: Valencia); Scobiola-Palade, 1987:65 (Romania: Dobrogea); Tormos and Jiménez, 1987a:126 (Spain: Valencia), 1987b:317 (Spain: Valencia Province: Dehesa de El Saler); Asís and Jiménez, 1988:275 (Spain: Castellón Province); Pádr in Šedivy, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Scobiola-Palade, 1989:87 (Romania: delta of Danube); Gayubo, Asís, and Tormos, 1990b:79 (Spain); Pagliano, 1990:76 (in catalog of Italian Sphecidae); Dollfuss, 1991:209 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:417 (Italy); Pagliano, 1992:47 (in key to Italian Bembicinae); Torregrosa, Gayubo, Tormos, and Asís, 1993:20 (Spain: Alicante Province); Gayubo and Borsato, 1994:218 (Italy: Sardegna); Tormos, Asís, and Gayubo, 1994:189, 221 (Spain: Albacete Province); Negrisoló in Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Scharrer, 1995:28 (Italy: Trieste); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:272 (in Sphecid Fauna of Western Europe); Stoyanov and Ljubomirov, 1997:27 (Bulgaria: Rila Mountains); Gayubo, García, Torres, and González, 1999:91 (Spain: Soria Province);

Tüzün, Gülmez, and Bağriaçık, 1999:385 (Turkey: Aegean Region); Ljubomirov, 2000:13 (Bulgaria, specimens in N. Nedelkov collection); Shkuratov, 2000:57 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 239 (preys on tabanids according to J.-H. Fabre), 2002a:130 (geographic distribution, collecting localities in Kazakhstan); Protsenko, 2003:68, 69 (first record from Ukraine: Odessa Oblast': Malyi Tataru island in Danube delta at 45.21°N 29.00°E); Cruz-Sánchez, Gayubo, González, and Torres, 2005:220 (Spain: Salamanca: San Martín del Castañar); Ebrahimi, 2005:129 (in key to selected Iranian Sphecidae); Gayubo and Özbek, 2005:22 (Turkey: many localities); Jacobs, 2005a:440 (Bulgaria: Arkutino near Burgas, Michurin); Pagliano and Negrisoló, 2005:188 (in Sphecid Fauna of Italy); Yildirim and Ljubomirov, 2005:1790 (Turkey: Ankara, Balıkesir, Bingöl, Bitlis, Erzurum, İçel, Kars, and Konya provinces); Ljubomirov, 2006:537 (Bulgaria: previous records from Rhodope Mountains summarized); Standfuss and Standfuss, 2006c:306 (Greece: Thessalia: Magnissia Peninsula at 39°N 23°E); Evans and O'Neil, 2007:173 (attracted to horse-like tabanid trap according to Leclercq and Leclercq, 1970); Vepřek and Straka, 2007:209 (in catalog of Sphecidae of Czech Republic and Slovakia, known only from Slovakia); Yildirim and Ljubomirov, 2007:118 (Turkey: Erzurum: Oltu); Gayubo, González, Tormos, and Asís, 2008:137 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov and Yildirim, 2008:117 (in catalog of Crabronidae of Turkey); Gayubo, González, Tormos, and Asís, 2009:365 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); Guéorguiev and Ljubomirov, 2009:263 (Bulgaria: Maleshevska Planina); Kaleibar: Ghazi-Soltani, Ebrahimi, Iranipour, and Pour Abad, 2010:801 (Iran: East Azarbaijan: Kaleibar: Vinagh; Tabriz: Sarab).

Bembex dalmatica Kriechbaumer, 1869:598, ♀. Holotype: Dalmatia, now in Croatia: no specific locality (NHMW?). Synonymized with *Bembex bidentata* by Kohl, 1881:239 (as *dalmatina*).

37. *boaliri* Evans and Matthews

Bembex boaliri Evans and Matthews, 1973:309, ♀. Holotype: ♀, Australia: South Australia: 9 mi E Everard Park (SAMA). – R. Bohart and Menke, 1976:545 (listed, as *boarliri*); Cardale, 1985:286 (in catalog of Australian Sphecidae).

38. *boharti* Griswold

Bembex boharti Griswold, 1983:103, ♀, ♂. Holotype: ♂, Mexico: Baja California (Norte): 9 km Nw Rancho Santa Ines at 29°46'N 114°46' (CAS). – Evans and O'Neil, 2007:63 (summary of information on nesting habits).

39. *boonamin* Evans and Matthews

Bembex boonamin Evans and Matthews, 1973:282, ♀, ♂. Holotype: ♂, Australia: Western Australia: Meekatharra-Billiluna Pool on Canning Stock route (SAMA). – R. Bohart and Menke, 1976:545 (listed); Cardale, 1985:286 (in catalog of Australian Sphecidae).

40. *borneana* Cameron

Bembex borneana Cameron, 1901a:26, ♂. Holotype or syntypes: ♂, Indonesia: Borneo: no specific locality (BMNH). – As *Bembex borneana* J. Parker, 1929:146 (in revision of Stizini and Bembicini); Lohrmann, 1939:139 (member of *papua* species group of *Bembix*); R. Bohart and Menke, 1976:545 (listed).

41. *borrei* Handlirsch

Bembex borrei Handlirsch, 1893c:866, ♀, ♂ (as *Borrei*, incorrect original capitalization). Lectotype: ♂, Indonesia: Java: no specific locality (NHMW), designated by van der Vecht in Krombein and van der Vecht, 1987:22. – Handlirsch, 1895:1004 (Indonesia: Timor); Dalla Torre, 1897:502 (in catalog of world Sphecidae); Bingham, 1896a:44 (references), 1897:289 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera). – As *Bembex borrei*: J. Parker, 1929:148 (in revision of Stizini and Bembicini, Philippines); van der Vecht, 1939:84 (nest, prey); Cherian, 1943:435 (nest, prey; as *borrai*); Baltazar, 1966:350 (in catalog of Hymenoptera of Philippines); R. Bohart and Menke, 1976:545 (listed); Sk. Yamane,

1983:87 (Indonesia: Krakatau Islands); Krombein and van der Vecht, 1987:7 (nesting habits), 22 (in revision of Sri Lankan and South Indian *Bembix*); Dollfuss, 1989:7 (lectotype in NHMW); Tsuneki et al., 1992c:32, 33 (in key to *Bembix* of Philippines), 34 (Philippines, variation); Evans and O'Neil, 2007:180 (summary of information on nesting habits).

Bembix nigrocornuta J. Parker, 1929:106, ♀, ♂. Holotype: ♂, India: Gujarat: Deesa (USNM). Synonymized with *Bembix borrei* by Krombein and van der Vecht, 1987:22. – Lohrmann, 1948:452 (member of *oculata* species group of *Bembix*); R. Bohart and Menke, 1976:547 (listed).

Bembix borrei thaiana Tsuneki, 1963c:25, ♂. Holotype: ♂: Thailand: Bangkok (Sasayama Univ.). Synonymized with *Bembix borrei* by Krombein in Krombein and van der Vecht, 1987:22. – Iwata, 1964b:364 (nesting habits in Thailand), 1965:107 (number of oocytes); Tsuneki, 1974b:593 (Thailand); R. Bohart and Menke, 1976:545 (listed); Ohl and Linde, 2003:150 (number of ovarioles).

ssp. *bariensis* Tsuneki

Bembix borrei bariensis Tsuneki, 1974b:594, ♀, ♂. Holotype: ♂, Indonesia: Bali Island, misspelled as Bari in original description (T. Tano coll., Fukui). – R. Bohart and Menke, 1976:629 (listed).

42. *brachyptera* Arnolds

Bembex brachyptera Arnold, 1952:476, ♀. Syntypes: Zambia: Abercorn, now Mbala (SAM). – **As *Bembix brachyptera***: R. Bohart and Menke, 1976:545 (listed).

43. *braunsii* Handlirsch

Bembex braunsii Handlirsch, 1893c:815, ♀, ♂ (as *Braunsii*, incorrect original capitalization). Syntypes: Gabon, Guinea (NHMW, TMB, ZMHU, Zool. Mus. Hamburg). – Kohl, 1894:341 (Gabon: Cap Lopez), Fig. 121 (apical female tergum), Fig. 125 (male genitalia), Fig. 130 (male antenna), Fig. 133 (apical male tergum); Handlirsch, 1895:1003 (reference to Kohl, 1894); Dalla Torre, 1897:503 (in catalog of world Sphecidae); Kohl, 1906a:212 (Yemen: Socotra Island); Bischoff, 1912:226 (Zaire: Kasindi N Lake Edward); Arnold, 1929b:361 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:96 (Zaire); Bequaert, 1932:2 (Zaire: Tshopo Falls); G. Bouvier, 1936:330 (Zaire: prey consisting of Diptera, including tsetse fly); R. Bohart and Menke, 1976:545 (listed).

44. *brullei* Guérin-Méneville

Bembex brullei Guérin-Méneville, 1831:pl. 9, fig. 3, ♀ (as *Brullei*, incorrect original capitalization). Holotype: ♀, Chile: Concepción (GENOVA). – Guérin Méneville, 1838:263 (description); Spinola, 1851a:318 (in revision of Chilean Hymenoptera); F. Smith, 1856:339 (in catalog of Hymenoptera in British Museum); Sichel, 1867:142 (Chile); Taschenberg, 1870:21 (Chile); Handlirsch, 1893c:835 (in revision of world Bembicinae); Reed, 1894:607 (in revision of Scoliidae, Pompilidae, and Sphecidae of Chile); Dalla Torre, 1897:503 (in catalog of world Sphecidae); C. Porter, 1899:36 (Chile: Departamento de Quillota); Delfin, 1904:20 (Chile: Departamento de Talcahuano); Brèthes, 1910b:145 (Chile); Jaffuel and Piri6n, 1926:377 (Chile: valle de Marga Marga); Gazulla and Ruiz Pereira, 1929:300 (Chile: Hacienda de "Las Mercedes"); Janvier, 1929:418 (sleeping habits); Ruíz Pereira and Stuardo, 1936:321 (Chile: Las Termas de Chillan); Ruíz Pereira, 1937:164 (Chile: Coquimbo Province); Fraga, 1938:200 (Chile: Hacienda Mauro); Guti6rrez, 1940:34 (Chile: R6o Blanco); Guiglia, 1948b:179 (type in Genova Museum); Zapata, 1974:37 (Chile: Lampa near Santiago). – **As *Bembix brullei***: J. Parker, 1929:129 (in revision of Stizini and Bembicini); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*); Willink, 1953:341 (Argentina, sexual dimorphism and coloration); Quezada and Fuentes, 1974:403 (preimaginal studies, geographic distribution); R. Bohart and Menke, 1976:545 (listed); Sielfeld, 1981b:75 (in checklist of Chilean Sphecidae); Amarante, 2002:8 (in catalog of Neotropical Crabronidae) 2005a:9 (correction to his 2002 catalog).

Bembex ventralis Dahlbom, 1844:180, ♀ (authorship attributed to Klug). Syntypes: ♀, Chile: Valparaiso (LUND). Synonymized with *Bembex brullei* by Handlirsch, 1893c:835. – Dahlbom, 1845:492 (in key to world *Bembix*); F. Smith, 1856:330 (in catalog of Hymenoptera in British Museum).

Bembex ventralis Lepeletier de Saint Fargeau, 1845:278, ♀, ♂ (authorship attributed to Klug), junior primary homonym of *Bembex ventralis* Dahlbom, 1844. Syntypes: Chile: no specific locality (M. Spinola collection, Torino). Synonymized with *Bembex brullei* by Handlirsch, 1893c:835.

Bembex emarginata Sichel, 1867:141, ♀. Holotype: ♀, Chile: no specific locality (NHMW). Synonymized with *Bembex brullei* by Handlirsch, 1893c:835.

45. *brunneri* Handlirsch

Bembex brunneri Handlirsch, 1893c:848, ♀, ♂ (as *Brunneri*, incorrect original capitalization). Syntypes: Algeria: Chott Melhir (NHMW). – Dalla Torre, 1897:503 (in catalog of world Sphecidae); Morice, 1911:129 (Algeria: Biskra); Bischoff, 1933:4 (Morocco); Giner Mar6, 1945e:236 (Western Sahara); R. Bohart and Menke, 1976:545 (listed).

46. *bubalus* Handlirsch

Bembex bubalus Handlirsch, 1893c:719, ♀, ♂. Syntypes: South Africa: former Transvaal and Cape Provinces: no specific localities (MHNG, ZMHU). – Dalla Torre, 1897:503 (in catalog of world Sphecidae); Arnold, 1929b:332 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:545 (listed); Gess and Gess, 1989:151 (nesting habits, first case of nest sharing in *Bembix*); Melo, 2000:105 (use of one nest by more than one female); Evans and O'Neil, 2007:183 (summary of information on nesting habits).

47. *budha* Handlirsch

As *Bembex sulphurescens* (corrected to *Bembix budha* by Krombein and van der Vecht, 1987:21): F. Smith, 1856:328 (in catalog of Hymenoptera in British Museum; India: Madras, Punjab); Cameron, 1890:247 (India: Barrackpore, Tirhoot); Bingham, 1896a:445 (references), 1897:287 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); Maxwell-Lefroy, 1909:209 (nesting).

Bembex budha Handlirsch, 1893c:782, ♀, ♂ (as *Budha*, incorrect original capitalization). Lectotype: ♀, India: no specific locality, presumably India: West Bengal: Barrackpore, designated by Krombein and van der Vecht, 1987:21 (NHMW). – Handlirsch, 1895:1054 (listed); Bingham, 1897:287 (original description translated into English, as *buddha*); Dalla Torre, 1897:503 (in catalog of world Sphecidae, as *buddha*, misspelling or emendation). –

As *Bembix budha*: Lohrmann, 1948:449 (member of *sulfurescens* species group of *Bembix*); R. Bohart and Menke, 1976:545 (listed); van der Vecht, 1980:401 (translucent area on scapal venter); Krombein and van der Vecht, 1987:8 (Maxwell-Lefroy's, 1909:209, observations reported), 21 (revision; India); Dollfuss, 1989:7 (lectotype in NHMW, as *buddha*).

48. *buettikeri* Guichard

Bembix buettikeri Guichard, 1989a:148, ♂. Holotype: ♂, Saudi Arabia: Mibhil (depository not indicated). – Gadallah and Assery, 2004a:229 (in catalog of Sphecidae of Saudi Arabia).

49. *bulloni* Giner Mari

Bembex bulloni Giner Mari, 1945b:383, ♂. Holotype: ♂, Morocco: Western Sahara: El Aiun (MNCN). – Giner Mari, 1945b:363 (Morocco: Western Sahara: El Aiun); de Beaumont, 1953a:174 (Mauritania), 1953c:79 (study of holotype); R. Bohart and Menke, 1976:545 (listed).

50. *buntor* Evans and Matthews

Bembix buntor Evans and Matthews, 1973:87, ♀, ♂. Holotype: ♂, Australia: Western Australia: Bolgart (BMNH). – R. Bohart and Menke, 1976:545 (listed); Cardale, 1985:286 (in catalog of Australian Sphecidae); Evans, 1990:29 (additional locality records), 30 (in key to males of *promontorii* group).

51. *burando* Evans and Matthews

Bembix burando Evans and Matthews, 1973:112, ♀. Holotype: ♀, Australia: Queensland: Cooktown (BISH). – R. Bohart and Menke, 1976:545 (listed); Cardale, 1985:286 (in catalog of Australian Sphecidae).

52. *burraburra* Evans and Matthews

Bembix burraburra Evans and Matthews, 1973:168, ♂. Holotype: ♂, Australia: Western Australia: 15 mi E Yalgoo (ANIC). – R. Bohart and Menke, 1976:545 (listed); Cardale, 1985:286 (in catalog of Australian Sphecidae).

53. *cameroni* Rohwer

Bembyx cameroni Rohwer, 1912:467, ♂. Holotype: ♂, Mexico: Distrito Federal: no specific locality (USNM). – **As *Epibembex cameroni*:** Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera). – **As *Bembix cameroni*:** J. Parker, 1917:99 (in revision of *Bembicini* in America north of Mexico), 1929:123 (in revision of *Stizini* and *Bembicini*); Evans, 1964b:270, 272 (description of larva), 1966d:310 (nesting habits, prey); Evans and Matthews, 1968b:1296 (new status, in revision of North American *Bembix*); R. Bohart and Menke, 1976:545 (listed); Krombein, 1979b:1713 (in catalog of North American Hymenoptera, nesting sites, list of prey); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:665 (in checklist of Mexican Sphecidae).

Bembix festiva J. Parker, 1929:118, ♂. Holotype: ♂, USA: Arizona: Oak Creek Canyon (Kansas Univ.). Synonymized with *Bembix cameroni* by Evans and Matthews, 1968b:1296. – Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*). – **As *Epibembex festiva*:** Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera).

Bembix rohweri Lohrmann, 1948:424 (authorships attributed to Maidl and Klima). Unjustified substitute name for *Bembyx cameroni* Rohwer, incorrectly treated as junior homonym of *cameronis* Handlirsch, 1893. – Lohrmann, 1948:424 (in checklist of recently described *Bembix*), 444 (member of *spinolae* species group of *Bembix*);

54. *cameronis* Handlirsch

Bembex cameronis Handlirsch, 1893:715, ♀, ♂ (as *Cameronis*, incorrect original capitalization). Syntypes: South Africa (ZMHU, NHMW). – Dalla Torre, 1897:503 (in catalog of world Sphecidae, as *cameronii*, misspelling or unjustified emendation); Arnold, 1929b:329 (original description translated into English), 1930:21 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:545 (listed); Gess, 1981:21 (South Africa: 18 km WNW Grahamstown; nesting in friable soils); Gess, 1986:152 (nesting habits); Gess and Gess, 1994:100 (visiting flowers of

Aspalathus linearis); S. Gess, 1996:276, 280, 281, 283, 295 (floral records); Evans and O'Neil, 2007:185 (summary of prey record).

As *Bembex cameronii*: Dalla Torre, 1897.

55. *canescens* (Gmelin)

Apis canescens Gmelin, 1790:... Holotype or syntypes: Caspian Sea area (depository?). – As *Bembix canescens*: R. Bohart and Menke, 1976:545 (listed); Kazenas, 2001b:50 (tentatively in checklist of Sphecidae of Kazakhstan and Central Asia).

56. *capensis* Lepeletier de Saint Fargeau

Bembex capensis Lepeletier de Saint Fargeau, 1845:273, ♂. Holotype: ♂, South Africa: Cape Province: no specific locality (M. Spinola coll.). – F. Smith, 1856:322 (in catalog of Hymenoptera in British Museum); Handlirsch, 1893c:853 (in revision of world Bembicinae); Dalla Torre, 1897:503 (in catalog of world Sphecidae); Cameron, 1910:144 (South Africa: Mpumalanga: Olifants River); Arnold, 1929b:377 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae); Scott in Arnold, 1933a:371 (Ethiopia: Alaba, Das, Higo Samula); Arnold, 1935a:503 (South Africa: Kalahari); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); Gadallah, 2002:63 (in key to Egyptian *Bembix* based on male genitalia). – As *Bembix capensis*: J. Parker, 1929:143 (in revision of Stizini and Bembicini); de Beaumont, 1967b:506 (South Africa: Natal); R. Bohart and Menke, 1976:545 (listed); Gess, 1981:21 (South Africa: 18 km WNW Grahamstown; nesting in friable soils; prey: a tachinid); Gess, 1986:152 (prey); Guichard, 1989a:146 (Saudi Arabia); S. Gess, 1996:281 (floral records); Gadallah, 1997:259 (in revision of Egyptian *Bembix*); Gadallah and Assery, 2004a:230 (in catalog of Sphecidae of Saudi Arabia).

Bembex natalis Dahlbom, 1845:489, ♀. Holotype or syntypes: South Africa: Kwazulu Natal: Port Natal, now Durban (LUND or Stockholm). Synonymized with *Bembex capensis* by Handlirsch, 1893c:853. – F. Smith, 1856:324 (in catalog of Hymenoptera in British Museum).

Bembex doriae Magretti, 1884c:590, ♀, ♂. Syntypes: Eritrea: Khor Gergabb, Khor Cheru, Sebderat (Genova). Synonymized with *Bembex capensis* by Guichard, 1989a:146. – Handlirsch, 1893c:891 (original description copied); Dalla Torre, 1897:504 (in catalog of world Sphecidae); Magretti, 1906:15 (Eritrea); W. Schulz, 1906:197 (redescription of ♀), 1911b:174 (specimen in Genova Museum redescribed). – As *Bembix doriae*: J. Parker, 1929:91 (in revision of Stizini and Bembicini); Guiglia, 1943c:75 (Ethiopia: Gamo Gofa: Sagan – Omo region); Lohrmann, 1948:448 (member of *fuscipennis* species group of *Bembix*); Guiglia, 1950:240 (redescription); R. Bohart and Menke, 1976:546 (listed); Roche and Zalut, 1994:116 (Egypt: Sinai Peninsula). – As *Bembyx doriae*: Priesner, 1958:21 (in revision of Egyptian *Bembix*, possibly a synonym of *Bembix capensis*).

Bembex expansa Gribodo, 1894b:22, ♂. Holotype or syntypes: Erytrea: Saganeiti (GENOVA). Synonymized with *Bembex capensis* by W. Schulz, 1911b:175. – Handlirsch, 1895:1003 (original description copied); Dalla Torre, 1897:504 (in catalog of world Sphecidae). – As *Bembix expansa*: Lohrmann, 1948:448 (member of *fuscipennis* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

Bembex miscella Mercet, 1904a:345, ♀. Holotype: ♀, "Spain", actually South Africa (MNCN). Synonymized with *Bembex capensis* by de Beaumont, 1953c:77. – Mercet, 1904a:355 (in key to Spanish *Bembix*); Giner Marí, 1943a:204 (in Sphecid Fauna of Spain), 1943b:45 (Spain; redescription). – As *Bembix miscella*: Lohrmann, 1948:421 (in checklist of recently described *Bembix*), 453 (member of *oculata* species group of *Bembix*); Ceballos, 1956:385 (in catalog of Hymenoptera of Spain), 1959:230 (in supplement to catalog of Spanish Sphecidae).

Bembix arabica Lohrmann, 1942b:208, ♂. Holotype: ♂, Yemen: Sanaa (Zool. Mus. Hamburg, destroyed in World War II). Synonymized with *Bembex doriae* by Priesner, 1958:21. – Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 448 (member of *fuscipennis* species group of *Bembix*);.

57. *capicola* Handlirsch

Bembex capicola Handlirsch, 1893c:158, ♂. Syntypes: South Africa: Cape Province and "Kaffernland" (NHMW, ZMHU). – Dalla Torre, 1897:503 (in catalog of world Sphecidae); Arnold, 1929b:360 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix capicola***: R. Bohart and Menke, 1976:545 (listed); Gess, 1986:153 (prey).

58. *carinata* F. Smith

Bembex undulata Dahlbom, 1845:487, ♀, junior primary homonym of *Bembex undulata* Spinola, 1839. Holotype or syntypes: ♀, South Africa: Cape Province: no specific locality (LUND).

Bembex carinata F. Smith, 1856:323, ♀. Holotype or syntypes: ♀, South Africa: Western Cape Province: Cape of Good Hope (BMNH). Synonymized with *Bembex undulata* by Dalla Torre, 1897:503. – Handlirsch, 1893c:800 (in revision of world Bembicinae); Dalla Torre, 1897:503 (in catalog of world Sphecidae); Arnold, 1929b:356 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix carinata***: Lohrmann, 1939:142 (member of *melanopa* group); R. Bohart and Menke, 1976:545 (listed).

Bembex venator F. Smith, 1856:323, ♀. Holotype or syntypes: South Africa: Western Cape Province: Cape of Good Hope (BMNH). Tentatively synonymized with *Bembex carinata* by Handlirsch, 1893c:800.

59. *carripan* Evans and Matthews

Bembex carripan Evans and Matthews, 1973:129, ♀. Holotype: ♀, Australia: Western Australia: Meekatharra-Billiluna Pool (SAMA). – R. Bohart and Menke, 1976:545 (listed); Cardale, 1985:286 (in catalog of Australian Sphecidae).

60. *chlorotica* Spinola

Bembex chlorotica Spinola, 1839:469, ♀ (authorship attributed to Klug). Lectotype: ♀, Egypt: probably Saqqâra (ZMB), designated by Ohl, 1999b. – Lepeletier de Saint Fargeau, 1845:276 (in revision of world Hymenoptera); F. Smith, 1856:322 (in catalog of Hymenoptera in British Museum); Radoszkowski, 1887a:44 (China: Tsinghai: Tsaidam region: no specific locality); Handlirsch, 1893c:727 (in revision of world Bembicinae); Dalla Torre, 1897:503 (in catalog of world Sphecidae); Bingham, 1898a:106 (Yemen: Aden); Handlirsch, 1898b:490 (Egypt: Cairo); W. Schulz, 1905b:38 (Algeria: Biskra; Egypt: Helwan); von Schulthess, 1926b:218 (Algeria, Tunisia); Guiglia, 1932d:480 (Libya: Gialo), 1934b:298 (Libya: bibliography and summary of locality records); Roth, 1934b:186 (Algeria); Honoré, 1942:61 (in list of Egyptian Sphecidae); Giner Mari, 1947:26 (Western Sahara); de Beaumont, 1952e:46 (type material not found in Spinola collection); Shalaby, 1961:226 (Saudi Arabia: El Riyadh); Gadallah, 2002:65 (in key to Egyptian *Bembix* based on male genitalia). – **As *Bembyx chlorotica***: Priesner, 1958:13 (in revision of Egyptian *Bembix*). – **As *Bembix chlorotica***: Lohrmann, 1948:451 (member of *chlorotica* species group of *Bembix*); de Beaumont, 1962c:222 (Arabia: Riyadh); R. Bohart and Menke, 1976:545 (listed); Guichard, 1989a:144 (Arabian Peninsula), 1991a:339 (Jordan); Roche and Zalat, 1994:116 (Egypt: Sinai Peninsula); Gadallah, 1997:258 (in revision of Egyptian *Bembix*); Gadallah and Assery, 2004a:230 (in catalog of Sphecidae of Saudi Arabia).

61. *chopardi* Berland

Bembex chopardi Berland, 1950:297, ♀, ♂ (as *Chopardi*, incorrect original capitalization). Holotype: ♂, Niger: Agadez (MNH). – Gadallah, 2002:65 (in key to Egyptian *Bembix* based on male genitalia). – **As *Bembyx chopardi***: Priesner, 1958:25 (in revision of Egyptian *Bembix*; Egypt, Arabia). – **As *Bembix chopardi***: R. Bohart and Menke, 1976:545 (listed); Guichard, 1980:230 (Oman); Roche, 1981:4 (in checklist of Sphecidae of United Arab Emirates); Guichard, 1989a:142 (Arabian Peninsula); Gadallah, 1997:265 (in revision of Egyptian *Bembix*); Gadallah and Assery, 2004a:230 (in catalog of Sphecidae of Saudi Arabia).

62. *ciliciensis* de Beaumont

Bembix ciliciensis de Beaumont, 1967a:295, ♂, ♀. Holotype: ♂, Turkey: Maras: Maras area (BMNH). – R. Bohart and Menke, 1976:545 (listed); Ljubomirov and Yildirim, 2008:117 (in catalog of Crabronidae of Turkey).

63. *cinctella* Handlirsch

Bembix cinctella Handlirsch, 1893c:721, ♀, ♂. Syntypes: Albania, Greece: no specific localities (depository not indicated). – Dalla Torre, 1897:503 (in catalog of world Sphecidae); Nadig, 1933:87 (Morocco: Asni, Ifrane); de Beaumont, 1960a:9 (Greece: Island of Rhodes), 1961c:47 (Greece: Island of Crete), 1965a:23 (Greece), 1967a:294 (Turkey; diagnostic characters). – **As *Bembix cinctella***: Lohrmann, 1948:451 (member of *cinctella* species group of *Bembix*); Balthasar, 1972:376 (in Sphecid Fauna of Czechoslovakia: may be expected in the country; R. Bohart and Menke, 1976:545 (listed); Guichard, 1978:270 (Greece); Schmidt and Westrich, 1983:124 (Greece); Gayubo, Borsato, and Osella, 1992:289 (Greece, Turkey); Shoreenko, 2003:97 (Ukraine: Crimea); Gayubo and Özbek, 2005:22 (Turkey: Erzincan: Üzümlü); Shoreenko, 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve, as *cinctella cinctella*); Ljubomirov and Yildirim, 2008:117 (in catalog of Crabronidae of Turkey).

ssp. *enslini* Bytinski-Salz

Bembix cinctella enslini Bytinski-Salz in de Beaumont and Bytinski-Salz, 1955:44, ♀, ♂. Holotype: ♂, Jordan: Jericho (H. Bytinski-Salz coll., now Tel Aviv Univ.). – R. Bohart and Menke, 1976:545 (listed).

64. *cinerea* Handlirsch

Bembix cinerea Handlirsch, 1893c:837, ♀, ♂. Syntypes: USA: Georgia: no specific locality (NHMW, MHNG). – Coquillett, 1895:236 (nesting habits); W. Fox, 1895d:361 (in revision of North American Bembicini); Dalla Torre, 1897:503 (in catalog of world Sphecidae); Ashmead, 1899d:239 (in checklist of North American Crabronidae); Brimley, 1942:36 (North Carolina: mouth of Cape Fear River). – **As *Epibembix cinerea***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera); Krombein and Evans, 1954:235 (Florida). – **As *Bembix cinerea***: J. Parker, 1917:84 (in revision of Bembicini in America north of Mexico), 1929:98 (in revision of Stizini and Bembicini); Lohrmann, 1948:446 (member of *cinerea* species group of *Bembix*); Krombein and Evans, 1955:233 (Florida; nesting habits, prey); Evans and Lin, 1956b:59 (description of larva); Evans, 1957c:78 (study of behavior); Evans and Matthews, 1968b:1293 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:545 (listed); Ahlstrom, 1995:113 (in checklist of insects of North Carolina); Krombein, 1979b:1711 (in catalog of North American Hymenoptera, nesting sites, list of prey).

65. *citripes* Taschenberg

Bembix citripes Taschenberg, 1870:19, ♀, ♂. Syntypes: Argentina: Mendoza (Halle). – Burmeister, 1874:127 (in revision of Bembicini of Argentina); Handlirsch, 1893c:834 (in revision of world Bembicinae); Dalla Torre, 1897:503 (in catalog of world Sphecidae); Schrottky, 1903b:177 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay); Jörgensen, 1912:290 (Argentina: Mendoza Province, floral records); Schrottky, 1913a:231 (Argentina: Córdoba, Mendoza, Patagonia). – **As *Bembix citripes***: Willink, 1947:583 (in revision of Bembicini of Argentina); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*); Llano, 1959:96 (nest and prey, metamorphosis); Evans and Matthews, 1974:133 (nesting habits); R. Bohart and Menke, 1976:545 (listed); Genise, 1982c:93 (nesting habits); Fritz, 1982:14 (Argentina: Corrientes: Ituzaingo); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Evans, 2002a:3 (preying mainly on Diptera, occasionally on non-Diptera); Evans and O'Neil, 2007:172 (summary of information on nesting habits).

Bembix inops Handlirsch, 1893c:833, ♀, ♂. Syntypes: Uruguay: Montevideo; Argentina: Buenos-Aires and Rio Grande do Sul (NHMW, ZMHU, ZSBS). Synonymized with *Bembix citripes* by Willink, 1947:583 and 586. – Dalla Torre, 1897:506 (in catalog of world Sphecidae); Schrottky, 1903b:177 (in checklist of Hymenoptera of Argentina, Paraguay, and Uruguay), 1909b:250 (Argentina: Catamarca), 1913a:231 (Argentina, Uruguay). – **As *Bem-***

bix inops: J. Parker, 1929:133 (in revision of Stizini and Bembicini); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*);

Bembix inopides Strand, 1910a:150, ♀. Syntypes: ♀, Paraguay: Asunción: Asunción and Villa Morra (ZMHU). Synonymized with *Bembix citripes* by Fritz, 1962:62. – Lohrmann, 1948:424 (in checklist of recently described *Bembix*), 444 (member of *spinolae* species group of *Bembix*).

Bembix gradilis J. Parker, 1929:122, ♂. Holotype: ♂, Argentina: Corrientes: Paso del Libres (Cornell Univ.). Synonymized with *Bembix citripes* by Willink, 1947:583 and 586. – Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*).

Bembix bahiae J. Parker, 1929:138, ♂. Holotype: ♂, Argentina: Bahía Blanca (USNM). Synonymized with *Bembix citripes* by Willink, 1947:584 and 586. – Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*).

Bembix subcitripes Willink, 1947:588, ♂. Holotype: ♂, Argentina: Río Negro: Valcheta (Mus. La Plata). Synonymized with *Bembix citripes* by Fritz, 1962:62.

66. *clypealis* Guichard

Bembix clypealis Guichard, 1989a:142, ♀. Holotype: ♀, Algeria: Tamanrasset (BMNH). Paratypes: Israel, Saudi Arabia. – Gadallah and Assery, 2004a:230 (in catalog of Sphecidae of Saudi Arabia).

67. *comantis* J. Parker

Bembix comantis J. Parker, 1929:131, ♂. Holotype: ♂, Brazil: Rio de Janeiro (CMP). – Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*); Amarante, 2002:8 (in catalog of Neotropical Crabronidae). Not listed by R. Bohart and Menke (1976).

68. *compedita* R. Turner

Bembix kohli R. Turner, 1912c:415, ♂, ♀, junior primary homonym of *Bembex kohlii* Morice, 1897. Syntypes: Malawi: Blantyre and Mlanji Boma (BMNH).

Bembex compedita R. Turner, 1913:746. Substitute name for *Bembex kohli* R. Turner, 1912. – Arnold, 1929b:375 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae). – As ***Bembix compedita***: Lohrmann, 1948:448 (member of *fuscipennis* species group of *Bembix*, as *combedita*); R. Bohart and Menke, 1976:546 (listed).

69. *cooba* Evans and Matthews

Bembix cooba Evans and Matthews, 1973:171, ♀, ♂. Holotype: ♂, Australia: New South Wales: Packsaddle Mt. 11 mi N Broken Hill (ANIC). – Evans and Matthews, 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:546 (listed); Cardale, 1985:286 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:197 (summary of information on nesting habits).

70. *coonundura* Evans and Matthews

As *Bembix* sp.: Wheeler and Dow, 1933:59 (prey), corrected to *Bembix coonundura* by Evans and Matthews, 1973:150
As *Bembix atrifrons*: Evans, 1966:357 (prey: damselfly) and 488 (prey: damselfly), corrected to *Bembix coonundura* by Evans and Matthews, 1973:150.

Bembix coonundura Evans and Matthews, 1973:150, ♀, ♂. Holotype: ♂, Australia: Western Australia: Yanchep 32 mi N Perth (BMNH). – Evans and Matthews, 1975:111 (prey: damselflies); R. Bohart and Menke, 1976:546 (listed); Cardale, 1985:287 (in catalog of Australian Sphecidae); Evans, 2002a:5 (known to prey on damselflies); Evans and O'Neil, 2007:198 (summary of information on nesting habits).

71. *cultrifera* Arnold

Bembex cultrifera Arnold, 1929b:339, ♂, ♀. Syntypes: Zimbabwe: Bulawayo (SAM). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:546 (listed).

ssp. *ypsilon* Arnold

Bembix cultrifera ypsilon Arnold, 1951:138, ♀. Holotype: ♀, Ethiopia: Ufdem (BMNH). – R. Bohart and Menke, 1976:546 (listed).

72. *cursitans* Handlirsch

Bembex cursitans Handlirsch, 1893c:762, ♀, ♂. Syntypes: New Holland, now Australia: no specific locality (MHNG, ZMHU). – Dalla Torre, 1897:504 (in catalog of world Sphecidae); R. Turner, 1910a:351 (Australia: South Perth), 1915e:443 (in revision of Australian *Bembix*). – **As *Bembix cursitans***: Evans and Matthews, 1973:122 (in revision of Australian *Bembix*), 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:546 (listed); Cardale, 1985:287 (in catalog of Australian 194phecidae); in revision of Australian *Bembix*; Evans and O'Neil, 2007:194 (summary of information on nesting habits).

73. *dahlbomii* Handlirsch

Bembex dahlbomii Handlirsch, 1893:806, ♀, ♂ (as *Dahlbomii*, incorrect original capitalization). Syntypes: Algeria: Biskra; Tunisia: Tunis; Sudan: Kordofan; Erytrea: Assab, now Aseb; also: Cosseir and Webi River (NHMW, TMB, Napoli, Stuttgart). – Dalla Torre, 1897:504 (in catalog of world Sphecidae); W Fox, 1896e:552 (Ethiopia: Milmil); Bingham, 1898a:106 (Yemen: Aden); Kohl, 1906a:214 (Yemen: Aden, Ras Fartak); Morice, 1911:130 (Algeria: Azazga to Tizi Ouzou, Biskra); Maidl, 1913:561 (Egypt: El Wasta), 1924:240 (Sudan); Kruger, 1929a:21 and 1929b:56 (Libya: Cyrenaica: Giarabub); Guiglia, 1932b:100 (Libya: Fezzan: Murzuk), 1932d:479 (Libya: Cufra, Gialo), 1934b:298 (Libya: bibliography and summary of locality records); Roth, 1934b:186 (Algeria); Guiglia, 1936:4 (Libya: Gialo, Gicherra, Marada, Murzuk, Tazerbo in Cufra oasis, Tegerhi); Rungs, 1936:24 (Morocco: Goulmina); Honoré, 1942:61 (in checklist of Egyptian Sphecidae); Giner Marí, 1945b:363 (Western Sahara: El Aiun), 1945e:236 (Western Sahara), 1947:26 (Western Sahara); de Beaumont, 1950d:8 (Egypt: Siwa oasis), 1951e:272 (Morocco), 1953a:174 (Mauritania), 1956a:194 (Libya: n. Tripolitania); Grandi, 1957:385 (Libya: Wadi Kaam); Gadallah, 2002:63 (in key to Egyptian *Bembix* based on male genitalia). – **As *Bembyx dahlbomii***: Priesner, 1958:24 (in revision of Egyptian *Bembix*). – **As *Bembix dahlbomii***: Guiglia, 1939c:184 (Libya: Fezzan: Bir Tahala, Tan Ataram, Tin Alcun, Tunin), 1940a:286 (Libya: Gadames), 1942b:231 (Libya); de Beaumont and Bytinski-Salz, 1955:48 (Israel); Krombein, 1974b:451 (Egypt: Gebel 'Uweinat); R. R. Bohart and Menke, 1976:546 (listed); Roche, 1981:4 (in checklist of Sphecidae of United Arab Emirates); Al-Houty, 1989:158 (Kuwait: Erifjan, Sulabiya); Guichard, 1989a:144 (Arabian Peninsula); Roche and Zalut, 1994:119 (Egypt: Sinai Peninsula); Gadallah, 1997:265 (in revision of Egyptian *Bembix*); Gadallah and Assery, 2004a:219 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 230 (in catalog of Sphecidae of Saudi Arabia).

As *Bembex olivacea*: Magretti, 1884c:590 (Sudan), corrected to *Bembex dahlbomii* by Handlirsch, 1893:807.

As *Bembex notata*: Gribodo, 1884c:387 (Eritrea: Assab), corrected to *Bembex dahlbomii* by Handlirsch, 1893c:806.

? *Bembex glauca* Dahlbom, 1845:191, ♀, ♂, junior primary homonym of *Bembex glauca* Fabricius, 1787. Syntypes: India and Egypt: no specific localities (Lund or Stockholm). Tentatively synonymized with *Bembex dahlbomii* by Handlirsch, 1893:806.

ssp. *sabulosa* Bytinski-Salz

Bembix dahlbomii sabulosa Bytinski-Salz in de Beaumont and Bytinski-Salz, 1955:48, ♂, ♀. Holotype: ♂, Israel: Bat Yam (H. Bytinski-Salz coll., now Tel Aviv Univ.). – R. R. Bohart and Menke, 1976:546 (listed).

74. *denticauda* Arnold

Bembix denticauda Arnold, 1946:91, ♂, ♀. Syntypes: Zimbabwe: Melsetter, now Chimanimani (SAM). – R. Bohart and Menke, 1976:546 (listed).

75. *dentilabris* Handlirsch

Bembex dentilabris Handlirsch, 1893c:794, ♀. Holotype: ♀, Mexico: Baja California Sur: Cabo San Lucas (Lübeck Mus.). – Dalla Torre, 1897:504 (in catalog of world Sphecidae). – **As *Epibembex dentilabris***: Burks in Muesebeck

et al., 1951:1000 (new combination, listed). – **As *Bembix dentilabris***: Evans and Matthews, 1968b:1289 (incorrectly treated as nomen oblitum); R. Bohart and Horning, 1971:9 (in revision of California Bembicini); R. Bohart and Menke, 1976:546 (listed); Amarante, 2002:8 (in catalog of Neotropical Crabronidae, incorrectly regarded as nomen oblitum); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Ohl and Linde, 2003:150 (number of ovarioles); Evans and O'Neil, 2007:164 (summary of information on nesting habits).

Bembex u-scripta W. Fox, 1895d:362, ♀, ♂ (as *U-scripta* incorrect original capitalization). Lectotype: ♂, USA: Arizona: Tucson (ANSP), designated by Cresson, 1928:46. Synonymized with *Bembix dentilabris* by Evans and Matthews, 1968:1289. – Ashmead, 1899d:239 (in checklist of North American Crabronidae). – **As *Epibembex u-scripta***: Burks in Muesebeck et al., 1951:1000 (new combination, in catalog of North American Hymenoptera). – **As *Bembix u-scripta***: J. Parker, 1917:83 (in revision of Bembicini in America north of Mexico), 1929:97 (in revision of Stizini and Bembicini); Lohrmann, 1948:445 (member of *arcuata* species group of *Bembix*); Evans, 1957c:104 (study of behavior), 1958e:452 (behavioral evolution), 1959b:155 (description of larva), 1961a:45 (nesting habits, male behavior), 1964b:270 (additional description of larva), 1966d:317 (nesting habits); Evans and Matthews, 1968b:1289 (in revision of North American *Bembix*); Cazier and Linsley, 1974:16 (visiting flowers of *Kallstroemia grandiflora* (Torrey) Gray, Zygophyllaceae, in Arizona and New Mexico), 1975:252 (visiting flowers of *Kallstroemia grandiflora* in New Mexico); Hurd and Linsley, 1975:116 (New Mexico: Dona Ana County: Las Cruces; on flowers of *Larrea tridentata* (De Candolle) Coville, Zygophyllaceae); R. Bohart and Menke, 1976:627 (listed); Krombein, 1979b:1709 (in catalog of North American Hymenoptera, nesting sites, list of prey); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae).

Bembix arcuata J. Parker, 1917:81, ♀, ♂. Holotype: sex not indicated, USA: Texas: Cotulla (USNM), see Cockerell, 1918:60. Synonymized with *Bembix u-scripta* by Evans and Matthews, 1968:1289. – Mickel, 1917:286 (USA: Nebraska); Mickel, 1918b:440 (in catalog of Nebraskan Sphecidae); J. Parker, 1929:96 (in revision of Stizini and Bembicini); Lohrmann, 1948:445 (member of *arcuata* species group of *Bembix*); LaBerge, 1956:526 (allotype in Snow Entomological Museum). – **As *Epibembex arcuata***: Burks in Muesebeck et al., 1951:998 (new combination, in catalog of North American Hymenoptera).

76. *dilatata* Radoszkowski

Bembex dilatata Radoszkowski, 1877:47, ♂. Syntypes: Uzbekistan: Tashkent and Karakazuk (ZMMU). – Handlirsch, 1893c:714 (in revision of world Bembicinae); F. Morawitz, 1893b:423 (redescription, Tajikistan); Dalla Torre, 1897:504 (in catalog of world Sphecidae); F. Morawitz, 1897a:152 (description of ♀); Bischoff, 1930:218 (Tajikistan: Pamir; description of ♀). – **As *Bembix dilatata***: R. Bohart and Menke, 1976:546 (listed); Kazenas, 1978b:86, 89 (in key to Sphecidae of Kazakhstan and Central Asia); Nazarova and Baratov, 1981:99 (Tajikistan: Beshkent valley); Nazarova, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:130 (geographic distribution, collecting localities in Kazakhstan), 2004b:111 (Kazakhstan: western Tien Shan).

77. *diversidens* Arnold

Bembix diversidens Arnold, 1946:95, ♂. Holotype: ♂, Zambia: Abercorn, now Mpala (SAM). – **As *Bembix diversidens***: R. Bohart and Menke, 1976:546 (listed).

78. *diversipennis* F. Smith

Bembex diversipennis F. Smith, 1873c:297, ♀, ♂. Syntypes: Angola: no specific locality (BMNH). – Radoszkowski, 1881:207 (Angola); Handlirsch, 1893c:786 (in revision of world Bembicinae); Dalla Torre, 1897:504 (in catalog of world Sphecidae); Magretti, 1899:605 (Somalia: Lugh at 3°48'N 42°33'); Bingham, 1902:210 (South Africa: Pretoria); R. Turner, 1912g:373 (Angola, Zimbabwe, Ethiopia); Arnold, 1929b:346 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:96 (Zaire); Scott in Arnold,

1933a:371 (Ethiopia: Harar District). – **As *Bembix diversipennis***: J. Parker, 1929:139 (in revision of Stizini and Bembicini; Togo); Lohrmann, 1948:446 (member of *diversipennis* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

Bembix tenebrosa J. Parker, 1929:90, ♂, ♀. Holotype: ♂, German East Africa, now Tanzania: no specific locality (ZMHU). Synonymized with *Bembex johnstoni* by Arnold, 1931:214, and with *Bembix diversipennis* by Arnold, 1960a:465. – J. Parker, 1942:205 (valid species).

79. *diversipes* F. Morawitz

Bembex diversipes F. Morawitz, 1889a:138, ♂. Holotype: ♂, China: Gansu: Nanpin (ZIN). – Handlirsch, 1893c:711 (in revision of world Bembicinae); F. Morawitz, 1893b:423 (Turkestan: Serbent); Dalla Torre, 1897:504 (in catalog of world Sphecidae); de Beaumont, 1957b:135 (n. Iran), 1967a:294 (Turkey); Tsuneki, 1971k:208 (Mongolia), 1971m:8 (China: Inner Mongolia: Apaka) – **As *Bembix diversipes***: R. Bohart and Menke, 1976:546 (listed); Kazenas, 1978b:89 (in key to Sphecidae of Kazakhstan and Central Asia); Nemkov, 1986:108 (Russia: Siberia: Irkutsk Oblast'; determination tentative), 1990c:83 (Russia: Buryat Republic: Kyakhta); Kazenas *in* Nemkov, Kazenas, Budryś, and Antropov, 1995:466 (in key to Sphecidae of Russian Far East); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:131 (geographic distribution, collecting localities in Kazakhstan); Gayubo and Özbek, 2005:23 (Turkey: many localities); Yildirim and Ljubomirov, 2005:1790 (Turkey: Bitlis: Adilcevaz; Erzurum: Konaklı); Hua, 2006:277 (in list of Chinese insects, geographic distribution); Yildirim and Ljubomirov, 2007:118 (Turkey: Erzurum: Oltu); Ljubomirov and Yildirim, 2008:118 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:25 (in catalog of Crabronidae of Asiatic Russia), 2009b:142 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia).

80. *dubia* Gussakovskij

Bembex dubia Gussakovskij, 1933b:293, ♂, ♀. Syntypes: Iran: Kerman: Anarik; Khorassan: Sultan Suleyman; Mugan: Altan; Armenia: Akhty; Tajikistan: Varzaminor (ZIN). – Balthasar, 1954b:277 (Palestine: Jerusalem). – **As *Bembix dubia***: Lohrmann, 1948:421 (in checklist of recently described *Bembix*), 450 (member of *integra* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia).

81. *eburnea* Radoszkowski

Bembex eburnea Radoszkowski, 1877:49, ♂. Holotype or syntypes: ♂, Uzbekistan: Samarkand (ZMMU). – Handlirsch, 1893c:722 (in revision of world Bembicinae); Radoszkowski, 1893a:66 (Turkmenistan); Dalla Torre, 1897:504 (in catalog of world Sphecidae); Gussakovskij, 1933b:293 (Iran: Kerman: Galichakh-Dakido; Duzab S Gurmuk), 1935:444 (Tajikistan: Kulab). – **As *Bembix eburnea***: Lohrmann, 1948:451 (member of *cinctella* species group of *Bembix*); de Beaumont, 1961b:273 (Afghanistan; diagnostic characters); Tsuneki, 1971m:7 (China: Inner Mongolia: Apaka); R. Bohart and Menke, 1976:546 (listed); Kazenas, 1978b:90 (in key to Sphecidae of Kazakhstan and Central Asia); Nazarova and Baratov, 1981:99 (Tajikistan: Garavuty, Tigrovaya Balka Nature Reserve, near Kabadian, Kulyab Oblast'); Nazarova, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:131 (geographic distribution, collecting localities in Kazakhstan); Yildirim and Ljubomirov, 2005:1790 (Turkey: Konya: Güneysınır, description of ♀); Ebrahimi, 2006:1 (Iran); Ljubomirov and Yildirim, 2008:118 (in catalog of Crabronidae of Turkey).

As *Bembix weberi*: Tsuneki, 1969d:5 (nesting habits), corrected to *Bembix eburnea* by Tsuneki, 1971m:7; Evans and O'Neil, 2007:178 (summary of Tsuneki, 1969d:5, data).

82. *egens* Handlirsch

Bembex egens Handlirsch, 1893c:753, ♂. Holotype: ♂, Australia: no specific locality (NHMW or BMNH). – Dalla Torre, 1897:504 (in catalog of world Sphecidae); R. Turner, 1915e:438 (in revision of Australian *Bembix*); Evans

and Matthews, 1973:228 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:546 (listed); Cardale, 1985:287 (in catalog of Australian Sphecidae).

83. *eleebana* Evans and Matthews

Bembix eleebana Evans and Matthews, 1973:85, ♀. Holotype: ♀, Australia: New South Wales: Dorrigo (ANIC). – R. Bohart and Menke, 1976:546 (listed); Cardale, 1985:287 (in catalog of Australian Sphecidae).

84. *eucla* Evans

Bembix eucla Evans, 1990:27, ♂. Holotype: ♂, Australia: Western Australia: Weebubbe Cave area WNW Eucla (Queensland Mus., Brisbane). – Evans, 1990:30 (in key to males of *promontorii* group).

85. *fantiorum* Arnold

Bembix fantiorum Arnold, 1951:135, ♂, ♀. Syntypes: Ghana: Labadi; Senegal: Kaolack; Mali: Tillembeya (BMNH). – R. Bohart and Menke, 1976:546 (listed).

86. *filipina* Lohrmann

Bembix filipina Lohrmann, 1942b:210, ♀. Holotype: ♀, Philippines: no specific locality (Zool. Mus. Hamburg, destroyed in World War 2). – Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 450 (only member of *filipina* species group of *Bembix*); Baltazar, 1966:350 (in catalog of Hymenoptera of Philippines); R. Bohart and Menke, 1976:546 (listed); Tsuneki et al., 1992c:32 (in key to *Bembix* of Philippines), 38 (bibliographic references).

87. *finschii* Handlirsch

Bembex finschii Handlirsch, 1893c:845, ♂ (as *Finschii*, incorrect original capitalization). Holotype: ♂, Papua New Guinea: Port Moresby (ZMHU). – Dalla Torre, 1897:504 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:546 (listed).

88. *fischeri* Spinola

Bembex fischeri Spinola, 1839:470, ♀ (as *Fischeri*, incorrect original capitalization). Holotype: ♀, Egypt: no specific locality (Torino). – F. Smith, 1856:322 (in catalog of Hymenoptera in British Museum); Handlirsch, 1893c:871 (in revision of world Bembicinae); Dalla Torre, 1897:504 (in catalog of world Sphecidae); Guiglia, 1932d:479 (Libya: Cufra, 1934b:298 (Libya: bibliography and summary of locality records); Shalaby, 1961:226 (Saudi Arabia: Jeddah); de Beaumont, 1952e:46 (study of holotype); Gadallah, 2002:63 (in key to Egyptian *Bembix* based on male genitalia). – **As *Bembyx fischeri***: Priesner, 1958:18 (in revision of Egyptian *Bembix*). – **As *Bembix fischeri***: R. Bohart and Menke, 1976:546 (listed); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); Guichard, 1989a:144 (Baluchistan, Morocco, Saudi Arabia); Gadallah, 1997:258 (in revision of Egyptian *Bembix*), Ohl, 1999b:245 (specimens in ZMB incorrectly labeled as Spinola's types, one of them incorrectly regarded as type by Handlirsch, 1893c:871); Gadallah and Assery, 2004a:219 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 230 (in catalog of Sphecidae of Saudi Arabia).

Bembex nasuta Morice, 1897:314, ♂. Holotype: ♂, Egypt: Cairo area (OXUM). Synonymized with *Bembex fischeri* by de Beaumont, 1956a:194. – **As *Bembix nasuta***: Lohrmann, 1948:421 (in checklist of recently described *Bembix*), 452 (member of *rostrata* species group of *Bembix*); Gadallah, 1997:266 (in revision of Egyptian *Bembix*, as valid species).

***ssp. tibesti* de Beaumont**

Bembix fischeri tibesti de Beaumont, 1956a:193, ♀, ♂. Holotype: ♀, Chad: Tibesti: Dourzo (BMNH). – R. Bohart and Menke, 1976:546 (listed).

89. *fischeroides* Magretti

Bembex fischeroides Magretti, 1892:958, ♂ (as *Fischeroides*, incorrect original capitalization). Holotype: ♂, Somalia: Uebi River (Genova). – Handlirsch, 1893c:893 (original description copied); Dalla Torre, 1897:504 (in catalog of

world Sphecidae); W. Schulz, 1911b:174 (type not found in Genova Museum). – **As *Bembix fischeroides***: R. Bohart and Menke, 1976:546 (listed).

90. *flavescens* F. Smith

NOTE. According to R. Bohart and Menke (1976:546), *Bembix flavescens* Lichtenstein, 1796, a senior primary homonym of *Bembix flavescens* F. Smith, 1856, was published as a new species, but it was apparently a new combination for the Indian *Vespa flavescens* Fabricius, 1775. Also, it is an auction catalog name and may not be available.

Bembix flavescens F. Smith, 1856:321, ♂. Holotype or syntypes: ♂, Spain: Canary Islands: Tenerife (BMNH). – Handlirsch, 1893c:862 (in revision of world Bembicinae); nec Nadig, 1933:87 (= *Bembix flavescens citrina*; Bischoff, 1937b:2 (Canary Islands); Giner Marí, 1945b:361 (Canary Islands: Gran Canaria: El Carrizal); de Beaumont, 1954b:2 (Canary Islands). – **As *Bembix flavescens***: J. Parker, 1929:121 (in revision of Stizini and Bembicini); de Beaumont 1957e:609 (Canary Islands), 1968a:257 (Canary Islands: Gran Canaria, Tenerife); Simon Thomas, 1969a:120 (Canary Islands: Tenerife; prey); R. Bohart and Menke, 1976:546 (listed); Báez and Ortega, 1978:192 (Canary Islands); Erlandsson, 1978a:205 (Canary Islands); Pagliano, 1980:118 (Italy: Sicilia); Wolf, 1980:72 (Canary Islands); Radović, Krunić and Brajković, 1982:28 (Yugoslavia); Pagliano, 1990:76 (in catalog of Italian Sphecidae); Hohmann, La Roche, Ortega, and Barquin, 1993:252 (detailed locality records from Canary Islands); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:272 in key to European Sphecidae); Gadallah, 2002:65 (in key to Egyptian *Bembix* based on male genitalia); Schmid-Egger, 2003:750 (recognition characters); Ljubomirov, 2008:256 (known from La Palma, Canary Islands, as *flavescens flavescens*).

ssp. algeriensis Lohrmann (preoccupied)

Bembix algeriensis Lohrmann, 1942:156, ♀, junior primary homonym of *Bembix algeriensis* W. Schulz, 1905. Syntypes: Algeria: Haassi Babah (NHMW). – Lohrmann, 1948:421 (in checklist of recently described *Bembix*); Dollfuss, 1989:7 (lectotype in NHMW). – **As *Bembix flavescens algeriensis***: de Beaumont, 1957e:613 (new status; Alger high plateaus); R. Bohart and Menke, 1976:546 (listed, as synonym of *Bembix flavescens bolivari*).

ssp. bolivari Handlirsch

Bembix bolivari Handlirsch, 1893:860, ♂, ♀ (as *Bolivari*, incorrect original capitalization). Syntypes: France; Sicily; Spain: Barcelona; Algeria, Morocco: Mogador; Tunisia (NHMW, ZMHU, Hamburg, Napoli, IRSN). – Dalla Torre, 1897:502 (in catalog of world Sphecidae); Antiga and Bofill, 1904:19 (Spain: Cataluña Province); Mercet, 1904a:353, 356 (in key to Spanish species); de Gaulle, 1908:120 (in catalog of Hymenoptera of France); Berland, 1925d:71 (in Sphecid Fauna of France); Coulon, 1925:118 (Spain); Picard, 1930:42 (France: Hérault: Palavas, Sète); Dusmet y Alonso, 1931:8 (Portugal: Mata da Trafaria); Bischoff, 1933:4 (Morocco); Giner Marí, 1934:132 (Spain); Bernard, 1936c:288 (France: Hérault: Valras); Rungs, 1936:23 (Morocco: Rabat beach); Guiglia, 1941c:163 (Italy: Calabria: Grande Sila); Giner Marí, 1943a:204 (in Sphecid Fauna of Spain), 1943b:43 (Spain; re-description); Timon-David, 1943:29, 30 (France: Bouches-du-Rhône: plage de Fos); Guiglia, 1944b:17 (Italy); Giner Marí, 1945e:237 (Western Sahara); Deleurance, 1946b:62 (prey, nest internal closure), 67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); de Andrade, 1949:19 (Portugal); de Beaumont, 1950f:397 (Algeria); Hertzog, 1954:100 (France: Bouches-du-Rhône: Camargue); Harant and Leclercq, 1955:251 (France: Hérault: Castelnaud, Grammont, Palavas-les-Flots, as *borivari*); Ceballos, 1956:385 (in catalog of Hymenoptera of Spain); Morel, Nouvel, and Ribaut, 1956:338 (France: Département des Pyrénées-Orientales); Diniz, 1959:30 (Portugal: 10 localities). – **As *Bembix turca bolivari***: Diniz, 1973:48 (new subspecific combination, Portugal: seventeen localities). – **As *Bembix flavescens bolivari***: de Beaumont, 1957e:617 (new status, recognition characters), 1962b:22 (Spain); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); Suárez, 1969:29 (Spain: Almería Province); Simon Thomas, 1972:180 (France: Landes); Gayubo, 1882e:108 (Spain: Cádiz Province), 1984c:380 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:22 (Spain: Valencia); Chevin and Chevin, 1985:39 (France: Aude);

Eiroa and Novoa, 1985:23 (Spain: Pontevedra: Barra beach near Cangas); Gayubo and Heras, 1986:64 (Spain: Segovia Province; floral records); Tormos and Jiménez, 1987a:126 (Spain: Valencia), 1987b:317 (Spain: Valencia Province: Dehesa de El Saler); Asís and Jiménez, 1988:275 (Spain: Castellón Province); Asís, Gayubo, and Tormos, 1989b:314 (description of larva); Dollfuss, 1989:7 (lectotype in NHMW); Gayubo, Asís, and Tormos, 1990b:79 (Spain); Asís, Gayubo, and Tormos, 1992:222 (nest, prey record); Pagliano, 1992:47, 48 (in key to Italian Bembicinae); Negrisoló *in* Minelli, Ruffo, and La Posta, 1995b:3 (in catalog of Italian fauna: Sardinia only); Gonzáles, Gayubo, and Torres, 1998:74, 75 (Spain: Valladolid Province), 1999:356 (Spain: Valladolid: Viana de Cega); Drewes, 2003:133 (Spain: Tarragona); Schmid-Egger, 2003:750 (Italy: Sicilia:Ragusa, discussion of subspecies identity); Pagliano and Negrisoló, 2005:188 (in Sphecid Fauna of Italy); Evans and O'Neil, 2007:173 (summary of information on nesting habits); Gayubo, González, Tormos, and Asís, 2009:365 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero).

ssp. *citrina* Mercet

Bembix citrina Mercet, 1905b:353, ♂, ♀. Syntypes: Morocco: Tanger and Mogador (MNCN). – Giner Marí, 1947:27 (Morocco: Western Sahara). – **As *Bembix citrine***: Lohrmann, 1948:421 (in checklist of recently described *Bembix*), 453 (member of *oculata* species group of *Bembix*); de Beaumont, 1951e:273 (Atlantic coast of Morocco). – **As *Bembix turca citrina***: de Beaumont, 1953c:79 (new status). – **As *Bembix flavescens citrina***: de Beaumont, 1957e:612 (new subspecific combination); R. Bohart and Menke, 1976:546 (listed).

As *Bembex radoszkowskyi*: W. Schulz, 1905b:19 (Morocco: Tanger area), corrected to *Bembix citrina* by de Beaumont in MS.

As *Bembex flavescens*: Nadig, 1933:87 (coastal Morocco), present correction based on geographic distribution.

ssp. *fonti* Mercet

Bembex fonti Mercet, 1905a:342, ♂ (as *Fonti*, incorrect original capitalization). Holotype or syntypes: ♂, Morocco: Río de Oro, now Western Sahara: no specific locality (MNCN). – Giner Marí, 1945b:363 (Western Sahara: El Aiun), 384 (description of ♀), 385 (description of a variety), 1945e:236 (Western Sahara), 1947:27 (Western Sahara). – **As *Bembix fonti***: Lohrmann, 1948:422 (in checklist of recently described *Bembix*, as *fonti*), 1948:453 (member of *oculata* species group of *Bembix*);. – **As *Bembix turca fonti***: de Beaumont, 1953c:79 (new status). – **As *Bembix flavescens fonti***: de Beaumont, 1957e:613 (new subspecific combination); R. Bohart and Menke, 1976:546 (listed).

ssp. *inimica* de Beaumont

Bembex inimica Kohl: Fertou, 1912a:358 (nesting habits), 369 (list of prey). Nomen nudum.

Bembix flavescens inimica de Beaumont, 1957e:614, ♀, ♂. Holotype: ♂, Algeria: La Calle, now El Kala (NHMW). – R. Bohart and Menke, 1976:546 (listed).

ssp. *kittyae* de Beaumont

Bembix flavescens kittyae de Beaumont, 1957e:615, ♂, ♀. Holotype: ♂, Libya: Tripolitania: Gargarese (Lausanne). – Grandi, 1959b:286 (Libya: Tripolitania: Wadi Kaam); de Beaumont, 1960b:236 (Libya), 1966:212 (Egypt: Alexandria area: Abukir, Agami, S Abd el Rahman); R. Bohart and Menke, 1976:546 (listed); Gadallah, 1997:263 (in revision of Egyptian *Bembix*).

As *Bembex turca*, present correction to *Bembix flavescens kittyae* based on geographic distribution: W. Schulz, 1905b:65 (Tunisia: Sfax; redescription); von Schulthess, 1909:442 (Libya: Gherran, Tripoli); Mantero, 1915:326 (Libya); corrected to *Bembix flavescens kittyae* by de Beaumont, 1957e:615; von Schulthess, 1926b:218 (Libya), Guiglia, 1932d:480 (Libya: Bengasi), 1934b:298 (Libya: bibliography and summary of locality records); de Beaumont, 1956a:195 (Libya); Grandi, 1957:386 (Libya: Tripolitania: Wadi Kaam), corrected to *Bembix flavescens kittyae* by Grandi, 1959b:286. – **As *Bembyx turca***: Priesner, 1958:28 (in revision of Egyptian *Bembix*), corrected to *Bembix flavescens* ssp. by Priesner, 1958:36.

ssp. *picturata* Bytinski-Salz

Bembix turca picturata Bytinski-Salz in de Beaumont and Bytinski-Salz, 1955:49, ♀, ♂. Holotype: ♂, Israel: Bat Yam (H. Bytinski-Salz coll., now Tel Aviv Univ.). – **As *Bembyx flavescens picturata***: Priesner, 1958:29, 36 (in revision of Egyptian *Bembix*). – **As *Bembix flavescens picturata***: de Beaumont, 1957e:616 (new subspecific combination, recognition, Israel; Lebanon: Beirut; Egypt: Port Said); R. Bohart and Menke, 1976:546 (listed); Roche and Zalut, 1994:116 (Egypt: Sinai Peninsula); Gadallah, 1997:263 (in revision of Egyptian *Bembix*).

91. *flavicincta* Turner

Bembix flavicincta Turner, 1912c:414, ♂, ♀. Syntypes: Zambia: Pakasa, Luangwa Valley; Malawi: W shore of Lake Malawi (BMNH). – Arnold, 1929b:376 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afro-tropical Sphecidae). – **As *Bembix flavicincta***: Lohrmann, 1948:448 (member of *fuscipennis* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed, as *flavocincta*); Gess, 1986:153 (prey).

92. *flavifrons* F. Smith

Bembix flavifrons F. Smith, 1856:324, ♀. Holotype or syntypes: ♀, Australia: no specific locality (BMNH). – A. Costa, 1864a:61 (three specimens from Mexico in Museo Zoologico di Napoli); Froggatt, 1892:223 (in catalog of Australian Hymenoptera); Handlirsch, 1893c:899 (original description translated into German); Dalla Torre, 1897:504 (in catalog of world Sphecidae); R. Turner, 1915e:439 (in revision of Australian *Bembix*). – **As *Bembix flavifrons***: Evans and Matthews, 1973b:36 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:546 (listed); Cardale, 1985:287 (in catalog of Australian Sphecidae).

Bembix saussurei Handlirsch, 1893c:873, ♀ (as *Saussurei*, incorrect original capitalization). Syntypes: Australia: South Australia: Adelaide; and Queensland: Port Denison (ZMHU, Lübeck, MHNG). Synonymized with *Bembix flavifrons* by R. Turner, 1908:505. – Dalla Torre, 1897:513 (in catalog of world Sphecidae).

93. *flavipes* F. Smith

Bembix flavipes F. Smith, 1856:325, ♀. Holotype or syntypes: ♀, Australia: no specific locality (BMNH). – Froggatt, 1892:223 (in catalog of Australian Hymenoptera); Handlirsch, 1893c:876 (in revision of world Bembicinae); Dalla Torre, 1897:505 (in catalog of world Sphecidae); R. Turner, 1908:502 (description of ♂), 1910a:352 (description of ♂), 1915e:444 (in revision of Australian *Bembix*). – **As *Bembix flavipes***: Evans and Matthews, 1973:246 (in revision of Australian *Bembix*), 1975:111 (preying on bees and wasps); R. Bohart and Menke, 1976:546 (listed); Evans, Evans, and Hook, 1982:78 (nesting habits); Cardale, 1985:287 (in catalog of Australian Sphecidae); Naumann, 1998:184 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E); Evans, 2002a:5 (known to prey on Apidae); Pagliano, 2003a:506 (Australia: Northern Territory); Evans and O'Neil, 2007:203 (summary of information on nesting habits).

Bembix brevis Lohrmann, 1942a:160, ♀. Holotype: ♀, Australia: Queensland: Cooktown in York Peninsula (NHMW). Synonymized with *Bembix flavipes* by Evans and Matthews, 1973:246. – Lohrmann, 1948:423 (in checklist of recently described *Bembix*),

94. *flaviventris* F. Smith

Bembix flaviventris F. Smith, 1873c:299, ♀, ♂. Lectotype: ♀, Australia: Western Australia: Swan River (BMNH), designated by Evans and Matthews, 1979:221 by use of the word “type” (Article 74.5). – Froggatt, 1892:223 (in catalog of Australian Hymenoptera); Handlirsch, 1893c:900 (original description translated into German); Dalla Torre, 1897:505 (in catalog of world Sphecidae); R. Turner, 1910a:351 (synonymy), 1915e:438 (in revision of Australian *Bembix*). – **As *Bembix flaviventris***: Evans and Matthews, 1973:220 (in revision of Australian *Bembix*), 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:546 (listed); Cardale, 1985:288 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:201 (summary of information on nesting habits).

Bembex calcarina Handlirsch, 1893c:754, ♂. Holotype: ♂, Australia: South Australia: Adelaide (ZMHU). Tentatively synonymized with *Bembex flaviventris* by R. Turner, 1910a:351. – Dalla Torre, 1897:503 (in catalog of world Sphecidae); R. Turner, 1915e:438 (in revision of Australian *Bembix*).

95. *forcipata* Handlirsch

Bembex forcipata Handlirsch, 1893:798, ♂, ♀. Syntypes: Tanzania: Zanzibar: no specific locality (NHMW, ZMHU, Hamburg, Madrid, MHNG). – Dalla Torre, 1897:505 (in catalog of world Sphecidae). – **As *Bembex melanopa* race *forcipata***: Arnold, 1929b:356 (new status, original description translated into English), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix forcipata***: J. Parker, 1929:116 (in revision of Stizini and Bembicini); Lohrmann, 1939:142 (member of *melanopa* group); R. Bohart and Menke, 1976:546 (listed).

96. *formosana* Bischoff

Bembex formosana Bischoff, 1913a:714, ♀, ♂. Syntypes: Taiwan: Takao (ZMHU). – Yasumatsu and Narisada, 1935:73 (China: Southern Manchuria: Chin-chou); Tsuneki, 1967e:2 (China: Manchuria), 1968h:6 (Taiwan), 1971i:5 (Taiwan), 1973:3 (Ryukyus; "first record other than Formosa"). – **As *Bembix formosana***: J. Parker, 1929:128 (in revision of Stizini and Bembicini); Sonan, 1931:7 (Pescadores Islands); Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 452 (probably member of *oculata* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed); Tsuneki, 1977j:265 (Taiwan), 1982g:64 (known from Ryukyu archipelago); Porter, Stange, and Wang, 1999:14 (in checklist of Sphecidae of Taiwan); Yamane, Ikudome, and Terayama, 1999:534 (in Identification Guide to Crabronidae of Nansei = Ryukyu Islands, Japan); Hua, 2006:277 (in list of Chinese insects, geographic distribution).

Bembex formosana aberratio *metamelanica* Strand, 1923:171, ♂. Lectotype: ♂, Taiwan: Anping (DEI), designated by Oehlke and Wudowenz, 1974:424. Synonymized with *Bembix formosana* by R. Bohart and Menke, 1976:546.

97. *fossoria* F. Smith

Bembex fossoria F. Smith, 1878:108, ♀ (as *fossorius*, incorrect original termination). Holotype or syntypes: ♀, Myanmar: Tenasserim Province: no specific locality (BMNH). – Bingham, 1890:243 (Myanmar: Pegu Hills, Tenasserim, redescription of female), 1893:380 (Myanmar); Handlirsch, 1893c:895 (original description translated into German); Bingham, 1897:290 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); Dalla Torre, 1897:505 (in catalog of world Sphecidae). – **As *Bembix fossoria***: Lohrmann, 1948:450 (member of *fossoria* species group of *Bembix*); van der Vecht, 1980:401 (shape of submarginal cell III, as *Bembix fossorius*); R. Bohart and Menke, 1976:546 (listed).

98. *fraudulenta* Arnold

Bembex fraudulenta Arnold, 1929b:367, ♂, ♀. Syntypes: South Africa: Natal: Durban (Durban Mus.). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix fraudulenta***: R. Bohart and Menke, 1976:546 (listed); Gess, 1986:153 (floral records, prey).

99. *freygessneri* Morice

Bembex freygessneri Morice, 1897:315, ♂ (as *frey-gessneri*, incorrect original hyphenation). Holotype or syntypes: ♂, Egypt: Koubbeh near Cairo (OXUM). – Maidl, 1924:240 (Sudan); de Beaumont, 1953a:174 (Mauritania), 1956a:195 (Libya: Fezzan; diagnostic characters), Gadallah, 2002:65 (in key to Egyptian *Bembix* based on male genitalia). – **As *Bembyx freygessneri***: Priesner, 1958:29 (in revision of Egyptian *Bembix*). – **As *Bembix freygessneri***: Lohrmann, 1948:421 (in checklist of recently described *Bembix*, as *frey-gessneri*), 453 (member of *oculata* species group of *Bembix*); de Beaumont, 1957e:621 (recognition), 1958b:57 (Algeria: Tassili des Ajjer), 1965b:772 (Chad: Ennedi); R. Bohart and Menke, 1976:546 (listed); Guichard, 1980:229 (Oman); Roche, 1981:4 (in checklist of Sphecidae of United Arab Emirates); Guichard, 1989a:142 (Arabian Peninsula); Roche and Zalut, 1994:116 (Egypt: Sinai Peninsula); Gadallah, 1997:263 (in revision of Egyptian *Bembix*); Gadallah and Assery, 2004a:219 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 230 (in catalog of Sphecidae of Saudi Arabia).

Bembex dissimilis W.F. Kirby, 1900:22, ♀. Syntypes: Yemen: Abd-el-Kuri Islands: no specific locality (BMNH). Synonymized with ... – Kohl, 1906a:212 (Yemen: Socotra Island, description of ♂). – **As *Bembex dissimilis***: Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 452 (member of *oculata* species group of *Bembix*);.

Bembyx freygessneri var. *decipiens* Priesner, 1958:30, ♀. Holotype: ♀, Egypt: no specific locality (depository?). Synonymized with *Bembex freygessneri* by R. R. Bohart and Menke, 1976:546.

As *Bembex turca* subsp.: de Beaumont, 1953a:174 (Mauritania), corrected to *Bembex freygessneri* by de Beaumont, 1953a:174 (footnote).

100. *frommeri* R. Bohart

Bembex frommeri R. Bohart, 1970a:201, ♂. Holotype: ♂, USA: California: Inyo County: 5 mi S Deep Springs (CAS). – R. Bohart and Horning, 1971:10 (in revision of California Bembicini); R. Bohart and Menke, 1976:546 (listed); Krombein, 1979b:1709 (in catalog of North American Hymenoptera).

101. *frontalis* Olivier

Bembex frontalis Olivier, 1789:292, sex not indicated. Holotype or syntypes: India: no specific locality (lost). – Handlirsch, 1893c:896 (original description translated into German); Dalla Torre, 1897:505 (in catalog of world Sphecidae). – **As *Bembex frontalis***: R. Bohart and Menke, 1976:546 (listed).

102. *fucosa* J. Parker

Bembex fucosa J. Parker, 1929:72, ♀, ♂. Holotype: ♂, Myanmar: Mandalay (ZMHU). – Lohrmann, 1948:449 (member of *hova* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

103. *fumida* J. Parker

Bembex fumida J. Parker, 1929:105, ♂. Holotype: ♂, Japan: no specific locality (ZMHU). – Lohrmann, 1948:453 (member of *oculata* species group of *Bembix*, as *fumata*); R. Bohart and Menke, 1976:546 (listed); Tsuneki, 1965c:27 (in key to Bembicinae of Japan and Korea).

104. *furcata* Erichson

Bembex furcata Erichson, 1842:266, ♀, ♂. Lectotype: ♂, Van Diemen's Land, now Tasmania: no specific locality (ZMHU), designated by Evans and Matthews, 1973:99. – F. Smith, 1856:328 (Australia); Sichel, 1867:141 (Australia: Sydney); Froggatt, 1892:223 (in catalog of Australian Hymenoptera); Handlirsch, 1893c:760 (in revision of world Bembicinae); Dalla Torre, 1897:505 (in catalog of world Sphecidae); R. Turner, 1910a:351 (Australia: southern coast from Perth to Sydney), 1915b:551 (Tasmania), 1915c:443 (in revision of Australian *Bembix*); W. Wheeler and Dow, 1933:59 (tabanid prey); von Schulthess, 1935:306 (Australia: New South Wales: Kiandra, Mt. Kosciuszko); Guiglia, 1948b:179 (specimens determined by Guérin-Méneville); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection). – **As *Bembex furcata***: Evans and Matthews, 1973:99 (in revision of Australian *Bembix*), 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:546 (listed); Cardale, 1985:288 (in catalog of Australian Sphecidae); Dodson and Yeates, 1989:172 (male behavior); Pagliano, 2003a:506 (Australia: Victoria); Evans and O'Neil, 2007:192 (summary of information on nesting habits).

105. *fuscipennis* Lepeletier de Saint Fargeau

Bembex fuscipennis Lepeletier de Saint Fargeau, 1845:271, ♀, ♂. Syntypes: South Africa: Cape of the Good Hope (depository?). – F. Smith, 1856:323 (in catalog of Hymenoptera in British Museum); Taschenberg, 1870:19 (South Africa: Cape area); Handlirsch, 1893c:850 (in revision of world Bembicinae); Dalla Torre, 1897:505 (in catalog of world Sphecidae); Arnold, 1929b:273 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afro-tropical Sphecidae); Schouteden, 1930:96 (Zaire); Cuthbertson, 1939:1 (nest parasite: *Craticulina tabaniformis* (Fabricius), a sarcophagid); Berland, 1950b:296 (Niger: Air area). – **As *Bembex fuscipennis***: J. Parker, 1929:91 (in revision of Stizini and Bembicini); Giordani Soika, 1939c:105 (Eritrea: Keren); Guiglia, 1943c:75 (Ethiopia: Gamo

Gofa: Sagan – Omo region); Lohrmann, 1948:448 (member of *fuscipennis* species group of *Bembix*); Guiglia, 1950:240 (Ethiopia: Gamo Gofa: Caschei); Leclercq, 1955i:408 (Rwanda); de Beaumont, 1967b:506 (South Africa: Natal); R. Bohart and Menke, 1976:546 (listed); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); Gess, 1981:21 (South Africa: 18 km WNW Grahamstown; nesting in friable soils); Guichard, 1989a:145 (Saudi Arabia, Yemen); Gadallah and Assery, 2004a:230 (in catalog of Sphecidae of Saudi Arabia).

Bembix stevensoni J. Parker, 1929:92, ♀, ♂. Holotype: ♂, Zimbabwe: Bulawayo (USNM). Synonymized with *Bembix fuscipennis* by Arnold, 1931:214. – J. Parker, 1942:206 (valid species); Arnold, 1951:138 (discussion of male genitalia).

ssp. *centralis* Berland

Bembix fuscipennis var. *centralis* Berland, 1950b:296, ♀. Holotype: ♀, Niger: Aïr: Irabellaben in Baguazans Mts. (MNHN). – **As *Bembix fuscipennis centralis***: R. Bohart and Menke, 1976:546 (new status, listed).

106. *galactina* Dufour

Bembix galactina Dufour, 1854a:378, ♀, ♂. Syntypes: Algeria: Pontéba, now Oumm ed Drou (MNHN). – Handlirsch, 1893c:888 (original description copied); Dalla Torre, 1897:505 (in catalog of world Sphecidae); W. Schulz, 1905b:62 (Tunisia: Sfax; redescription); Morice, 1911:129 (Algeria: Biskra); von Schulthess, 1926b:218 (Tunisia); de Beaumont, 1950f:397 (Algeria), 1951e:270 (Morocco), 1952c:189 (Algeria: Hoggar), 1956a:193 (Libya: n. Tripolitania). – **As *Bembix galactina***: Lohrmann, 1948:450 (member of *integra* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

Bembix fallax Mercet, 1905b:352, ♂. Holotype or syntypes: ♂, Morocco: Tanger (depository?). Synonymized with *Bembix galactina* by de Beaumont, 1953c:78. – Lohrmann, 1948:421 (in checklist of recently described *Bembix*).

Bembix handlirschi Ferton, 1912a:393, ♀, ♂ (as *Handlirschi*, incorrect original capitalization), junior primary homonym of *Bembix handlirschi* Cameron, 1901, and of *Bembix handlirschi* Mercet, 1904. Syntypes: Algeria: La Calle, now El Kala, nesting habits (MNHN). Synonymized with *Bembix galactina* by Roth in von Schulthess, 1926b:218. – Ferton, 1923:97 (nesting habits).

Bembix handlirschella Ferton, 1912b:191 (as *Handlirschella*, incorrect original capitalization). Substitute name for *Bembix handlirschi* Ferton, 1912. – Cros, 1922:100 (nesting habits); Roth, 1923a:189 (redescription); Lohrmann, 1948:421 (in checklist of recently described *Bembix*). – **As *Bembix handlirschella***: R. Bohart and Menke, 1976:546 (listed).

107. *gazella* Guichard

Bembix gazella Guichard, 1989a:141, ♂, ♀. Holotype: ♂, Muscat: Qurum (BMNH).

108. *gelane* Evans and Matthews

Bembix gelane Evans and Matthews, 1973:232, ♂. Holotype: ♂, Australia: Queensland: 17 mi W Morven (ANIC). – R. Bohart and Menke, 1976:546 (listed); Cardale, 1985:288 (in catalog of Australian Sphecidae); Naumann, 1998:184 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E).

109. *geneana* A. Costa

Bembix geneana A. Costa, 1867b:98, ♀ (as *Geneana*, incorrect original capitalization). Holotype: ♀, Italy: Sardegna: no specific locality (TORINO). – A. Costa, 1871c:94 (description of ♀), pl. III fig. 2 (color illustration), 1882b:22 and 34 (Italy: Sardegna), 1884b:33 (Italy: Sardegna); Handlirsch, 1893c:746 (in revision of world Bembicinae); Dalla Torre, 1897:505 (in catalog of world Sphecidae); Nadig, 1934:32 (Italy: Sardegna: Cagliari, Gennargentu); Guiglia, 1938:b9 (Italy: Sardegna). – **As *Bembix geneana***: Guiglia, 1944b:17 (Italy: Sardegna), 1948c:201 (Italy: Sardegna: Cagliari); R. Bohart and Menke, 1976:546 (listed); Pagliano, 1990:76 (in catalog of Italian Sphecidae), 1992:47, 48 (in key to Italian Bembicinae); Gayubo and Borsato, 1994:218 (Italy: Sardegna); Negrisolò in Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:273 (in Sphecid Fauna of Western Europe); Pagliano and Negrisolò, 2005:188 (in Sphecid Fauna of Italy).

Bembex melanostoma A. Costa, 1867b:100 and 1867c:44, ♂. Syntypes: ♂, Italy: Sardegna: no specific locality (TORINO). Synonymized with *Bembex geneana* by A. Costa, 1884b:53 and 1884c:243. – A. Costa, 1871c:94 (description of ♂), pl. III fig. 3 (color illustration), 1884a:33 (Italy: Sardegna).

Bembex geneana A. Costa, 1867c:42. Objective synonym of *Bembex geneana* A. Costa, 1867b:98.

Bembex melanostoma A. Costa, 1867c:44. Objective synonym of *Bembex melanostoma* A. Costa, 1867b:100.

110. *generosa* J. Parker

Bembex generosa J. Parker, 1929:153, ♀. Holotype: ♀, Somalia: Karo Lola (ZMHU). – Lohrmann, 1948:451 (member of *chlorotica* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

111. *gillaspyi* Evans and Matthews

Bembex gillaspyi Evans and Matthews, 1968b:1290, ♀, ♂. Holotype: ♂, USA: California: San Diego County: Borrego Springs (CAS). – R. Bohart and Horning, 1971:7 (in revision of California *Bembicini*); R. Bohart and Menke, 1976:546 (listed); Krombein, 1979b:1709 (in catalog of North American Hymenoptera).

112. *ginjulla* Evans and Matthews

Bembex ginjulla Evans and Matthews, 1973:188, ♀, ♂. Holotype: ♂, Australia: New South Wales 4 mi E Wilcannia (ANIC). – R. Bohart and Menke, 1976:546 (listed); Cardale, 1985:288 (in catalog of Australian Sphecidae).

113. *glauca* Fabricius

Bembex glauca Fabricius, 1787:286, sex not indicated. Holotype: ♂, India: Tamil Nadu: Tranquebar (ZMK). – Olivier, 1789:291 (redescription); Fabricius, 1793:249 (redescription), 1796:18 (in Index to his Entomologia Systematica, 1793); Lichtenstein, 1796:206 (in auction catalog); Fabricius, 1804:224 (redescription); Jurine, 1807:175 (listed); Spinola, 1808:174 (Italy: near Genova, obviously in error); Dahlbom, 1845:XXII (specimens in collection Fabricius), 491 (in key to world *Bembix*); Ghiliani, 1842:25 (listed from Italy: Sicilia: Catania, obviously in error); Lepeletier de Saint Fargeau, 1845:270 (in revision of world Hymenoptera, southern Europe, obviously in error); Lucas, 1849:263 (Algeria: Oran, obviously in error); F. Smith, 1856:319 (as synonym of *Bembex olivacea*); Sichel, 1861:752 (Italy: Sicilia, obvious misidentification); P. Ivanov, 1872:152 (Ukraine: Khar'kiv Oblast': Kupyansk area, clearly in error); Becker, 1880:150 (Russia: Sarepta, now Krasnoarmeysk S Volgograd, clearly in error); Yaroshevskiy, 1881:124 (Ukraine: Khar'kiv Oblast': Kupyansk, clearly in error); Acloque, 1897:94 (in Sphecid Fauna of France and Algeria, clearly in error); Handlirsch, 1893c:771 and 1895:1053 (as questionable senior synonym of *Bembex indica*); Bingham, 1897:291; Dalla Torre, 1897:506. – **As *Bembex glauca***: van der Vecht, 1961a:59 (study of holotype); R. Bohart and Menke, 1976:546 (listed); Krombein and van der Vecht, 1987:3 (nesting habits), 17 (in revision of Sri Lankan and South Indian *Bembix*); Evans and O'Neil, 2007:181 (summary of information on nesting habits).

Bembex indica Handlirsch, 1893c:771, ♀, ♂. Syntypes: Sri Lanka, India: Dekkan (NHMW, Zool. Mus. Hamburg, ZMHU, Brussels, Zurich, Colombo). Synonymized with *Bembex glauca* by van der Vecht, 1961a:59. – Handlirsch, 1895:1053 (listed); Bingham, 1896a:445, 1897:291 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); Dalla Torre, 1897:506 (in catalog of world Sphecidae). – **As *Bembex indica***: Lohrmann, 1948:449 (member of *indica* species group of *Bembix*).

114. *gobiensis* Tsuneki

Bembex gobiensis Tsuneki, 1971k:211, ♂. Holotype: ♂, Mongolia: Hovd Aymag: Somon Bulgan (TMB). – R. Bohart and Menke, 1976:546 (listed).

115. *goyarra* Evans and Matthews

Bembex goyarra Evans and Matthews, 1973:84, ♂. Holotype: ♂, Australia: Western Australia: Kathleen Valley (WAMP). – R. Bohart and Menke, 1976:546 (listed); Cardale, 1985:288 (in catalog of Australian Sphecidae); Ev-

ans, 1990:29 (lack of tibial spur a constant character; additional locality record), 30 (in key to males of *promontorii* group).

116. *gracilens* J. Parker

Bembix gracilens J. Parker, 1929:143, ♀. Holotype: ♀, Namibia: no specific locality (ZMHU). – Arnold, 1931:217 (original description copied); Lohrmann, 1948:448 (member of *fuscipennis* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

117. *gracilis* Handlirsch

Bembex gracilis Handlirsch, 1893c:725, ♀, ♂. Syntypes: Russia: Sarepta; Armenia or Azerbaijan: Arax River Valley; and Transcaspia: no specific locality (depository not indicated). – Dalla Torre, 1897:505 (in catalog of world Sphecidae). – **As *Bembix gracilis***: Kazenas, 1974:109 (feeding on flowers of *Statice gmelini* Willd., Plumbaginaceae, in Kazakhstan, as *gracilis* Panzer); R. Bohart and Menke, 1976:546 (listed); Myartseva, 1972a:90 (Turkmenistan); Kazenas, 1974b:109 (feeding on flowers of *Cynanchum sibiricum* Willd., Asclepiadaceae, in Kazakhstan); 1978b:87, 90 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:208, 210 (in key to Sphecidae of European part of former USSR); Nazarova and Baratov, 1981:99 (Tajikistan: Vakhsh valley: Garavuty, Ak-Tau range, and Beshkent valley: Aivaj, Chiluchorchashma); preying on tabanids: list of prey species given); Nazarova, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve); Shkuratov, 2000:57 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 239 (use of front legs for nest excavation in sand), 2002a:131 (geographic distribution, collecting localities in Kazakhstan); Shorenko, 2003:97 (Ukraine: Crimea); Kazenas, 2004b:111 (Kazakhstan: western Tien Shan); Nazarova, 2005:94 (alfalfa fields in southwestern Tajikistan); Shorenko, 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve); Yildirim and Ljubomirov, 2007:118 (first record from Turkey: Erzurum: Oltu); Ljubomirov and Yildirim, 2008:119 (in catalog of Crabronidae of Turkey).

118. *grisescens* Dahlbom

Bembex grisescens Dahlbom, 1845:489, ♀. Holotype or syntypes: ♀, South Africa: Kwazulu Natal: Port Natal, now Durban (LUND or Stockholm). – F. Smith, 1856:324 (in catalog of Hymenoptera in British Museum); Handlirsch, 1893c:893 (original description copied); Dalla Torre, 1897:505 (in catalog of world Sphecidae); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection). – **As *Bembix grisescens***: R. Bohart and Menke, 1976:546 (listed).

119. *gunamarra* Evans and Matthews

Bembix gunamarra Evans and Matthews, 1973:68, ♀, ♂. Holotype: ♂, Australia: Queensland: Yeppoon (ANIC). – Evans and Matthews, 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:546 (listed); Cardale, 1985:288 (in catalog of Australian Sphecidae); Evans, 1990:30 (in key to males of *promontorii* group); Evans and O'Neil, 2007:189 (summary of information on nesting habits).

120. *gurindji* Evans

Bembix gurindji Evans, 1982b:7, ♂, ♀. Holotype: ♀. Australia: Northern Territory: Beembom Crossing in Daly River on Tipperary Station (ANIC). – Cardale, 1985:288 (in catalog of Australian Sphecidae); Evans, 1990:30 (in key to males of *promontorii* group).

121. *hameri* Guichard

Bembix hameri Guichard, 1989a:148, ♂, ♀. Holotype: ♂, United Arab Emirates: Suweihan (BMNH).

122. *handlirschi* Cameron

Bembex handlirschi Cameron, 1901d:57, ♂. Holotype or syntypes: ♂, India: Maldive Islands: Hulule, Male Atoll (BMNH). – **As *Bembix handlirschi***: Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 450 (member of *megadonta* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

123. harenarum Arnold

Bembix harenarum Arnold, 1929b:371, ♂, ♀ (as Brauns's MS name). Syntypes: South Africa: Cape Province: Plettenberg (TMP). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix harenarum***: Lohrmann, 1948:448 (member of *fuscipennis* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

124. hedickei Giner Mari

Bembix hedickei Giner Mari, 1945e:237, ♂. Holotype: ♂, Western Sahara: Tuisguirrentz (MNCN). – de Beaumont, 1951e:270 (Morocco; ♀), 1953c:79 (study of holotype). – **As *Bembix hedickei***: R. Bohart and Menke, 1976:546 (listed).

125. hesione Bingham

Bembix hesione Bingham, 1893:381, ♀. Holotype: ♀, Myanmar: Tenasserim: Maulmain in Thaungyin Valley (BMNH). – Bingham, 1897:291 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); Dalla Torre, 1897:505 (in catalog of world Sphecidae). – **As *Bembix hesione***: Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 450 (member of *fossoria* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

126. heteracantha Gussakovskij

Bembix heteracantha Gussakovskij, 1933b:294, ♂. Holotype: ♂, Iran: Kerman: Mekran (ZIN). – **As *Bembix heteracantha***: Lohrmann, 1948:421 (in checklist of recently described *Bembix*), 451 (member of *merceti* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

127. hexaspila J. Parker

Bembix hexaspila J. Parker, 1929:145, ♀. Holotype: ♀, India: Bihar: Pusa (ZMHU). – Lohrmann, 1948:449 (member of *hova* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

128. hinei J. Parker

Bembix hinei J. Parker, 1917:86, ♀, ♂. Holotype: ♂, USA: Texas: Galveston (USNM), see Cockerell, 1918:60. – J. Parker, 1929:98 (in revision of Stizini and Bembicini); Lohrmann, 1948:446 (member of *cinerea* species group of *Bembix*); Strandtmann, 1953:48 (nesting colony); Evans, 1957c:94 (study of behavior), 1959b:156 (description of larva); Evans and Matthews, 1968b:1293 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:546 (listed); Krombein, 1979b:1711 (in catalog of North American Hymenoptera, nesting sites, list of prey). – **As *Epibembix hinei***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera).

129. hofufensis Guichard

Bembix hofufensis Guichard, 1989a:142, ♂, ♀. Holotype: ♂, Saudi Arabia: Hofuf (BMNH). – Gadallah and Assery, 2004a:231 (in catalog of Sphecidae of Saudi Arabia)

130. hokarra Evans and Matthews

Bembix hokarra Evans and Matthews, 1973:94, ♀, ♂. Holotype: ♂, Australia: Western Australia: Milly Milly (CAS). – R. Bohart and Menke, 1976:546 (listed, as *hokana*); Cardale, 1985:288 (in catalog of Australian Sphecidae).

131. holoni Bytinski-Salz

Bembix holoni Bytinski-Salz in de Beaumont and Bytinski-Salz, 1955:45, ♂, ♀. Holotype: ♂, Israel: Holon (H. Bytinski-Salz coll., now Tel Aviv Univ.). – R. Bohart and Menke, 1976:546 (listed).

132. hova de Saussure

Bembix hova de Saussure, 1892:457, ♀, ♂ (♂ = *Bembix madecassa*). Lectotype: ♀, Madagascar: Antananarivo (MHNG), designated by Leclercq, 1961d:104. – Nec de Saussure, 1892:458 (♂ only) and Handlirsch, 1893:734 (♂ only) = *Bembix madecassa*; Dalla Torre, 1897:505 (in catalog of world Sphecidae); Kohl, 1909:373 (Madagascar: Andranohinaly); Paulian, 1953:8 (description of adult and larva). – **As *Bembix hova***: Arnold, 1945:81 (Madagas-

car; redescription); Lohrmann, 1948:449 (member of *hova* species group of *Bembix*); Leclercq, 1960a:100 (Madagascar), 1961d:104 (Madagascar; in key to *Bembix* of Madagascar); R. Bohart and Menke, 1976:546 (listed); Madl, 1997:821 (Madagascar: Nosy Boraha Island), 822 (in checklist of Nosy Boraha Sphecidae); Pulawski, 2003b:795 (in checklist of Malagasy Sphecidae).

As *Bembix madecassa*: Handlirsch, 1893:734, ♂ (Madagascar), corrected to *Bembix hova* by Arnold, 1945:81.

133. *iliensis* Kazenas

Bembix iliensis Kazenas, 1978b:86, ♀. Syntypes: southeastern Kazakhstan: no specific locality (depository not indicated, probably ZIN). – Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia, as tentative synonym of *Bembix diversispes*)

Bembix iliensis Kazenas, 1980c:141, ♀. Holotype: ♀, Kazakhstan: Alma Ata Oblast': Kegen River valley (depository not indicated, probably ZIN).

134. *incognita* J. Parker

Bembix incognita J. Parker, 1929:154, ♀. Holotype: ♀, origin unknown, probably India because collected by C.T. Bingham (ZMHU). – Lohrmann, 1948:450 (member of *sulfurescens* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

135. *infumata* Handlirsch

Bembix infumata Handlirsch, 1893c:841, ♀. Syntypes: ♀, Mexico: Guanajuato: Guanajuato (NHMW, IRSN, BMNH). – Dalla Torre, 1897:506 (in catalog of world Sphecidae). – As *Bembix infumata*: J. Parker, 1929:132 (in revision of Stizini and Bembicini); Evans and Matthews, 1968b:1296 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:546 (listed); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruiz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae)

As *Bembix nubilipennis*: Cameron, 1890a:101 (Mexico), corrected to *Bembix infumata* by Handlirsch, 1893c:841, and J. Parker, 1929:132.

136. *inscripta* Dahlbom

Bembix inscripta Dahlbom, 1844:183, ♀. Holotype: ♀, origin unknown (Lund Univ.). – Dahlbom, 1845, 1845:490 (in key to world *Bembix*); F. Smith, 1856:331 (in catalog of Hymenoptera in British Museum); Handlirsch, 1893c:905 (original description copied); Dalla Torre, 1897:506 (in catalog of world Sphecidae); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection). – As *Bembix inscripta*: R. Bohart and Menke, 1976:546 (listed);

137. *integra* Panzer (preoccupied)

Bembix integra Panzer, 1805:... , junior primary homonym of *Bembix integra* Fabricius, 1793 (now in *Stizus*). – Jurine, 1807:175 (listed); Handlirsch, 1893c:701 (in revision of world Bembicinae), 1895:1002 (Turkestan); Dalla Torre, 1897:506 (in catalog of world Sphecidae); Mocsáry, 1897:83 (Kingdom of Hungary, some localities are in today's Croatia and Romania); Antiga and Bofill, 1904:18 (Spain: Cataluña Province); Mercet, 1904a:350, 354 (in key to Spanish species); E. Saunders, 1904c:637 (Spain); W. Schulz, 1904b:94 (Switzerland); Kubes, 1905:84 (Czech Republic: Kolín); Vángel, 1905:167 (Hungary); Dusmet y Alonso, 1906:6 (Spain); Móczár and Henter, 1907:206 (Hungary: Tiszaalpár); Schmiedeknecht, 1907: 214, 215 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:120 (in catalog of Hymenoptera of France); Ferton, 1910:150 (egg deposited in cell with single prey), 1912a:396 (France: Basses-Alpes: Escaffarels; egg deposited in cell with single prey); Szilády, 1913:89 (Hungary: Budaörs); Dusmet y Alonso, 1915:87 (Spain: Aragón); Berland, 1925d:70 (in Sphecid Fauna of France); Coulon, 1925:118 (France: Allier); nec Friese, 1926:157 (= *Bembix tarsata*); Grandi, 1926:293 (nesting habits), 303 (description of larva); von Schulthess, 1926b:218 (Tunisia); Benoist, 1928:409 (France: Alpes-Maritimes, Basses-Alpes, Hautes-Alpes); Grandi, 1928d:286 (prey, maternal care of larva), 1929:288 (Italy: Toscana: valle della Limentra), 1930:310 (list of prey); A. Müller, 1930:181 (Bulgaria: Bazargic, Moldova or Ukraine: Tarutino);

Picard, 1930:41 (France: Hérault: Aigoual between 1300 and 1400 m alt., Salvetat); Schmiedeknecht, 1930:677, 678 (in keys to Hymenoptera of North and Central Europe); Bischoff, 1931:9 (Spain); Bernard, 1933:62 (France: Drôme: Dieulefit); Molitor, 1933b:101 (Austria: Burgenland: Neusiedlersee area); Bernard, 1934b:249 (prey: *Chrysotoxum bicinctum* L., a syrphid), 1935:63 (France: Var: Fréjus area); Vergne, 1935:117 (France: Auvergne: Billom, Pont-du-Chateau); Dulac, 1937:10 (France: Saône-et-Loire: Saint-Laurent d'Andenay); Zavadil, Šustera, and Bat'a, 1937:185 (in catalog of Sphecidae of Czechoslovakia); Móczár, 1938a:80 (Hungary: Pótharasz puszta), 1939:5 (Hungary: Jászberény); Balthasar, 1941b:112 (Czech Republic: eastern Moravia); Giner Marí, 1943a:198 (in Sphecidae Fauna of Spain), 1943b:18 (Spain; redescription); Bat'a, 1944a:26 (Czech Republic); Guiglia, 1947a:28 (Italy: Piano Maiuri); de Andrade, 1949:20 (Portugal); Sala de Castellarnau, 1949:82 (nesting habits); Scobiola, 1950:17 (Romania: several localities); Nouvel and Ribaut, 1953:178 (France: Central Pyrénées: Barèges, Luz, Melles, Saint-Béat); Atanassov, 1955:198 (Bulgaria: Nesebar, Parangalitsa Nature Reserve in Rila Mts., Sarlar in western Thracia); Steiner, 1955:134 (France: Dordogne); Vogrin, 1955:34 (Yugoslavia); Bajári, 1957a:20, 22 (in key to Hungarian Sphecidae); Diniz, 1959:30 (Portugal: Massorra, Porto, Quinta do Mato); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae). – **As *Bembix integra***: J. Parker, 1929:103 (in revision of Stizini and Bembicini); Grandi, 1935a:110 (Italy); Balthasar, 1948:141 (Slovakia: Parkan); Lohrmann, 1948:450 (member of *integra* species group of *Bembix*); Šnoflak in Zavadil and Šnoflak, 1948:82, 83 (in key to Sphecidae of Czechoslovakia); Grandi, 1954:149 (nest and prey), 235 (Italy); Ceballos, 1956:385 (in catalog of Hymenoptera of Spain); Evans and Lin, 1956b:62 (description of larva by Grandi, 1926); Grandi, 1957:385 (Italy); Nouvel and Ribaut, 1958:10 (France: Pyrénées-Orientales: Banyuls-sur-Mer); de Beaumont, 1959a:17 (Italy); Grandi, 1961:120 (nesting habits), 463 (description of larva); de Beaumont, 1962b:21 (Spain), 1964c:56 (in Sphecidae Fauna of Switzerland); Bonelli, 1966c:217 (Italy: Trentino–Alto Adige: Piazzòl); Niedl and Deneš, 1967:84 (Czech Republic: Třeboň area); Bonelli, 1968b:49 (Italy: Trentino–Alto Adige: Piazzòl); Scobiola-Palade, 1967b:38 (Romania), 1968b:141 (Romania: Island of Letea in delta of Danube); Suárez, 1969:29 (Spain: Almería Province); Zangheri, 1969:1702 (Italy: in catalog of flora and fauna of Romagna Region); Oehlke, 1970:698 (Poland: Grochów near Słubice; possibly also Democratic Germany); Schmidt, 1971b:30 (Germany: Mainz area); Balthasar, 1972:376 (in Sphecidae Fauna of Czechoslovakia); Scobiola-Palade, 1972a:149 (Romania: delta of Danube: Caraorman); Simon Thomas, 1972:180 (France: Lot-et-Garonne); Diniz, 1973:47 (Portugal: Angeiras, Leça da Palmeira, Porto, Rezende, Serra do Gerez); Frilli and Pizzaghi, 1975:53 (Italy: Cerignale in Piacenza Province); Simon Thomas, 1976:5 (France: Lot-et-Garonne); Kazenas, 1978b:87, 89 (in key to Sphecidae of Kazakhstan and Central Asia); Marion, 1978:87 (France: Nièvre Department); Pulawski, 1978:208, 209 (in key to Sphecidae of European part of former USSR); Benedek, 1979:231 (Hungary: Bakony Hills); Scobiola-Palade, 1985:95 (Romania: delta of Danube); Schmidt and Westrich, 1987:361 (Germany: Mainz area); Pádr in Šedivý, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Pádr, 1990:72 (Czech Republic: Praha area); Day, 1991:xiii (summary of European Endangered Hymenoptera Lists); Delarze, 1992:67 (Switzerland: Valais: Les Follatères); Bičík and Láška, 1997:9 (preying on syrphid *Xylota seignis* (Linnaeus)); Litt, 2004:222 (Switzerland: Valais:Sierre). – **As *Epibembix integra***: Wolf, 1959b:31 (new combination, Germany: Nassau). – **As *Monedula integra***: Casolari and Casolari Moreno, 1980:114 (new combination, specimens in M. Spinola collection).

Bembex cristata Mocsáry, 1883:42, ♂. Holotype or syntypes: ♂, Spain: Granada (TMB). Synonymized with *Bembex integra* by Handlirsch, 1893c:701.

138. *inyoensis* L. Kimsey and R. Kimsey

Bembex inyoensis L. Kimsey and R. Kimsey, 1981:486, ♂, ♀. Holotype: ♂, USA: California: Inyo County: Death Valley National Monument (UCD). – Kimsey, Kimsey, and Toft, 1981b:665 (nesting habits); Evans and O'Neil, 2007:165 (summary of information on nesting habits).

139. *irritata* Nurse

Bembex irritata Nurse, 1903a:523, ♀, ♂. Syntypes: India: Gujarat: Deesa (BMNH). – Ramakrishna Aiyar, 1916:557 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Bembix irritata***: Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 449 (possibly a member of *indica* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed); Roche, 1981:4 (in checklist of Sphecidae of United Arab Emirates); Guichard, 1989a:143 (Arabian Peninsula); Gadallah and Assery, 2004a:231 (in catalog of Sphecidae of Saudi Arabia).

140. *isabellae* de Beaumont

Bembex isabellae de Beaumont, 1970c:9, ♂. Holotype: ♂: Iran: Baluchistan: SW Iranshar (Ludwigsburg). – R. Bohart and Menke, 1976:546 (listed).

141. *joeli* Bytinski-Salz

Bembex joeli Bytinski-Salz in de Beaumont and Bytinski-Salz, 1955:46, ♀, ♂ (as *joëli*, incorrect original diacritic mark). Holotype: ♂, Israel: Kfar Yeroham (H. Bytinski-Salz coll., now Tel Aviv Univ.). – R. Bohart and Menke, 1976:546 (listed)

142. *johnstoni* R. Turner

Bembex johnstoni R. Turner, 1912g:372, ♂. Holotype: ♂, Uganda: no specific locality (BMNH). – R. Turner, 1917c:437 (can be an extreme form of *Bembex diversipennis*); Arnold, 1929b:346 (as synonym of *Bembex diversipennis*). – **As *Bembix johnstoni***: Lohrmann, 1948:447 (member of *diversipennis* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed).

143. *junodi* Arnold

Bembex junodi Arnold, 1929b:379, ♂ (as *Junodi* incorrect original capitalization). Holotype: ♂, Mozambique: Maputo (TMP). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix junodi***: R. Bohart and Menke, 1976:546 (listed).

144. *kamulla* Evans and Matthews

Bembex kamulla Evans and Matthews, 1973:77, ♀, ♂. Holotype: ♂, Australia: New South Wales: Caldwell (AMS). – R. Bohart and Menke, 1976:546 (listed); Evans, Evans, and Hook, 1982:74 (nesting habits, prey includes Myrmecoleontidae); Cardale, 1985:288 (in catalog of Australian Sphecidae); Evans, 1990:30 (in key to males of *promontorii* group), 2002a:4 (preying mainly on Diptera, but regularly using non-Diptera); Evans and O'Neil, 2007:191 (summary of information on nesting habits).

145. *karooensis* Gess

Bembex karooensis Gess, 1986:144, ♂, ♀. Holotype: ♂, South Africa: Western Cape Province: Merweville District (South African Mus.).

146. *kazakhstanica* Kazenas

Bembex kazakhstanica Kazenas, 1978b:85 and 88, ♀, ♂. Syntypes: Kazakhstan: no specific locality (depository not indicated, probably ZIN). – Nazarova and Baratov, 1981:100 (Tajikistan: near Leninabad, Takob valley, Garavuty, Nuri-Vakhsh, Chiluchorchashma; preying on tabanids: list of prey species given); Nazarova and Gafarov, 1986:71 (Tajikistan, preying on Syrphidae); Nazarova, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:131 (geographic distribution, collecting localities in Kazakhstan); Nazarova, 2004:108 (Tajikistan: Badakhshan Region: Tusen, village Langar, and village Lakshik in Shakh dara River valley), 2005:94 (alfalfa fields in southwestern Tajikistan).

Bembex kazakhstanica Kazenas, 1980c:139, ♀, ♂. Holotype: ♀, Kazakhstan: Alma Ata Oblast': near Ili, now Kopchagay (depository not indicated, probably ZIN).

147. kirgisica F. Morawitz

Bembex kirgisica F. Morawitz, 1891a:225, ♀. Syntypes: ♀, European Kazakhstan: Ryn Peski: no specific locality (ZIN). – Handlirsch, 1893c:722 (as new synonym of *Bembex eburnea*); Dalla Torre, 1897:504 (in catalog of world Sphecidae, as synonym of *Bembex eburnea*); F. Morawitz, 1897a:153 (good species, description of ♂); Gussakovskij, 1933b:294 (Iran, valid species); de Beaumont, 1957b:135 (n. Iran). – **As *Bembix kirgisica***: Lohrmann, 1948:451 (member of *megerlei* species group of *Bembix*); de Beaumont, 1961b:274 (Afghanistan); R. Bohart and Menke, 1976:546 (listed as synonym of *Bembex eburnea*); Kazenas, 1978b:88, 90 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:208, 210 (in key to Sphecidae of European part of former USSR); Shkura-tov, 2002b:140 (Russia: Rostov Oblast': Rostovskiy Nature Reserve at 46°27'N 42°41'E).

Bembex ganglbaueri Handlirsch, 1893c:732, ♂ (as *Ganglbaueri*, incorrect original capitalization). Holotype: ♂, Kazakhstan or Turkmenia: e. shore of Caspian Sea (NHMW or Kraków). Synonymized with *Bembex kirgisica* by Gussakovskij, 1933b:294. – Dalla Torre, 1897:505 (in catalog of world Sphecidae). – **As *Bembix ganglbaueri***: Lohrmann, 1948:451 (member of *megerlei* species group of *Bembix*); R. Bohart and Menke, 1976:546 (listed); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia).

148. kohlii Morice

Bembex kohlii Morice, 1897:313, ♂, ♀. Syntypes: Egypt: Saqqara (OXUM). – de Beaumont, 1966:212 (Egypt: Abukir near Alexandria) – Gadallah, 2002:65 (in key to Egyptian *Bembix* based on male genitalia). – **As *Bembyx kohlii***: Priesner, 1958:14 (in revision of Egyptian *Bembix*). – **As *Bembix kohlii***: Lohrmann, 1948:421 (in checklist of recently described *Bembix*, as *kohli*), 451 (member of *megerlei* species group of *Bembix*, as *kohli*); de Beaumont and Bytinski-Salz, 1955:47 (Israel); R. Bohart and Menke, 1976:547 (listed); Guichard, 1980:230 (Oman); Roche, 1981:4 (in checklist of Sphecidae of United Arab Emirates); Guichard, 1989a:146 (United Arab Emirates); Roche and Zalat, 1994:116 (Egypt: Sinai Peninsula); Gadallah, 1997:260 (in revision of Egyptian *Bembix*).

149. kora Evans and Matthews

Bembex kora Evans and Matthews, 1973:143, ♀, ♂. Holotype: ♂, Australia: Queensland: 50 mi S Napamerry (ANIC). – R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:289 (in catalog of Australian Sphecidae); Naumann, 1998:184 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E); Pagliano, 2003a:507 (Australia: first record from Northern Territory: Kakadu National Park).

150. kriebbaumeri Handlirsch

Bembex kriebbaumeri Handlirsch, 1893c:816, ♀, ♂ (as *Kriebbaumeri*, incorrect original capitalization). Syntypes: Gabon, Guinea, Zaire (NHMW, ZMHU, Zool. Mus. Hamburg, München, Dresden, Bruxelles). – Kohl, 1894:342 (Congo: Gabun, Gabon: Cap Lopez, Liberia: Junk River); Handlirsch, 1895:1003 (reference to Kohl, 1894); Dalla Torre, 1897:507 (in catalog of world Sphecidae); Arnold, 1929b:362 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:96 (Zaire). – **As *Bembix kriebbaumeri***: J. Parker, 1929:128 (in revision of Stizini and Bembicini); R. Bohart and Menke, 1976:547 (listed).

ssp. scitula Arnold

Bembex kriebbaumeri race *scitula* Arnold, 1929b:363, ♀, ♂. Syntypes: Namibia: Narugas, Tsintsabis; Zimbabwe: Sawmills (SAM). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix kriebbaumeri scitula***: R. Bohart and Menke, 1976:54. (listed).

151. kununurra Evans and Matthes

Bembex kununurra Evans and Matthews, 1973:284, ♂. Holotype: ♂, Australia: Western Australia: Kununurra (ANIC). – R. Bohart and Menke, 1976:547 (listed); Evans, 1982b:11 (description of ♀); Evans, Evans, and Hook, 1982:72 (nesting habits); Cardale, 1985:289 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:205 (summary of information on nesting habits).

152. *labiata* Fabricius

Bembix labiata Fabricius, 1798:259, sex not indicated. Holotype: France: no specific locality (MNHN, Bosc coll.), but actually not a French and probably not a Palearctic species (van der Vecht, 1961a:59). – Fabricius, 1799:8 (in Index to his Supplementum, 1798); Coquebert, 1801:61 (original description copied), pl. XV Fig. 1 (illustration of Fabrician type); Fabricius, 1804:224 (redescription); Vander Linden, 1829:16 (bibliographic references, France); Dahlbom, 1844:179 (original description copied); F. Smith, 1856:319 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:218 (in catalog of European Hymenoptera); Dours, 1874:148 (in catalog of Hymenoptera of France); Martinez y Saez, 1874:31 (specimens from Spain: Madrid area, donated to Leon Dufour); Handlirsch, 1893c:888 (original description copied); Dalla Torre, 1897:507 (in catalog of world Sphecidae); Flamary, 1898:38 (France: Saône-et-Loire: Mâcon area, determination tentative). – **As *Bembix labiata***: Ceballos, 1956:385 (in catalog of Hymenoptera of Spain); R. Bohart and Menke, 1976:547 (listed).

153. *labidura* Handlirsch

Bembix labidura Handlirsch, 1893c:799, ♂. Syntypes: Central Africa: no specific locality (NHMW). – Dalla Torre, 1897:507 (in catalog of world Sphecidae); Arnold, 1929b:357 (in revision of southern African Sphecidae, description of ♀), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix labidura***: Lohrmann, 1939:142 (member of *melanopa* group); R. Bohart and Menke, 1976:547 (listed).

154. *lactea* Cameron

Bembix lactea Cameron, 1901a:25, ♀, ♂. Syntypes: India: Assam: Khasia Hills (OXUM). – Ramakrishna Aiyar, 1916:557 (in catalog of Indian aculeates described after Bingham, 1897); Lohrmann, 1939:139 (member of *papua* speies group of *Bembix*). – **As *Bembix lactea***: Lohrmann, 1948:423 (in checklist of recently described *Bembix*); R. Bohart and Menke, 1976:547 (listed).

155. *laeta* J. Parker

Bembix laeta J. Parker, 1929:151, ♀. Holotype: ♀, Tanzania: Makonde Range (ZMHU). Synonymized with *Bembix intermedia* by Arnold, 1931:219. – J. Parker, 1942:208 (valid species); R. Bohart and Menke, 1976:547 (listed).

156. *lamellata* Handlirsch

Bembix lamellata Handlirsch, 1893c:842, ♀, ♂. Syntypes: Australia: South Australia: Adelaide (♂, ZMHU) and no specific locality (♀, Kraków). – Dalla Torre, 1897:507 (in catalog of world Sphecidae); R. Turner, 1915e:446 (in revision of Australian *Bembix*). – **As *Bembix lamellata***: Evans and Matthews, 1973:260 (in revision of Australian *Bembix*), 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:289 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:205 (summary of information on nesting habits).

157. *latebrosa* Kohl

Bembix latebrosa Kohl, 1909:373, ♀, ♂. Syntypes: Madagascar: Tuléar, now Toliara (ZMHU or SIF). – **As *Bembix latebrosa***: Arnold, 1945:83 (Madagascar; redescription); Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 449 (member of *indica* species group of *Bembix*); Leclercq, 1960a:100 (Madagascar), 1961d:104 (in key to *Bembix* of Madagascar), 105 (Madagascar); R. Bohart and Menke, 1976:547 (listed); Pulawski, 2003b:795 (in checklist of Malagasy Sphecidae).

158. *latifasciata* R. Turner

Bembix latifasciata R. Turner, 1912f:57, ♂, ♀. Syntypes: Australia: Western Australia: Strelley River and Roeburne (BMNH). – R. Turner, 1915e:443 (in revision of Australian *Bembix*). – **As *Bembix latifasciata***: J. Parker, 1929:150 (in revision of Stizini and Bembicini); Evans and Matthews, 1973:140 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:289 (in catalog of Australian Sphecidae).

159. *latigenata* Willink

Bembix latigenata Willink, 1947:590, ♀. Holotype: ♀, Argentina: Santa Fe: no specific locality (Colegio Máximo de San Miguel, Caseros, Buenos Aires). – Willink, 1953:342 (description of ♂); R. Bohart and Menke, 1976:547 (listed); Fritz, 1993:16 (holotype in M. Fritz coll.); Amarante, 2002:8 (in catalog of Neotropical Crabronidae).

160. *latitarsis* Handlirsch

Bembex latitarsis Handlirsch, 1893c:707, ♀, ♂. Syntypes: India or Pakistan: Himalaya: no specific locality (NHMW, ZMHU). – Bingham, 1897:289 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); Dalla Torre, 1897:507 (in catalog of world Sphecidae). – **As *Bembix latitarsis***: R. Bohart and Menke, 1976:547 (listed); S. Gupta, 1995:86 (India: Uttar Pradesh).

161. *leeuwinensis* R. Turner

Bembex leeuwinensis R. Turner, 1915:446, ♀, ♂. Lectotype: ♂, Australia: Western Australia: Yallingup (BMNH), designated by Evans and Matthews, 1973b:288. – **As *Bembix leeuwinensis***: Lohrmann, 1948:423 (in checklist of recently described *Bembix*); Evans and Matthews, 1973b:288 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:289 (in catalog of Australian Sphecidae).

162. *levis* J. Parker

Bembix levis J. Parker, 1929:78, ♀, ♂. Holotype: ♂, Cameroon: no specific locality (ZMHU). – Arnold, 1931:212 (original description copied); Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembix*); R. Bohart and Menke, 1976:547 (listed).

163. *liberiensis* J. Parker

Bembix liberiensis J. Parker, 1929:126, ♀, ♂. Holotype: ♂, Liberia: no specific locality (USNM). – Arnold, 1931:216 (original description copied); Lohrmann, 1948:447 (member of *diversipennis* species group of *Bembix*); R. Bohart and Menke, 1976:547 (listed).

164. *lineatifrons* Cameron

Bembex lineatifrons Cameron, 1908a:292, ♀. Syntypes: Kenya: Mt. Meru lowlands: Ngare na nyuki (NRS). – Arnold, 1929b:380 (species unrecognizable from original description). – **As *Bembix lineatifrons***: R. Bohart and Menke, 1976:547 listed).

165. *littoralis* R. Turner

Bembex littoralis R. Turner, 1908:502, ♂. Holotype or syntypes: ♂, Australia: Northern Territory: Darwin (BMNH). – R. Turner, 1910a:353 (similar to *Bembex musca*), 1915e:445 (in revision of Australian *Bembix*). – **As *Bembix littoralis***: J. Parker, 1929:133 (in revision of Stizini and Bembicini); Evans and Matthews, 1973b:268 (in revision of Australian *Bembix*), 1975:109 (illustration of habitus, photograph of nest entrance), 111 (preying on Diptera); R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:289 (in catalog of Australian Sphecidae); Naumann, 1993:183 (Australia: Queensland: Heathlands area in Cape York), 1998:184 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E); Evans, 2002a:3 (preying mainly on Diptera, occasionally on non-Diptera); Pagliano, 2003a:507 (Australia: Northern Territory and Western Australia); Evans and O'Neil, 2007:206 (summary of information on nesting habits).

Bembix flavolatera J. Parker, 1929:134, ♂. Holotype: ♂, Australia: Northern Territory: Hermannsburg (ZMHU). Synonymized with *Bembix littoralis* by Evans and Matthews, 1973b:268.

166. *liturata* R. Turner

Bembex liturata R. Turner, 1917c:440, ♀, ♂. Syntypes: South Africa: Western Cape Province: Willowmore (BMNH). – Arnold, 1929b:370 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae); Guiglia 1931b:157 (Eritrea: Dankalia: Gaarre N Assaab). – **As *Bembix liturata***: R. Bohart and Menke, 1976:547 (listed).

ssp. *flavopicta* Arnold

Bembex liturata var. *flavopicta* Arnold, 1929b:370, ♂. Holotype: ♂, Namibia: Windhoek (TMP). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembex liturata flavopicta***: R. Bohart and Menke, 1976:547 (listed).

167. *liventis* J. Parker

Bembex liventis J. Parker, 1929:144, ♀. Holotype: ♀, Tanzania: Mikidani (ZMHU). – Arnold, 1931:218 (original description copied); R. Bohart and Menke, 1976:547 (listed).

168. *lobatifrons* R. Turner

Bembex lobatifrons R. Turner, 1913:747, ♂, ♀. Holotype: Kenya: Uchweni Forest or Lake Mpekotomi (BMNH). – Arnold, 1929b:371 (original description copied), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembex lobatifrons***: R. Bohart and Menke, 1976:547 (listed)

169. *lobimana* Handlirsch

Bembex lobimana Handlirsch, 1893c:755, ♀, ♂. Syntypes: Australia: New South Wales: no specific locality (MHNG, ZMHU). – Dalla Torre, 1897:507 (in catalog of world Sphecidae); R. Turner, 1915e:442 (in revision of Australian *Bembex*). – **As *Bembex lobimana***: Evans and Matthews, 1973:106 (in revision of Australian *Bembex*); R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:290 (in catalog of Australian Sphecidae).

170. *longipennis* J. Parker

Bembex longipennis J. Parker, 1929:149, ♀. Holotype: ♀, Tanzania: "Nyassa-See, Langenburg" (ZMHU). – Arnold, 1931:219 (original description copied); R. Bohart and Menke, 1976:547 (listed).

171. *loorea* Evans and Matthews

Bembex loorea Evans and Matthews, 1973b:308, ♀. Holotype: ♀, Australia: Northern Territory: near Reedy Rockhole in Amadeus Basin (ANIC). – R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:290 (in catalog of Australian Sphecidae).

172. *loupata* J. Parker

Bembex loupata J. Parker, 1929:73, ♀, ♂. Holotype: ♂, Tanzania: Kanoga (ZMHU). – Arnold, 1931:211 (original description copied); Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembex*); R. Bohart and Menke, 1976:547 (listed).

173. *lunata* Fabricius

Bembex lunata Fabricius, 1793:249, sex not indicated. Lectotype: ♂, India: Tamil Nadu: Tranquebar (ZMK), designated by van der Vecht, 1961a:60. – Fabricius, 1796:18 (in Index to his Entomologia Systematica, 1793), 1804:224 (redescription); Jurine, 1807:175 (listed); Dahlbom, 1845:XXII (specimens in collection Fabricius), 492 (in key to world *Bembex*); F. Smith, 1856:328 (in catalog of Hymenoptera in British Museum); Cameron, 1890b:247 (India: Bombay, Tirhoot, Tranquebar); Handlirsch, 1893c:777 (in revision of world Bembicinae), 1895:1054 (listed); Bingham, 1897:285 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); Dalla Torre, 1897:507 (in catalog of world Sphecidae); Ayyar, 1919:909 (prey). – **As *Bembex lunata***: R. Bohart and Menke, 1976:547 (listed); Krombein and van der Vecht, 1987:6 (Ayyar, 1919, prey record copied), 18 (in revision of Sri Lankan and South Indian *Bembex*). – **As *Vespa lunata***: Turton, 1802:537 (new combination, Tranquebar).

174. *lusca* Spinola

Bembex lusca Spinola, 1839:467, ♀, ♂ (authorship attributed to Klug). Lectotype: ♀, Egypt: (Turin), designated by de Beaumont, 1952e:45. – Lepeletier de Saint Fargeau, 1845:274 (in revision of world Hymenoptera); F. Smith, 1856:322 (in catalog of Hymenoptera in British Museum); Gerstaecker, 1871:853 (Kenya: Wanga area), 1873:333 (Kenya: Wanga area); Handlirsch, 1893c:800 (in revision of world Bembicinae); Dalla Torre, 1897:507 (in catalog of world Sphecidae); Bingham, 1902:211 (South Africa); Longstaff, 1911:125 (Sudan: Khartum); von Schulthess,

1926b:218 (Tunisia); Scott *in* Arnold, 1933a:371 (Ethiopia: Harer District); Giner Mari, 1947:26 (Western Sahara); Shalaby, 1961:226 (Saudi Arabia: Jeddah); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); Gadallah, 2002:63 (in key to Egyptian *Bembix* based on male genitalia). – **As *Bembyx lusca***: Priesner, 1958:26 (in revision of Egyptian *Bembix*). – **As *Bembix lusca***: Lohrmann, 1939:142 (member of *melanopa* group); Guiglia, 1943c:75 (Ethiopia: Gamo Gofa: Sagan – Omo region), 1950:243 (Ethiopia: Gamo Gofa: Caschei, Elolo); de Beaumont, 1966:212 (Egypt: Abukir near Alexandria); R. Bohart and Menke, 1976:547 (listed); Gadallah, 1997:265 (in revision of Egyptian *Bembix*); Ohl, 1999b:245 (additional paratype in Berlin Museum); Gadallah and Assery, 2004a:219 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 231 (in catalog of Sphecidae of Saudi Arabia).

Bembex pectoralis Dahlbom, 1845:489, ♀. Holotype: ♀, southern Egypt or northern Sudan: Nubia: no specific locality (Stockholm). Synonymized with *Bembex lusca* by de Beaumont, 1949a:128. – F. Smith, 1856:322 (in catalog of Hymenoptera in British Museum); Handlirsch, 1893c:894 (original description copied); Dalla Torre, 1897:511 (in catalog of world Sphecidae); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection).

175. *lutescens* Radoszkowski

Bembex lutescens Radoszkowski, 1877:49, ♂. Holotype or syntypes: ♂, Kazakhstan: Kara-Kum: no specific locality (ZMMU). – Handlirsch, 1893c:889 (original description copied); Dalla Torre, 1897:507 (in catalog of world Sphecidae); R. Bohart and Menke, 1976:547 (listed); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:131 (geographic distribution, collecting localities in Kazakhstan).

176. *luzonensis* J. Parker

Bembex luzonensis J. Parker, 1929:141, ♀. Holotype: ♀, Philippines: Luzon: no specific locality (ZMHU). – Lohrmann, 1939:139 (member of *papua* species group of *Bembix*); Baltazar, 1966:350 (in catalog of Hymenoptera of Philippines); R. Bohart and Menke, 1976:547 (listed); Tsuneki et al., 1992c:32 (in key to *Bembix* of Philippines), 38 (bibliographic references).

177. *madecassa* de Saussure

Bembex madecassa de Saussure, 1890: pl. 11, fig. 2, ♀. Holotype: ♀, illustrated specimen, Madagascar: no specific locality (MHNG). – de Saussure, 1892:456 (Madagascar, redescription); Handlirsch, 1893c:818 (in revision of world Bembicinae), 1895:1003 (Comoro Islands); Dalla Torre, 1897:507 (in catalog of world Sphecidae); Friese, 1909:267 (Aldabra); Kohl, 1909:373 (Madagascar: Tamatave, Toliara); R. Turner, 1911b:371 (Seychelles Islands). – **As *Bembix madecassa***: J. Parker, 1929:139 (in revision of Stizini and Bembicini); Arnold, 1945:79 (Madagascar; redescription); Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembix*); Leclercq, 1960a:100 (Madagascar), 1961d:104 (in key to *Bembix* of Madagascar), 105 (Madagascar); R. Bohart and Menke, 1976:547 (listed); Madl, 1997:821 (Madagascar: Nosy Boraha Island), 822 (in checklist of Nosy Boraha Sphecidae), 2001:1108 (Aldabra Island group); Pulawski, 2003b:795 (in checklist of Malagasy Sphecidae); Parnaudeau and Madl, 2009:459 (Island of Grande Glorieuse, western Indian Ocean).

Bembex militaris de Saussure, 1890:pl. 11, figs. 3, ♀. Holotype: ♀, illustrated specimen, Madagascar: no specific locality (ZMHU). Synonymized with *Bembex hova* by Handlirsch, 1893c:734, and with *Bembex madecassa* by Arnold, 1945:79.

Bembex madecassa de Saussure, 1891:260, ♀. Objective synonym of *Bembex madecassa* de Saussure, 1890. Lectotype: ♀, Madagascar: Antananarivo (MHNG), unnecessary designation by Leclercq, 1961d:105. – de Saussure, 1892:456 (Madagascar, redescription).

Bembex militaris de Saussure, 1891:260, ♀. Objective synonym of *Bembex militaris* de Saussure, 1890. Lectotype: ♀, Madagascar: no specific locality (MHNG), unnecessary designation by Leclercq, 1961d:105

Bembex militaris de Saussure, 1892:459, ♀. Objective synonym of *Bembex madecassa* de Saussure, 1890.

Bembex crinita de Saussure, 1891:260, ♀. Lectotype: ♀, Madagascar: no specific locality (MHNG), designated by Leclercq, 1961d:105. Synonymized with *Bembex madecassa* by de Saussure, 1892:456.

As *Bembex hova*: de Saussure, 1892:458 (♂ only) and Handlirsch, 1893c:734 (in revision of world Bembicinae, ♂ only), ♀ corrected to *Bembix madecassa* by Arnold, 1945:79.

178. *magarra* Evans and Matthews

Bembix magarra Evans and Matthews, 1973:233, ♀, ♂. Holotype: ♀, Australia: Western Australia: South Hedland (QMB). – R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:290 (in catalog of Australian Sphecidae).

179. *magdalenae* C. Fox

Bembix magdalenae C. Fox, 1926:220, ♂. Holotype: ♂, Mexico: Baja California Sur: Magdalena Bay = Bahía Magdalena (CAS). – J. Parker, 1929:81 (in revision of Stizini and Bembicini); Lohrmann, 1948:445 (member of *magdalenae* species group of *Bembix*); Evans and Matthews, 1968b:1291 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:547 (listed, as *magdalena*); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae, as *magdalena*).

180. *maidli* von Schulthess

Bembex maidli von Schulthess, 1927:302, ♂. Holotype: ♂, Sudan: Port Sudan (DEI). – Oehlke and Wudowenz, 1974:424 (holotype in DEI). – As *Bembix maidli*: Lohrmann, 1948:421 (in checklist of recently described *Bembix*), 448 (member of *mediterranea* species group of *Bembix*); R. Bohart and Menke, 1976:547 (listed); Gadallah, 1997:266 (in revision of Egyptian *Bembix*), 2002:65 (in key to Egyptian *Bembix* based on male genitalia).

181. *maldivensis* Cameron

Bembex maldivensis Cameron, 1901d:56, ♀, ♂. Syntypes: India: Maldives Archipelago: Goifurfehendu Atoll: Goidu; Mahlos Atoll: Hedufuri; and Male Atoll: Hulule (BMNH). – Ramakrishna Aiyar, 1916:557 (in catalog of Indian aculeates described after Bingham, 1897). – As *Bembix maldivensis*: Lohrmann, 1948:423 (in checklist of recently described *Bembix*, as *maldiviensis*), 450 (member of *megadonta* species group of *Bembix*, as *maldiviensis*); R. Bohart and Menke, 1976:547 (listed, as *maldiviensis*, a misspelling from Zoological Records, 1902).

182. *maliki* Evans and Matthews

Bembix maliki Evans and Matthews, 1973:96, ♀, ♂. Holotype: ♂, Australia: South Australia: Coward Springs 82 mi NW Maree (SAMA). – R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:290 (in catalog of Australian Sphecidae).

183. *mareeba* Evans and Matthews

Bembix mareeba Evans and Matthews, 1973b:42, ♀, ♂. Holotype: ♀, Australia: Queensland: Granite Creek 21 mi S Miriam Vale (ANIC). – R. Bohart and Menke, 1976:547 (listed); Evans, Evans, and Hook, 1982:71 (nesting habits, prey); Cardale, 1985:290 (in catalog of Australian Sphecidae); Pagliano, 2003a:506 (Australia: first record from Northern Territory: Kakadu National Park); Evans and O'Neil, 2007:186 (summary of information on nesting habits); Jacobi, 2007:8 (Australia: Queensland: Chillagoe and Kuranda; diagnostic characters).

184. *marhra* Evans and Matthews

Bembix marhra Evans and Matthews, 1973:212, ♂. Holotype: ♂, Australia: Western Australia: Wolf Creek (SAMA). – R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:290 (in catalog of Australian Sphecidae).

185. *marsupiata* Handlirsch

Bembex marsupiata Handlirsch, 1893c:757, ♀, ♂. Syntypes: Australia: Western Australia: no specific locality and Swan River (Hamburg Mus., NHMW). – Dalla Torre, 1897:507 (in catalog of world Sphecidae); R. Turner, 1915e:442 (in revision of Australian *Bembix*). – As *Bembix marsupiata*: Evans and Matthews, 1973:109 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:290 (in catalog of Australian Sphecidae).

186. *massaica* Cameron

NOTE. I follow Arnold, 1929b:365 in recognizing *Bembix massaica* as a valid species. R. Turner (1917:439) and R. R. Bohart and Menke (1976:546) regarded it as a synonym of *Bembix forcipata*.

Bembix massaica Cameron, 1908a:290, ♀, ♂. Syntypes: Kenya: Mt. Meru lowlands: Ngare na nyuki and Tanzania: Usambara Mts: Mombo (NRS). – Turner, 1917c:439 (as synonym of *Bembix forcipata*); Arnold, 1929b:365 (valid species, in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae), 1933a:359 (Ethiopia). – **As *Bembix massaica***: Guiglia, 1943c:75 (Ethiopia: Gamo Gofa: Sagan – Omo region); Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembix*); Guiglia, 1950:239 (Ethiopia: Gamo Gofa: Caschei); R. Bohart and Menke, 1976:546 (as synonym of *Bembix forcipata*).

187. *megadonta* Cameron

Bembix megadonta Cameron, 1904j:261, ♂. Holotype or syntypes: ♂, India: West Bengal: Darjeeling (BMNH). – Ramakrishna Aiyar, 1916:557 (in catalog of Indian aculeates described after Bingham, 1897). – **As *Bembix megadonta***: Lohrmann, 1948:423 (in checklist of recently described *Bembix*, as *megadonta*), 450 (member of *megadonta* species group of *Bembix*, as *megadonta*); R. Bohart and Menke, 1976:547 (listed).

188. *megerlei* Dahlbom

Bembix megerlei Dahlbom, 1845:492, ♂. Holotype or syntypes: ♂, “Austria”, probably today’s Croatia or Hungary: no specific locality (LUND or Stockholm). – F. Smith, 1856:320 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:218 (in catalog of European Hymenoptera); Handlirsch, 1893c:729 (in revision of world Bembicinae); Dalla Torre, 1897:508 (in catalog of world Sphecidae); Mocsáry, 1897:83 (Kingdom of Hungary, some localities are in today’s Romania and Slovakia); Vángel, 1905:167 (Hungary); Móczár and Henter, 1907:206 (Hungary: Tiszaalpár); Schmiedeknecht, 1907: 215, 216 (in key to Hymenoptera of Central Europe); Fahringer, 1922:179 (Turkey); Schmiedeknecht, 1930:677, 678 (in keys to Hymenoptera of North and Central Europe); Guiglia, 1932d:479 (Libya: Gialo), 1934b:299 (Libya: bibliography and summary of locality records); Zavadil, 1934:187 (Slovakia); Zavadil, Šusterka, and Bat'a, 1937:186 (in catalog of Sphecidae of Czechoslovakia); Móczár, 1939:5 (Hungary: Jászberény); Scobiola, 1950:18 (Romania: Agigea-Constanța, Manglia); Zavadil, 1951:86 (Slovakia: Chotín, Seleška, Nove Zámky, Somotor); Móczár, 1953:310 (Hungary); Vogrin, 1955:34 (Yugoslavia); Bajári, 1957a:20, 23 (in key to Hungarian Sphecidae); Benedek, 1969a:83 (Hungary; marshy meadow); Józán, 1985b:61 (Hungary: Somogytúr), 81 (floral records), 84 (ecological and zoogeographic characteristics); Scobiola-Palade, 1985:95 (Romania: delta of Danube); Józán, 1986:374 (Hungary: Kiskunság National Park); Karsai, 1988:101 (Hungary: Kiskunság National Park); Pádr *in* Šedivy, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Gorobchishin, 1995:19 (Ukraine: Kanev Nature Reserve). – **As *Bembix megerlei***: J. Parker, 1929:115 (in revision of Stizini and Bembicini); Lohrmann, 1948:451 (member of *megerlei* species group of *Bembix*); Šnoflak *in* Zavadil and Šnoflak, 1948:82, 83 (in key to Sphecidae of Czechoslovakia); Pulawski, 1958a:169 (Bulgaria: Nessebar, Sozopol, Varna); Scobiola-Palade, 1966b:391 (Romania: Tulcea District: Chilia Veche, Periprava); Balthasar, Hrubant, and Hrubant, 1967:175 (Bulgaria: Slanchev Bryag near Nessebar); Scobiola-Palade, 1967a:161 (Romania: Constanța District: Mangalia), 1967b:38 (Romania), 1968b:141 (Romania: Island of Letea in delta of Danube); Balthasar, 1972:377 (in Sphecid Fauna of Czechoslovakia); Scobiola-Palade, 1972a:149 (Romania); R. Bohart and Menke, 1976:547 (listed); Kazenas, 1978b:87, 90 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:209 (in key to Sphecidae of European part of former USSR); Dollfuss, 1991:209 (in key to Sphecidae of North and Central Europe); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Ljubomirov, 2000:13 (Bulgaria, specimens in N. Nedelkov collection); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 239 (preys on *Deixomorpha licia* M. according to Malyshev, 1959); Shkuratov, 2001:17 (prey: Asilidae and Bombyliidae); Kazenas, 2002a:131 (geographic distribution, collecting localities in Kazakhstan); Shkuratov, 2002b:140 (Russia: Rostov Oblast': Rostovskiy Nature Reserve at 46°27'N 42°41'E); Jacobs, 2005a:440 (Bulgaria: Arkutino near Burgas, Michurin); Shorenko, 2005a:168 (Ukraine: Crimea), 2005b:98 (Ukraine: Crimea:

Karadagh Nature Reserve); Vepřek and Straka, 2007:209 (in catalog of Sphecidae of Czech Republic and Slovakia, known only from Slovakia); Danilov and Tshernyshev, 2008:42 (Russia: Novosibirsk Oblast': Karasuk area); Ljubomirov and Yildirim, 2008:119 (in catalog of Crabronidae of Turkey); Guéorguiev and Ljubomirov, 2009:263 (Bulgaria: Maleshevska Planina).

? *Bembex undata* Dahlbom, 1845:487, ♀. Holotype or syntypes: ♀, southern Europe: no specific locality (LUND). Tentatively synonymized with *Bembex megerlei* by Handlirsch, 1893c:729. – F. Smith, 1856:320 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:218 (in catalog of European Hymenoptera); Dours, 1874:148 (in catalog of Hymenoptera of France); Chyzer, 1902:34 (Hungary); de Gaulle, 1908:120 (in catalog of Hymenoptera of France).

Bembex sarafschani Radoszkowski, 1877:48, ♀, ♂ (as *Sarafschani*, incorrect original capitalization). Syntypes: Uzbekistan: Zaravshan valley: no specific locality; also: Gulsh (ZMMU). Synonymized with *Bembex megerlei* by Handlirsch, 1893c:729.

189. *melanaspis* J. Parker

Bembex melanaspis J. Parker, 1917:109, ♀, ♂. Holotype: ♂, USA: California: Los Angeles County: no specific locality (USNM), see Cockerell, 1918:60. – J. Parker, 1929:136 (in revision of Stizini and Bembicini); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembex*); Evans and Matthews, 1968b:1297 (in revision of North American *Bembex*); R. Bohart and Horning, 1971:18 (in revision of California Bembicini); Alcock and Gamboa, 1975b:160 (nesting habits); R. Bohart and Menke, 1976:547 (listed); Krombein, 1979b:1713 (in catalog of North American Hymenoptera, nest structure, list of prey); Evans, 2002a:3 (preying mainly on Diptera, occasionally on non-Diptera); Ruiz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Evans and O'Neil, 2007:165 (summary of information on nesting habits). – **As *Epibembex melanaspis***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera).

190. *melancholica* F. Smith

Bembex melancholica F. Smith, 1856:328, ♀, ♂. Syntypes: Indonesia: Sumatra: no specific locality (BMNH). – F. Smith, 1857b:105 (Borneo: Sarawak), 1859a:160 (Indonesia: Aru Island), 1862:55 (Indonesia); A. Costa, 1864a:61 (one specimen from Sumatra in Museo Zoologico di Napoli); F. Smith, 1865:85 (New Guinea: Salawati Island; Moluccas: Morotai Island); Cameron, 1890b:247 (listed); Handlirsch, 1893c:783 (in revision of world Bembicinae), 1895:1003 (reference to Smith, 1858); Bingham, 1897:286 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); Dalla Torre, 1897:508 (in catalog of world Sphecidae); Cameron, 1901a:26 (Singapore); R. Brown, 1906:687 (in catalog of Philippine Hymenoptera, as *melancholica*); Cameron, 1906c:58 (citation of earlier records); J. Parker, 1937:129 (Sarawak). – **As *Bembex melancholica***: J. Parker, 1929:148 (in revision of Stizini and Bembicini); Lohrmann, 1939:139 (member of *papua* species group of *Bembex*); Baltazar, 1966:350 (occurrence in Philippines doubtful); R. Bohart and Menke, 1976:547 (listed).

Bembex khasiana Cameron, 1904e:123, ♀ (as *Khasiana*, incorrect original capitalization). Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). Synonymized with *Bembex melancholica* by Meade-Waldo in Meade-Waldo, Morley, and Turner, 1915:335. – Ramakrishna Aiyar, 1916:557 (in catalog of Indian aculeates described after Bingham, 1897) – **As *Bembex khasiana***: Lohrmann, 1948:422 (in checklist of recently described *Bembex*), 450 (member of *integra* species group of *Bembex*); R. Bohart and Menke, 1976:547 (listed).

191. *melanopa* Handlirsch

Bembex melanopa Handlirsch, 1893c:797, ♀, ♂. Syntypes: Mozambique: Delagoa Bay (ZMHU); South Africa: Natal, now Kwazulu Natal: no specific locality (MHNG). – Bingham, 1902:211 (South Africa, Malawi); Dalla Torre, 1897:508 (in catalog of world Sphecidae); Kohl, 1906a:212 (Yemen: Socotra Island); Arnold, 1929b:354 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae); Cuthbertson, 1939:1 (nest parasite: *Craticulina tabaniformis* (Fabricius), a sarcophagid). – **As *Bembex melanopa***: J. Parker, 1929:115 (in revision of Stizini and Bembicini); Lohrmann, 1939:142 (member of *melanopa* group); Guiglia, 1943c:75 (Ethiopia:

Gamo Gofa: Sagan – Omo region), 1950:239 (Ethiopia: Gamo Gofa: Caschei); Leclercq, 1955i:407 (Rwanda); R. Bohart and Menke, 1976:547 (listed); Gess, 1981:21 (South Africa: 18 km WNW Grahamstown; nesting in firm sand; prey), 1986:153 (nesting habits); S. Gess, 1996:280, 281 (floral records); Evans and O'Neil, 2007:185 (summary of information on nesting habits).

Bembix melanosoma Gribodo, 1894c:132, ♂. Holotype: ♂, Mozambique: Magnarra River (Mus. Zool. Univ. Bologna). Synonymized with *Bembix melanopa* by W. Schulz, 1911b:174. – Gribodo, 1895:356 (Mozambique: Maputo); Handlirsch, 1895:1004 (original description copied); Dalla Torre, 1897:508 (in catalog of world Sphecidae); W. Schulz, 1911b:174 (additional description). – **As *Bembix melanosoma***: R. Bohart and Menke, 1976:547 (listed); Tommasini and Marini, 1984:45 (type depository).

ssp. *algoensis* Arnold

Bembix melanopa race *litoralis* Arnold, 1929b:356, ♀, ♂, junior primary homonym of *Bembix littoralis* R. Turner, 1908. Syntypes: South Africa: Eastern Cape Province: Algoa Bay (R. Stevenson coll., now SAM). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix littoralis***: Lohrmann, 1939:142 (member of *melanopa* group).

Bembix melanopa algoensis Arnold, 1946:97. Substitute name for *Bembix littoralis* Arnold, 1929. – R. Bohart and Menke, 1976:547 (listed).

192. *melanura* F. Morawitz

Bembix melanura F. Morawitz, 1889a:141, ♂. Holotype or syntypes: ♂, China or Mongolia: U-tai Monastery (ZIN). – Handlirsch, 1893c:858 (in revision of world Bembicinae); Dalla Torre, 1897:508 (in catalog of world Sphecidae); Gussakovskij, 1933b:296 (Iran), 1935:444 (Tajikistan: Dora-i-Khoja in Hissar Range); Gadallah, 2002:65 (in key to Egyptian *Bembix* based on male genitalia). – **As *Bembyx melanura***: Priesner, 1958:32 (in revision of *Bembix* of Egypt). – **As *Bembix melanura***: de Beaumont, 1957b:136 (n. Iran), 1957e:621 (recognition characters), 1960b:236 (Libya), 1961b:274 (Afghanistan); R. Bohart and Menke, 1976:547 (listed); Nazarova and Baratov, 1981:100 (Tajikistan: Hissar Range: Kondara, Daran-Hodja); Wu and Zhou, 1996a:158 (in revision in Economic Insect Fauna of China); Gadallah, 1997:264 (in revision of Egyptian *Bembix*); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia); Hua, 2006:277 (in list of Chinese insects, geographic distribution).

Bembix asiatica Radoszkowski, 1893a:65, ♂. Holotype or syntypes: ♂, Turkmenistan: Serax (Kraków). Synonymized with *Bembix melanura* by Handlirsch, 1893c:858.

As *Bembix repanda* Latreille: Kirchner, 1867:218 (in catalog of European Hymenoptera); F. Morawitz, 1891a:225 (Russia: Astrakhan Government, *melanura* is a new synonym), 1893b:423 (Tajikistan: Varzaminor 70 km E Samarkand).

193. *merceti* J. Parker

Bembix handlirschi Mercet, 1904a:343, ♀, ♂ (as *Handlirschi*, incorrect original capitalization), junior primary homonym of *Bembix handlirschi* Cameron, 1901. Syntypes: Spain: Madrid: Aranjuez, El Escorial, Madrid, Montarco, Morata de Tajuña; and Avila: Navalperal (MNCN). – Mercet, 1904a:351, 354 (in key to Spanish species); Dusmet y Alonso, 1906:6 (Spain), 1915:87 (Spain: Aragón), 1935:57 (Spain: Madrid: Zarzalejo); Giner Marí, 1943a:200 (in Sphecid Fauna of Spain), 1943b:24 (Spain; redescription); de Beaumont, 1953c:77 (interpretation of species).

Bembix merceti J. Parker 1929:110. Substitute name for *Bembix handlirschi* Mercet, 1904. – Lohrmann, 1948:451 (member of *merceti* species group of *Bembix*); Ceballos, 1956:385 (in catalog of Hymenoptera of Spain), 1959:230 (in supplement to catalog of Spanish Sphecidae); de Beaumont, 1962b:22 (Spain); Suárez, 1969:29 (Spain: Almería Province); R. Bohart and Menke, 1976:547 (listed); Gayubo, 1983e:235 (Spain: Salamanca Province), 1985c:171 (Spain: Segovia: Cantalejo; Valladolid: Puente de Uro), 1986b:40 (Spain: Andalucía) Gayubo, 1986d:121 (Spain: Zamora Province); Gayubo and Sanza, 1986:81 (Spain: Burgos); Gayubo, Asís, and Tormos, 1990b:79 (Spain: Valladolid and Zamora Provinces); Asís, Gayubo, and Tormos, 1992:222 (nesting habits, larva); Torregrosa, Gayubo, Tormos, and Asís, 1993:20 (Spain: Alicante Province); Tormos, Asís, and Gayubo, 1994:189, 221 (Spain:

Albacete Province); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:274 (in Sphecid Fauna of Western Europe); Gayubo, García, Torres, and González, 1999:91 (Spain: Soria Province); Gonzáles, Gayubo, and Torres, 1999:356 (Spain: Valladolid: Viana de Cega); Asís, Tormos, and Gayubo, 2004:1800 (nesting habits and provisioning); Gayubo, González, de la Nuez, Asís, and Tormos, 2006:206 (Spain: Huesca: Ainsa); Evans and O'Neil, 2007:173 (summary of information on nesting habits); Gayubo, González, Tormos, and Asís, 2009:365 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero). – **As *Bembex merceti***: Giner Marí, 1943b:24 (Spain; redescription); Ceballos, 1949:101 (Spain), 1964:92 (in supplement to catalog of Spanish Sphecidae).

194. *mianga* Evans and Matthews

Bembix mianga Evans and Matthews, 1973:213, ♀, ♂. Holotype: ♂, Australia: New South Wales: 3 mi W Wentworth (ANIC). – Evans and Matthews, 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:290 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:202 (summary of information on nesting habits).

195. *Bembex mildei* Dahlbom

Bembex mildei Dahlbom, 1845:491, ♀ (as *Mildei*, incorrect original capitalization). Holotype or syntypes: ♀, southern Europe: no specific locality (LUND). – F. Smith, 1856:320 (listed, as *Wildei*); Kirchner, 1867:218 (in catalog of European Hymenoptera); Handlirsch, 1893c:889 (original description copied); Dalla Torre, 1897:508 (in catalog of world Sphecidae). – **As *Bembex mildei***: R. Bohart and Menke, 1976:547 (listed); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997: 274 (listed).

196. *mima* Handlirsch

Bembex mima Handlirsch, 1893c:795, ♀. Holotype: ♀, Mexico: Guerrero: Tierra Colorada, Tepetlapa, or Venta de Zopilote (BMNH). – Dalla Torre, 1897:508 (in catalog of world Sphecidae); Cameron, 1890a:101 (Mexico); Ashmead, 1899d:240 (in checklist of North American Crabronidae, as *mimas*). – **As *Bembex mima***: J. Parker, 1929:70 (in revision of Stizini and Bembicini, description of ♂); Evans and Matthews, 1968b:1289 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:547 (listed); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae).

197. *mindanaonis* Tsuneki

Bembix mindanaonis Tsuneki in Tsuneki et al., 1992c:38, ♀, ♂. Holotype: ♂, Philippines: Mindanao: Cagayan de Oro, Opol Beach (USNM). – Tsuneki et al., 1992c:33, 34 (in key to *Bembix* of Philippines); Nuhn and Menke, 1994:26 (holotype in USNM).

198. *minya* Evans and Matthews

Bembix minya Evans and Matthews, 1973:147, ♀, ♂. Holotype: ♂, Australia: Victoria: 5-15 mi S Rainbow (ANIC). – R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:291 (in catalog of Australian Sphecidae); Evans, 2002a:5 (known to prey on damselflies); Evans and O'Neil, 2007:198 (summary of information on nesting habits).

199. *modesta* Handlirsch

Bembex modesta Handlirsch, 1893c:821, ♂. Holotype: ♂, Guinea: no specific locality (NHMW). – Dalla Torre, 1897:508 (in catalog of world Sphecidae); Arnold, 1929b:363 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembex modesta***: R. Bohart and Menke, 1976:547 (listed).

200. *moebii* Handlirsch

Bembex moebii Handlirsch, 1993c:775, ♀, ♂ (as *Möbii*, incorrect original capitalization and diacritic mark). Syntypes: Mozambique: Delagoa Bay, now Maputo Bay (ZMHU). – Dalla Torre, 1897:508 (in catalog of world Sphecidae); Arnold, 1929b:343 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembex moebii***: J. Parker, 1929:83 (in revision of Stizini and Bembicini, as *mobii*); Giordani Soika, 1939c:105

(Eritrea: Mai Daro); R. Bohart and Menke, 1976:547 (listed); Gess, 1986:154 (South Africa: former Transvaal; prey).

Bembix testaceicauda Cameron, 1910:144, ♀. Holotype or syntypes: South Africa: former Transvaal: no specific locality may be in Gauteng, Mpumalanga, Limpopo, or part of North West Province (TMP). Synonymized with *Bembix moebii* by Brauns, 1917:241. – Brauns, 1917:241 (holotype is ♀).

201. *mokari* Evans and Matthews

Bembix mokari Evans and Matthews, 1973b:310, ♀. Holotype: ♀, Australia: South Australia: Coward Springs 82 mi NW Maree (SAMA). – R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:291 (in catalog of Australian Sphecidae).

202. *moma* Evans and Matthews

Bembix moma Evans and Matthews, 1973:195, ♀, ♂. Holotype: ♂, Australia: Western Australia: Kununurra (ANIC). – Evans and Matthews, 1975:111 (preying on bees, wasps, and flies); R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:291 (in catalog of Australian Sphecidae); Evans, 2002a:4 (preying mainly on Diptera, but regularly using non-Diptera); Evans and O'Neil, 2007:199 (summary of information on nesting habits).

203. *monedula* Handlirsch

Bembix monedula Handlirsch, 1893c:789, ♀, ♂. Syntypes: Mozambique: Delagoa Bay, now Maputo Bay (ZMHU, IRSN). – Dalla Torre, 1897:508 (in catalog of world Sphecidae); Arnold, 1929b:353 (original description translated into English), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix monedula***: R. Bohart and Menke, 1976:547 (listed).

204. *moonga* Evans and Matthews

Bembix moonga Evans and Matthews, 1973:167, ♂. Holotype: ♂, Australia: Western Australia: Wiluna (ANIC). – R. Bohart and Menke, 1976:347 (listed); Cardale, 1985:291 (in catalog of Australian Sphecidae).

205. *multipicta* F. Smith

Bembix multipicta F. Smith, 1873c:300, ♀. Holotype or syntypes: ♀, Mexico: Oaxaca: no specific locality (BMNH). – Cameron, 1890a:100 (Mexico, Guatemala; redescription); Handlirsch, 1893c:831 (in revision of world Bembicinae); Dalla Torre, 1897:509 (in catalog of world Sphecidae); Ashmead, 1899d:239 (in checklist of North American Crabronidae); Strand, 1911a:152 (Ecuador); Cameron, 1912a:431 (Guyana). – **As *Epibembex multipicta***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera). – **As *Bembix multipicta***: J. Parker, 1929:133 (in revision of Stizini and Bembicini); Lohrmann, 1948:426 (illustration of head in frontal view), 444 (member of *spinolae* species group of *Bembix*); Evans, 1964b:270, 271 (description of larva), 1966d:337 (nesting habits); Evans and Matthews, 1968b:1297 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:547 (listed); Cane and Miyamoto, 1979:672 (nest defense and foraging); Nascimento and Overall, 1980:3 (Brazil); Maes, 1989:96 (in catalog of Nicaraguan Sphecidae); Raymond, 1989:305 (French Guyana, nesting habitats); Hanson and Menke, 1995:648 (known from Costa Rica); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruiz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Evans and O'Neil, 2007:172 (summary of information on nesting habits); Horta Vega, Pinson Domínguez, Barrientos Lozano, and Correa Sandoval, 2007: 45 (Mexico: Tamaulipas).

Bembix frioensis J. Parker, 1929:116, ♀, ♂. Holotype: ♂, Colombia: Río Frio (USNM). Synonymized with *Bembix multipicta* by Evans and Matthews, 1968b:1297. – Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*).

206. mundurra Evans and Matthews

Bembix mundurra Evans and Matthews, 1973:179, ♀, ♂. Holotype: ♂, Australia: 6 mi W Mullewa (WAMP). – Evans and Matthews, 1975:111 (preying on Diptera); R. R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:291 (in catalog of Australian Sphecidae); Evans and O’Neil, 2007:201 (summary of information on nesting habits).

207. munta Evans and Matthews

Bembix munta Evans and Matthews, 1973:210, ♂. Holotype: ♂, Australia: Western Australia: 60 mi S Carnarvon (ANIC). – R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:291 (in catalog of Australian Sphecidae).

208. musca Handlirsch

Bembex musca Handlirsch, 1893a:844, ♂ (as *Musca*, incorrect original capitalization). Syntypes: Australia: no specific locality (MHNG). – Dalla Torre, 1897:509 (in catalog of world Sphecidae); R. Turner, 1915e:444 (in revision of Australian *Bembix*). – **As *Bembix musca***: Evans and Matthews, 1973:251 (in revision of Australian *Bembix*), 1975:110, 111 (preying on stingless bees of the genus *Trigona*); R. Bohart and Menke, 1976:547 (listed); Evans, Evans, and Hook, 1982:78 (nesting site); Cardale, 1985:291 (in catalog of Australian Sphecidae); Kifune and Hirashima, 1987:158 (parasite in Australia: *Paraxenos australiensis* Kifune and Hirashima); McCorquodale and Thomson, 1989:95 (citation of Evans and Matthews, 1973); Naumann, 1993:183 (Australia: Queensland: Heathlands area in Cape York); Evans, 2002a:5 (known to prey on Apidae); Evans and O’Neil, 2007:203 (summary of information on nesting habits); Jacobi, 2007:13 (Australia: Queensland: Kuranda area; males patrolling nesting area).

Bembex mackayensis Turner, 1910a:351, ♀, ♂. Syntypes: Australia: Queensland: Cairns and Mackay (BMNH). Synonymized with *Bembix musca* by Evans and Matthews, 1973:251. – R. Turner, 1915e:445 (in revision of Australian *Bembix*); Lohrmann, 1948:423 (in checklist of recently described *Bembix*).

209. namibensis Gess

Bembix namibensis Gess, 1986:138, ♂. Holotype: ♂, Namibia: Namib Plain 15 mi E Natab (Albany Mus.).

210. nasuta Morice

Bembex nasuta Morice, 1897:314, ♂. Holotype or syntypes: ♂, Egypt: vicinity of Cairo (OXUM). – **As *Bembix nasuta***: R. Bohart and Menke, 1976:547 (listed).

211. nigripina Guichard

Bembix nigripina Guichard, 1989a:145, ♂. Holotype: ♂, United Arab Emirates: Suweihan (BMNH).

212. nigrocornuta J. Parker

Bembix nigrocornuta J. Parker, 1929:106, ♀, ♂. Holotype: ♂, India: Gujarat: Deesa (USNM). – R. Bohart and Menke, 1976:547 (listed).

213. nigropectinata R. Turner

Bembex nigropectinata R. Turner, 1936:538, ♂ (as *nigropectinatus*, incorrect original termination). Holotype or syntypes: ♂, Western Australia: Mingenew (BMNH). – **As *Bembix nigropectinata***: Lohrmann, 1948:423 (in checklist of recently described *Bembix*); Evans and Matthews, 1973b:45 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:547 (listed); Cardale, 1985:291 (in catalog of Australian Sphecidae).

214. nilotica Priesner

Bembix nilotica Priesner, 1958:15, ♀, ♂. Holotype: ♂, Egypt: Abukir near Alexandria (Ministry of Agriculture or Ain Shams Univ., both Cairo). – **As *Bembix nilotica***: R. Bohart and Menke, 1976:547 (listed); Guichard, 1989a:147 (Arabian Peninsula); Gadallah, 1997:260 (in revision of Egyptian *Bembix*), 2002:65 (in key to Egyptian *Bembix* based on male genitalia, as *Bembex*); Gadallah and Assery, 2004a:231 (in catalog of Sphecidae of Saudi Arabia).

215. niponica F. Smith

Bembex niponica F. Smith, 1873a:194, ♂. Syntypes: Japan: Hyogo (BMNH). – Handlirsch, 1893c:889 (original description translated into German); Dalla Torre, 1897:509 (in catalog of world Sphecidae); Tsuneki, 1936:64 (nesting habits), 1956h:77 (nesting habits monograph), 1957a:1 (nesting habits monograph), 1958a:1 (nesting habits monograph), 1965c:27 (in key to Bembicinae of Japan and Korea), 1965e:19 (nesting habits), 1971i:5 (Taiwan; discussion); Suda, 1973:123 (Japan: Yamanashi Prefecture). – **As *Bembex niponica***: J. Parker, 1929:120 (in revision of Stizini and Bembicini); Torikata, 1930:87 (nesting habits); Baba, 1935:84 (Japan: Sado Island); Iwata, 1936c:244 (nesting habits); Baba, 1937:21 (nesting habits); Lohrmann, 1948:452 (member of *sinuata* species group of *Bembex*); Tano, 1964:38 (Japan: Kyushu: Yakushima Island); Fukuda, 1968:27 (Japan); Nishino, 1968:25 (Japan); T. Iida, 1969b:286 (description of mature larva); Itami, 1969:47 (Japan: Niigata Prefecture, as *niponica niponica*); R. Bohart and Menke, 1976:547 (listed); Kazenas, 1980e:85 (Russia: Far East); Hilchie, 1982:110 (accessory burrows reviewed); Tsuneki, 1982g:63 (known from Ryukyu archipelago); Miyatake, 1996:103 (specimens in Hiroshi Aoki collection, as *niphonica*); Yamane, Ikudome, and Terayama, 1999:534 (in Identification Guide to Crabronidae of Nansei = Ryukyu Islands, Japan); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia); Ohl and Linde, 2003:150 (number of ovarioles); Kazenas, 2002a:132 (geographic distribution, collecting localities in Kazakhstan, as *nipponica*); Suda, 2004:47 (Japan: Yamanashi Prefecture); Kinota, Haneda, and Tano, 2005:31 (Japan: Hokkaido); Negoro, Haneda, and Tano, 2005:49 (Japan: Toyama Prefecture); Haneda, Nozaka, Tano, Kurokawa, and Murota, 2006:30 (Japan: Toyama Prefecture); Hisamatsu, 2006:25 (Japan: nesting outside Ibaraki Nature Museum); Evans and O'Neil, 2007:174 (summary of information on nesting habits); Nemkov, 2008b:25 (in catalog of Crabronidae of Asiatic Russia).

Bembex miserabilis J. Parker, 1929:108, ♀, ♂. Holotype: ♂, Japan: no specific locality (Cornell Univ.). Synonymized with *Bembex niponica* by Tsuneki, 1965c:27. – Lohrmann, 1948:452 (member of *rostrata* species group of *Bembex*).

ssp. picticollis F. Morawitz

Bembex picticollis F. Morawitz, 1889a:144, ♀, ♂. Syntypes: China or Mongolia: Hetshuen (ZIN). – Handlirsch, 1893c:767 (in revision of world Bembicinae); Dalla Torre, 1897:511 (in catalog of world Sphecidae); Meade-Waldo in Meade-Waldo, Morley, and Turner, 1915:335 (as synonym of *Bembex niponica*). – **As *Bembex picticollis***: J. Parker, 1929:114 (in revision of Stizini and Bembicini); Yasumatsu and Narisada, 1935:72: (China: Liaodang: Dairen, now Dalian); Yasumatsu, 1940:31 (China: Inner Mongolia: Kunshan-tagh Desert), 1942c:108 (China: Beijing; Nei Mongol: Apaka at 44°N 114.96°E); Lohrmann, 1948:452 (member of *rostrata* species group of *Bembex*). – **As *Bembex niponica picticollis***: Tsuneki, 1965c:27 (new status, in key to Bembicinae of Japan and Korea), 1967e:2 (China: Manchuria), 1969d:1 (nesting habits), 1971k:207 (Mongolia), 1971m:8 (China: Inner Mongolia: Apaka; China: Beijing: Tiendang; Korea), 1974a:361 (Korea); R. Bohart and Menke, 1976:547 (listed); Tsuneki, 1976d:295 (China: Manchuria); Kazenas, 1978b:87, 89 (in key to Sphecidae of Kazakhstan and Central Asia); Tsuneki, 1982b:11 (Korea), 18 (known from Korea), 1991:199 (Korea); Kazenas in Nemkov, Kazenas, Budrys, et Antropov, 1995:466 (in key to Sphecidae of Russian Far East); Wu and Zhou, 1996a:15 (in revision in Economic Insect Fauna of China); Li and He, 2004:1104 (in hymenopterous fauna of Zhejiang Province, China); Hua, 2006:277 (in list of Chinese insects, geographic distribution); Nemkov, 2009b:142 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia).

216. notabilis Arnold

Bembex notabilis Arnold, 1952:473, ♂. Holotype: ♂, Kenya: Olgasalic (BMNH). – R. Bohart and Menke, 1976:547 (listed).

217. nubilipennis Cresson

Bembex nubilipennis Cresson, 1873:218, ♀, ♂. Lectotype: ♀, USA: Texas: no specific locality (ANSP), designated by Cresson, 1916:97. – Cresson, 1876:208 (Iowa: Monroe County: Frederic), 1887:278 (in catalog of North American

Hymenoptera); nec Cameron, 1890a:101 (= *Bembix infumata* Handlirsch); Ashmead, 1890:33 (in checklist of Hymenoptera of Colorado); Handlirsch, 1893c:838 (in revision of world Bembicinae); W. Fox, 1895d:361 (in revision of North American Bembicini); Lafler, 1896:62 (nesting habits, tachinid nest parasite); Dalla Torre, 1897:509 (in catalog of world Sphecidae); Ashmead, 1899d:239 (in checklist of North American Crabronidae); Viereck, 1903a:67 (New Mexico: Beulah); Johnson and Rohwer, 1908:378 (Colorado: Rocky Ford); H. Smith, 1908b:386 (in revision of Nebraskan Sphecidae); J. Parker, 1910:163 (nesting habits); Rau, 1922:29 (USA: Missouri: St. Louis); G. Carpenter, 1930b:300 (nest closure); Dreisbach, 1951:103, 104 (in key to *Bembix* of Michigan). – **As *Epibembix nubilipennis***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera). – **As *Bembix nubilipennis***: Mickel, 1917:286 (USA: Nebraska); J. Parker, 1917:187 (in revision of Bembicini in America north of Mexico); Mickel, 1918b:440 (in catalog of Nebraskan Sphecidae); J. Parker, 1929:109 (in revision of Stizini and Bembicini); E. Nielsen, 1933:299 (summary of nesting habits); Rau, 1934a:243 (attachment to nesting sites); Lohrmann, 1948:446 (member of *nubilipennis* species group of *Bembix*); Evans, 1957c:108 (study of behavior), 1959b:155 (description of larva); Chandler, 1966:146 (in revision of Bembicini and Stizini of Indiana); Evans, 1966d:298 (nesting habits); Evans and Matthews, 1968b:1296 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:547 (listed); Krombein, 1979b:1713 (in catalog of North American Hymenoptera, nesting sites, list of prey); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae).

Bembix nubilosa J. Parker, 1929:140, ♀. Holotype: ♀, Mexico: San Luis Potosí (originally Mass. Agric. College, now USNM). Synonymized with *Bembix nubilipennis* by ... – Lohrmann, 1948:446 (member of *nubilipennis* species group of *Bembix*).

218. *nupera* J. Parker

Bembix nupera J. Parker, 1929:142, ♀. Holotype: ♀, Kenya: Witu Lamu (ZMHU). – R. Bohart and Menke, 1976:547 (listed).

219. *obiri* Evans

Bembix obiri Evans, 1982b:10, ♀, ♂. Holotype: ♂, Australia: Northern Territory: 16 km E Mt. Cahill, 12°50'S, 132°51'E (ANIC). – Cardale, 1985:291 (in catalog of Australian Sphecidae); Evans, 1990:30 (in key to males of *promontorii* group).

220. *obtusa* R. Turner

Bembix obtusa R. Turner, 1917c:436, ♂. Holotype or syntypes: ♂, Malawi: Mlanje (BMNH). – Arnold, 1929b:380 (original description copied), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix obtusa***: Lohrmann, 1948:450 (member of *integra* species group of *Bembix*); R. Bohart and Menke, 1976:547 (listed).

221. *occidentalis* W. Fox

Bembix occidentalis W. Fox, 1893d:10, ♀, ♂. Lectotype: ♀, USA: Nevada: Reno (ANSP), designated by Cresson, 1928:46. – Handlirsch, 1893c:868 (in revision of world Bembicinae); W. Fox, 1894c:103 (Mexico: Baja California Sur), 1895d:362 (in revision of North American Bembicini); Dalla Torre, 1897:509 (in catalog of world Sphecidae); Ashmead, 1899d:239 (in checklist of North American Crabronidae); Cockerell, 1899a:142 (New Mexico). – **As *Epibembix occidentalis***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera). – **As *Bembix occidentalis***: J. Parker, 1917:106 (in revision of Bembicini in America north of Mexico); C. Fox, 1923b:436 (Mexico: Baja California Sur); J. Parker, 1929:132 (in revision of Stizini and Bembicini); Lohrmann, 1948:446 (member of *occidentalis* species group of *Bembix*); Evans, 1957c:167 (study of behavior), 1958e:452 (behavioral evolution); Evans and Matthews, 1968b:1298 (in revision of North American *Bembix*); R. Bohart and Horning, 1971:19 (in revision of California Bembicini); R. Bohart and Menke, 1976:547 (listed); Evans, 1977a:318 (Baja California Sur); Krombein, 1979b:1715 (in catalog of North American Hymenoptera, nesting sites, list of prey); Rust, Hanks, and Bechtel, 1983:406 (Nevada: Churchill County: Sand Mountain); Amarante,

2002:8 (in catalog of Neotropical Crabronidae); Ruiz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Evans and O'Neil, 2007:167 (summary of information on nesting habits).

Bembix beutenmulleri W. Fox, 1901a:83, ♂. Syntypes: USA: California: Fresno County: no specific locality (ANSP). Synonymized with *Bembix occidentalis* by Evans and Matthews, 1968b:1298. – **As *Bembix beutenmulleri***: J. Parker, 1917:105 (in revision of Bembicini in America north of Mexico), 1929:131 (in revision of Stizini and Bembicini); Lohrmann, 1948:446 (member of *occidentalis* species group of *Bembix*). – **As *Epibembix occidentalis beutenmülleri***: Burks in Muesebeck et al., 1951:999 (new combination, new status, in catalog of North American Hymenoptera). – **As *Bembix occidentalis beutenmuelleri***: G. Bohart and MacSwain, 1939:84 (nesting habits); Evans and Lin, 1956b:58 (description of larva).

Bembix obsoleta Howard, 1901, Insect Book, pl. 4, fig. 36. Holotype: .., USA: .. (USNM). Synonymized with *Bembix beutenmulleri* by J. Parker, 1917:105. – Rohwer, 1912:467 (description of ♂, California).

222. *ochracea* Handlirsch

Bembix ochracea Handlirsch, 1893c:864, ♂. Holotype: ♂, South Africa: former Transvaal: no specific locality, may be in Gauteng, Mpumalanga, Limpopo, or part of North West Province (MHNG). – Dalla Torre, 1897:509 (in catalog of world Sphecidae); Bingham, 1902:211 (South Africa); Arnold, 1929:368 (in revision of Stizini and Bembicini), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix ochracea***: J. Parker, 1929:118 (in revision of Stizini and Bembicini); R. Bohart and Menke, 1976:546 (listed).

Bembix opima R. Turner, 1917c:440, ♀, ♂. Syntypes: South Africa: Eastern Cape Province: Willowmore (BMNH). Synonymized with *Bembix ochracea* by Arnold, 1929b:368. – **As *Bembix opima***: R. Bohart and Menke, 1976:548 (listed).

223. *octosetosa* Lohrmann

Bembix octosetosa Lohrmann, 1942a:158, ♀. Syntypes: Australia: Queensland: Rockhampton (NHMW). – Lohrmann, 1948:423 (in checklist of recently described *Bembix*); Evans and Matthews, 1973b:75 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:547 (listed); Evans, Evans, and Hook, 1982:73 (nesting habits); Cardale, 1985:292 (in catalog of Australian Sphecidae); Evans, 1990:30 (in key to males of *promontorii* group); Evans and O'Neil, 2007:191 (summary of information on nesting habits).

224. *oculata* Panzer

? *Vespa pallescens* Giorna, 1791:120, sex not indicated. Holotype or syntypes: Italy: Piemonte: Torino area (depository?). Tentatively synonymized with *Bembix oculata* by W. Schulz, 1907:320.

Bembix oculata Panzer, 1801:.. – Latreille, [1805]:300 (redescription); Jurine, 1807:175 (listed) and pl. 10, Fig. 16 (illustration of habitus); Spinola, 1808:173 (Italy: Genova area); Vander Linden, 1829:15 (bibliographic references, Germany, Italy, Switzerland); Dahlbom, 1844:178 (in revision of Sphecidae and Pompilidae), 1845:489 (in key to world *Bembix*); Eversmann, 1849:397 (Russia: "inter Volga and Rhyminum fluvios"); Lucas, 1849:262 (Algeria: Bône, now Annaba); F. Smith, 1856:319 (in catalog of Hymenoptera in British Museum); A. Costa, 1864c:124 (Italy: Campania: Benevento area), 1867b:99 and 1867c: 43 (in revision of Italian Sphecidae); Kirchner, 1867:218 (in catalog of European Hymenoptera); Palma, 1867:39 (Italy: Sicilia settentrionale); Taschenberg, 1870:21 (Italy: La Spezia, as *oculata* Jurine); Walker, 1871:24 (Sudan: Hor Tamanib, Djibouti: Tajur, and Egypt: Mount Sinai); A. Costa, 1872b:2 (in revision of Sphecidae of Kingdom of Naples, Italy); Dours, 1874:147 (in catalog of Hymenoptera of France); Martinez y Saez, 1874:30 (specimens from Spain: Madrid area, donated to Leon Dufour); Radoszkowski, 1877:51 (Uzbekistan: Samarkand); Kohl, 1880:175 (occurs in Tirol Alps: Monte Baldo according to Gistel: *Mysterien der europäischen Insektenwelt*); Magretti, 1881:118 (Italy: Lombardia), 270 (listed); Radoszkowski, 1881:208 (Angola); A. Costa, 1882b:22 (Italy: Sardegna); De Stefani Perez, 1882:39 (Italy: Sicilia: Sciacca, as *Bembix repanda* var. *oculata*); Cuní y Martorell, 1888:164 (Spain: Barcelona); Frei-Gessner, Kohl, and Kriechbaumer, 1882:393 (Jurine's specimens are correctly identified); F. Morawitz, 1891a:225 (Russia: Astrakhan

Government); Yaroshevskiy, 1881:124 (Ukraine: Khar'kiv Oblast': Khar'kiv, as *oculata* Jurine); Radoszkowski, 1892:577 (male genitalia); Handlirsch, 1893c:854 (in revision of world Bembicinae); Radoszkowski, 1893a:65 (Turkmenistan); Baldini, 1894:61 (Italy: Modena area); De Stefani Perez, 1895:227 (in catalog of Sicilian Hymenoptera); Cuní y Martorell, 1897:332 (Spain: Cataluña: villa de Calella); Dalla Torre, 1897:509 (in catalog of world Sphecidae); Mocsáry, 1897:83 (Kingdom of Hungary, some localities are in today's Croatia and Romania); Ferton, 1899:333 (list of prey, prey paralyzing, nesting habits), 1902:5514 (nesting habits); Kokujev, 1902:10 (Turkmenistan: Krasnovodsk); de Cobelli, 1903:110 (Italy: Province of Trentino); Antiga and Bofill, 1904:19 (Spain: Cataluña Province); Mercet, 1904a:353, 356 (in key to Spanish species); E. Saunders, 1904c:607 (Spain: Mayorca), 637 (Spain: Barcelona); W. Schulz, 1904b:94 (France, Italy, Spain); Medina, 1905:136 (Spain: Cádiz: Chiclana); W. Schulz, 1905b:40 (Algeria; geographic variation); Vángel, 1905:167 (Hungary); Zavattari, 1905b:5 (Lebanon: Bekfeiya); W. Schulz, 1906:45 (Greece: Island of Crete); Móczár and Henter, 1907:206 (Hungary: Tiszaalpár); Schmiedeknecht, 1907: 215, 216 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:120 (in catalog of Hymenoptera of France); Ferton, 1908:564 (prey), 1910:150 (nest, progressive provisioning), 159 (prey); Mantero, 1911:73 (Italy: Sardegna: Isola dell'Asinara); Morice, 1911:130 (Algeria, floral records); Innes Bey, 1912:112 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected at Bab el Mandeb); Smits van Burgst, 1913a:319 (Tunisia); R. Turner, 1917e:181 (Pakistan: Karachi; also Nasik); Morice, 1921:823 (Iran: Enzeli); Maidl, 1922:72 (Albania); Ferton, 1923:74 (prey are paralyzed, not killed, list of prey), 76 (paralyzing prey in flight), 78 (position of egg on prey), 79 (malaxation of prey), 81 (nesting habits); Berland, 1925d:71 (in Sphecid Fauna of France); Coulon, 1925:118 (France: Béziers; Spain); von Schulthess, 1926b:218 (Algeria, Tunisia); Grandi, 1927:189 (prey), 190 (description of larva), 1928a:18 (nest structure, prey); Kruger, 1929a:21 and 1929b:56 (Libya: Cyrenaica: Giarabub); Grandi, 1930:309 (list of prey), 340 (Italy: Toscana: Maremma); Picard, 1930:41 (France: Hérault: all along littoral; Saône-et-Loire: Pontseille); Schmiedeknecht, 1930:677, 678 (in keys to Hymenoptera of North and Central Europe); Bischoff, 1931:9 (Spain); Dusmet y Alonso, 1931:8 (Portugal: Coimbra, Mata da Trafaria); Grandi, 1931:45 (prey: *Eristalis tenax* Linnaeus), 58 (Italy: Emilia-Romagna: Cervia); Giordani Soika, 1932a:21 (Italy: Lido di Venezia); Bernard, 1933:61 (France: Drôme: Dieulefit); Gussakovskij, 1933b:296 (Iran); Nadig, 1933:87 (Morocco); Giner Marí, 1934:132 (Spain); Guiglia, 1934b:298 (Libya: bibliography and summary of locality records); Gussakovskij, 1934a:13 (China: Inner Mongolia); Maidl, 1934:64 (Greece: Aegean Islands: Milos); Nadig, 1934:32 (Italy: Sardegna: Cagliari); Bernard, 1935:63 (France: Var: Fréjus area); Gussakovskij, 1935:444 (Tajikistan: Kulab); Vergne, 1935:117 (France: Auvergne: Clermont-Ferrand); Rungs, 1936:24 (Morocco); Grandi, 1937:283 (list of prey species); Móczár, 1939:5 (Hungary: Jászberény); Berland, 1943a:312 (Western Sahara: Villa-Cisneros); Giner Marí, 1943a:202 (in Sphecid Fauna of Spain), 1943b:39 (Spain; redescription); Timon-David, 1943:29 (France: Bouches-du-Rhône: plage de Fos); Giner Marí, 1945b:360 (Morocco: Muley Ali), 363 (Western Sahara: El Aiun), 1945e:237 (Western Sahara); Deleurance, 1946b:67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); de Beaumont, 1947b:386 (Cyprus); Dulac, 1947:54 (France: Saône-et-Loire Department: Creusot area); Giner Marí, 1947:27 (Western Sahara); de Andrade, 1949:19 (Portugal); de Beaumont, 1950d:9 (Egypt: Siwa oasis; geographic variation), 1950f:397 (Algeria); Pittioni, 1950:23 (Cyprus); Scobiola, 1950:18 (Romania several localities); de Beaumont, 1951e:273 (Morocco), 1952c:189 (Algeria: Hoggar); Cleu, 1953:50 (France: Ardèche River basin); Balthasar, 1954b:277 (Palestine: Wadi el Kelt near Jericho); Grandi, 1954:235 (Italy); Atanassov, 1955:198 (Bulgaria: Nesebyr); Vergne, 1955:4 (France: Auvergne); Vogrin, 1955:34 (Yugoslavia); de Beaumont, 1956a:194 (Libya: Tripolitania); Dulac, 1956:9 (France: Saône-et-Loire: Châlon); Bajári, 1957a:21, 23 (in key to Hungarian Sphecidae); Guiglia, 1957:146 (Italy: Isole Pelagie); de Beaumont, 1958b:56 (Algeria: Tassili des Ajjer); Diniz, 1959:30 (Portugal: 17 localities); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae). – *As Bembyx oculata*: Priesner, 1958:27 (in revision of Egyptian *Bembix*); Gadallah, 2002:63 (in key to Egyptian *Bembix* based on male genitalia). – *As Bembyx oculata*: J. Parker, 1929:106 (in revision of Stizini and Bembicini); Grandi, 1934:55 (nest structure, list of prey), 128 (Italy: Emilia-Romagna: Cervia, and Sardegna: Cagliari); Guiglia, 1940a:286 (Libya: El-Hag), 1941c:162 (Italy: Calabria:

Grande Sila, 1942b:231 (Libya); Giordani Soika, 1944:8 (Italy: Sicilia: Falcone); Guiglia, 1944b:16 (Italy), 1944b:16 (Italy); Lohrmann, 1948:452 (member of *oculata* species group of *Bembix*); Šnoflak in Zavadil and Šnoflak, 1948:81, 83 (in key to Sphecidae of Czechoslovakia, not yet found in Czechoslovakia); Hertzog, 1954:100 (France: Bouches-du-Rhône: Camargue); de Beaumont, 1955c:67 (effects of stylopization); de Beaumont and Bytinski-Salz, 1955:49 (Israel); Harant and Leclercq, 1955:251 (France: Hérault: five localities); Ceballos, 1956:386 (in catalog of Hymenoptera of Spain); Evans and Lin, 1956b:62 (description of larva by Grandi, 1926); Morel, Nouvel, and Ribaut, 1956:338 (France: Département des Pyrénées-Orientales); de Beaumont, 1957b:136 (n. Iran), 1957e:621 (recognition characters); Grandi, 1957:339 (prey: *Sarcophaga* sp.), 385 (Italy); Nouvel and Ribaut, 1958:10 (France: Pyrénées-Orientales: Banyuls-sur-Mer area); Pulawski, 1958a:169 (Bulgaria: Aitos, Nesebar, Varna); de Beaumont, 1959a:17 (Italy); Suárez, 1959:55 (Spain: Almería Province); Guiglia, 1960:361 (Italy: Isole Pelagie: Linosa); de Beaumont, 1961c:47 (Greece: Island of Crete); Grandi, 1961:119 (nesting habits), 465 (description of larva); Atanassov, 1962:123 (Bulgaria: Petrich area); de Beaumont, 1962b:22 (Spain); Myartseva, 1963b:60 (Turkmenistan: lower Murgab River); de Beaumont, 1964c:56 (in Sphecid Fauna of Switzerland), 1965a:24 (Greece); Myartseva, 1965:91 (Turkmenistan: Akibay); Scobiola-Palade, 1966b:391 (Romania: Tulcea District: C.A. Rosetti, Periprava); Balthasar, Hrubant, and Hrubant, 1967:175 (Bulgaria: Aytos, Slanchev Bryag near Nessebar); de Beaumont, 1967a:298 (Turkey; variation); Scobiola-Palade, 1967a:161 (Romania: Constanța District: Mangalia), 1967b:38 (Romania), 1968b:141 (Romania: Island of Letea in delta of Danube), 1968c:383 (Romania: Budești, Giurgiu, Măgurele, Odaia, Turnu); de Beaumont, 1969:83 (Turkey); Benedek, 1969a:83 (Hungary; marshy meadow); Zangheri, 1969:1702 (Italy: in catalog of flora and fauna of Romagna Region); de Beaumont, 1970a:398 (Afghanistan), 1970c:14 (Iran: Khorassan); Balthasar, 1972:379 (in Sphecid Fauna of Czechoslovakia: may be expected in the country); Kazenas, 1972b:142 (Kazakhstan); Myartseva, 1972a:90 (Turkmenistan); Scobiola-Palade, 1972a:149 (Romania: delta of Danube: Caraorman), 1972b:252 (Romania); Simon Thomas, 1972:180 (France); Diniz, 1973:48 (Portugal: thirty three localities); Erlandsson, 1974:66 (France, Italy, Malta, Spain, Yugoslavia); Kazenas, 1974b:109 (feeding on flowers of *Tamarix* sp., *Statice gmelini* Willd., Plumbaginaceae, and *Cynanchum sibiricum* Willd., Asclepiadaceae, in Kazakhstan), 111 (feeding on flowers of *Acanthophyllum* sp., Caryophyllaceae, in Kazakhstan); Frilli and Pizzaghi, 1975:76 (Italy: Badagnano in Piacenza Province); R. Bohart and Menke, 1976:547 (listed); Simon Thomas, 1976:5 (France: Lot-et-Garonne); Georghiou, 1977:189 (Cyprus); Guichard, 1978:270 (Greece); Kazenas, 1978b:86, 88 (in key to Sphecidae of Kazakhstan and Central Asia); Marion, 1978:87 (France: Nièvre Department); Pulawski, 1978:208, 209 (in key to Sphecidae of European part of former USSR); Valletta, 1979:215 (Malta); Guichard, 1980:229 (Oman); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); Pagliano, 1980:118 (Italy: Piemonte, Puglia); Nazarova and Baratov, 1981:100 (Tajikistan: Beshkent valley: Chiluchorchashma, Vakhsh valley: Gasravuty, Kulyab Oblast': Moskva District; preying on tabanids: list of prey species given); Roche, 1981:4 (in checklist of Sphecidae of United Arab Emirates); Gayubo, 1982b:47 (Spain: Salamanca: Béjar, Valdefuente de Sangusín), 1882e:108 (Spain: Cádiz Province), 1983a:125 (prey: Bombyliidae: *Anthrax* sp.), 1983e:235 Spain: Salamanca Province); Schmidt and Westrich, 1983:125 (Greece); Gayubo, 1984c:380 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:22 (Spain: Valencia); Chevin and Chevin, 1985:39 (France: Aude); Gayubo, 1985c:171 (Spain: Valladolid: Mojados, Traspinedo); Scobiola-Palade, 1985:95 (Romania: delta of Danube); Gayubo, 1986a:66 (Spain: Ciudad Real Province), 1986b:40 (Spain: Andalucía), 1986d:121 (Spain: Zamora Province); Gayubo and Heras, 1986:64 (Spain: Segovia and Valladolid Provinces; floral records); Gayubo and Sanza, 1986:81 (Spain: Burgos, Soria); Gayubo and Tormos, 1986a:13 (Spain: Castellón de la Plana), 1986b:7 (Spain: Valencia); Islamov, 1986:523 (Uzbekistan: Surkhandarya and Tashkent Oblasts); Nazarova and Gafarov, 1986:71 (Tajikistan, preying of Syrphidae); Tormos and Jiménez, 1987a:126 (Spain: Valencia), 1987b:317 (Spain: Valencia Province: Dehesa de El Saler); Asís and Jiménez, 1988:275 (Spain: Castellón Province); Guichard, 1989a:144 (Arabian Peninsula); Scobiola-Palade, 1989:87 (Romania: delta of Danube); Gayubo, Asís, and Tormos, 1990b:79 (Spain: Murcia and Zamora Provinces); Pagliano, 1990:76 (in catalog of Italian Sphecidae); Dollfuss, 1991:209 (in key to Sphecidae of North and

Central Europe); Gayubo, Borsato, and Osella, 1991:417 (Italy); Gayubo and Torres, 1991:Table I and p. 81 (Spain: Salamanca; effects of urban pressure); Guichard, 1991a:339 (Jordan); Negrisolo, 1991:323 (Italy: Udine and Venezia Provinces); Schembri, 1991:178 (Malta); Asís, Gayubo, and Tormos, 1992:225 (nesting habits); Gayubo, Borsato, and Osella, 1992:289 (France, Greece, Spain); Józán, 1992b:176 (Hungary: Boronka-melléki Protected Area); Pagliano, 1992:47, 48 (in key to Italian Bembicinae); Luchetti, 1993:105 (Italy: Sardegna: Maddalena archipelago); Negrisolo and Pagliano, 1993:92 (Italy: Sardegna); Torregrosa, Gayubo, Tormos, and Asís, 1993:20 (Spain: Alicante Province); Gayubo and Borsato, 1994:219 (Italy: Toscana, Calabria, Sicilia); Tormos, Asís, and Gayubo, 1994:189, 221 (Spain: Albacete Province, list of prey); Józán, 1995:105 (Hungary: projected Duna-Dráva National Park); Negrisolo, 1995a:18 (visiting flowers of *Eryngium maritimum* L. and *Echinophora spinosa* L.), 19 (visiting flowers of *Limonium bellidifolium* (Gouan) Dumort), 22 (Italy: Veneto); Negrisolo in Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Pagliano and Pesarini, 1995:92 (Italy: Ferrara Province); Pagliano and Scaramozzino, 1995:729 (Italy: Islands of Linosa and Pantelleria); Scharrer, 1995:28 (Croatia: Island of Veglia, now Krk); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:274 (in Sphecidae Fauna of Western Europe); González, Gayubo, and Torres, 1998:74, 75 (Spain: Valladolid Province); Nazarova, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve); El-Banna, Zalát, Abo-Ghalia, and Gilbert, 1999:99 (foraging activities near Port Said, Egypt); González, Gayubo, and Torres, 1999:356 (Spain: Valladolid: Viana de Cega); Tüzün, Gülmez, and Bağrıaçık, 1999:385 (Turkey: Aegean Region); Gayubo, González, and Torres, 2000:187 (Spain: Salamanca Province); Ljubomirov, 2000:6, 13 (Bulgaria, specimens in N. Nedelkov collection); Basset, 2001:81 (France: Département de Gironde); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 239 (review of known biology); Jacobi, 2002:22 (mating behavior); Kazenas, 2002a:132 (geographic distribution, collecting localities in Kazakhstan); Nabil, Zalát, Abo-Ghalia, and Elbanna, 2002:15-24 (action of venom on cardiac, skeletal, and smooth muscles of toads and rabbits; venom components); Drewes, 2003:133 (Spain: Figueras, Tarragona); Pagliano, 2003b:127 (Italy: Islands of Lampedusa and Pantelleria); Schmid-Egger, 2003:751 (Italy: Sicilia: Armerina, Bronte, Ragusa, Vendicari; Malta: Ramla); Shorenko, 2003:97 (Ukraine: Crimea and Khar'kov oblast'); Gadallah and Assery, 2004a:219 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 231 (in catalog of Sphecidae of Saudi Arabia: S Jeddah), 2004b:1397 (skeletal parts of sting apparatus); Kazenas, 2004b:111 (Kazakhstan: western Tien Shan); Nazarova, 2004:108 (Tajikistan: Badakhshan Region: Rushan District: villages Dasht and Visav in Bartang River valley); Gayubo and Özbek, 2005:23 (Turkey: seven localities); Jacobs, 2005a:440 (Bulgaria); Nazarova, 2005:94 (alfalfa fields in southwestern Tajikistan); Pagliano and Negrisolo, 2005:189 (in Sphecidae Fauna of Italy); Shorenko, 2005a:168 (Ukraine: Crimea), 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve); Yildirim and Ljubomirov, 2005:1791 (Turkey: İçel: Aydıncık); Ljubomirov, 2006:537 (Bulgaria: previous records from Rhodope Mountains summarized, as *oculata oculata*); Magdalou, 2006b:110 (France: Pyrénées-Orientales: Mas Larrieu Nature Reserve near Argelès-sur-Mer); Standfuss and Standfuss, 2006c:306 (Greece: Thessalia: Magnissia Peninsula at 39°N 23°E); Evans and O'Neil, 2007:175 (summary of information on nesting habits); Yildirim and Ljubomirov, 2007:118 (Turkey: İçel: Aydıncık and Silifke); Gayubo, González, Tormos, and Asís, 2008:137 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov and Yildirim, 2008:120 (in catalog of Crabronidae of Turkey); Fallahzadeh, Ostovan, and Saghaei, 2009:236 (Iran: Fars: Ali Abad, Sarvestan, Shiraz), 243 (color photograph); Gayubo, González, Tormos, and Asís, 2009:365 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); Guéorguiev and Ljubomirov, 2009:263 (Bulgaria: Maleshevska Planina); Ghazi-Soltani, Ebrahimi, Iranipour, and Pour Abad, 2010:801 (Iran: East Azarbaijan: Kaleybar: Gheshlagh).

Bembex latreillii Lepeletier de Saint Fargeau, 1845:266, ♀, ♂ (as *Latreillii*, incorrect original capitalization). Syn-types: Italy: Genova (coll. M. Spinola). Synonymized with *Bembex repanda* by F. Smith, 1856:319 and with *Bembex oculata* by J.Lichtenstein, 1878:CVII and 1879:43. – Ghiliani, 1842:24 (listed from Italy: Sicilia); Palma, 1867:39 (Italy: Sicilia settentrionale); Acloque, 1897:94 (in Sphecidae Fauna of France and Algeria); Casolari and

- Casolari Moreno, 1980:114 (specimens in M. Spinola collection). – *As Stizus latreillii*: Casolari and Casolari Moreno, 1980:115 (new combination, specimens in M. Spinola collection).
- Bembex neglecta* Dahlbom, 1845:489, ♀. Holotype or syntypes: ♀, Austria: no specific locality (LUND). Synonymized with *Bembex oculata* by Handlirsch, 1893c:855. – F. Smith, 1856:320 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:218 (in catalog of European Hymenoptera).
- Bembex ocellata* Dahlbom, 1845:490, ♀. Holotype or syntypes: ♀, Italy: no specific locality (LUND or Stockholm). Synonymized with *Bembex oculata* by Handlirsch, 1893c:855. – Kirchner, 1867:218 (in catalog of European Hymenoptera); not listed by R. Bohart and Menke, 1976; Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection).
- ? *Bembex rossii* Dahlbom, 1845:492, ♀. Holotype or syntypes: ♀, Spain: no specific locality, and Italy: Venezia (LUND). – F. Smith, 1856:321 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:218 (in catalog of European Hymenoptera); Handlirsch, 1893c:890 (original description copied); Dalla Torre, 1897:512 (in catalog of world Sphecidae); Ceballos, 1956:386 (in catalog of Hymenoptera of Spain).
- Bembex panzeri* Handlirsch, 1893c:906, sex not indicated (as *Panzeri*, incorrect original capitalization). Holotype or syntypes: origin unknown (Panzer coll.). Substitute name for *Bembex oculata* of Panzer, 1801:fig. 22. Synonymized with *Bembex oculata* by ... – Dalla Torre, 1897:511 (in catalog of world Sphecidae).
- Bembex hispanica* Mercet, 1904a:347, ♂. Syntypes: Spain: Madrid: Madrid and Ribas de Jarama (MNCN). Synonymized with *Bembex oculata* by de Beaumont, 1953c:77. – Dusmet y Alonso, 1935:48 (Spain: Madrid: Sierra de Jarama, cotype); Giner Mari, 1943a:201 (in Sphecid Fauna of Spain), 1943b:41 (Spain; redescription); Lohrmann, 1948:421 (in checklist of recently described *Bembix*), 448 (member of *mediterranea* species group of *Bembix*); Ceballos, 1956:385 (in catalog of Hymenoptera of Spain), 1959:230 (in supplement to catalog of Spanish Sphecidae); Martin Albaladeo and Izquierdo Moya, 2006:121 (syntypes in Museo Nacional de Ciencias Naturales).
- Bembex ebusiana* Giner Mari, 1934:132 and 138, ♀. Syntypes: Spain: Island of Ibiza (MNCN). Synonymized with *Bembex oculata* by de Beaumont, 1953c:78. – Giner Mari, 1942a:80 (description of ♂), 1943a:202 (in Sphecid Fauna of Spain). – *As Bembix ebusiana*: Lohrmann, 1948:421 (in checklist of recently described *Bembix*), 453 (member of *oculata* species group of *Bembix*); Ceballos, 1959:229 (in supplement to catalog of Spanish Sphecidae). – *As Bembex oculata raz. ebusiana*: Giner Mari, 1943b:39 (new status Spain; redescription); Ceballos, 1956:386 (in catalog of Hymenoptera of Spain); Compte Sart, 1959:134 (Spain: Mayorca). – *As Bembex oculata ebusiana*: Ceballos, 1964:92 (new status, in supplement to catalog of Spanish Sphecidae).
- As Bembex repanda*, present correction: Ghiliani, 1842:24 (listed from Italy: Sicilia, as *repandra*); A. Costa, 1864c:124 (Italy: Campania: Benevento area), 1867b:98 and 1867c:42 (in revision of Italian Sphecidae); Palma, 1867:39 (Italy: Sicilia settentrionale); A. Costa, 1872b:2 (in revision of Sphecidae of Kingdom of Naples, Italy); Martinez y Saez, 1874:31 (specimens from Spain: Madrid area, donated to Leon Dufour); A. Costa, 1882b:22 (Italy: Sardegna); Kohl, 1883e:670 (Switzerland); A. Costa, 1884b:32 (Italy: Sardegna); Gasperini, 1887:16 (Dalmatia: Lesina Island, now Croatia: Hvar Island, determination tentative); De Stefani Perez, 1895:227 (in catalog of Sicilian Hymenoptera).

ssp. *basalis* Dahlbom

- Bembex basalis* Dahlbom, 1845:490, ♂. Lectotype: ♂, Greece: Island of Rhodes: no specific locality (Stockholm), designated by de Beaumont, 1949a:128. Synonymized with *Bembex oculata* by Handlirsch, 1893c:855. – F. Smith, 1856:321 (in catalog of Hymenoptera in British Museum). – *As Bembex oculata var. basalis*: Dalla Torre, 1897:510 (in catalog of world Sphecidae, new status). – *As Bembex oculata basalis*: de Beaumont, 1949a:128 (new status). – *As Bembex oculata basalis*: Bytinski-Salz, 1956:225 (Turkey: Baltaliman, Istanbul, Karpinar); de Beaumont, 1960a:9 (Greece: Island of Rhodes); Scobiola-Palade, 1970:155 (first record from Romania: Ilfov District: Budești); R. Bohart and Menke, 1976:547 (listed); Gayubo and Özbek, 2005:23 (Turkey: nine localities).

ssp. *candiotus* W. Schulz

Bembix oculata candiotus W. Schulz, 1906:45, ♂. Holotype: ♂, Greece: Island of Crete: no specific locality (NHMW, lost?). – **As *Bembix oculata candiotus***: de Beaumont, 1961c:47 (Greece: Island of Crete; discussion of taxon); R. Bohart and Menke, 1976:547 (listed).

ssp. *ceballosi* Giner Marí

Bembix ceballosi Giner Marí, 1945b:379, ♀. Syntypes: ♀, Morocco: Western Sahara: Ixmoart (MNCN). – Giner Marí, 1945b:360 (Morocco: Ixmoart). – **As *Bembix oculata ceballosi***: de Beaumont, 1953c:79 (new status), 1958b:57 – **As *Bembix oculata ceballosi***: R. Bohart and Menke, 1976:547 (listed).

ssp. *fuscilabris* Mocsáry

Bembix fuscilabris Mocsáry, 1883:43, ♂. Syntypes: ♂, Greece: Epirus and Corfu Island: no specific locality (TMB). – Handlirsch, 1893c:855 (as new synonym of *Bembix oculata*). – **As *Bembix oculata* var. *fuscilabris***: Dalla Torre, 1897:510 (new status, in catalog of world Sphecidae). – **As *Bembix oculata fuscilabris***: R. Bohart and Menke, 1976:547 (new status, listed)

ssp. *gegen* Tsuneki

Bembix oculata gegen Tsuneki, 1971k:210, ♀, ♂. Holotype: ♂, Mongolia: Bayanhongor Aymag: oasis Ekhingol (TMB). – R. Bohart and Menke, 1976:547 (listed).

ssp. *mongolica* Tsuneki

Bembix oculata mongolica Tsuneki, 1971k:209, ♂. Holotype: ♂, Mongolia: Hovd Aymag: Somon Bulan (TMB). – R. Bohart and Menke, 1976:547 (listed).

ssp. *pannonica* Mocsáry

Bembix pannonica Mocsáry, 1883:38, ♀, ♂ (as *Pannonica*, incorrect original capitalization). Syntypes: Hungary: Budapest (TMB). – Handlirsch, 1893c:855 (as new synonym of *Bembix oculata*). – **As *Bembix oculata* var. *pannonica***: Dalla Torre, 1897:510 (new status, in catalog of world Sphecidae, new status); Mocsáry, 1897:83 (Hungary); Bajári, 1957a:21, 23 (in key to Hungarian Sphecidae). – **As *Bembix oculata pannonica***: R. Bohart and Menke, 1976:547 (new status, listed); Józán, 1985b:61 (Hungary S Lake Balaton), 81 (floral records), 84 (ecological and zoogeographic characteristics), 1986:374 (Hungary: Kiskunság National Park, as *oculata* var. *pannonica*).

ssp. *soror* Dahlbom

Bembix soror Dahlbom, 1845:489, ♀. Holotype or syntypes: ♀, Egypt: no specific locality (Stockholm). – F. Smith, 1856:322 (in catalog of Hymenoptera in British Museum); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection). – **As *Bembix oculata* var. *soror***: Dalla Torre, 1897:510 (new status, in catalog of world Sphecidae, new status). – **As *Bembix oculata soror***: de Beaumont, 1949a:128 (new status). – **As *Bembix oculata soror***: Osborn and Krombein, 1969:16 (nw Sudan: Gebel 'Uweinat: Wadi Ain el Brins); R. Bohart and Menke, 1976:547 (listed); Roche and Zalat, 1994:116 (Egypt: Sinai Peninsula); Gadallah, 1997:264 (in revision of Egyptian *Bembix*).

225. *odontopyga* R. Turner

Bembix odontopyga R. Turner, 1917c:439, ♂. Holotype or syntypes: ♂, Malawi: Ngará (BMNH). – Arnold, 1929b:344 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae), 1946:90 (redescription). – **As *Bembix odontopyga***: R. Bohart and Menke, 1976:548 (listed).

226. *olba* Evans and Matthews

Bembix olba Evans and Matthews, 1973:133, ♀. Holotype: ♀, Australia: Northern Territory: Coniston Station near Alice Springs (SAMA). – R. Bohart and Menke, 1976:548 (listed); Cardale, 1985:292 (in catalog of Australian Sphecidae).

227. *olivacea* Fabricius

Bembex olivacea Fabricius, 1787:285, sex not indicated. Lectotype: ♂, Tunisia: Porto Farina (ZMK), designated by van der Vecht, 1961a:60 (see Ohl, 1999a:113, for location of Porto Farina). – Cyrillus, 1787:plate XII and associated text (illustration, redescription, Italy: Napoli, erroneously regarded by some authors as independent description of species); Olivier, 1789:291 (redescription, Barbarie, now northwest Africa); Rossi, 1790:81 (in revision of insects of Etruria, now Toscana, Italy); Cyrillus, 1792:pl. XII (redescription, Italy: Campania: Nicodemus); Fabricius, 1793:248 (redescription), 1796:18 (in Index to his Entomologia Systematica, 1793), 1804:224 (redescription); Illiger, 1807b:132 (synonymy, redescription); Jurine, 1807:175 (listed); Vander Linden, 1829:15 (bibliographic references, Italy, southern France, Portugal, Spain); Brullé, 1839:90 (Canary Islands); Ghiliani, 1842:24 (listed from Italy: Sicilia); Dahlbom, 1844:178 (in revision of Sphecidae and Pompilidae), 1845:XXII (specimens in collection Fabricius), 491 (in key to world *Bembix*); Lepeletier de Saint Fargeau, 1845:268 (in revision of world Hymenoptera); Lucas, 1849:263 (Algeria: Bône, now Annaba, Constantine, now Qasantfinah, La Calle, now El Kala); F. Smith, 1856:318 (in catalog of Hymenoptera in British Museum); Sichel, 1861:752 (Italy: Sicilia); A. Costa, 1864c:124 (Italy: Campania: Benevento area), 1867b:99 and 1867c:43 (in revision of Italian aculeate wasps); Kirchner, 1867:218 (in catalog of European Hymenoptera); Palma, 1867:39 (Italy: Sicilia settentrionale); Walker, 1871:24 (Sudan: Hor Tamanib; Egypt: Sinai Peninsula: Tor); A. Costa, 1872b:7 (in revision of Sphecidae of Kingdom of Naples, Italy); Dours, 1874:147 (in catalog of Hymenoptera of France); Marquet, 1875:208 (France: Languedoc); Frivaldszky, 1876:354 (Hungary: Temes Komitat: Grebenács, now in Timiș District in Romania); Marquet, 1881:180 (southern France); A. Costa, 1882b:23 (Italy: Sardegna); Sajó, 1882:3 (Hungary); nec Magretti, 1884c:590 (= *Bembix dahlbomi*); Cuní y Martorell, 1888:164 (Spain: Barcelona); F. Morawitz, 1891a:225 (Russia: Astrakhan Government); Bezzi, 1892:123 (Italy: Lombardia: Provincia di Pavia: Santa Sofia); de Saussure, 1892:460 (Madagascar); A. Costa, 1893b:6 (Tunisia); Handlirsch, 1893c:894 (original description copied, discussion of identity); De Stefani Perez, 1895:227 (in catalog of Sicilian Hymenoptera); Acloque, 1897:94 (in Sphecid Fauna of France and Algeria); Cuní y Martorell, 1897:332 (Spain: Cataluña: villa de Calella); Dalla Torre, 1897:510 (in catalog of world Sphecidae); Bingham, 1898a:106 (Yemen: Aden); Innes Bey, 1912:112 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected at Hor Tamanib); P. Roth, 1922b:292 (Algeria: Erg Iguidi); Berland, 1925d:72 (in Sphecid Fauna of France); Coulon, 1925:118 (Hungary, Spain, Morocco); Grandi, 1928a:14 (list of prey), 16 (description of larva), 1930:309 (prey: *Musca domestica*, *M. corvine*, *Stomoxys calcitrans* L.), 340 (Italy: Toscana: Maremma); Picard, 1930:42 (France: Hérault: Carnon, Grau d'Agde, Palavas); Grandi, 1931:45 (additional prey listed), 58 (Italy: Emilia-Romagna: Cervia); Giordani Soika, 1932a:21 (Italy: Lido di Venezia); Giner Marí, 1934:132 (Spain); Bernard, 1935:63 (France: Var: Fréjus area, as *olivacea* Cyrillus); Giner Marí, 1943a:197 (in Sphecid Fauna of Spain); Timon-David, 1943:29 (France: Bouches-du-Rhône: plage de Fos); Guiglia, 1944b:17 (Italy); Giner Marí, 1945b:363 (Morocco: Río de Oro); Deleurance, 1946b:67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); de Beaumont, 1950f:397 (Algeria), 1951e:272 (Morocco; study of holotype), 1954e:87 (Italy); Vogrin, 1955:34 (Yugoslavia); Bajári, 1957a:22 (in key to Hungarian Sphecidae); de Beaumont, 1957b:136 (n. Iran); Grandi, 1957:386 (Italy); de Beaumont, 1958b:57 (Algeria: Tassili des Ajjer); Diniz, 1959:30 (Portugal: Mata de Leiria); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); Atanassov, 1965:91 (Greece: Thasos Island, as *olivacea* Cyrillus); Gadallah, 2002:65 (in key to Egyptian *Bembix* based on male genitalia). – **As *Bembix olivacea***: Guiglia, 1939c:183 (Libya: Fezzan: Tin Alcun), 1941c:163 (Italy: Calabria: Grande Sila), 1942b:231 (Libya); Guiglia, 1943c:75 (Ethiopia: Gamo Gofa: Sagan – Omo region, as *olivacea* Cyrillus), 1944b:17 (Italy, as *olivacea* Cyrillus), 1948c:201 (Italy: Sardegna: Villasalto), 1950:243 (Ethiopia: Gamo Gofa: Caschei); Grandi, 1954:151 (prey: *Argyramoeba etrusca* Fabricius, a bombyliid), 235 (Italy); Hertzog, 1954:100 (France: Bouches-du-Rhône: Camargue); de Beaumont and Bytinski-Salz, 1955:48 (Israel); Bytinski-Salz, 1956:225 (Turkey: Acı Göl, Finike, Kalkan, Karapınar); Ceballos, 1956:386 (in catalog of Hymenoptera of Spain, as *olivacea* Cyrillus); Evans and Lin, 1956b:63 (description of larva by Grandi, 1926); Morel, Nouvel, and Ribaut, 1956:338 (France: Département des Pyrénées-Orientales); Nouvel and Ribaut, 1958:10

(France: Pyrénées-Orientales: Banyuls-sur-Mer, as *olivacea* Cyrillus); Pulawski, 1958a:169 (Bulgaria: Akhtopol, Nesebar, mouth of Ropotamo River, Varna); de Beaumont, 1959a:17 (Italy); Suárez, 1959:55 (Spain: Almería Province); de Beaumont, 1960a:9 (Greece: Island of Rhodes; geographic variation), 1961c:47 (Greece: Crete Island); Grandi, 1961:116 (nesting habits), 467 (description of larva); de Beaumont, 1962b:22 (Spain); Atanassov, 1965:91 (Greece: Thasos Island); de Beaumont, 1965a:24 (Greece); Myartseva, 1965:91 (Turkmenistan: Akibay, Sakar-Chagin district, Bayram-Ali district); Roberti, Frilli, and Pizzaghi, 1965:109 (Italy: Emilia-Romagna: Marsaglia in Piacenza Province); Scobiola-Palade, 1966b:391 (Romania: Tulcea District: C.A. Rosetti, Periprava, Sulina); de Beaumont, 1967a:299 (Turkey; variation); Scobiola-Palade, 1967b:38 (Romania), 1968b:141 (Romania: Island of Letea in delta of Danube); Zangheri, 1969:1702 (Italy: in catalog of flora and fauna of Romagna Region); Leclercq and Leclercq, 1970:268 (females attracted to bulls even in the absence of flies); Balthasar, 1972:378 (in Sphecidae Fauna of Czechoslovakia); Myartseva, 1972a:90 (Turkmenistan); Scobiola-Palade, 1972a:149 (Romania: delta of Danube: Caraorman); Erlandsson, 1974:67 (France, Spain); Scobiola-Palade, 1974:144 (Romania: Sărăturile sandbank in Danube delta); R. Bohart and Menke, 1976:548 (listed); Kazenas, 1978b:85, 88 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:208, 209 (in key to Sphecidae of European part of former USSR); Pagliano, 1980:118 (Italy: Basilicata); Gayubo, 1882e:108 (Spain: Cádiz Province), 1983a:125 (prey: Syrphidae: *Lathyrrophthalmus aeneus* (Scopoli)), 1984c:381 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:22 (Spain: Valencia); Eiroa and Novoa, 1985:24 (Spain: Pontevedra: Barra beach near Cangas); Scobiola-Palade, 1985:95 (Romania: delta of Danube); Gayubo and Heras, 1986:65 (Spain: Segovia and Valladolid Provinces; floral records); Gayubo and Tormos, 1986b:7 (Spain: Valencia); Józán, 1986:374 (Hungary: Kiskunság National Park); Tormos and Jiménez, 1987a:126 (Spain: Valencia), 1987b:317 (Spain: Valencia Province: Dehesa de El Saler); Guichard, 1989a:143 (Arabian Peninsula); Pádr in Šedivý, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Scobiola-Palade, 1989:87 (Romania: delta of Danube); Gayubo, Asís, and Tormos, 1990b:79 (Spain: Sevilla Province); Pagliano, 1990:76 (in catalog of Italian Sphecidae); Dollfuss, 1991:209 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:417 (Italy), 1992:289 (France: Nîmes: Carmaque); Pagliano, 1992:47, 48 (in key to Italian Bembicinae); Negrisoló and Pagliano, 1993:92 (Italy: Sardegna); Gayubo and Borsato, 1994:219 (Italy: Toscana); Roche and Zalát, 1994:116 (Egypt: Sinai Peninsula); Negrisoló, 1995a:19 (visiting flowers of *Limonium bellidifolium* (Gouan) Dumort), 22 (Italy: Veneto); Negrisoló in Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Scharrer, 1995:28 (Caspian Sea area); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:277 (in Sphecidae Fauna of Western Europe); Ljubomirov, 2000:6,13 (Bulgaria, specimens in N. Nedelkov collection); Shkuratov, 2000:57 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 239 (review of known biology); Shkuratov, 2001:17 (prey: Tabanidae); Kazenas, 2002a:132 (geographic distribution, collecting localities in Kazakhstan); Drewes, 2003:133 (Spain: Tarragona); Schmid-Egger, 2003:751 (Italy: Sicilia: Armerina, Ragusa); Gadallah and Assery, 2004a:219 (in key to Sphecidae of Jeddah Region, Saudi Arabia), 231 (in catalog of Sphecidae of Saudi Arabia); Gayubo and Özbek, 2005:23 (Turkey: ten localities); Pagliano and Negrisoló, 2005:190 (in Sphecidae Fauna of Italy); Shorenko, 2005a:168 (Ukraine: Crimea), 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve); Ljubomirov, 2006:537 (Bulgaria: previous records from Rhodope Mountains summarized); Tezcan, Yildirim, Anlaş, and Beyaz, 2006:58 (Turkey: Manisa: Sarıgöl: Bahadırılar, on flowers of *Origanum* sp.); Evans and O'Neil, 2007:176 (females attracted to bulls according to Leclercq and Leclercq, 1970); Vepřek and Straka, 2007:209 (in catalog of Sphecidae of Czech Republic and Slovakia, known only from Slovakia); Ljubomirov and Yildirim, 2008:121 (in catalog of Crabronidae of Turkey); Gayubo, González, Tormos, and Asís, 2009:365 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero). – **As *Bembyx olivacea***: Priesner, 1958:23 (in revision of Egyptian *Bembix*).

? *Vespa clipeata* Christ, 1791:221, ♀, ♂. Syntypes: origin not indicated (destroyed).

? *Vespa apilinguaria* Christ, 1791:224, [♀]. Holotype or syntypes: origin not indicated (destroyed).

- Bembix senilis* Fabricius, 1804:226. Lectotype: ♀, Morocco: Tanger (ZMK). Synonymized with *Bembix olivacea* by van der Vecht, 1961a:60. – Handlirsch, 1893c:890 (original description copied); Dalla Torre, 1897:513 (in catalog of world Sphecidae).
- ? *Bembix octopunctata* Donovan, 1810:21, sex not indicated (as, *octo-punctata*, incorrect original hyphenation). Syntypes: England: no specific locality (depository?). – R. Bohart and Menke, 1976:548 (as tentative synonym of *Bembix olivacea*).
- Bembix notata* Dahlbom, 1845:491, ♀. Holotype or syntypes: ♀, Greece: Rhode Island: no specific locality, actually may be Egypt (Stockholm). Tentatively synonymized with *Bembix mediterranea* by Handlirsch, 1893c:890. – F. Smith, 1856:321 (in catalog of Hymenoptera in British Museum); Taschenberg, 1870:21 (Sudan: Khartum); nec Gribodo, 1884c:387 (= *Bembix dahlbomii*); Handlirsch, 1893c:890 (original description copied); Dalla Torre, 1897:509 (in catalog of world Sphecidae).
- Bembix mediterranea* Handlirsch, 1893c:807, ♀, ♂. Syntypes: many localities from Spain, Portugal, France, Italy, Greece, Hungary, s. Russia, Armenia or Azerbaijan, Algeria, Egypt, Amur area (depositories not indicated). Synonymized with *Bembix olivacea* by de Beaumont, 1951e:272. – Magretti, 1895:167 (Ethiopia: Ogaden Region); Mocsáry, 1897:83 (Kingdom of Hungary, some localities are in today's Romania); Handlirsch, 1898b:490 (Egypt: Turah); Magretti, 1899:605 (Somalia: Brava, Lugh); Antiga and Bofill, 1904:19 (Spain: Cataluña Province); Mercet, 1904a:349, 356 (in key to Spanish *Bembix*); E. Saunders, 1904c:638 (Spain); W. Schulz, 1904b:94 (France, Greece; Azerbaijan: Lenkoran); Kohl, 1905c:232 (Turkey: Kayseri: Erciyes Dađı); Medina, 1905:136 (Spain: Cádiz: Chiclana, and Sevilla); Vángel, 1905:167 (Hungary); Zavattari, 1905b:4 (Middle East: no specific locality); Schmiedeknecht, 1907: 215 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:120 (in catalog of Hymenoptera of France); Graeffe, 1911:46 (Italy: Trieste area); Longstaff, 1911:125, 195 (Sudan: Khartum); Morice, 1911:130 (Algeria; floral records); Ferton, 1912a:353 (nesting habits in Algeria: La Calle, now El Kala), 389 (egg, larva, progressive provisioning, as *mediterraneus*), 397 (progressive provisioning is primitive); Smits van Burgst, 1913a:319 (Tunisia); Ferton, 1914:115 (nest deposited in empty cell); Fahringer and Friese, 1921:161 (Turkey: Erzurum: Dörtjol in Amanus Mts. = Gavur Dađlari); Morice, 1921:823 (Iran: Enzeli); Roth, 1921:130 (prey: *Musca domestica* L., *Musca vitripennis* Meigen); Maidl, 1922:72 (Balkan Peninsula); Ferton, 1923:90 (nesting habits), 100 (consideration on evolution of *Bembix*); Maidl, 1924:241 (Sudan); Dusmet y Alonso, 1927:25 (Spain: Cataluña: Tarragona); Mellor, 1927:69 (adult specimens killed by *Ephutomma continua* Fabricius, a mutilid), 1928:123 (nest digging, miltogrammid nest parasite *Cratulina tabaniformis*, prey: a tachinid); A. Müller, 1930:181 (Romania: Sulina); Schmiedeknecht, 1930:677, 678 (in keys to Hymenoptera of North and Central Europe); Bischoff, 1931:9 (Spain); Dusmet y Alonso, 1931:8 (Portugal: Lavos); Guiglia, 1932:127 (Somalia: Mogadishu); Nadig, 1933:86 (Morocco); E. Nielsen, 1933:297 (summary of nesting habits); Maidl, 1934:64 (Greece: Aegean Islands: Milos); Nadig, 1934:32 (Italy: Sardegna: Cagliari); Grandi, 1937:285 (list of prey species); Zavadil, 1937a:72 (eastern Slovakia); Zavadil, Šustera, and Bat'a, 1937:186 (in catalog of Sphecidae of Czechoslovakia); Honoré, 1942:23 (in list of Egyptian Sphecidae); Móczár, 1942:1 (Hungary: Kecskemét area; description and photographs of nesting habits); Giner Marí, 1943b:34 (Spain; redescription); Giner Marí, 1945b:363 (Western Sahara: El Aiun), 1945e:236 (Western Sahara), 1947:25 (Western Sahara); de Beaumont, 1947b:386 (Cyprus); Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembix*); de Andrade, 1949:19 (Portugal); Berland, 1950a:126 (Mauritania: Ford Gouraud, now Fdérík); Pittioni, 1950:22 (Cyprus); Scobiola, 1950:18 (Romania: several localities); Diniz, 1959:30 (Portugal: nine localities); Georghiou, 1977:189 (Cyprus). – **As *Bembix mediterranea***: J. Parker, 1929:84 (in revision of Stizini and Bembicini); Grandi, 1934:53 (list of prey, nest construction), 128 (Italy: Emilia-Romagna: Cervia); Giordani-Soika, 1944:9 (Italy: Sicilia: Falcone); Lohrmann, 1948:429 (illustration of male sternum VIII); Šnoflak in Zavadil and Šnoflak, 1948:81, 83 (in key to Sphecidae of Czechoslovakia); Ceballos, 1956:385 (in catalog of Hymenoptera of Spain); Myartseva, 1963b:60 (Turkmenistan: lower Murgab River); Balthasar, Hrubant, and Hrubant, 1967:175 (Bulgaria: Slanchev Bryag near Nessebar); Scobiola-Palade, 1967a:161 (Romania: Constanța District: Mangalia); Diniz, 1973:48 (Portugal: eight localities).

Bembix maroccana Mercet, 1905c:465, ♀. Syntypes: ♀, Morocco: Tanger, Casablanca, Mazagrán (MNCN). Synonymized with *Bembix olivacea* by de Beaumont, 1953c:80. – Giner Marí, 1945b:360 (e. Morocco: Ixmoart). – **As *Bembix maroccana***: Lohrmann, 1948:421 (in checklist of recently described *Bembix*), 453 (member of *oculata* species group of *Bembix*).

Bembix pardoii Giner Marí, 1945b:380, ♀. Holotype: ♀, Western Sahara: Ixmoart (MNCN). Synonymized with *Bembix olivacea* by de Beaumont, 1953c:80. – Giner Marí, 1945b:360 (Western Sahara: Ixmoart).

ssp. *saharae* Giner Marí

Bembix saharae Giner Marí, 1945b:380, ♀, ♂. Syntypes: ♂, Morocco: Western Sahara: El Aiun (MNCN). – Giner Marí, 1945b:363 (Western Sahara: El Aiun), 1945e:235 (Western Sahara), 1947:26 (Western Sahara). – **As *Bembix saharae***: R. Bohart and Menke, 1976:548 (listed) – **As *Bembix olivacea saharae***: de Beaumont, 1950f:397 (new status Algeria), 1951e:273 (new status), 1953a:174 (Mauritania), 1953c:80 (revision of syntypes), 1956a:194 (Chad: Tibesti), 1958b:57 (Algeria: Tassili des Ajjer), 1965b:773 (Chad: Ennedi; as *saharea*); Gadallah, 1997:266 (in revision of Egyptian *Bembix*).

228. *olivata* Dahlbom

Bembix olivata Dahlbom, 1845:491, ♀. Holotype or syntypes: ♀, South Africa: Western Cape Province: Cape of the Good Hope (Lund or Stockholm). – Handlirsch, 1893c:812 (revision); Dalla Torre, 1897:510 (in catalog of world Sphecidae); Magretti, 1898:51 (Somalia: Daua and Lugh); Bingham, 1902:211 (Malawi); Cameron, 1910:144 (South Africa: Mpumalanga: Olifants River); Schouteden, 1930:96 (Zaire). – **As *Bembix olivata***: R. Bohart and Menke, 1976:548 (listed).

Bembix intermedia Dahlbom, 1845:491, ♀. Holotype or syntypes: ♀, South Africa: Kwazulu Natal: Port Natal, now Durban (LUND). Tentatively synonymized with *Bembix olivata* by Handlirsch, 1893:812. – F. Smith, 1856:324 (in catalog of Hymenoptera in British Museum); Arnold, 1929b:358 (in revision of southern African Sphecidae, as valid name for *Bembix olivata*), 1930:21 (in checklist of Afrotropical Sphecidae), 1935a:503 (South Africa: Kalahari).

229. *omanensis* Guichard

Bembix omanensis Guichard, 1989a:149, ♂. Holotype: ♂, Oman: Rostaq (BMNH).

230. *oomborra* Evans and Matthews

Bembix oomborra Evans and Matthews, 1973:83, ♂. Holotype: ♂, Australia: Northern Territory: Darwin (BMNH). – R. Bohart and Menke, 1976:548 (listed); Cardale, 1985:292 (in catalog of Australian Sphecidae); Evans, 1990:30 (in key to males of *promontorii* group).

231. *opinabilis* J. Parker

Bembix opinabilis J. Parker, 1929:79, ♀, ♂. Holotype: ♂, Tanzania: Kagera (ZMHU). – Arnold, 1931:213 (as new synonym of *Bembix stadelmanni*). – **As *Bembix opinabilis***: J. Parker, 1942:206 (valid species); Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed).

232. *orientalis* Handlirsch

Bembix orientalis Handlirsch, 1893c:737, ♂, ♀. Syntypes: Bengal, Tenasserim, Himalaya (IRSN, NHMW, ZMHU, ZSBS). – Handlirsch, 1895:1051 (listed); Bingham, 1897:289 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); Dalla Torre, 1897:510 (in catalog of world Sphecidae); Dutt, 1912:228 (India: Bihar: Pusa; nesting in soft sandy soil); Hua, 1989:116 (China). – **As *Bembix orientalis***: J. Parker, 1929:101 (in revision of Stizini and Bembicini); Chhotani and Ray, 1975:27 (India: Rajasthan: Gudha, Korsina, Lihorana, Nawa, Sambhar Lake); R. Bohart and Menke, 1976:548 (listed); Kifune and Hirashima, 1987:156 (parasite in Sri Lanka: *Paraxenos krombeini* Kifune and Hirashima, 1987); Krombein and van der Vecht, 1987:2 (nesting habits), 14 (in revision of Sri

Lankan and South Indian *Bembix*); Hua, 2006:277 (in list of Chinese insects, geographic distribution); Evans and O'Neil, 2007:181 (summary of information on nesting habits).

233. *ornatilabiata* Cameron

Bembix ornatilabiata Cameron, 1908a:291, ♀. Holotype or syntypes: ♀, Kenya: Mt. Meru lowlands: Ngare na nyuki (NRS). – Arnold, 1929b:280 (unrecognizable species). – **As *Bembix ornatilabiata***: R. Bohart and Menke, 1976:548 (listed).

234. *ourapilla* Evans and Matthews

Bembix ourapilla Evans and Matthews, 1973:235, ♂. Holotype: ♂, Australia: Western Australia: Nilemah Station 50 mi S Denham (ANIC). – R. Bohart and Menke, 1976:548 (listed); Cardale, 1985:292 (in catalog of Australian Sphecidae).

235. *ovans* Bingham

Bembix ovans Bingham, 1893:384, ♀, ♂. Syntypes: Myanmar: Maulmain (BMNH). – Bingham, 1897:292 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); Dalla Torre, 1897:510 (in catalog of world Sphecidae). – **As *Bembix ovans***: Lohrmann, 1948:423 (in checklist of recently described *Bembix*), 450 (member of *fossoria* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed).

236. *palaestinensis* Lohrmann

Bembix palaestinensis Lohrmann, 1942b:208, ♂. Holotype: ♂, Israel: no specific locality (ZSBS). – Lohrmann, 1948:421 (in checklist of recently described *Bembix*), 451 (member of *merceti* species group of *Bembix*); de Beaumont and Bytinski-Salz, 1953:44 (Israel); R. Bohart and Menke, 1976:548 (listed); Gadallah, 1997:259 (in revision of Egyptian *Bembix*), 2002:63 (in key to Egyptian *Bembix* based on male genitalia, as *Bembex*). – **As *Bembyx palaestinensis***: Priesner, 1958:8 (in revision of Egyptian *Bembix*).

237. *pallescens* Priesner (preoccupied)

Bembyx pallescens Priesner, 1958:17, ♀, ♂, junior secondary homonym of *Bembix pallescens* (Giorna, 1791). Holotype: ♂, Egypt: Khanka (originally Ministry of Agriculture, Cairo, now NHMW). – **As *Bembex pallescens***: Gadallah, 2002:65 (in key to Egyptian *Bembix* based on male genitalia). – **As *Bembix pallescens***: Grandi, 1957:386 (Libya, as nomen nudum); Guichard, 1980:229 (Oman); Roche, 1981:4 (in checklist of Sphecidae of United Arab Emirates); Al-Houty, 1989:158 (Kuwait: Al-Wafra); Dollfuss, 1989:7 (holotype in NHMW); R. Bohart and Menke, 1976:548 (listed); Roche and Zalat, 1994:116 (Egypt: Sinai Peninsula); Gadallah, 1997:260 (in revision of Egyptian *Bembix*).

238. *pallida* Radoszkowski

Bembex pallida Radoszkowski, 1877:50, ♀, ♂. Syntypes: Kyrgyzstan: Shakhimardan (ZMMU). – Handlirsch, 1893c:709 (in revision of world Bembicinae); Dalla Torre, 1897:510 (in catalog of world Sphecidae); W. Schulz, 1904b:94 (Greece: Epirus); Gussakovskij, 1935:444 (Tajikistan: Gushary in Hissar Range). – **As *Bembix pallida***: de Beaumont and Bytinski-Salz, 1955:44 (Israel); Bytinski-Salz, 1956:225 (Turkey: Elmalı, Erdeyas Dag); Leclercq, 1956g:325 (Greece); Pulawski, 1958a:169 (Bulgaria); de Beaumont, 1965a:22 (Greece; replaces *integra* in Balkans and eastwards), 1967a:294 (Turkey), 1969:83 (Turkey); Islamov, 1970:63, 64 (Uzbekistan: Chirchik Basin); Balthasar, 1972:376 (in Sphecid Fauna of Czechoslovakia: may be expected in the country); R. Bohart and Menke, 1976:548 (listed); Guichard, 1978:270 (Greece); Kazenas, 1978b:87, 89 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:208, 209 (in key to Sphecidae of European part of former USSR); Nazarova and Baratov, 1981:100 (Tajikistan: locality Kvak above Kondara); Dollfuss, 1989:7 (type material in NHMW); Shkuratov, 2000:57 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia); Shkuratov, 2001:17 (prey: Asilidae, particularly *Leptogaster* sp.); Gayubo and Özbek, 2005:23 (Turkey: seven localities); Kazenas, 2007a:93 (Kazakhstan: Akmala

Oblast': Kurgandzhin Nature Reserve and vicinity); Ljubomirov and Yildirim, 2008:121 (in catalog of Crabronidae of Turkey).

239. *pallidipicta* F. Smith

Bembix pallidipicta F. Smith, 1873c:300, ♀. Holotype or syntypes: ♀, Mexico: no specific locality (BMNH). – Cameron, 1890a:101 (listed); Handlirsch, 1893c:903 (original description translated into German); Dalla Torre, 1897:511 (in catalog of world Sphecidae); Ashmead, 1899d:239 (in checklist of North American Crabronidae). – **As *Bembix pallidipicta***: Evans and Matthews, 1968b:1297 (incorrectly treated as nomen oblitum); R. Bohart and Horning, 1971:18 (in revision of California Bembicini); R. Bohart and Menke, 1976:548 (listed); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Evans and O'Neil, 2007:167 (summary of information on nesting habits).

Bembix pruinosa W. Fox, 1895:361, ♀, ♂. Lectotype: USA: ♀, USA: Oregon: no specific locality (ANSP), designated by Cresson, 1928:46. Synonymized with *Bembix pallidipicta* by Evans and Matthews, 1968b:1297. – Ashmead, 1899d:239 (in checklist of North American Crabronidae); J.Ch. Bradley, 1928:1018 (in catalog of New York Sphecidae); Brimley, 1938:448 (North Carolina: Beaufort); Dreisbach, 1951:103 (in key to *Bembix* of Michigan), 106 (Michigan: locality records). – **As *Epibembex pruinosa***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera); Krombein, 1953a: 298 (visiting flowers of *Cephalanthus occidentalis*), 336 (North Carolina); L. Davis, 1978:216 (North Carolina: Kill Devil Hills, data from Krombein, 1953a). – **As *Bembix pruinosa***: Mickel, 1917:287 (USA: Nebraska); J. Parker, 1917:104 (in revision of Bembicini in America north of Mexico); Mickel, 1918b:442 (in catalog of Nebraskan Sphecidae); M. Smith, 1920:82 (in revision of Bembicini of North Carolina); J. Parker, 1929:130 (in revision of Stizini and Bembicini, as *pruinosa*); Lohrmann, 1948:446 (member of *occidentalis* species group of *Bembix*); Evans and Lin, 1956b:57 (description of larva); Evans, 1957c:142 (study of behavior), 1958e:452 (behavioral evolution), 1959c:381 (nesting habits), 1963a:plate (photograph of female opening nest), 1963c:figs 9 and 10 after p. 38 (larva inside nest), fig. 11 (photograph of female entering nest with prey), 71 (nesting habits), fig. 12 after p. 134 (photograph of female leaving nest), 1964b:270 (additional description of larva); Chandler, 1966:146 (in revision of Bembicini and Stizini of Indiana); Evans, 1966d:345 (additional behavioral observations); Krombein, 1979b:1715 (in catalog of North American Hymenoptera, nesting sites, list of prey); Hilchie, 1982:110 (accessory burrows reviewed); Rubink, 1982:52 (role of conspecific nests in nest-site selection); Kurczewski, 1998d:250 (pine barrens in upstate New York); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Buck, 2004:27 (in checklist of Crabronidae of Ontario, Canada).

240. *palmata* F. Smith

Bembix palmata F. Smith, 1856:325, ♂. Holotype or syntypes: ♂, Australia?: no specific locality (BMNH). – Froggatt, 1892:223 (in catalog of Australian Hymenoptera); Handlirsch, 1893c:751 (in revision of world Bembicinae, description of ♀); Dalla Torre, 1897:511 (in catalog of world Sphecidae); R. Turner, 1908:504 (Australia: Queensland: Mackay, Cairns), 1915e:438 (in revision of Australian *Bembix*); W. Wheeler and Dow, 1933:59 (locustid prey). – **As *Bembix palmata***: J. Parker, 1929:147 (in revision of Stizini and Bembicini); W. Wheeler and Dow, 1933:57 (preying on damselflies); Evans and Matthews, 1973b:49 (in revision of Australian *Bembix*), 1975:110 (photograph of female entering nest with prey), 111 (preying on Diptera); R. Bohart and Menke, 1976:548 (listed); Cardale, 1985:292 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:187 (summary of information on nesting habits).

Bembix tridentifera F. Smith, 1873c:298, ♀. Holotype or syntypes: ♀, Australia: Queensland: Moreton Bay (BMNH). Synonymized with *Bembix palmata* by Handlirsch, 1893c:751. – H. Roth, 1885:321 (“builds underground nests”); Froggatt, 1892:224 (in catalog of Australian Hymenoptera).

241. *palona* Evans and Matthews

Bembix palona Evans and Matthews, 1973:190, ♀, ♂. Holotype: ♂, Australia: Queensland: 5 mi N Nocatunga (ANIC). – R. Bohart and Menke, 1976:548 (listed); Cardale, 1985:292 (in catalog of Australian Sphecidae).

242. *papua* Handlirsch

Bembix papua Handlirsch, 1893c:779, ♀, ♂ (as *Papua*, incorrect original capitalization). Syntypes: New Guinea, New Britain, Sulawesi, and Aru Island (NHMW, ZMHU, Hamburg, TMB, MHNG, MSNG, BMNH). – Dalla Torre, 1897:511 (in catalog of world Sphecidae); Strand, 1911b:231 (Indonesia: Moluccas: Aru Islands). – **As *Bembix papua***: Lohrmann, 1939:139 (member of *papua* species group of *Bembix*), 1948:427 (illustration of male tergum VII), 449 (member of *papua* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed); Dollfuss, 1989:7 (lectotype in NHMW).

243. *parkeri* Lohrmann

Bembix parkeri Lohrmann, 1942a:155, ♀, ♂. Syntypes: Algeria: La Calle, now El Kala (NHMW). – Lohrmann, 1948:421 (in checklist of recently described *Bembix*), 451 (member of *merceti* species group of *Bembix*); R. Bohart and Menke, 1976:546 (as synonym of *Bembix galactina*), 548 (listed as valid species).

244. *parvula* F. Morawitz

Bembix parvula F. Morawitz, 1897a:155, ♀, ♂. Syntypes: Turkmenistan: Mikhailovskaya, now Germab (ZIN). – Gussakovskij, 1933b:296 (Iran: Kerman: Makran); Myartseva, 1972a:90. – **As *Bembix parvula***: Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 451 (member of *planifrons* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia).

245. *pectinipes* Handlirsch

Bembex palmata F. Smith, 1873c:298, ♂, junior primary homonym of *Bembex palmata* F. Smith, 1856. Holotype or syntypes: ♂, Australia: no specific locality (BMNH). Synonymized with *Bembex pectinipes* by R. Turner, 1908:504.

Bembex pectinipes Handlirsch, 1893c:875, ♀. Syntypes: Australia: Queensland: no specific locality (Hamburg). – Dalla Torre, 1897:511 (in catalog of world Sphecidae); R. Turner, 1908:504 (diagnostic characters, comparison with *Bembex saussurei*; Queensland: Darwin), 1915e:440 (in revision of Australian *Bembix*). – **As *Bembix pectinipes***: Evans and Matthews, 1973b:39 (in revision of Australian *Bembix*), 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:548 (listed); Cardale, 1985:292 (in catalog of Australian Sphecidae); Pagliano, 2003a:507 (Australia: first record from New South Wales: Border Raner); Evans and O'Neil, 2007:187 (summary of prey record).

246. *persa* von Schulthess

Bembex persa von Schulthess, 1927:299, ♂. Holotype: ♂, Iran: Bender Abbas (DEI). – Oehlke and Wudowenz, 1974:424 (holotype and one paratype in DEI). – **As *Bembix persa***: Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 453 (member of *oculata* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed).

247. *persimilis* R. Turner

Bembex persimilis R. Turner, 1917e:179, ♂. Syntypes: ♂, India: Punjab: Akalgarh (BMNH). – **As *Bembix persimilis***: J. Parker, 1929:88 (in revision of Stizini and Bembicini); Lohrmann, 1948:450 (only member of *persimilis* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed).

248. *physopoda* Handlirsch

Bembex physopoda Handlirsch, 1893c:790, ♂. Syntypes: Brazil: no specific locality (ZMHU). – Dalla Torre, 1897:511 (in catalog of world Sphecidae). – **As *Bembix physopoda***: Lohrmann, 1948:444 (member of *physopoda*

species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed); Amarante, 2002:8 (in catalog of Neotropical Crabronidae).

249. *pikati* Evans and Matthews

Bembix pikati Evans and Matthews, 1973:230, ♀, ♂. Holotype: ♂, Australia: South Australia: 76 mi W Musgrave Park (SAMA). – R. Bohart and Menke, 1976:548 (listed); Cardale, 1985:293 (in catalog of Australian Sphecidae).

250. *pillara* Evans and Matthews

Bembix pillara Evans and Matthews, 1973:226, ♂. Holotype: ♂, Australia: Western Australia: Lake Way 10 mi S Wiluna (ANIC). – R. Bohart and Menke, 1976:548 (listed); Cardale, 1985:293 (in catalog of Australian Sphecidae).

251. *pinguis* Handlirsch

Bembex pinguis Handlirsch, 1893c:784, ♀, ♂. Syntypes: India: Calcutta, now Kolkata, Assam; Indonesia: Java (NHMW, TMB, Stuttgart, MHNG). – Bingham, 1897:290 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); Dalla Torre, 1897:511 (in catalog of world Sphecidae). – **As *Bembix pinguis***: Lohrmann, 1939:139 (member of *papua* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed); Dollfuss, 1989:8 (lectotype in NHMW).

252. *pirapora* J. Parker

Bembix pirapora J. Parker, 1929:153, ♀. Holotype: ♀, Brazil: Minas Gerais: Pirapora (Cornell Univ.). – R. Bohart and Menke, 1976:548 (listed); Amarante, 2002:8 (in catalog of Neotropical Crabronidae).

253. *placida* F. Smith

Bembex placida F. Smith, 1856:330, ♂. Holotype or syntypes: ♂, Colombia: no specific locality (BMNH). – Handlirsch, 1893c:903 (original description translated into German); Dalla Torre, 1897:511 (in catalog of world Sphecidae). – **As *Bembix placida***: R. Bohart and Menke, 1976:548 (listed); Amarante, 2002:8 (in catalog of Neotropical Crabronidae).

254. *planifrons* F. Morawitz

Bembex planifrons F. Morawitz, 1891a:227, ♀. Holotype or syntypes: ♀, European Kazakhstan: Ryn-Peski (ZIN). – Handlirsch, 1893c:869 (in revision of world Bembicinae); Dalla Torre, 1897:511 (in catalog of world Sphecidae). – **As *Bembix planifrons***: Lohrmann, 1948:451 (member of *planifrons* species group of *Bembix*); de Beaumont, 1970c:12 (Iran: Baluchistan); Myartseva, 1972a:90 (Turkmenistan); Kazenas, 1972b:142 (Kazakhstan); R. Bohart and Menke, 1976:548 (listed); Kazenas, 1978b:87, 90 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:208, 210 (in key to Sphecidae of European part of former USSR); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:132 (geographic distribution, collecting localities in Kazakhstan), 2008a:105 (Southeastern Kazakhstan: Ili River valley: Aydarly, Ayak-Kalkan, 14-15 km E Ayak-Kalkan, 60 km E Chilik, Kapchagay).

Bembex mervensis Radoszkowski, 1893:64, ♀. Holotype or syntypes: ♀, Turkmenistan: Merv, now Mary (Kraków). Synonymized with *Bembex planifrons* by Handlirsch, 1893c:869.

255. *portchinskii* Radoszkowski

Bembex portchinskii Radoszkowski, 1884:26, ♂ (as *Portschinskii*, incorrect original capitalization). Holotype or syntypes: ♂, Caucasus (Kraków). – Radoszkowski, 1887a:44 (China: Tsinghai: Tsaidam region: no specific locality). – **As *Bembex portchinskii***: Handlirsch, 1893c:731 (in revision of world Bembicinae); Dalla Torre, 1897:511 (in catalog of world Sphecidae); Maidl, 1924:241 (Sudan: Tuti Island near Khartum); Gussakovskij, 1934a:13 (China: Inner Mongolia), 1933b:294 (Iran); Giner Marí, 1947:27 (Western Sahara). – **As *Bembix portchinskii***: Lohrmann, 1948:451 (member of *megerlei* species group of *Bembix*); de Beaumont, 1967a:297 (Turkey); Tsuneki, 1971k:213 (Mongolia); R. Bohart and Menke, 1976:548 (listed); Gadallah, 1997:262 (in revision of Egyptian *Bembix*); Ka-

zenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia). – **As *Bembix portchinskii***: Ljubomirov and Yildirim, 2008:122 (correct spelling is *portchinskii*, in catalog of Crabronidae of Turkey).

Bembex seminigra F. Morawitz, 1889a:148, ♂. Holotype or syntypes: ♂, China or Mongolia: "Monasterium Pabō (ZIN). Synonymized with *Bembex portschinskii* by Handlirsch, 1893c:731.

256. *priesneri* de Beaumont

Bembix priesneri de Beaumont, 1966:209, ♂, ♀. Holotype: ♂, Egypt: Fayed (Lausanne). – R. Bohart and Menke, 1976:548 (listed); Guichard, 1989a:146 (description of ♀, Egypt, Mali, Morocco, Qatar, Saudi Arabia); Gadallah, 1997:262 (in revision of Egyptian *Bembix*), 2002:65 (in key to Egyptian *Bembix* based on male genitalia, as *Bembex*); Gadallah and Assery, 2004a:231 (in catalog of Sphecidae of Saudi Arabia).

257. *promontorii* Lohrmann

Bembix promontorii Lohrmann, 1942a:157, ♀, ♂. Syntypes: Australia: Queensland: Cape York (NHMW). – **As *Bembix promontorii***: Lohrmann, 1948:423 (in checklist of recently described *Bembix*); Evans and Matthews, 1973b:66 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:548 (listed); listed; Evans, Evans, and Hook, 1982:72 (nesting habits); Cardale, 1985:293 (in catalog of Australian Sphecidae); Evans, 1990:30 (in key to males of *promontorii* group); Naumann, 1993:183 (Australia: Queensland: Heathlands area in Cape York); Evans and O'Neil, 2007:192 (summary of information on nesting habits).

258. *pugillatrix* Handlirsch

Bembex pugillatrix Handlirsch, 1893c:780, ♀, ♂. Syntypes: Indonesia: Sulawesi, Halmahera, Amboina; Philippines: Mindanao, Batjan; New Guinea: no specific localities (MHMW, ZMHU, Dresden, Hamburg, TMB, MSNG). – Dalla Torre, 1897:511 (in catalog of world Sphecidae). – **As *Bembix pugillatrix***: J. Parker, 1929:87 (in revision of Stizini and Bembicini); Lohrmann, 1939:139 (member of *papua* species group of *Bembix*); Baltazar, 1966:350 (in catalog of Hymenoptera of Philippines); R. Bohart and Menke, 1976:548 (listed); Dollfuss, 1989:8 (lectotype in NHMW); Tsuneki et al., 1992c:33, 34 (in key to *Bembix* of Philippines), 34 (bibliographic references); Wu and Zhou, 1996a:156 (in revision in Economic Insect Fauna of China); Hua, 2006:277 (in list of Chinese insects, geographic distribution).

259. *pulka* Evans and Matthews

Bembix pulka Evans and Matthews, 1973:166, ♀. Holotype: ♀, Australia: South Australia: 30 mi S Davies in Tompkinson Ranges (SAMA). – R. Bohart and Menke, 1976:548 (listed); Cardale, 1985:293 (in catalog of Australian Sphecidae).

260. *quadrifasciata* Taschenberg

Bembex quadrifasciata Taschenberg, 1870:20, ♀. Holotype or syntypes: ♀, origin unknown (Halle). – Handlirsch, 1893c:906 (original description copied); Dalla Torre, 1897:511 (in catalog of world Sphecidae). – **As *Bembix quadrifasciata***: R. Bohart and Menke, 1976:548 (listed).

261. *quinquespinosa* J. Parker

Bembix quinquespinosa J. Parker, 1929:86, ♀, ♂. Holotype: ♂, Philippines: Palawan Island: Puerto Princessa (USNM). – Lohrmann, 1939:139 (member of *papua* species group of *Bembix*); Baltazar, 1966:350 (in catalog of Hymenoptera of Philippines); R. Bohart and Menke, 1976:548 (listed); Tsuneki et al., 1992c:32, 33 (in key to *Bembix* of Philippines), 37 (bibliographic references).

262. *radoszkowskyi* Handlirsch

Bembex radoszkowskyi Handlirsch, 1893c:865, ♀, ♂ (as *Radoszkowskyi*, incorrect original capitalization). Syntypes: Senegal: Matam or Sudan: Matama (NHMW or Kraków). – Dalla Torre, 1897:511 (in catalog of world Sphecidae, as *radoszkowskii*, emendation or misspelling); W. Schulz, 1905b:19 (= *Bembix citrina*); Morice, 1911:130 (Algeria: Biskra); Maidl, 1924:241 (Sudan: Sennar); von Schulthess, 1926b:218 (Algeria: Biskra); de Beaumont, 1951e:274

(Morocco), 1952c:189 (Algeria: Hoggar); Gadallah, 2002:65 (in key to Egyptian *Bembix* based on male genitalia). – **As *Bembix radoszkowskyi***: de Beaumont and Bytynski-Salz, 1955:50 (Israel); de Beaumont, 1956a:194 (Libya; Chad: Tibesti), 1957e:621 (diagnostic characters, as *radoszkowskyi*); Grandi, 1957:386 (Libya: Tripolitania: Wadi Kaam); de Beaumont, 1958b:57 (Algeria: Tassili des Ajjer); R. Bohart and Menke, 1976:548 (listed); Guichard, 1989a:145 (United Arab Emirates; Mali, Niger, Nigeria, Sudan); Gadallah, 1997:264 (in revision of Egyptian *Bembix*). – **As *Bembyx radoszkowskyi***: Priesner, 1958:33 (in revision of Egyptian *Bembix*).

263. *rava* Arnold

Bembix rava Arnold, 1952:474, ♂, ♀. Holotype: sex not indicated, Kenya: Naivasha (BMNH). – R. Bohart and Menke, 1976:548 (listed).

264. *recurva* J. Parker

Bembix recurva J. Parker, 1929:76, ♀, ♂. Holotype: ♂, Cameroon: Garua (ZMHU). – Arnold, 1931:212 (probable synonym of *Bembex ugandensis*); J. Parker, 1942:206 (valid species); Lohrmann, 1948:447 (member of *diversipennis* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed).

265. *refuscata* J. Parker

Bembix refuscata J. Parker, 1929:94, ♀, ♂. Holotype: ♂, German East Africa, now Tanzania: Kamoga (ZMHU). – Arnold, 1931:215 (as synonym of *Bembex diversipennis*); J. Parker, 1942:205 (valid species); Lohrmann, 1948:429 (illustration of color pattern), 447 (member of *diversipennis* species group of *Bembix*); Arnold, 1960a:464 (valid species); R. Bohart and Menke, 1976:548 (listed).

266. *regia* J. Parker

Bembix regia J. Parker, 1929:68, ♀, ♂. Holotype: ♂, Cameroon: no specific locality (ZMHU). Paratypes: Zaire: Leubo (ZMHU). – Arnold, 1931:209 (original description copied); Lohrmann, 1939:142 (member of *melanopa* group); R. Bohart and Menke, 1976:548 (listed).

267. *regnata* J. Parker

Bembix regnata J. Parker, 1929:111, ♂, ♀. Holotype: ♂, Tanzania: "Usaramo, Rufiaji Klurtusteppe" (ZMHU). – Benson, 1934:75 (prey: Pieridae, Nymphalidae, Hesperidae); R. Bohart and Menke, 1976:548 (listed); Gess, 1986:156 (Benson's identification confirmed); Evans, 2002a:5 (known to prey on Lepidoptera).

Bembex speciosa Arnold, 1929b:337, ♂, ♀. Syntypes: Zimbabwe: Bulawayo, Gwaai, Matopos, Sanyati Valley, Victoria Falls (SAM). Synonymized with *Bembix regnata* by Arnold, 1931:209 and 216. – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae); R. Bohart and Menke, 1976:548 (listed).

268. *relegata* R. Turner

Bembex relegata R. Turner, 1917e:180, ♂ (as *relegatus*, incorrect original termination). Holotype: ♂, Pakistan: Punjab: Multan (BMNH). – **As *Bembix relegata***: Lohrmann, 1948:423 (in checklist of recently described *Bembix*), 452 (member of *oculata* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed).

269. *residua* J. Parker

Bembix residua J. Parker, 1929:75, ♂. Holotype: ♂, China: Kwangtung: Tsha-jiu-san (ZMHU). – Lohrmann, 1939:139 (member of *papua* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed).

270. *robusta* Lohrmann

Bembix robusta Lohrmann, 1942b:209, ♂. Holotype: ♂, Philippines: Mindanao Island: Lianga (Zool. Mus. Hamburg, destroyed in World War 2). – Lohrmann, 1948:423 (in checklist of recently described *Bembix*), 449 (member of *papua* species group of *Bembix*); Baltazar, 1966:350 (in catalog of Hymenoptera of Philippines); R. Bohart and Menke, 1976:548 (listed); Tsuneki et al., 1992c:33 (in key to *Bembix* of Philippines), 38 (bibliographic references).

271. rochei Guichard

Bembix rochei Guichard, 1989a:147, ♂, ♀. Holotype: ♂, United Arab Emirates: Shweib-Madam Road (BMNH). Paratypes: Algeria, India, Mali, Tunisia.

272. rostrata (Linnaeus)

Apis rostrata Linnaeus, 1758:577, sex not indicated. – Lectotype: ♂, Europa: no specific locality (Linnean Society, London), designated by Day, 1979:70. – Day and Fitton, 1978:195 (recuration of Linnean type material). – As *Bembex rostrata*: Fabricius, 1775:363 (new combination, redescription, as *Bembyx*), 1781:458 (redescription), 1787:285 (redescription); Olivier, 1789:290 (redescription); Rossi, 1790:81 (in revision of insects of Etruria, now Toscana, Italy); Fabricius, 1793:248 (redescription), 1796:19 (in Index to his Entomologia Systematica, 1793); Lichtenstein, 1796:205 (in auction catalog); Fabricius, 1804:223 (redescription); Latreille, [1805]:300 (redescription); Spinola, 1806:73 (Italy: Liguria); Illiger, 1807b:131 (synonymy, redescription); Jurine, 1807:175 (listed); Latreille, 1809b:419 (nesting habits); Vander Linden, 1829:11 (bibliographic references, occurs in Europe); Griffith, 1832:Pl. 132 Fig. 5 (illustration of body); Guérin-Méneville, 1835:pl. 70, Fig. 7 (mouthparts illustrated); Zetterstedt, 1838:446 (in revision of insects of Lapland); Herrich-Schaeffer, 1840:290 (Germany: Bayern: Regensburg area); Dufour, 1841a:492 and 1841b:228 (digestive tract), 1841a:494 and 1841b:230 (male reproductive system), 1841a:496 and 1841b:232 (female reproductive system); Dahlbom, 1842a:16 (in review of Scandinavian aculeates); Guérin-Méneville, 1844:438 (explanation of Fig. 7); Dahlbom, 1844:173 (in revision of Sphecidae and Pompilidae), 1845:XXII (specimens in collection Fabricius), 487 (in key to world *Bembix*); Lepelletier de Saint Fargeau, 1845:260 (in revision of world Hymenoptera); Gistel, 1848:142 (Germany, description); Boheman, 1849:479 (Sweden); Eversmann, 1849:397 (Russia: Volga-Ural area, no specific locality); Kiesenwetter, 1849:89 (Germany: Kingdom of Saxony: vicinity of Dresden); Wesmael, 1852:87 (Belgium: Ostende); Belke, 1853:433 (Ukraine: Kamieniec Podolski); Kirschbaum, 1853:46 (Germany: Herzogtum Nassau: Mainz-Mombach); Kirchner, 1854:312 (Czechoslovakia: Kaplitz in Budweiser District, now České Budějovice); F. Smith, 1856:318 (in catalog of Hymenoptera in British Museum); Kawall, 1857:24 (Kurland, now Latvia); Ruthe and Stein, 1857:314 (Germany: Berlin area); Schenck, 1857:181 (in revision of fossorial wasps of Nassau Region, Germany); Assmus, 1859:611 (Russia: Moscow Oblast'); Belke, 1859:71 (Ukraine: Kamieniec Podolski); Funk, 1859:59 (Germany: Bayern: Bamberg); Schenck, 1860:148 (Germany: Nassau Region), 1861:149 (variety with whitish color pattern); Brischke, 1862:102 (Germany: Preussen Province, now Poland: Pomorze Region), 1864:209 (Germany: Preussen Province, now Poland: Pomorze Region); A. Costa, 1864c:124 (Italy: Campania: Benevento area); Taschenberg, 1866:192 (in revision of Hymenoptera of Germany); A. Costa, 1867b:96 and 1867c:40 (in revision of Italian Sphecidae); Jaenicke, 1867:147 (Germany: Hessen: Frankfurt area); Kirchner, 1867:218 (in catalog of European Hymenoptera); Palma, 1867:39 (Italy: Sicilia settentrionale); Schenck, 1867a:355 (Germany: Nassau Region); Sichel, 1867:141 (Gibraltar); Jaenicke, 1868:9 (Germany: Hessen: Mombach, Rüsselheim); Wierzejski, 1868:117 (Ukraine: Podole Region: Janów, and Lwów, now L'viv); A. Costa, 1869b:82 (in revision of Italian Bembicinae); Aichinger, 1870:319 (Austria: Tirol); Taschenberg, 1870:19 (Germany: Berlin); Thomson, 1870:246 (in revision of Swedish wasps); A. Costa, 1872b:2 (in revision of Sphecidae of Kingdom of Naples, Italy); P. Ivanov, 1872:152 (Ukraine: Kharkov Oblast': Kupyansk area); Dours, 1874:147 (in catalog of Hymenoptera of France); Mocsáry, 1874:120 (Siebenbürgen, now Romania: Transylvania: no specific locality); Thomson, 1874:208 (in revision of Hymenoptera of Scandinavia); Wierzejski, 1874:259 (Poland: Kraków; Ukraine: Podole Region: Brody, Sinków, also Kalinowce in Bukowina); Marquet, 1875:208 (France: Haute-Garonne: Toulouse; Hérault: Béziers, Montpellier); Beuthin, 1876:231 (Germany: Hamburg area, as *rostratus*); Frivaldszky, 1876:354 (Hungary: Temes Komitat: Grebenáč, now Romania: Timiș District); Lucas, 1877b:CL (France: Ille-et-Vilaine Department: Saint-Malo area; nesting in sand, preying on Diptera); Girard, 1878:242 (France: Calvados: Lion-sur-Mer, coastal sand dunes); Fabre, 1879:221 (nesting habits)235 (progressive provisioning), 245 (nest parasite, cocoon), 265 (experiments on homing); Girard, 1879:958 (morphology and habits, as *rostratus*); Becker, 1880:150 (Russia: Sarepta, now Kras-

noarmeysk S Volgograd); Kohl, 1880:174 (Austria: Tirol, and Italy: Trentino–Alto Adige); Magretti, 1881:117 (Italy: Lombardia), 270 (listed); Marquet, 1881:181 (southern France); E. Saunders, 1881:165 (Spain: Vigo); Yaroshevskiy, 1881:124 (Ukraine: Khar'kiv Oblast': Khar'kiv, Kupyansk, Slavyansk); A. Costa, 1883:57 (Italy: Sardegna: Alghero, Oschiri); Friese, 1883:202 (Germany: Thüringen: Kahla); Kohl, 1883e:669 (Switzerland); Sickmann, 1883:84 (Germany: Niedersachsen: Wellingholthausen); von Heyden, 1884:117 (Germany: Frankfurt am Main); Wüstnei, 1886:42 (Germany: Schleswig-Holstein: Neumünster area); Brischke, 1888b:98 (Germany: Preussen Province, now Poland: Pomorze Region); Kohl, 1888b:728 (Austria: Tirol, now Italy: Alto Adige); Brischke, 1889:204 (Germany: Steegen E Danzig, now Poland: Stegna E Gdańsk); F. Morawitz, 1889a:138 (Mongolia), 1891a:225 (Russia: Astrakhan Government); Radoszkowski, 1892:577 (male genitalia); Wesenberg Lund, 1891:19 (nesting habits); Bezzi, 1892:123 (Italy: Lombardia: Provincia di Pavia: Santa Sofia); Handlirsch, 1893c:764 (in revision of world Bembicinae); Kohl, 1893a:29 (Austria: Wien: Türkenschanzen); Marchal, 1893:93 (nesting habits); F. Morawitz, 1893a:112 (Russia: St. Petersburg: Poklonnaya Gora); Sickmann, 1893:90 (Germany: Niedersachsen: Iburg); Krieger, 1894:9 (Germany: Kingdom of Saxony); De Stefani Perez, 1895:227 (in catalog of Sicilian Hymenoptera); Handlirsch, 1895:1002 (additional bibliography); Laboulbène, 1895:189 (immobilising prey by stinging); Acloque, 1897:94 (in Sphecidae Fauna of France and Algeria); Borries, 1897:82 (review of known nesting habits); Cuní y Martorell, 1897:332 (Spain: Cataluña: villa de Calella); Dalla Torre, 1897:512 (in catalog of world Sphecidae); Lüderwaldt, 1897:30 (Germany: Gollnow, now Poland: Pomorze Region: Goleniów); Mocsáry, 1897:83 (Kingdom of Hungary, some localities are in today's Croatia, Romania, and Slovakia); Riedel, 1898:347 (nest structure); Ferton, 1899:331 (review of previous biological observations, prey, prey paralyzing); W. Evans, 1901:17 (Great Britain: Channel Islands: Jersey, capture of 1873); Luff, 1901:48 (Great Britain: recorded from Jersey Island in 1860); Marchand, 1901 (proximal orientation); N. Arnold, 1902:89 (Russia: Mohilev Province, now Belarus); Chyzer, 1902:34 (Hungary); E. Saunders, 1902b:143 (British Channel Islands: Jersey Island; France: Bretagne: St. Briac); de Cobelli, 1903:110 (Italy: Province of Trentino); Gadeau de Kerville, 1903:306 (France: Manche Department); Siebertz, 1903:421 (habitat in Germany, nesting habits); Antiga and Bofill, 1904:19 (Spain: Cataluña Province); Aurivillius, 1904:264 (in revision of Swedish Sphecidae); Mercet, 1904a:352, 355 (in key to Spanish species); W. Schulz, 1904b:94 (Germany, Hungary; Russia: Sarepta; as *rostrata rostrata*); Kohl, 1905c:232 (Turkey: Kayseri: Erciyes Dağı); Kubes, 1905:84 (Czech Republic: Kolín); Medina, 1905:136 (Spain: Cádiz); von Heyden, 1905:81 (Germany: Hessen: Frankfurt); Dusmet y Alonso, 1906:6 (Spain); Faussek, 1906:33 (foretarsal rake well developed); Graeffe, 1906:455 (Tunisia: Ponte de Faes); Schmiedeknecht, 1907: 215 (in key to Hymenoptera of Central Europe); de Gaulle, 1908:120 (in catalog of Hymenoptera of France); Schuster, 1908:124 (Germany: Gonsenheimer Wald near Mainz; nesting habits); E. Scholz, 1909a:21 (male behavior, nesting sites), 182 (nest closure); Cavro, 1910:685 (France: Département du Nord: dunes Malo); Dittrich, 1911b:22 (Germany: Niederschlesien Province, now Poland: Dolny Śląsk Region); Scholz, 1912:17 (Germany: Oberschlesien: Laband, now Poland: Górny Śląsk Region: Łabędy near Gliwice); Graeffe, 1911:46 (Italy: Trieste area); Adlerz, 1912:24 (nesting habits); Morice, 1911:130 (Algeria: Médéa, Le Tarf); Ferton, 1912a:369 (Algeria: La Calle, now El Kala; list of prey); Rudow, 1912:55 (nest construction, nest structure); Schirmer, 1912:166 (Germany: Berlin area); Kohl, 1913b:15 (Russia: Voronezh Oblast': Valuyki at 50°14'N 38°08'E); Lundblad, 1913:213 (Sweden); Torka, 1913:34 (Germany: Provinz Posen, now Poland: Poznań Region); Alfken, 1914:279 (NW Germany); Dusmet y Alonso, 1915:87 (Spain: Aragón); Hedicke, 1918:402 (Germany: Brandenburg: Gross Machnower Weinberg, Oderberg); Kerenskiy, 1919:33 (Russia: Penza Government); O. Meyer, 1919:153 (Germany: Posen Province, now Poland: Poznań Region); A. Wagner, 1920:32 (Germany: Lower Elbe region); Dubois, 1921c:199 (in key to Belgian Sphecidae); Strand, 1921:33 (Germany: Bayern: Kulmbach); Gennerich, 1922:43 (cleaning apparatus); Hedicke, 1922:270 (Germany: Brandenburg: Gross Machnower Weinberg); Maidl, 1922:72 (Albania); Roth, 1922a:47 (prey are paralyzed, not killed); Ferton, 1923:74 (prey are paralyzed, not killed), 76 (prey paralyzed on ground or in flight), 78 (malaxation of prey); Hellén, 1923:60 (recorded from Finland); Berland, 1925d:68 (in Sphecidae Fauna of France); Bischoff, 1925:300 (Poland: Grajewo area); Coulon, 1925:118 (France; Morocco:

Tanger); Hemmingsen and Nielsen, 1925:14 (nesting habits); Lauterborn, 1925:355 (Germany: Rheinland); Shestakov, 1925:36 (Russia: Yaroslavl' area); K. Strohm, 1925:211 (Germany: Baden-Württemberg: Heidelberg); Friese, 1926:158 (in key to Sphecidae of Central Europe, short morphological and biological characteristics); Hémon, 1926:199 (France: Finistère: Fouesnant); Augener, 1927:164 (gynandromorph); Bouwman, 1927:92 (in revision of Sphecidae of Netherlands); Kokujev, 1927:71 (Russia: Siberia: Lake Baikal); Vuchetich, 1927:49 (nesting habits); Bischoff, 1930:218 (Tajikistan: Pamir: Langar); A. Müller, 1930:181 (Moldova or Ukraine: Tarutino); Picard, 1930:41 (France: Hérault: common everywhere; variation of male characters); Schmiedeknecht, 1930:677, 678 (in keys to Hymenoptera of North and Central Europe); Bischoff, 1931:9 (Spain); Dusmet y Alonso, 1931:8 (Portugal: Jugueiros); Minkiewicz, 1931a:8 (male behavior); Bondroit, 1932:38 (Belgium: Ostende: dunes); Giordani Soika, 1932a:21 (Italy: Lido di Venezia); Moțaș, 1932:6 (nesting habits, from literature), 14 (nest parasites: *Metopia leucocephala* Rossi, a tachinid, and *Parnopes grandior*, a chrysidid); Bernard, 1933:62 (France: Drôme: Dieulefit); Drogoszewski, 1933:118 (Poland: Łowicz, Włocławek); Dulac, 1933b:40 (description of ♂, France: Saône-et-Loire: no specific locality); Nadig, 1933:87 (Morocco); Balles, 1934:19 (Germany: Baden-Württemberg: Friedrichstal, Mannheim-Rheinau); Giner Mari, 1934a:31 (Spain); Gussakovskij, 1934a:13 (China: Inner Mongolia); Jansson, 1934:289 (Sweden); Minkiewicz, 1934:213 (nesting habits); Moțaș, 1935:42 (Romania: Agigea); Richards, 1935a:169 (current interpretation of species is correct); Vergne, 1935:117 (France: Auvergne: Lezoux, Pont-du Chateaux); Crèvecoeur and Maréchal, 1936:254 (in catalog of Belgian Hymenoptera); Heldmann, 1936:103 (Germany: Hessen: Bergstrasse); Minkiewicz, 1936:14 (male of l'escorteur type); Dulac, 1937:9 (France: Saône-et-Loire: no specific locality); Goebel, 1937:41 (Poland: Poznań District: Głuszyna, Kobylepole, Poznań-Dębina, Sady, Strzeszyn, Strzeszynek); Zavadil, Šusterka, and Bat'a, 1937:186 (in catalog of Sphecidae of Czechoslovakia); Segers, 1938:425 (Belgium: Kalmthout); A. Wagner, 1938a:121 (northwestern Germany); J. Perkins, 1939:122 (Sweden: Haväng); Balthasar, 1941b:112 (Czech Republic: eastern Moravia); Müller, 1941:4 (prey: Diptera, nest parasite: *Parnopes grandior* Pallas, a chrysidid); Schneid, 1941:1038 (Germany: Bayern: Bamberg area); J. Perkins, 1942:200 (Sweden: Skåne: Kivik); Giner Mari, 1943a:201 (in Sphecid Fauna of Spain), 1943b:29 (Spain; redescription); Bat'a, 1944a:26 (Czech Republic); Guiglia, 1944b:16 (Italy); E. Nielsen, 1945:1-174 (detailed study of male behavior and female nesting habits); Deleurance, 1946b:67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); Dulac, 1947:55 (France: Saône-et-Loire Department: Creusot area); Giner Mari, 1947:26 (Morocco: Río de Oro); Móczár, 1947a:60 (Hungary: Bars comitatus: Léker, now in Slovakia: historical region Tekov); de Andrade, 1949:19 (Portugal); Cavro, 1950:34 (France: Département du Nord); Niesiolowski, 1950:225 (Poland: Lubasz 40 km N Tarnów); Scobiola, 1950:17 (Romania: Budești-Ilfov); Szulczewski, 1950:106 (Poland: Wielkopolski Park Narodowy 15 km S Poznań); Koornneef, 1951:247 (Netherlands: Velp, light specimen); Caruel, 1952a:62 (France: Marne Department); Cleu, 1953:50 (France: Ardèche River basin); Głowacki, 1953:519 (Poland: Podkowa Leśna near Warszawa); Heldmann, 1953:112 (Germany: Hessen: Eberstädter Düne near Darmstadt); Móczár, 1953:310 (...); Chmurzyński, 1954:11 (spatial orientation of females returning to nest); Tjeder, 1954:68 (Sweden: eastern Skåne: Vitemölla); Aerts, 1955:61 (Germany: Rheinland); Chmurzyński, 1954b:129 (proximal spatial orientation); Grandi, 1954:235 (Italy); Teschner, 1955:57 (Germany: Nordrhein-Westfalen: Hohe Ward near Münster); Vogrin, 1955:34 (Yugoslavia); van der Zanden, 1955:420 (Netherlands: Eindhoven, at Westenschouwen numerous in 1954); Bajári, 1957a:21, 22 (in key to Hungarian Sphecidae); de Beaumont, 1957b:135 (n. Iran); Zirngiebl, 1957:180 (Germany: Rheinland-Pfalz: Birkenheide); Diniz, 1959:30 (Portugal: five localities); Scobiola-Palade, 1959:499 (Romania: Constanța Region: Agigea); Lehrer and Scutaru, 1963:283 (Romania: Moldova: Iași); Scobiola, 1963:825 (Romania: Periprava); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); Chmurzyński, 1964c:111 (eye structure), 1966:149 (preference for discontinuous shapes and patterns in proximate orientation), 1967:224 (relation between landmarks and nest-hole in proximate orientation), 1977 (stimuli eliciting sexual pursuit in male); Brugge, 1982: (Netherlands: Texel Island); Litt, 1987:21 (Belgium, nesting habits). – **As *Bembix rostrata***: J. Parker, 1929:114 (in revision of Stizini and Bembicini); E. Nielsen, 1933:297 (summary of nesting habits); M. Müller, 1941:4 (habitat, nesting habits, nest parasite:

Parnopes grandior Pallas, a chrysidid); Guiglia, 1944b:16 (Italy); Balthasar, 1948:141 (Slovakia: Parkan); Lohrmann, 1948:426 (illustration of ocellar scars), 445 (closely related to North American species *amoena* and *sayi*), 452 (member of *rostrata* species group of *Bembix*); Šnoflak in Zavadil and Šnoflak, 1948:82, 83 (in key to Sphecidae of Czechoslovakia); de Beaumont, 1955c:68 (effects of stylopization); Harant and Leclercq, 1955:251 (France: Hérault: Palavas-les-Flots); Ceballos, 1956:386 (in catalog of Hymenoptera of Spain); Morel, Nouvel, and Ribaut, 1956:338 (France: Département des Pyrénées-Orientales); Grandi, 1957:337 (nesting habits), 386 (Italy: Abruzzi); Benno, 1958b:11 (in review of Dutch Sphecidae); de Beaumont, 1959a:17 (Italy); Noskiewicz and Puławski, 1960:85 (in key to Polish Sphecidae); de Beaumont, 1961b:274 (Afghanistan); Grandi, 1961:126 (nesting habits); de Beaumont, 1961b:274 (Afghanistan), 1962b:22 (Spain); Erlandsson, 1963:66 (Denmark: Bornholm Island); Myartseva, 1963b:60 (Turkmenistan: lower Murgab River); de Beaumont, 1964c:56 (in Sphecidae Fauna of Switzerland), 1965a:24 (Greece); Erlandsson, 1965:64 (distribution in Scandinavia); Myartseva, 1965:91 (Turkmenistan: Akibay, Sakar-Chagin district, Bayram-Ali district, 76 km N Mary); van Iersel and van den Assem, 1965:145-162 (spatial orientation); Balthasar, Hrubant, and Hrubant, 1967:175 (Bulgaria: Slanchev Bryag near Nessebar); Benno, 1967:34 (in checklist of Sphecidae of Netherlands); de Beaumont, 1967a:297 (Turkey; morphology); Gauss, 1967:552 (Germany: Baden-Württemberg: Nördliches Rheinvorland); Heinrich, 1967:73 (Germany: Niederrhein); Niedl and Deneš, 1967:84 (Czech Republic: Třeboň area); Scobiola-Palade, 1967b:38 (Romania); Parré, 1968:123 (Germany: Sachsen-Anhalt: Staßfurt); Scobiola-Palade, 1968b:141 (Romania: Island of Letea in delta of Danube), 1968c:383 (Romania: Budești); Suárez, 1969:29 (Spain: Almería Province); Benedek, 1969a:83 (Hungary; marshy meadow); Zangheri, 1969:1702 (Italy: in catalog of flora and fauna of Romagna Region); Oehlke, 1970:698 (Democratic Germany); Schmidt, 1971b:31 (Germany: Mainz area); Balthasar, 1972:375 (in Sphecidae Fauna of Czechoslovakia); Kazenas, 1972b:141 (Kazakhstan); Scobiola-Palade, 1972a:149 (Romania: delta of Danube: Caraorman); Simon Thomas, 1972:179 (France); Diniz, 1973:48 (Portugal: eight localities); Erlandsson, 1974:67 (Italy: Veneto: Sottomarina); Lefeber, 1973:152 (Netherlands: Waterleidingduinen near Vogelenzang); Scobiola-Palade, 1974:144 (Romania: Sărăturile sandbank in Danube delta); Benedek, 1975:257 (Hungary; onion pollinator); Lomholdt, 1975c:202 (in Sphecidae Fauna of Fennoscandia and Denmark); Lefeber, 1976:151 (Netherlands: Maasduintjes between Bergen and Wellse Hut); R. Bohart and Menke, 1976:548 (listed); Simon Thomas, 1976:5 (France: Lot-et-Garonne); Chmurzyński, 1977:27-56 (male behavior); Kolesnikov, 1977:318 (Russia: Bryansk Oblast'); Kazenas, 1978b:86, 89 (in key to Sphecidae of Kazakhstan and Central Asia); Leclercq, 1978b:map 1192 (distribution in Belgium); Marion, 1978:87 (France: Nièvre Department); Petit, 1978:86 (Belgium: Genk); Puławski, 1978:208, 209 (in key to Sphecidae of European part of former USSR); Lefeber, 1979:11 (in checklist of Sphecidae of Netherlands), 47 (Netherlands: distribution map); Richards, 1979:401 (British Channel Islands); Schmidt, 1979b:353 (Germany); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); Pagliano, 1980:118 (Italy: Calabria); Petit, 1980:44 (France: Pas-de-Calais: Wissant); Preuss, 1980:23 (endangered in Germany); Nazarova and Baratov, 1981:100 (Tajikistan: 7 km E Garavuty); Schöne and Tengö, 1981:44 (competition of males, courtship behavior, chemical communication); Donath, 1982:213 (Germany: Cottbus Bezirk); Donath and Gundlach, 1982:84 (endangered in Niederlausitz area, Democratic Germany); Skibińska, 1982:123 (Poland: Warszawa area); Donath, 1983 (Democratic Germany: Cottbus Bezirk); Dollfuss, 1983a:75 (endangered in Niederösterreich, Austria), 77 (endangered in Burgenland, Austria), 79 (endangered in Kärnten, Austria), 80 (endangered in Tirol, Austria), 1983b:23 (in catalog of Sphecidae of Austria); Gayubo, 1983e:235 (Spain: Salamanca Province); Piek, Buitenhuis, Veldsema-Currie, and Mantel, 1983:153-159 (venom contains histamine, but no acetylcholine); Riemann, 1983:71 (no longer found in Bremen-Daverden area, Germany); Gayubo and Tormos, 1984:22 (Spain: Valencia); Jazon and Svensson, 1984:183 (Sweden: Öland Island); Eiroa and Novoa, 1985:24 (Spain: Pontevedra: Barra beach near Cangas); Gayubo, 1985c:171 (Spain: Segovia: Cantalejo; Valladolid: Castronuño); Józán, 1985b:61 (Hungary S Lake Balaton), 81 (floral records), 84 (ecological and zoogeographic characteristics); Larrson, 1985:1 (the smaller the distance between nests, the greater the size difference between nesting females); Scobiola-Palade, 1985:95 (Romania: delta of Danube); Westrich and Schmidt, 1985a:117 (Ger-

many: Baden-Württemberg); Westrich and Schmidt, 1985b:110 (Germany: endangered in Baden-Württemberg); Brechtel, 1986:59 (Germany: Südpfalz); Donath, 1986:81 (active colonies in Democratic Germany); Gayubo, 1986b:40 (Spain: Andalucía), 1986d:121 (Spain: Zamora Province); Gayubo and Sanza, 1986:82 (Spain: Burgos); Gayubo and Tormos, 1986a:14 (Spain: Castellón de la Plana); Islamov, 1986:523 (Uzbekistan: Surkhandarya and Tashkent Oblasts); Józán, 1986:374 (Hungary: Kiskunság National Park); Larsen, Gleffe, and Tengö, 1986:287 (vibration); Larsson, 1986:71 (nest density as defense against nest parasites); Nemkov, 1986:108 (Russia: Siberia: Irkutsk Oblast'); Vikberg, 1986:78 (questionable record from Finland); Tormos and Jiménez, 1987a:126 (Spain: Valencia); Andersson, Coulianos, Ehnström, Hammarstedt, Imby, Janzon, Lindelöw, and Waldén, 1987:72 (endangered in Sweden); Schmidt and Westrich, 1987:361 (Germany: Mainz area); Chevin, 1988:16 (France: La Manche Department); Karsai, 1988:101 (Hungary: Kiskunság National Park); Kowalczyk, 1988a:45 (Poland: Rogów), 1988b:64 (Poland: environs of Łódź); Simon, 1988:36 (Germany: Rheinland-Pfalz); Ågren, 1989:527 (SEM study of flagellar sensilla); Jacobs, 1989:27 (Germany: Mecklenburg-Vorpommern); Larsson, 1989a:1-31 (effects of weather on mating pattern and population density); Larsson and Tengö, 1989:490 (large females have lower fecundity); Pádr *in* Šedivý, 1989a:167 (in checklist of Czechoslovakian Sphecidae); Scobiola-Palade, 1989:87 (Romania: delta of Danube); Gayubo, Asís, and Tormos, 1990b:79 (Spain: Soria and Valladolid Provinces); Jacobs and Oehlke, 1990:215 (new records from Democratic Germany); Kuznetzova, 1990:19 (Russia: Voronezh Oblast': Galich'ya Gora Nature Reserve); Larsson, 1990b:169 (large females have relatively larger ovaries); Pagliano, 1990:77 (in catalog of Italian Sphecidae); Tengö, Schöne, and Chmurzyński, 1990:47 (homing in relation to sex and stage); Schwammerberger and Priesner, 1990:553 (Austria: Kärnten); Chinin, 1991:111 (Russia: Samara Oblast'); Day, 1991:xiii (summary of European Endangered Hymenoptera Lists); Dollfuss, 1991:209 (in key to Sphecidae of North and Central Europe); Gayubo, Borsato, and Osella, 1991:418 (Italy); Larsson, 1991:47 (male mate searching tactics); Asís, Gayubo, and Tormos, 1992:226 (nesting habits, larva); Schöne and Tengö, 1991a:259 (influence of insolation and air temperature on adult activity), 1991b:160 (homing); Delarze, 1992:67 (Switzerland: Valais: Les Follatères); Józán, 1992b:176 (Hungary: Boronka-melléki Protected Area), 1992c:290 (Hungary: Zselic Hills); Kowalczyk, 1991b:120 (Poland: Augustów Forest); Pagliano, 1992:47, 48 (in key to Italian Bembicinae); K. Weber, 1992:86 (Germany: Bayern: Bamberg District); Negrisolo and Pagliano, 1993:92 (Italy: Sardegna); Schöne, Tengö, Kühme, Schöne, and Kühme, 1993:549 (homing with or without sight of surroundings and sky during displacement); Schubert and Schönitzer, 1993:264 (facial fovea not found); Blagoveshchenskaya, 1994:90 (Russia: Ul'yanovsk Oblast'); Kuhlmann, 1993:75 (Germany: known from Westfalen); Dollfuss, 1994:97 (endangered in Austria); Ghazoul and Willmer, 1994:103 (ability to warm up endothermically); Theunert, 1994:33 (Germany: summary of records from Niedersachsen and Bremen); Tormos, Asís, and Gayubo, 1994:190, 222 (Spain: Albacete Province); Józán, 1995:105 (Hungary: projected Duna-Dráva National Park); Kazenas *in* Nemkov, Kazenas, Budrys, et Antropov, 1995:466 (in key to Sphecidae of Russian Far East); Negrisolo, 1995a:22 (Italy: Veneto); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Saure and Dürrenfeld, 1995:29 (Germany: Brandenburg: Gabower Hänge near Bad Freienwalde); Scharer, 1995:29 (Germany: Bayern: Aschaffenburg including Schweinheim); Schmid-Egger, Risch, and Niehuis, 1995:166 (summary of records from Germany: Rheinland-Pfalz State), 187 (color photograph); Blösch, 1996:7 (Germany: Bayern: Tenenloher Forst Nature Reserve near Erlangen); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Pawlikowski and Kruszyński, 1996:86 (Poland: Toruń Basin); D. Schneider, 1996:14 (feeding and prey recognition); Schmid-Egger, Schmidt, and D. Doczkal, 1996:374 (Germany: Baden-Württemberg: threatened with extinction), 376 (endangered); Tengö, Schöne, Kühme, Schöne, and Kühme, 1996:201 (nesting cycle and homing); Voblenko, Gorobchishin, and Nesterov, 1996:15 (Ukraine: Polesye Region); Witt, 1996:105 (Germany: Brandenburg), 107 (locality records); Woydak, 1996:97 (Germany: Westfalen: summary of distribution and nesting habits); Wu and Zhou, 1996a:157 (in revision in Economic Insect Fauna of China); Schmidt and Schmid-Egger, 1997:6 (in checklist of German Sphecidae); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:278 (in Sphecid Fauna of Western Europe); Celary, 1997:60 (in checklist of Animals of Poland); Stoyanov and Ljubomirov, 1997:27 (Bulgaria:

Rila Mountains); Blösch, 1998:166 (Germany: Bayern: Tennenloher Forst Nature Reserve near Erlangen); Dollfuss, Gusenleitner, and Bregant, 1998:522 (Austria: summary of collecting records from Burgenland); Flügel, 1998:59 (Germany: Brandenburg: Unteres Odertal National Park); Nazarova, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve); Gayubo, García, Torres, and González, 1999:91 (Spain: Soria Province); H. Schulz, 1998:204 (Germany: population increase in Oberlausitz area); K. Weber, 1998:134 (Germany: Bayern: Bamberg area); González, Gayubo, and Torres, 1999:356 (Spain: Valladolid: Viana de Cega); Kuhlmann, Wolf, and Woydak, 1999:568 (extinct or presumably extinct in Nordrhein-Westfalen State of Germany); Mandery, 1999:104 (Germany: Bayern: Coburg area); Neumayer, Schwarz, and Bregant, 1999:223 (Austria: in checklist of Sphecidae of Land Kärnten); Pauly, 1999:111 (in catalog of Belgian aculeates); Tüzün, Gülmez, and Bağrıaçık, 1999:385 (Turkey: Aegean Region); Wickl, 1999a:103 (Germany: Bayern: Oberpfalz area); Zehnder and Zettel, 1999:131 (Switzerland: recolonization of flooded area in Valais Canton); Blösch, 2000:400 (in Sphecid Fauna of Germany); Dressler, 2000:31 (Germany: Hessen: Darmstadt area); Jacobs, 2000:6, 16 (Germany: Land Mecklenburg-Vorpommern: close to extinction); Ljubomirov, 2000:13 (Bulgaria, specimens in N. Nedelkov collection); Shkuratov, 2000:57 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Woydak, 2000:42 (in Greece, nest parasite *Paranopes grandior* Pallas attaches to wasp's venter in order to be carried into the nest); Basset, 2001:81 (France: Département de Gironde); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 240 (review of known biology); Ohl et al., 2001:137 (distribution in Germany by provinces); Shkuratov, 2001:17 (prey: Bombyliidae, Calliphoridae, Sarcophagidae, Syrphidae, and Tachinidae); Skibińska, 2001:220 (Poland: Białowieża Primeval Forest); Zettel, Gross, and Mazzucco, 2001:80 (Austria: Wien, last collected in XIXth century); Kazenas, 2002a:132 (geographic distribution, collecting localities in Kazakhstan); Kowalczyk, Szczepko, and Świątek, 2002:155 (Poland: Kampinos National Park near Warszawa); Litt, 2002:166 (Belgium); Shkuratov, 2002b:140 (Russia: Rostov Oblast': Rostovskiy Nature Reserve at 46°27'N 42°41'E); Shlyakhtenok and Skibinska, 2002:35 (Belarus': no specific locality); van der Meer, 2002:15 (Netherlands: costal dunes at Meijndel); Drewes, 2003:133 (France: Haute-Savoie: mouth of Dranse); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavaler); Kowalczyk and Kurzac, 2003:209 (Poland: Łódź: Botanical Garden); Mandery, Kraus, Voith, Wickl, Scheuchl, Schubert, and Warncke, 2003:63 (in catalog of wasps and bees of Bayern, Germany); Reder, 2003:25 (Germany: Rheinland-Pfalz: Eisenberg area); Schmid-Egger, 2003:751 (Italy: Sicilia: Bronte, Randazzo); Tischen-dorf and Treiber, 2003:120, 124 (Germany: Hessen: 15 km SW Frankfurt am Main: nesting under high power lines); Wickl, Voith, Mandery, Weber, Kraus, Bausenwein, and Blösch, 2003:194, 196 (Germany: Bayern: strongly endangered); Esser, Jakubzik, Sonnenburg, and Woydak, 2004:261 (in checklist of Sphecidae of Nordrhein-Westfalen State of Germany); Jacobi, 2004:34 (choice of prey); Litt, 2004:222 (Switzerland: Valais: Simplon); Skibińska in Bogdanowicz, Chudzicka, Pilipiuk, and Skibińska, 2004:355 (in catalog of Polish Crabronidae); Stolle et al., 2004:371 (Germany: Sachsen-Anhalt: in red list of Sphecidae); van Achterberg and Peeters, 2004:32 (in checklist of Sphecidae of Netherlands); Wiśniowski, 2004:52 and 63 (in checklist of Polish Sphecidae); Blösch, 2005:8 (Germany: Bayern: Tennenloher Forst Nature Reserve near Erlangen); Bonte, 2005:809 (detrimental effect of trampling by cattle and vacationers on nesting sites); Gayubo and Özbek, 2005:24 (Turkey: Erzurum: Uzundere; Kars: Sarýkamýb, Karakurt at 40°07'5"N 42°29'9"E); Jacobs, 2005a:440 (Bulgaria); Mandery, 2005:173 (Germany: Bayern: Hainberg Nature Reserve near Nürnberg); Nazarova, 2005:94 (alfalfa fields in southwestern Tajikistan); Pagliano and Negrisolo, 2005:191 (in Sphecid Fauna of Italy); Reder, 2005:948 (Germany: Rheinland-Pfalz: Eisenberg); Riemann and Hohmann, 2005:546 (Germany: Niedersachsen: city of Bremen and adjacent area); Shorenko, 2005a:168 (Ukraine: Crimea); Theunert, 2005a:16 (Germany: in checklist of Sphecidae of Niedersachsen and Bremen); Blösch, 2006:57 (males dig their own nocturnal rest galleries); Dathe, 2006:38 (*Bembix rostrata* recorded from Plauenscher Grund near Dresden, Germany, by von Block, 1799, is now *Bembix rostrata*); Gadoum and Barbier, 2006:43 (France: départements of Val-d'Oise and Yvelines: Parc Naturel Régional du Vexin Français: Saint-Martin-la-Garenne); Magdalou, 2006b:110 (France: Pyrénées-Orientales: Mas Larrieu Nature Reserve near Argelès-sur-Mer); Standfuss and Standfuss, 2006c:306 (Greece: Thessalia: Magnissia Peninsula at 39°N 23°E);

Barbier, 2007:5 (Belgium: rediscovery in Wallonia Region); Evans and O'Neil, 2007:176 (summary of information on nesting habits); Jacobs, 2007:180 (in key to Crabronidae of Germany); Kazenas, 2007a:93 (Kazakhstan: Akmala Oblast': Kurgandzhin Nature Reserve and vicinity); Saure, 2007:81 (in checklist of Aculeata of Brandenburg Land, Germany); Věpřek and Straka, 2007:209 (in catalog of Sphecidae of Czech Republic and Slovakia); Danilov, 2008:348 (Russia: Altayskiy Kray: Barnaul area); Ljubomirov and Yildirim, 2008:123 (in catalog of Crabronidae of Turkey); Nemkov, 2008b:25 (in catalog of Crabronidae of Asiatic Russia); U. Frommer, 2009a:26 (Germany: in checklist of Sphecidae of central Hessen), 30 (Germany: Hessen: Marburg an der Lahn, distribution in Germany); Gayubo, González, Tormos, and Asís, 2009:365 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); Nemkov, 2009b:142 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Pagliano, 2009:179 (Italy: Molise: Mafalda); Schmid-Egger, 2010a:14 (in red list of Aculeata of Germany: rare). – **As *Epibembix rostrata***: Bischoff and Stadler, 1954:127 (new combination, Germany: Bayern: Romberg); Wolf, 1959b:31 (Germany: Nassau).

Vespa armata Sulzer, 1776:… Synonymized with .. *rostrata* by ..(listed as synonym by F. Smith, 1856:318).

Apis rostrata Gmelin, 1790:2791, sex not indicated, junior primary homonym of *Apis rostrata* Linnaeus, 1758. Holotype or syntypes: Russia: Yayka Steppe north of Caspian Sea (lost). Synonymized with *Bembex rostrata* Linnaeus by Bischoff, 1940:70.

Bembex vidua Lepeletier de Saint Fargeau, 1845:264, ♀. Holotype or syntypes: ♀, Italy: Lombardia: no specific locality (M. Spinola coll.). Synonymized with *Bembex rostrata* by Handlirsch, 1893c:108. – Fabre, 1856a:138 (France: Vaucluse: Avignon area), 1856b:185 (progressive provisioning); F. Smith, 1856:320 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:218 (in catalog of European Hymenoptera); Beletskiy, 1873:80 (Ukraine: vicinity of Khar'kiv); Yaroshevskiy, 1881:124 (Ukraine: Khar'kiv Oblast': Khar'kiv); Casolari and Casolari Moreno, 1980:114 (specimens in M. Spinola collection).

Bembex dissecta Dahlbom, 1845:487, ♀. Holotype or syntypes: southern Europe: no specific locality (LUND). Synonymized with *Bembex tarsata* by Kohl, 1885c:165 and with *Bembex rostrata* by Handlirsch, 1893c:108. – F. Smith, 1856:320 (in catalog of Hymenoptera in British Museum); Kirchner, 1867:218 (in catalog of European Hymenoptera); Dours, 1874:148 (in catalog of Hymenoptera of France); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection).

Bembex gallica Mocsáry, 1883:40, ♀ (as *Gallica*, incorrect original capitalization). Holotype or syntypes: ♀, France: no specific locality (TB). Synonymized with *Bembex rostrata* by Handlirsch, 1893c:109.

Bembex paradoxa Giner Marí, 1943b:46, ♀. Holotype: ♀, Spain: Vizcaya: Las Arenas (MNCN). Synonymized with *Bembex rostrata* by de Beaumont, 1953c:78. – Lohrmann, 1948:421 (in checklist of recently described *Bembix*); Ceballos, 1956:386 (in catalog of Hymenoptera of Spain), 1959:230 (in supplement to catalog of Spanish Sphecidae).

As *Bembex tarsata*: Rudow, 1878:238 (Germany: Eisenhammer near Eberswalde), present correction based on geographic distribution.

spp. *algeriensis* W. Schulz

Bembex rostrata algeriensis W. Schulz, 1905b:39, ♀, ♂. Syntypes: Algeria: no specific locality (Mus. Strasburg). – W. Schulz, 1904b:94 (nomen nudum); Giner Marí, 1947:26 (Western Sahara, as *rostrata* raza *algeriensis*); de Beaumont, 1951e:272 (Morocco). – **As *Bembix algeriensis***: Lohrmann, 1948:453 (member of *oculata* species group of *Bembix*). – **As *Bembix rostrata algeriensis***: R. Bohart and Menke, 1976:548 (listed).

273. *rufiventris* Priesner

Bembix rufiventris Priesner, 1958:19, ♀, ♂. Holotype: ♂, Egypt: Helwan near Cairo (Ministry of Agriculture, Cairo). – **As *Bembix rufiventris***: de Beaumont, 1962c:222 (Arabia: El Riyadh); R. Bohart and Menke, 1976:548 (listed); Guichard, 1980:229 (Oman); Roche, 1981:4 (in checklist of Sphecidae of United Arab Emirates); Guichard, 1989a:145 (Arabian Peninsula), 1991a:339 (Jordan); Roche and Zalut, 1994:116 (Egypt: Sinai Peninsula); Gadal-

lah, 1997:258 (in revision of Egyptian *Bembix*), 2002:63 (in key to Egyptian *Bembix* based on male genitalia, as *Bembex*); Gadallah and Assery, 2004a:231 (in catalog of Sphecidae of Saudi Arabia).

274. *rugosa* J. Parker

Bembix rugosa J. Parker, 1917:95, ♀. Holotype: ♀, USA: Arizona: no specific locality (USNM). – Cockerell, 1918:60 (holotype in USNM); J. Parker, 1929:103 (in revision of Stizini and Bembicini); Lohrmann, 1948:445 (member of *rugosa* species group of *Bembix*); Evans and Matthews, 1968b:1291 (in revision of North American *Bembix*); R. Bohart and Horning, 1971:8 (in revision of California Bembicini); R. Bohart and Menke, 1976:548 (listed); Evans, 1977a:314 (Baja California Sur, nesting habits); Krombein, 1979b:1709 (in catalog of North American Hymenoptera); Rust, Hanks, and Bechtel, 1983:406 (Nevada: Churchill County: Sand Mountain); Wiesenborn, 2003:111 (main pollinator of *Pholisma sonora* (A. Gray) Yatskievych, Lennoaceae, in Algodones Dunes, Imperial County, California); Evans and O'Neil, 2007:168 (summary of information on nesting habits). – **As *Epibembex rugosa***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera).

275. *saadensis* Guichard

Bembix saadensis Guichard, 1989a:141, ♂. Holotype: ♂, United Arab Emirates: Al Saad (BMNH).

276. *salina* Lohrmann

Bembix salina Lohrmann, 1942a:156, ♀. Holotype: ♀, Israel: Dead Sea (NHMW). – Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 451 (member of *chlorotica* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed); Dollfuss, 1989:8 (type material in NHMW).

277. *saudi* Guichard

Bembix saudi Guichard, 1989a:150, ♂. Holotype: ♂, Saudi Arabia: Al Ha'ir near Riyadh (BMNH). – Gadallah and Assery, 2004a:231 (in catalog of Sphecidae of Saudi Arabia).

278. *sayi* Cresson

Bembex sayi Cresson, 1865:467, ♀ (as *Sayi*, incorrect original capitalization). Lectotype: ♀, USA: no specific locality (ANSP), designated by Cresson, 1916:97. – Cresson, 1873:220 (Texas), 1875:715 (New Mexico); Patton, 1879d:364 (nw. Kansas; coloration); Cresson, 1887:278 (in catalog of North American Hymenoptera); Ashmead, 1890:33 (in checklist of Hymenoptera of Colorado); Handlirsch, 1893c:877 (in revision of world Bembicinae); W. Fox, 1895d:359 (in revision of North American Bembicini, description of ♂); Dalla Torre, 1897:513 (in catalog of world Sphecidae); Ashmead, 1899d:239 (in checklist of North American Crabronidae); Johnson and Rohwer, 1908:378 (Colorado: Salida); H. Smith, 1908b:386 (in revision of Nebraskan Sphecidae); Rohwer, 1909b:245 (Colorado: Boulder County; nest, prey); Hungerford and Williams, 1912:247 (Kansas, nest, prey); C. Fox, 1923b:436 (Mexico: Sonora: Guaymas); Hendrickson, 1930:159 (Iowa); Dreisbach, 1951:103, 103 (in key to *Bembix* of Michigan). – **As *Epibembex sayi***: Burks in Muesebeck et al., 1951:1000 (new combination, in catalog of North American Hymenoptera); Krombein and Evans, 1954:235 (Florida). – **As *Bembix sayi***: Mickel, 1917:286 (USA: Nebraska); J. Parker, 1917:90 (in revision of Bembicini in America north of Mexico); Stevens, 1917:422 (North Dakota); Mickel, 1918b:441 (in catalog of Nebraskan Sphecidae); C. Fox, 1923b:436 (Mexico: Sonora: Guaymas); J. Parker, 1929:105 (in revision of Stizini and Bembicini); Rodeck, 1934:2 (USA: Colorado); Lohrmann, 1948:445 (member of *amoena* species group of *Bembix*); Evans and Lin, 1956b:60 (description of larva); Evans, 1957c:48 (study of behavior), 1964b:270 (additional description of larva); Chandler, 1966:146 (in revision of Bembicini and Stizini of Indiana); Evans, 1966b:466 (illustration of nest entrance), 468 (nesting habits), 1966d:288 (nesting habits); Evans and Matthews, 1968b:1292 (in revision of North American *Bembix*); R. Bohart and Horning, 1971:12 (in revision of California Bembicini); Alcock and Gamboa, 1975b:160 (nesting habits); Hurd and Linsley, 1975:117 (Arizona: Cochise County: Portal; on flowers of *Larrea tridentata* (De Candolle) Coville, Zygophyllaceae); R. Bohart and Menke, 1976:548 (listed); Kumar, Lavigne, Lloyd, and Pfadt, 1976:51 (USA: Colorado: Pawnee National Grassland); Evans, 1977a:316 (Baja California Sur; nesting habits); Krombein,

1979b:1711 (in catalog of North American Hymenoptera, nesting sites, list of prey); Hilchie, 1982:110 (accessory burrows reviewed); Kingsley, Bailowitz, and Smith, 1987:19 (Arizona: Organ Pipe Cactus National Monument: Quitobaquito Springs area); Weissmann and Kondratieff, 1999:78 (Colorado: Great Sand Dunes National Monument); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Evans and O'Neil, 2007:169 (summary of information on nesting habits).

Bembix latifrons J. Parker, 1917:116, ♀. Holotype: ♀, USA: New Mexico: Albuquerque (Kansas Univ.). Synonymized with *Bembex sayi* by Evans and Matthews, 1968b:129. – Cockerell, 1918:60 (type locality: New Mexico: Albuquerque); J. Parker, 1929:121 (in revision of Stizini and Bembicini); LaBerge, 1956:526 (holotype in Snow Entomological Museum). – **As *Epibembex latifrons***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera).

279. *scaura* Arnold

Bembex scaura Arnold, 1929b:340, ♀, ♂. Syntypes: Zimbabwe: Sawmills, Sanyati Valley (SAM). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix scaura***: R. Bohart and Menke, 1976:548 (listed).

280. *scotti* R. Turner

Bembex scotti R. Turner, 1912g:371, ♀, ♂. Syntypes: Nigeria: Zungeru (BMNH). – Arnold, 1929b:345 (in revision of southern African Sphecidae, description of ♀), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix scotti***: R. Bohart and Menke, 1976:548 (listed).

281. *seculata* J. Parker

Bembex seculata J. Parker, 1929:101, ♀, ♂. Holotype: ♂, India: Gujarat: Deesa (USNM). – Lohrmann, 1948:449 (member of *hova* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed).

282. *semoni* Cameron

Bembex semoni Cameron, 1905k:65, ♀. Syntypes: New Guinea: no specific locality (Amsterdam). – **As *Bembex semoni***: Lohrmann, 1948:423 (in checklist of recently described *Bembix*); R. Bohart and Menke, 1976:548 (listed).

283. *severa* F. Smith

Bembex severa F. Smith, 1873c:297, ♀, ♂ (♂ = *funebri*). Lectotype: ♀, Australia: Western Australia: Swan River (BMNH), designated by R. Turner, 1915e:441. – Froggatt, 1892:223 (in catalog of Australian Hymenoptera); Handlirsch, 1893c:901 (original description translated into German); Dalla Torre, 1897:514 (in catalog of world Sphecidae); R. Turner, 1915e:441 (in revision of Australian *Bembix*). – **As *Bembix severa***: Evans and Matthews, 1973:163 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:548 (listed); Cardale, 1985:293 (in catalog of Australian Sphecidae).

284. *sibilans* Handlirsch

Bembex sibilans Handlirsch, 1893c:852, ♀, ♂. Syntypes: South Africa: Cape Province: no specific locality (NHMW, ZMHU, TMB, IRSN). – Dalla Torre, 1897:514 (in catalog of world Sphecidae); Bingham, 1902:211 (South Africa, Malawi); Arnold, 1929b:374 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix sibilans***: Lohrmann, 1948:448 (member of *fuscipennis* species group of *Bembix*); de Beaumont, 1967b:506 (South Africa: Cape Province); R. Bohart and Menke, 1976:548 (listed); Gess, 1981:21 (South Africa: 18 km WNW Grahamstown; nesting in friable soils), 1986:154 (nesting habits); S. Gess, 1996:275 (floral records); S. Gess, 1996:291, 304 (floral records); Evans and O'Neil, 2007:185 (summary of information on nesting habits).

285. *silvestrii* Maidl

Bembex silvestrii Maidl, 1914b:149, ♂ (as *Silvestrii*, incorrect original capitalization). Holotype: ♂, Nigeria: Oloke-meji (Portici). – Arnold, 1929b:363 (probably a synonym of *Bembex kriechebaumeri*). – **As *Bembix silvestrii***:

Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 448 (member of *mediterranea* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed).

286. *sinuata* Panzer

Bembix sinuata Panzer, 1804: ... – Latreille, [1805]:303 (redescription, France); Vander Linden, 1829:12 (bibliographic references, Germany, evidently in error, southern France); Dahlbom, 1844:177 (in revision of Sphecidae and Pompilidae), 1845:487 (in key to world *Bembix*); F. Smith, 1856:320 (in catalog of Hymenoptera in British Museum); Kawall, 1857:24 (Kurland, now Latvia, record impossible for geographic reasons, perhaps a misdetermination of *Bembecinus tridens*); Sichel, 1861:752 (Italy: Sicilia); Kirchner, 1867:218 (in catalog of European Hymenoptera); Palma, 1867:39 (Italy: Sicilia settentrionale); Dours, 1874:148 (in catalog of Hymenoptera of France); nec Radoszkowski, 1877:51 (= *Bembix bicolor* ?); Marquet, 1881:180 (France: Hérault: Béziers); Handlirsch, 1893c:744 (in revision of world Bembicinae); De Stefani Perez, 1895:227 (in catalog of Sicilian Hymenoptera); Dalla Torre, 1897:514 (in catalog of world Sphecidae); Antiga and Bofill, 1904:18 (Spain: Cataluña Province); E. Saunders, 1904c:637 (Spain); Mercet, 1904a:351, 356 (in key to Spanish species); W. Schulz, 1904b:94 (Spain); Medina, 1905:136 (Spain: Ciudad Real: Pozuelo de Calatrava); Dusmet y Alonso, 1906:6 (Spain); de Gaulle, 1908:120 (in catalog of Hymenoptera of France); Strand, 1910e:218 (Algeria: Constantine Province, now Qasantinah Province); Dusmet y Alonso, 1915:87 (Spain: Aragón); Berland, 1924:90 (France: Var: Callian), 1925d:73 (in Sphecid Fauna of France); Dusmet y Alonso, 1927:25 (Spain: Cataluña: Tarragona); Picard, 1930:42 (France: Hérault: Balaruc, Béziers, Sète); Bischoff, 1931:9 (Spain); Dusmet y Alonso, 1931:8 (Portugal: Soure, Val de Coselhas); Berland, 1932a:22 (France: Var Department; utilizing old charcoal preparation sites for nesting); Bischoff, 1933:4 (Morocco); Nadig, 1933:87 (Morocco); Giner Marí, 1934:132 (Spain); Bernard, 1935:63 (France: Var: Fréjus area); Giner Marí, 1943a:200 (in Sphecid Fauna of Spain), 1943b:26 (Spain; redescription), 1945b:360 (Morocco: Ain Zorah); Deleurance, 1946b:67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); de Andrade, 1949:19 (Portugal); de Beaumont, 1950f:397 (Algeria); Cleu, 1953:50 (France: Ardèche River basin); Diniz, 1959:30 (Portugal: six localities); Suárez, 1959:55 (Spain: Almería Province); de Beaumont, 1962b:26 (Spain); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae); Simon Thomas, 1972:180 (France: Landes); Erlandsson, 1974:67 (France, Spain); Casolari and Casolari Moreno, 1980:114 (specimens in M. Spinola collection). – **As *Bembix sinuata***: J. Parker, 1929:96 (in revision of Stizini and Bembicini); Lohrmann, 1948:427 (illustration of male tergum VII), 452 (member of *sinuata* species group of *Bembix*); Hertzog, 1954:100 (France: Bouches-du-Rhône: Camargue); Harant and Leclercq, 1955:251 (France: Hérault: Montblanc, Palavas-les-Flots, Salasc, Valras); Ceballos, 1956:386 (in catalog of Hymenoptera of Spain); Morel, Nouvel, and Ribaut, 1956:338 (France: Département des Pyrénées-Orientales); Nouvel and Ribaut, 1958:11 (France: Pyrénées-Orientales: Banyuls-sur-Mer area); nec Pulawski, 1958a:169 (= *Bembix bicolor*); nec Balthasar, Hrubant, and Hrubant, 1967:175 (= *Bembix bicolor*); Balthasar, 1972:378 (in Sphecid Fauna of Czechoslovakia: may be expected in the country); Diniz, 1973:48 (Portugal: Aljustrel, Coimbra, Estoril, Fundão, Lisboa, Rezende); R. Bohart and Menke, 1976:548 (listed); Pagliano, 1980:118 (Italy: Lazio); Gayubo, 1982b:48 (Spain: Ávila and Salamanca provinces), 1882e:108 (Spain: Cádiz Province), 1983e:236 (Spain: Salamanca Province), 1984c:381 (Portugal: El Algarve Province); Gayubo and Tormos, 1984:22 (Spain: Valencia); Chevin and Chevin, 1985:39 (France: Aude); Gayubo, 1985c:171 (Spain: Avila: Candeled; Valladolid: Hornillos, Valladolid), 1986a:66 (Spain: Ciudad Real Province), 1986b:40 (Spain: Andalucía), 1986d:121 (Spain: Zamora Province); Gayubo and Heras, 1986:66 (Spain: Segovia Province; floral records); Gayubo and Tormos, 1986a:14 (Spain: Castellón de la Plana); Tormos and Jiménez, 1987a:127 (Spain: Valencia), 1987b:317 (Spain: Valencia Province: Dehesa de El Saler); Asís and Jiménez, 1988:275 (Spain: Castellón Province); Asís, Gayubo, and Tormos, 1989b:315 (description of larva); Gayubo, Asís, and Tormos, 1990b:79 (Spain); Pagliano, 1990:77 (in catalog of Italian Sphecidae); Gayubo and Torres, 1991:Table I and p. 81 (Spain: Salamanca; effects of urban pressure); Asís, Gayubo, and Tormos, 1992:227 (nesting habits); Pagliano, 1992:47, 48 (in key to Italian Bembicinae); Gayubo, Tormos, and Asís, 1993b:309 (specimen with deformed abdomen); Torregrosa, Ga-

yubo, Tormos, and Asís, 1993:20 (Spain: Alicante Province); Tormos, Asís, and Gayubo, 1994:190, 222 (Spain: Albacete Province); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:279 (in Sphecid Fauna of Western Europe); Tüzün, Gülmez, and Bağrıaçık, 1999:385 (Turkey: Aegean Region, probably a misdetermination of *bicolor*); Gayubo, García, Torres, and González, 1999:91 (Spain: Soria Province); Gayubo, González, and Torres, 2000:187 (Spain: Salamanca Province); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavaler); Cruz-Sánchez, Gayubo, González, and Torres, 2005:220 (Spain: Salamanca: San Martín del Castañar); Gayubo and Özbek, 2005:24 (first record from Turkey: Erzurum: University campus; Kars: Karakurt at 40°07'5"N 42°29'9"E); Pagliano and Negrisolo, 2005:191 (in Sphecid Fauna of Italy); Evans and O'Neil, 2007:178 (summary of information on nesting habits); Gayubo, González, Tormos, and Asís, 2008:137 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Ljubomirov and Yildirim, 2008:123 (in catalog of Crabronidae of Turkey); Gayubo, González, Tormos, and Asís, 2009:365 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero).

Bembix bipunctata Dufour, 1861:12, ♀ only (♂ = *Bembix sinuata*). Synonymized with *Bembix sinuata* by Handlirsch, 1893c:744.

Bembix julii Fabre, 1879:321, ♀, ♂ (as *Julii*, incorrect original capitalization). Syntypes: France: Vaucluse: Angles near Avignon and Orange (MNHN). Synonymized with *Bembix sinuata* by Fauvel, 1883:161. – von Dalla Torre, 1881:154 (original description translated into German); Berland, 1923a:173 (*Bembix julii* is a synonym of *sinuata*); R. Bohart and Menke, 1976:746 (listed as valid species), 628 (is a synonym of *Bembix sinuata*).

Bembix occitanica Mocsáry, 1883:41, ♀, ♂. Syntypes: France: Toulouse, Montpellier; Spain: Granada; Algeria? (TMB). Synonymized with *Bembix sinuata* by Handlirsch, 1893c:744.

ssp. mauritanica de Beaumont

Bembix sinuata mauritanica de Beaumont, 1951e:271, ♀, ♂. Holotype: ♂, Morocco: Ifrane (LAUSANNE). – de Beaumont, 1950f:397 (Algeria; nomen nudum). – As *Bembix sinuata mauritanica*: R. Bohart and Menke, 1976:548 (listed).

287. smithii Handlirsch

Bembix smithii Handlirsch, 1893c:904, ♂ (as *Smithii*, incorrect original capitalization). Holotype: ♂, Brazil: no specific locality (BMNH). Substitute name for the ♂ of *Bembix multipicta* Smith, 1873:300. – Dalla Torre, 1897:514 (in catalog of world Sphecidae). – As *Bembix smithii*: Fritz, 1962:63 (newly collected specimens from Brazil); R. Bohart and Menke, 1976:548 (listed); Amarante, 2002:8 (in catalog of Neotropical Crabronidae).

288. spatulata J. Parker

Bembix spatulata J. Parker, 1929:112, ♀, ♂. Holotype: ♂, Pakistan: Quetta (USNM). – Lohrmann, 1948:451 (member of *cinctella* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed).

289. spiritalis J. Parker

Bembix spiritalis J. Parker, 1929:147, ♀. Holotype: ♀, Brazil: Espirito Santo (ZMHU). – R. Bohart and Menke, 1976:548 (listed); Amarante, 2002:8 (in catalog of Neotropical Crabronidae).

290. splendida Arnold

Bembix splendida Arnold, 1951:133, ♂. Syntypes: ♂, Mali: Koundé-Saré (BMNH). – R. Bohart and Menke, 1976:548 (listed).

291. stadelmanni Handlirsch

Bembix stadelmanni Handlirsch, 1893c:820, ♂ (as *Stadelmanni*, incorrect original capitalization). Holotype: ♂, Kenya: Mombasa (ZMHU). – Dalla Torre, 1897:514 (in catalog of world Sphecidae); Arnold, 1929b:365 (original description translated into English), 1930:21 (in checklist of Afrotropical Sphecidae). – As *Bembix stadelmanni*: R. Bohart and Menke, 1976:548 (listed).

Bembix stadelmannii Dalla Torre, 1897:514. Emendation of *Bembix stadelmanni* Handlirsch, 1893.

292. *stenebdoma* J. Parker

Bembix stenebdoma J. Parker, 1917:94, ♂, spelled *stenebdoma* on p. 79 (in key), 149 (figure legend), 150 (figure legend), 151 (figure legend), and 154 (index), Article 32.5.1. Holotype: ♂, USA: Arizona: Florence (ANSP). – Cresson, 1928:46 (holotype in ANSP); J. Parker, 1929:83 (in revision of Stizini and Bembicini, *stenebdoma* is correct spelling); Lohrmann, 1948:445 (member of *stenebdoma* species group of *Bembix*); Evans and Matthews, 1968b:1291 (in revision of North American *Bembix*); R. Bohart and Horning, 1971:7 (in revision of California Bembicini); R. Bohart and Menke, 1976:548 (listed); Evans, 1979 (preying on Chrysopidae); Krombein, 1979b:1709 (in catalog of North American Hymenoptera); Rust, Hanks, and Bechtel, 1983:406 (Nevada: Churchill County: Sand Mountain); Evans, 2002a:5 (known to prey on Chrysopidae); Evans and O'Neil, 2007:170 (summary of information on nesting habits). – **As *Epibembix stenebdoma***: Burks in Muesebeck et al., 1951:1000 (new combination, in catalog of North American Hymenoptera).

293. *subburnea* Tsuneki

Bembix subburnea Tsuneki, 1971k:214, ♀, ♂. Holotype: ♂, Mongolia: Hovd Aymag: Somon Bulgan (TMB). – R. Bohart and Menke, 1976:548 (listed).

294. *sulphurescens* Dahlbom

Bembix sulphurescens Dahlbom, 1844:180, ♂. Holotype: ♂, India: no specific locality (LUND), may be mislabelled (W. Schulz, 1912:94). – Dahlbom, 1845, 1845:491 (in key to world *Bembix*); Sichel, 1867:141 (Sri Lanka, as *sulphurescens*); Taschenberg, 1870:21 (India); Walker, 1871:24 (Sinai: Wadi Feiran, record not confirmed by subsequent workers); Handlirsch, 1893c:897 (original description copied); Dalla Torre, 1897:514 (in catalog of world Sphecidae); Bingham, 1902:211 (South Africa, "indistinguishable from Indian specimens"); Innes Bey, 1912:112 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected at Magzo); W. Schulz, 1912:94 (redescription of type). – **As *Bembix sulphurescens***: R. Bohart and Menke, 1976:548 (listed); S. Gupta, 1995:86 (India: Uttar Pradesh). – Nec following authors (= *Bembix budha*): F. Smith, 1856:328, Cameron, 1890b:247, Bingham, 1896a:445, 1897:287, Maxwell-Lefroy, 1909:209.

295. *tadzhika* Kazenas

Bembix tadzhika Kazenas, 1980f:53, ♂. Holotype: ♂, Tajikistan: Tigrovaya Balka Nature Reserve (ZIN). – Nazarova and Baratov, 1981:101 (Tajikistan: Tigrovaya Balka Nature Reserve, as *tadzhikus*; preying on tabanids); Nazarova, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve, as *tadzhikus*); Kazenas, 2001b:51 (in checklist of Sphecidae of Kazakhstan and Central Asia).

296. *taiwana* Bischoff

Bembix taiwana Bischoff, 1913a:712, ♀, ♂. Syntypes: Taiwan: Taihanroku (ZMHU). – **As *Bembix taiwana***: J. Parker, 1929:71 (in revision of Stizini and Bembicini); Lohrmann, 1939:139 (member of *papua* species group of *Bembix*), 1948:449 (member of *papua* species group of *Bembix*); Tsuneki, 1968h:6 (Taiwan), 1971i:4 (Taiwan), 1977j:265 (Taiwan); R. Bohart and Menke, 1976:548 (listed); Porter, Stange, and Wang, 1999:14 (in checklist of Sphecidae of Taiwan); Hua, 2006:277 (in list of Chinese insects, geographic distribution).

Bembix taiwana var. *kosemponis* Strand, 1923:171, ♀. Holotype: ♀, Taiwan: Kosempo (DEI). Synonymized with *Bembix taiwana* by Tsuneki, 1971i:4. – Oehlke and Wudowenz, 1974:424 (holotype in DEI).

Bembix lutea Sonan, 1927:366, ♂. Holotype: ♂, Taiwan: Taipin (T. Shiraki coll., now ?). Synonymized with *Bembix taiwana* by Tsuneki, 1968h:6.

297. *tangadee* Evans

298. *Bembix tangadee* Evans, 1990:29, ♂. Holotype: ♂, Australia: Western Australia: 25 km SW Tangadee Homestead at 24°25'S, 118°56'E (WESTERN AUSTRAL. MUS.). – Evans, 1990:30 (in key to males of *promontorii* group).

299. *tarsata* Latreille

NOTE. R. Bohart and Menke (1976:548) provide the following comment: "usually given as a synonym of *Bembix integra* Panzer, 1805, which was a misidentification of *integra* Fabricius, 1793, which is synonymous with *Stizus fasciatus* (Fabricius)."

Bembix tarsata Latreille, 1809:98, .. – Vander Linden, 1829:12 (bibliographic references, France: Paris area, southern part of the country; Italy: Torino); Dahlbom, 1844:176 (in revision of Sphecidae and Pompilidae), 1845:488 (in key to world *Bembix*); Lepeletier de Saint Fargeau, 1845:265 (in revision of world Hymenoptera); Kirschbaum, 1853:46 (Germany: Herzogtum Nassau: Mainz-Mombach); F. Smith, 1856:320 (in catalog of Hymenoptera in British Museum); Schenck, 1857:183 (in revision of fossorial wasps of Nassau Region, Germany), 1860:148 (Germany: Nassau Region); Giraud, 1863a:15 (France: Hautes-Alpes: Vallouise near Briançon); Imhoff, 1863:90 (Switzerland: Wallis: Saasthal); A. Costa, 1867b:98 and 1867c:42 (in revision of Italian Sphecidae); Kirchner, 1867:218 (in catalog of European Hymenoptera); Schenck, 1867a:355 (Germany: Nassau Region); Aichinger, 1870:319 (Austria: Tirol); A. Costa, 1872:4 (in revision of Sphecidae of Kingdom of Naples, Italy); Dours, 1874:148 (in catalog of Hymenoptera of France); Marquet, 1875:208 (France: Hérault: Béziers); nec Rudow, 1878:238 (= *Bembix rostrata*); Girard, 1879:961 (habits); Kohl, 1880:174 (Austria: Tirol, and Italy: Trentino–Alto Adige); Marquet, 1881:181 (southern France); Kohl, 1883e:669 (Switzerland); von Heyden, 1884:117 (Germany: Mombach); Kohl, 1888b:728 (Austria: Tirol, now Italy: Alto Adige); Bezzi, 1892:123 (Italy: Lombardia: Provincia di Pavia: Santa Sofia); Kohl, 1893a:29 (Austria: Niederösterreich: Bisamberg and Wien: Türkenschanze); F. Morawitz, 1893b:423 (Tajikistan); Acloque, 1897:94 (in Sphecid Fauna of France and Algeria); Chyzer, 1902:34 (Hungary); de Cobelli, 1903:110 (Italy: Province of Trentino); Graeffe, 1911:46 (Italy: Trieste area); R. Bohart and Menke, 1976:548 (listed); Casolari and Casolari Moreno, 1980:114 and 115 (specimens in M. Spinola collection); Pagliano, 1980:118 (Italy: Piemonte); Gayubo, 1982b:48 (Spain: Ávila, Cáceres, and Salamanca provinces); Dollfuss, 1983a:75 (endangered in Niederösterreich, Austria), 77 (endangered in Burgenland, Austria), 78 (endangered in Oberösterreich, Austria), 79 (endangered in Steiermark, Austria), 80 (endangered in Tirol, Austria), 1983b:24 (in catalog of Sphecidae of Austria); Gayubo, 1983e:236 (Spain: Salamanca Province); Gayubo and Tormos, 1984:23 (Spain: Valencia); Eiroa and Novoa, 1985:24 (Spain: Pontevedra: Barra beach near Cangas); Gayubo, 1985c:171 (Spain: Palencia: Canduela); Józán, 1985b:61 (Hungary S Lake Balaton), 81 (floral records), 84 (ecological and zoogeographic characteristics); Gayubo, 1986b:40 (Spain: Andalucía, 1986d:121 (Spain: Zamora Province), 1986e:994 (teratological specimen); Gayubo and Heras, 1986:67 (Spain: Segovia Province; floral records); Gayubo and Sanza, 1986:82 (Spain: Burgos, Soria); Józán, 1986:374 (Hungary: Kiskunság National Park); Asís and Jiménez, 1988:275 (Spain: Castellón Province); Dollfuss, 1988:19 (Austria: Bisamberg); Józán, 1989:102 (Hungary: Tihany Natural Reserve); Gayubo, Asís, and Tormos, 1990b:79 (Spain: Avila, Burgos, and Salamanca Provinces); Jacobs and Oehlke, 1990:215 (unknown from Democratic Germany); Pagliano, 1990:77 (in catalog of Italian Sphecidae); Schwammberger and Priesner, 1990:553 (Austria: Kärnten); Day, 1991:xiii (summary of European Endangered Hymenoptera Lists); Gayubo, Borsato, and Osella, 1991:418 (Italy); Gusenleitner, 1991:648 (Austria: Steiermark: Therme Loipersdorf); Pagliano, 1992:47, 48 (in key to Italian Bembicinae); Negrisolo and Pagliano, 1993:92 (Italy: Sardegna); Torregrosa, Gayubo, Tormos, and Asís, 1993:20 (Spain: Alicante Province); Dollfuss, 1994:98 (endangered in Austria); Gayubo and Borsato, 1994:219 (Italy: Veneto); Tormos, Asís, and Gayubo, 1994:190, 223 (Spain: Albacete Province); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Schmid-Egger, Risch, and Niehuis, 1995:166 (summary of records from Germany: Rheinland-Pfalz State); Schmid-Egger, Schmidt, and Doczkal, 1996:376 (Germany: extinct in Rheinland-Pfalz); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:280 (in Sphecid Fauna of Western Europe); Schmidt and Schmid-Egger, 1997:6 (in checklist of German Sphecidae); Stoyanov and Ljubomirov, 1997:27 (Bulgaria: Rila Mountains); Dollfuss, Gusenleitner,

and Bregant, 1998:522 (Austria: summary of collecting records from Burgenland); Gayubo, García, Torres, and González, 1999:91 (Spain: Soria Province); Ljubomirov, 1999b:57 (Bulgaria: Mt. Vitosha near Sofia); Pagliano and Scaramozzino, 1999:156 (Italy: Piemonte: Borgomale); M. Schwarz, 1999:88 (Austria: Oberösterreich: city of Linz area); Zehnder and Zettel, 1999:131 (Switzerland: recolonization of flooded area in Valais Canton); Blösch, 2000:403 (in Sphecidae Fauna of Germany); Gonzáles, Gayubo, and Tormos, 2000:21 (Andorra: Santa Coloma); Ljubomirov, 2000:13 (Bulgaria, specimens in N. Nedelkov collection); Kazenas, 2001b:51 (in checklist of Sphecidae of Kazakhstan and Central Asia); Ohl et al., 2001:137 (distribution in Germany by provinces); Zettel, Gross, and Mazzucco, 2001:80 (Austria: Wien, last collected in XIXth century); Drewes, 2003:133 (Italy: Trentino: Arco, Arco-Nago); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavaler); Nieves-Aldrey, Fontal-Cazalla, Garrido-Torres, and Rey del Castillo, 2003:42 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Gayubo et al., 2004:131 (Spain: Madrid: Estación Biogeológica de El Ventorrillo in Sierra de Guadarrama); Hellrigl, 2004a:172 (Italy: Trentino-Alto Adige, as Südtirol: Vinschgau = Val Venosta: Kortsch, Staben, St. Martin in Kofel, Tannas); Wiśniowski, 2004:52 (in checklist of Polish Sphecidae: recorded from Poland by Müller, 1918 as *Bembix integra*, the record is not impossible); Jacobs, 2005a:440 (Bulgaria: Melnik); Pagliano and Negrisolo, 2005:192 (in Sphecidae Fauna of Italy); Ljubomirov, 2006:537 (Bulgaria: Rhodope Mountains: Satovtcha Village); Magdalou, 2006a:8, 12 (France: Pyrénées-Orientales: Réserve Naturelle de la Massane); Jacobs, 2007:179 (in key to Crabronidae of Germany); Vepřek and Straka, 2007:209 (in catalog of Sphecidae of Czech Republic and Slovakia); Gayubo, González, Tormos, and Asís, 2008:137 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia); Guéorguiev and Ljubomirov, 2009:263 (Bulgaria: Maleshevska Planina); Pagliano, 2009:179 (Italy: Basilicata: Monte Vulturino); Schmid-Egger, 2010a:14 (in red list of Aculeata of Germany: extinct, last collected around 1900).

Bembix cristata Mocsáry, 1883:42, ♂. Holotype or syntypes: ♂, Spain: Granada (TMB). Synonymized with *Bembix integra* (= *tarsata* Latreille) by Handlirsch, 1893c:701.

As *Bembix integra*: Friese, 1926:157 (in key to Sphecidae of Central Europe, short morphological and biological characteristics, *tarsata* listed as synonym).

300. *taschenbergi* Handlirsch

Bembix taschenbergi Handlirsch, 1893c:776, ♂ (as *Taschenbergi*, incorrect original capitalization). Syntypes: India: no specific locality (NHMW) and Myanmar: Tenasserim and Bhamô (MSNG). – Bingham, 1897:292 (original description translated into English); Dalla Torre, 1897:514 (in catalog of world Sphecidae). – As *Bembix taschenbergi*: R. Bohart and Menke, 1976:548 (listed).

301. *tenuifasciata* J. Parker

Bembix tenuifasciata J. Parker, 1929:82, ♂, ♀. Holotype: ♂, Nigeria: Lagos (ZMHU). – Arnold, 1931:213 (original description copied); R. Bohart and Menke, 1976:548 (listed).

302. *texana* Cresson

Bembix texana Cresson, 1873:219, ♀. Lectotype: ♀, USA: Texas: Dallas County: no specific locality (ANSP), designated by Cresson, 1916:97. – Cresson, 1887:278 (in catalog of North American Hymenoptera); Handlirsch, 1893c:830 (in revision of world Bembicinae); W. Fox, 1895d:360 (in revision of North American Bembicini); Dalla Torre, 1897:514 (in catalog of world Sphecidae); Ashmead, 1899d:239 (in checklist of North American Crabronidae); Hartman, 1905:21, 29 (nesting habits, as *texanus*); Brimley, 1938:448 (North Carolina: Raleigh to Laurel Hill south and east); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection, as *texiana*). – As *Epibembix texana*: Burks in Muesebeck et al., 1951:1000 (new combination, in catalog of North American Hymenoptera); Krombein, 1953a:336 (North Carolina: Kill Devil Hills); L. Davis, 1978:216 (North Carolina: Kill Devil Hills, data from Krombein, 1953a). – As *Bembix texana*: J. Parker, 1917:111 (in revision of Bembicini in America north of Mexico); M. Smith, 1920:82 (in revision of Bembicini of North Carolina); J. Parker, 1929:136 (in revision of Stizini and Bembicini); Lohrmann, 1948:444 (member of *spinolae* species group of *Bem-*

bix); Krombein, 1958c:107 (nesting habits, prey); Evans and Lin, 1956b:62 (description of larva); Evans, 1957c:135 (study of behavior), 1964b:270 (additional description of larva), 1966b:466 (illustration of nest entrance), 468 (nesting habits); Chandler, 1966:146 (in revision of Bembicini and Stizini of Indiana); Evans, 1966d:323 (nesting habits); Roberts and Wilson, 1967:412 (population density of 2 or more wasps per cattle head significantly reduced tabanid population); Evans and Matthews, 1968b:1297 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:548 (listed); Krombein, 1979b:1714 (in catalog of North American Hymenoptera, nesting sites, list of prey); Hilchie, 1982:110 (accessory burrows reviewed); Ahlstrom, 1995:113 (in checklist of insects of North Carolina); Wcislo, 1998:181 (proportions of antennae in relations to parasitic/non-parasitic behavior).

? *Bembex fasciata* Fabricius, 1804:224, sex not indicated, junior primary homonym of *Bembex fasciata* Fabricius, 1781 (now in *Stizus*). Holotype or syntypes: USA: "Carolina": no specific locality (MNHN, coll. Bosc). – Say, 1837:367 (redescription); Dahlbom, 1844:184 (in revision of Sphecidae and Pompilidae), 1845:XXII (specimens in collection Fabricius), 487 (in key to world *Bembix*); F. Smith, 1856:331 (in catalog of Hymenoptera in British Museum); Le Conte, 1859b:751 (reprint of Say, 1837:367); Cresson, 1863:316 (in catalog of North American Hymenoptera), 1865b:467 (specimens in ANSP collection); Taschenberg, 1870:20f (Illinois); Cresson, 1875:715 (Colorado, Nevada, New Mexico), 1876:208 (Utah: Spring Lake), 1887:278 (in catalog of North American Hymenoptera); Provancher, 1888:413 (in addition to Sphecidae Fauna of Quebec); Ashmead, 1890:33 (in checklist of Hymenoptera of Colorado); nec Faull, 1913:384 (= *Bembix americana spinolae*); van der Vecht, 1961a:59 (study of type, not recognizable); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection).

303. *thooma* Evans and Matthews

Bembix thooma Evans and Matthews, 1973:183, ♀, ♂. Holotype: ♀, Australia: Western Australia: Lake Violet 6 mi Wiluna (ANIC). – 1975:111 (preying on wasps and bees); Evans and Thomas, 1975:110 (preying on thynnid wasps); R. Bohart and Menke, 1976:548 (listed); Evans, 1982:12 (Queensland); Cardale, 1985:293 (in catalog of Australian Sphecidae); Naumann, 1998:184 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E); Evans, 2002a:5 (known to prey on Thynninae); Evans and O'Neil, 2007:201 (summary of information on nesting habits).

304. *tibooburra* Evans and Matthews

Bembix tibooburra Evans and Matthews, 1973:193, ♀, ♂. Holotype: ♂, Australia: South Australia: 9 mi E Everard Park (SAMA). – R. Bohart and Menke, 1976:548 (listed); Cardale, 1985:293 (in catalog of Australian Sphecidae).

305. *torosa* J. Parker

Bembix torosa J. Parker, 1929:84, ♀, ♂. Holotype: ♂, Papua New Guinea: Ramu (ZMHU). – Lohrmann, 1939:139 (member of *papua* species group of *Bembix*), 1948:449 (member of *papua* species group of *Bembix*); R. Bohart and Menke, 1976:548 (listed).

306. *tranquebarica* (Gmelin)

Bembex repanda Fabricius, 1787:286, ♂. Lectotype: ♂, India: Tamil Nadu: Tranquebar (ZMK), designated by van der Vecht, 1961a:60. – Olivier, 1789:291 (redescription); Fabricius, 1793:250 (redescription), 1796:18 (in Index to his Entomologia Systematica, 1793); Lichtenstein, 1796:205, 206 (in auction catalog); Fabricius, 1804:225 (redescription); Jurine, 1807:175 (listed); Vander Linden, 1829:12 (bibliographic references, south of France); Dufour, 1841a:492 and 1841b:228 (digestive tract), 1841a:494 and 1841b:230 (male reproductive system), 1841a:496 and 1841b:232 (female reproductive system); Ghiliani, 1842:24 (listed from Italy: Sicilia, obviously in error); Dahlbom, 1844:177 (in revision of Sphecidae and Pompilidae, France, obviously in error), 1845:XXII (specimens in collection Fabricius), 487 (in key to world *Bembix*); Eversmann, 1849:397 (in campis Kirgisorum, now Kazakhstan); Lucas, 1849:263 (Algeria: Bône, now Annaba, La Calle, now El Kala, obviously in error, as *repanda* Latreille); F. Smith, 1856:319 (in catalog of Hymenoptera in British Museum); nec A. Costa, 1867c:42 (= *Bembix*

oculata); nec Palma, 1867:39 (= *Bembix oculata*); Walker, 1871:24 (Djibouti: Tajura); Dours, 1874:148 (in catalog of Hymenoptera of France, obviously in error); Marquet, 1875:208 (France: Hérault: Béziers, obviously in error); Frivaldszky, 1876:354 (Hungary: Temes Komitat: Grebenáčz, now in Timiș District in Romania, obviously in error); Radoszkowski, 1877:50 (Uzbekistan: Samarkand; Kazakhstan: Kyzil-Kum; also Djuzak), 1881:207 (Angola); Marquet, 1881:181 (southern France, obviously in error); nec A. Costa, 1882b:22 (= *Bembix oculata*); nec De Stefani Perez, 1882:39 (= *Bembix oculata*); nec A. Costa, 1884b:32 (= *Bembix oculata*); nec F. Morawitz, 1891a:225 (= *melanura*); Handlirsch, 1893c:896 (original description copied); nec De Stefani Perez, 1895:227 (= *Bembix oculata*); Handlirsch, 1895:1005 (reference to *Bembex tranquebarica* Gmelin, 1790); Dalla Torre, 1897:512 (in catalog of world Sphecidae); Innes Bey, 1912:112 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected at Bab el Mandeb Straits); Casolari and Casolari Moreno, 1980:114 and 115 (specimens in M. Spinola collection)

Vespa tranquebarica Gmelin, 1790:2796 (as *Tranquebarica*, incorrect original capitalization). Substitute name for *Vespa repanda* (Fabricius, 1787) Gmelin, 1790:2796, junior secondary homonym of *Vespa repanda* (Fabricius, 1787) Gmelin, 1790:2761, originally *Crabro repandus* Fabricius, 1787, now in *Tachytes*. – Baldini, 1894:61 (Italy: Modena area, clearly in error, as *tranquebarensis*). – **As *Bembix tranquebarica***: R. Bohart and Menke, 1976:548 (listed); van der Vecht, 1980:401 (translucent area on scapal venter); Krombein and van der Vecht, 1987:3 (Rahman's, 1940, floral and prey records copied), 15 (in revision of Sri Lankan and South Indian *Bembix*); Guichard, 1989a:139 (Arabian Peninsula, Baluchistan); Roche and Zalut, 1994:117 (Egypt: Sinai Peninsula).

Bembex trepanda Dahlbom, 1844:181, ♀, ♂. Syntypes: Bangla Desh: no specific locality (LUND). Synonymized with *Bembix tranquebarica* by van der Vecht, 1961a:60. – Dahlbom, 1845:177 (redescription, southern France, obviously in error, 1845:490 (in key to world *Bembix*); F. Smith, 1856:328 (in catalog of Hymenoptera in British Museum), 1858b:15 (India, Indonesia: Sulawesi); Sichel, 1867:141 (Sri Lanka); Walker, 1871:24 (Djibuti: Tajura; Egypt: Sinai Peninsula: Wady Feiran; and Wadi Gennah, records not confirmed by subsequent workers); Cameron, 1890b:247 (India: Barrackpore, Bombay, Gilgit; Sri Lanka, Indonesia); Handlirsch, 1893c:736 (in revision of world Bembicinae), 1895:1051 (listed); Bingham, 1893:380 (Myanmar), 1896a:445 (Sri Lanka: Pundaluoya), 1897:288 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); Dalla Torre, 1897:515 (in catalog of world Sphecidae); Bingham, 1905:46 (Malaysia: Patani); Innes Bey, 1912:112 (specimens recorded by Walker, 1871, now destroyed by dermestids, were collected at Wadi Feiran in Sinai Peninsula, Egypt, and at Tajura, Djibuti); Rahman, 1940:430 (floral records, prey). – **As *Bembix trepanda***: J. Parker, 1929:101 (in revision of Stizini and Bembicini); Lohrmann, 1948:429 (illustration of color pattern).

307. *transcaspica* Radoszkowski

Bembex transcaspica Radoszkowski, 1893a:63, ♂. Holotype or syntypes: ♂, Transcaspia, probably Turkmenistan: no specific locality (KRAKÓW). – Handlirsch, 1893c:738 (in revision of world Bembicinae); Dalla Torre, 1897:515 (in catalog of world Sphecidae); Gussakovskij, 1933b:295 (Iran: mountains S Bampur, Gurmuk, Duzab S Gurmuk), 1935:444 (Tajikistan: Kulab). – **As *Bembix transcaspica***: de Beaumont, 1961e:3 (Iraq); Myartseva, 1972a:90 (Turkmenistan); R. Bohart and Menke, 1976:549 (listed); Kazenas, 1978b:87 (in key to Sphecidae of Kazakhstan and Central Asia); Nazarova and Baratov, 1981:100 (Tajikistan: Aivadj, near Dushanbe; preying on tabanids: list of prey given); Nazarova and Gafarov, 1986:71 (Tajikistan, preying of Syrphidae); Nazarova, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve); Kazenas, 2001b:51 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:133 (geographic distribution, collecting localities in Kazakhstan); Nazarova, 2005:94 (alfalfa fields in southwestern Tajikistan); Ebrahimi, 2006:1 (Iran).

As *Bembex admirabilis*: Radoszkowski, 1893a:65, ♀ only. Corrected to *Bembex transcaspica* by Handlirsch, 1893c:738.

308. *trepida* Handlirsch

Bembix trepida Handlirsch, 1893c:759, ♂. Syntypes: Australia: no specific locality (NHMW, Dresden, Stuttgart, Lübeck). – Dalla Torre, 1897:515 (in catalog of world Sphecidae); R. Turner, 1915e:440 (in revision of Australian *Bembix*). – **As *Bembix trepida***: Evans and Matthews, 1973:113 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:293 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:193 (summary of information on nesting habits).

Bembix victoriensis Lohrmann, 1942a:159, ♀. Syntypes: Australia: Victoria: no specific locality (NHMW). Synonymized with *Bembix trepida* by Evans and Matthews, 1973:113. – Lohrmann, 1948:423 (in checklist of recently described *Bembix*).

309. *triangulifera* Arnold

Bembix stevensoni Arnold, 1929b:331 (December), ♂ (as *Stevensoni*, incorrect original capitalization), junior primary homonym of *Bembix stevensoni* J. Parker, 1929 (June). Holotype: ♂, Zimbabwe: Bulawayo (SAM). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae).

Bembix triangulifera Arnold, 1944:23. Substitute name for *Bembix stevensoni* Arnold, 1929. – R. Bohart and Menke, 1976:549 (listed).

310. *tricolor* Dahlbom

Bembix tricolor Dahlbom, 1844:180, ♀, ♂. Syntypes: Guinea and South Africa: Cape Town area: no specific localities (LUND). – Dahlbom, 1845:490 (in key to world *Bembix*); F. Smith, 1856:323 (in catalog of Hymenoptera in British Museum); Handlirsch, 1893c:872 (in revision of world Bembicinae); Dalla Torre, 1897:515 (in catalog of world Sphecidae). – **As *Bembix tricolor***: Lohrmann, 1948:448 (member of *fuscipennis* species group of *Bembix*); R. Bohart and Menke, 1976:549 (listed).

311. *trimaculata* Kazenas

Bembix trimaculata Kazenas, 1978b:88, ♀. Holotype or syntypes: ♀, origin not indicated but probably Kazakhstan: no specific locality (depository not indicated). – Kazenas, 2001b:51 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:133 (geographic distribution, collecting localities in Kazakhstan).

Bembix trimaculata Kazenas, 1980c:142, ♀. Holotype: ♀, Kazakhstan: Alma Ata Oblast': Alma Ata area (depository not indicated, but probably ZIN).

312. *troglydites* Handlirsch

Bembix troglydites Handlirsch, 1893c:829, ♀, ♂. Syntypes: no specific locality (NHMW, MHNG) and Mexico: no specific locality (MHNG). – W. Fox, 1895d:360 (in revision of North American Bembicini); Dalla Torre, 1897:515 (in catalog of world Sphecidae); Ashmead, 1899d:239 (in checklist of North American Crabronidae); H. Smith, 1908b:386 (in revision of Nebraskan Sphecidae). – **As *Epibembex troglydites***: Burks in Muesebeck et al., 1951:1000 (new combination, in catalog of North American Hymenoptera). – **As *Bembix troglydites***: J. Parker, 1917:108 (in revision of Bembicini in America north of Mexico), 1929:137 (in revision of Stizini and Bembicini); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*); Evans and Lin, 1956b:61 (description of larva); Evans, 1957c:116 (study of behavior), 1958e:452 (behavioral evolution), 1964b:270 (additional description of larva), 1966b:466 (illustration of nest entrance), 1966d:335 (nesting habits); Evans and Matthews, 1968b:1297 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:549 (listed); Krombein, 1979b:1714 (in catalog of North American Hymenoptera, nesting sites, list of prey); Hilchie, 1982:110 (accessory burrows reviewed); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruiz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae); Ohl and Linde, 2003:150 (number of ovarioles); Coelho, Hastings, Holliday, and Mendell, 2008:59 (is a relatively large wasp that carries many small flies to its burrows).

Bembix helianthopolis J. Parker, 1917:113, ♀, ♂. Holotype: ♀, USA: Graham County: no specific locality (Kansas Univ.), see Cockerell, 1918:59. Synonymized with *Bembex troglodytes* by Evans, 1957c:116. – Cockerell, 1918:59 (type locality: Kansas:); J. Parker, 1929:137 (in revision of Stizini and Bembicini); Lohrmann, 1948:444 (member of *spinolae* species group of *Bembix*); LaBerge, 1956:526 (holotype, allotype and paratypes in Snow Entomological Museum). – **As *Epibembex helianthopolis***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera).

313. *truncata* Handlirsch

Bembex truncata Handlirsch, 1893c:840, ♀, ♂. Syntypes: Mexico: Morelos: Cuernavaca; Veracruz: Orizaba (NHMW, TMB). – Dalla Torre, 1897:515 (in catalog of world Sphecidae). – **As *Bembix truncata***: Evans, 1966d:308 (nesting habits); Evans and Matthews, 1968b:1296 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:549 (listed); Amarante, 2002:8 (in catalog of Neotropical Crabronidae).

314. *tuberculiventris* R. Turner

Bembex tuberculiventris R. Turner, 1908:503, ♂. Holotype or syntypes: ♂, Australia: Queensland: Cooktown (BMNH). – R. Turner, 1915e:445 (in revision of Australian *Bembix*). – **As *Bembix tuberculiventris***: Lohrmann, 1948:423 (in checklist of recently described *Bembix*); Evans and Matthews, 1973:236 (in revision of Australian *Bembix*), 1975:111 (preying on bees and wasps); R. Bohart and Menke, 1976:549 (listed); Evans, Evans, and Hook, 1982:78 (nesting habits); Cardale, 1985:294 (in catalog of Australian Sphecidae); Evans, 2002a:5 (known to prey on Apidae); Evans and O'Neil, 2007:204 (summary of information on nesting habits).

315. *turca* Dahlbom

Bembix turca Dahlbom, 1845:488, ♂. Syntypes: ♂, Greece: Island of Rhodes: no specific locality (Stockholm). – Handlirsch, 1893c:859 (in revision of world Bembicinae); Dalla Torre, 1897:515 (in catalog of world Sphecidae); W. Schulz, 1904b:95 (Greece: Epirus), nec 1905:65 (= *Bembix flavescens kittyae*); nec Mantero, 1915:326 (= *Bembix flavescens kittyae*); nec von Schulthess, 1926b:218 (= *Bembix flavescens kittyae*); nec Guiglia, 1932d:480 (= *Bembix flavescens kittyae*); nec de Beaumont, 1953a:174 (= *Bembix freygessneri*) and 1956a:195 (= *Bembix flavescens kittyae*); Atanassov, 1955:199 (first record from Bulgaria: Galata in Varna district, Obzor in Pomoriye district); de Beaumont, 1957e:609 (study of type material; Balkan Peninsula; Russia: Sarepta); nec Grandi, 1957:386 (= *flavescens kittyae*); nec Priesner, 1958:28 (= *flavescens kittyae*); Atanassov, 1962:123 (Bulgaria: Petrich area); de Beaumont, 1965a:25 (Greece); Balthasar, Hrubant, and Hrubant, 1967:175 (Bulgaria: Slanchev Bryag near Nessebar, Sozopol); de Beaumont, 1967a:298 (Turkey); Scobiola-Palade, 1970:152 (first record from Romania: Constanța District: Agigea); Balthasar, 1972:378 (in Sphecid Fauna of Czechoslovakia: may be expected in the country); Kazenas, 1972b:142 (Kazakhstan), 1974b:109 (feeding on flowers of *Tamarix* sp. and *Cynanchum sibiricum* Willd., Asclepiadaceae, in Kazakhstan); R. Bohart and Menke, 1976:549 (listed); Kazenas, 1978b:86, 88 (in key to Sphecidae of Kazakhstan and Central Asia); Pulawski, 1978:208, 209 (in key to Sphecidae of European part of former USSR); Nazarova and Baratov, 1981:101 (Tajikistan: Zeravshan valley: Aini, Vakhsh valley: Garavuty); Schmidt and Westrich, 1983:125 (Greece; as *turca*); Scobiola-Palade, 1991:220 (Romania: Danube delta); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Nazarova, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve); Shkuratov, 2000:57 (Russia: Rostov Oblast': Vëshenskaya village area at 49°37'N 41°45'E); Kazenas, 2001b:51 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:133 (geographic distribution, collecting localities in Kazakhstan); Jacobs, 2005a:440 (Bulgaria: Arkutino near Burgas, Nesebar); Ljubomirov and Yildirim, 2008:124 (in catalog of Crabronidae of Turkey).

Bembex melaena F. Smith, 1856:320, ♂. Holotype or syntypes: ♂, Albania: no specific locality (BMNH). Synonymized with *Bembex turca* by Handlirsch, 1893c:859. – Kirchner, 1867:218 (in catalog of European Hymenoptera).

316. ugandensis R. Turner

Bembix ugandensis R. Turner, 1913:746, ♂, ♀. Holotype: one of the following: Uganda: eastern Mbale District S Mt. Elgon; Mbale-Kumi road S Lake Salisbury; Entebbe (BMNH). – Arnold, 1929b:348 (in revision of southern African Sphecidae), 1930:21 (in checklist of Afrotropical Sphecidae); Schouteden, 1930:96 (Zaire); Arnold, 1931:212 (*Bembex recurva* is probably a synonym). – **As *Bembix ugandensis***: Lohrmann, 1948:447 (member of *diversipennis* species group of *Bembix*); R. Bohart and Menke, 1976:549 (listed).

317. uloola Evans and Matthews

Bembix uloola Evans and Matthews, 1973:208, ♀, ♂. Holotype: ♂, Australia: Western Australia: 34 mi W Wiluna (ANIC). – R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:294 (in catalog of Australian Sphecidae).

318. ulula Arnold

Bembex ulula Arnold, 1929b:330, ♂, ♀. Syntypes: Zimbabwe: Victoria Falls, Gwaai, Sawmills, Springvale (SAM). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae), 1935a:503 (Botswana: Kalahari). – **As *Bembix ulula***: R. Bohart and Menke, 1976:549 (listed); Gess, 1986:147 (justification of synonymy with *Bembix junodi*).

Bembex junodi Arnold, 1929b:379, ♂ (as *Junodi*, incorrect original capitalization). Syntypes: ♂, Mozambique: Lourenço Marques, now Maputo (TMP). Synonymized with *Bembix ulula* by Gess, 1986:147. – **As *Bembix junodi***: R. Bohart and Menke, 1976:546 (listed).

319. undeneya Evans and Matthews

Bembix undeneya Evans and Matthews, 1973:142, ♂. Holotype: ♂, Australia: Northern Territory: MacDonald Downs (CAS). – R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:294 (in catalog of Australian Sphecidae).

320. undulata Spinola

Bembex undulata Spinola, 1839:468, ♀ (authorship attributed to Klug). Lectotype: ♀, South Africa: Cape of Good Hope (ZMB), designated by Ohl, 1999b:245. – F. Smith, 1856:324 (in catalog of Hymenoptera in British Museum); Handlirsch, 1893c:895 (original description translated into German); Dalla Torre, 1897:515 (in catalog of world Sphecidae); Bingham, 1902:211 (South Africa, Malawi); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection). – **As *Bembix undulata***: R. Bohart and Menke, 1976:549 (listed).

321. usheri Arnold

Bembix usheri Arnold, 1960a:464, ♀. Syntypes: ♀, Mozambique: Chinda (SAM). – R. Bohart and Menke, 1976:549 (listed).

322. variabilis F. Smith

Bembex variabilis F. Smith, 1856:325, ♀. Syntypes: ♀, Australia: New South Wales: Hunter River; Northern Territory: Port Essington; and Western Australia: Swan River (BMNH). – Froggatt, 1892:224 (in catalog of Australian Hymenoptera); Handlirsch, 1893c:846 (in revision of world Bembicinae); Dalla Torre, 1897:515 (in catalog of world Sphecidae); R. Turner, 1908:502 (synonymy, additional description); Montague, 1914:649 (Australia: Western Australia: Monte Bello Islands, determination tentative); R. Turner, 1915e:446 (in revision of Australian *Bembix*). – **As *Bembix variabilis***: J. Parker, 1929:139 (in revision of Stizini and Bembicini); Lohrmann, 1948:429 (illustration of color pattern); Evans and Matthews, 1973b:90 (in revision of Australian *Bembix*), 1975:109 (illustration of habitus, photograph of nest entrance), 110 (photographs of females at nest entrance with prey: a fly and a damselfly), 111 (preying on 14 families of Diptera and on damselflies); R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:294 (in catalog of Australian Sphecidae); Naumann, 1998:184 (Australia: northwest Queensland: Musselbrook area, approximately 18°40'S 138°23'E); Evans, 2002a:3 (preying mainly on Diptera, occasionally on non-Diptera); Evans and O'Neil, 2007:207 (summary of information on nesting habits).

Bembex raptor F. Smith, 1856:326, ♂. Holotype or syntypes: ♂, Australia: South Australia: Adelaide (BMNH). Synonymized with *Bembex variabilis* by R. Turner, 1908:502, synonymy confirmed by Evans and Matthews,

1973b:291. – Froggatt, 1892:223 (in catalog of Australian Hymenoptera); Handlirsch, 1893c:900 (original description translated into German); Dalla Torre, 1897:511 (in catalog of world Sphecidae); R. Turner, 1915e:446 (in revision of Australian *Bembix*). – **As *Bembix raptor***: J. Parker, 1929:129 (in revision of Stizini and Bembicini).

Bembex crabroniformis F. Smith, 1873c:296, ♂. Holotype or syntypes: ♂, Australia: Northern Territory: Port Essington (BMNH). Synonymized with *Bembex variabilis* by Handlirsch, 1893c:846 and R. Turner, 1908:502, synonymy confirmed by Evans and Matthews, 1973b:291. – Froggatt, 1892:223 (in catalog of Australian Hymenoptera).

323. *vasta* Lohrmann

Bembix vasta Lohrmann, 1842a:157, ♂. Holotype: ♂, Malaysia: Perak: Kwala Kangsar (NHMW). – Lohrmann, 1948:423 (in checklist of recently described *Bembix*), 452 (member of *rostrata* species group of *Bembix*); R. Bohart and Menke, 1976:549 (listed).

324. *velox* Handlirsch

Bembex velox Handlirsch, 1893c:819, ♂. Holotype: ♂, Tanzania: Zanzibar: no specific locality (MHNG). – Dalla Torre, 1897:515 (in catalog of world Sphecidae); Arnold, 1929b:364 (original description translated into English), 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix velox***: J. Parker, 1929:97 (in revision of Stizini and Bembicini); Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembix*); R. Bohart and Menke, 1976:549 (listed).

325. *venusta* Arnold

Bembex venusta Arnold, 1929b:347, ♀, ♂. Syntypes: Namibia: Kamanjab, Ombombo, Ongandjera, Otjimbombe, Erickson Drift (SAM). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix venusta***: Lohrmann, 1948:447 (member of *diversipennis* species group of *Bembix*); R. Bohart and Menke, 1976:549 (listed).

326. *versuta* Arnold

Bembix versuta Arnold, 1946:94, ♂. Holotype: ♂, Zambia: Kaputa in Mweru District (SAM). – R. Bohart and Menke, 1976:549 (listed).

327. *vespiformis* F. Smith

Bembex vespiformis F. Smith, 1856:327, ♀, ♂. Syntypes: Australia: South Australia: Adelaide (BMNH). – Froggatt, 1892:223 (in catalog of Australian Hymenoptera); Handlirsch, 1893c:749 (in revision of world Bembicinae); Dalla Torre, 1897:515 (in catalog of world Sphecidae); R. Turner, 1915e:439 (in revision of Australian *Bembix*). – **As *Bembix vespiformis***: Evans and Matthews, 1973b:59 (in revision of Australian *Bembix*), 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:294 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:189 (summary of information on nesting habits); Jacobi, 2007:14 (coloration).

328. *wadamiri* Evans and Matthews

Bembix wadamiri Evans and Matthews, 1973:145, ♀, ♂. Holotype: ♂, Australia: Northern Territory: Maningrida in Arnhem Land (BISH). – R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:294 (in catalog of Australian Sphecidae).

329. *wagleri* Gistel

Bembex wagleri Gistel, 1857:33, ♀. Holotype or syntypes: ♀, Portugal: Algarve (depository?). – Strand, 1916c:98 (in review of Gistel, 1857). – **As *Bembix wagleri***: R. Bohart and Menke, 1976:549 (listed).

330. *wangoola* Evans and Matthews

Bembix wangoola Evans and Matthews, 1973:285, ♀, ♂. Holotype: ♂, Australia: New South Wales: Packsaddle Mt. 111 mi N Broken Hill (ANIC). – Evans and Matthews, 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:295 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:209 (summary of information on nesting habits).

331. *wanna* Evans and Matthews

Bembix wanna Evans and Matthews, 1973:149, ♀, ♂. Holotype: ♂, Australia: Victoria: Williamstown (NMVM). – R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:295 (in catalog of Australian Sphecidae).

332. *warawara* Evans and Matthews

Bembix warawara Evans and Matthews, 1973:169, ♀, ♂. Holotype: ♂, Australia: New South Wales: Calumet 26 mi NE Binnaway (AMS). – R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:295 (in catalog of Australian Sphecidae).

333. *weberi* Handlirsch

Bembex weberi Handlirsch, 1893c:723, ♀, ♂ (as *Weberi*, incorrect original capitalization). Syntypes: North China: no specific locality (depository not indicated, probably Münster). – Sickmann, 1894:202 (China: Hopei Province: Tientsin, type material); Dalla Torre, 1897:515 (in catalog of world Sphecidae). – **As *Bembix weberi***: Yasumatsu, 1942c:110 (China: Beijing; Nei Mongol: Apaka at 44°N 114.96°E); Lohrmann, 1948:429 (illustration of color pattern), 451 (member of *cinctella* species group of *Bembix*); nec Tsuneki, 1969d:5 (= *Bembix eburnea*); Tsuneki, 1971m:7 (China: Peking: Tiendang); R. Bohart and Menke, 1976:549 (listed); Wu and Zhou, 1996a:155 (in revision in Economic Insect Fauna of China); Hua, 2006:277 (in list of Chinese insects, geographic distribution); nec Evans and O'Neil, 2007:178 (= *Bembix eburnea*).

ssp. *lama* Tsuneki

Bembix weberi lama Tsuneki, 1971k:216, ♂. Holotype: ♂, Mongolia: S Gobi Aymag: Takhilga ul (TMB). – R. Bohart and Menke, 1976:549 (listed).

334. *weema* Evans and Matthews

Bembix weema Evans and Matthews, 1973:80, ♂. Holotype: ♂, Australia: Western Australia: Wydgee Station near Mt. Magnet (AMS). – R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:295 (in catalog of Australian Sphecidae); Evans, 1990:30 (in key to males of *promontorii* group).

335. *westermanni* Spinola

Bembex westermanni Spinola, 1839:470, ♀ (as *Westermanni*, incorrect original capitalization). Lectotype: ♀, India: Tranquebar, but actually Guinea (= old name for coastal Africa between Bissau and Angola) according to Dalla Torre, 1897:515, R. Bohart and Menke, 1976:549 and van der Vecht, 1980:400 (TORINO), designated by van der Vecht, 1980:400. – F. Smith, 1856:322 (in catalog of Hymenoptera in British Museum); Handlirsch, 1893c:898 (original description translated in German); Dalla Torre, 1897:515 (in catalog of world Sphecidae); W. Schulz, 1906:198 (described from India, not Guinea). – **As *Bembix westermanni***: R. Bohart and Menke, 1976:549 (listed), van der Vecht, 1980:399 (identity, origin, redescription).

Bembix guigliae Arnold, 1951:136, ♀, ♂. Syntypes: Ghana: Labadi, Accra; Senegal: Kaffrine; Mali: Tillembeya, now Diafarabé (BMNH). Synonymized with *Bembix westermanni* by van der Vecht, 1980:400. – R. Bohart and Menke, 1976:548 (listed).

336. *westonii* Bingham

Bembex westonii Bingham, 1894:380, ♀. Syntypes: Myanmar: Tenasserim: Salween Valley (BMNH). – Bingham, 1897:293 (in Wasp and Bee Fauna of British India, Sri Lanka, and Myanmar); Dalla Torre, 1897:515 (in catalog of world Sphecidae). – **As *Bembix westonii***: Lohrmann, 1948:423 (in checklist of recently described *Bembix*), 449 (member of *papua* species group of *Bembix*); R. Bohart and Menke, 1976:549 (listed); Wu and Zhou, 1996a:158 (in revision in Economic Insect Fauna of China); Hua, 2006:277 (in list of Chinese insects, geographic distribution).

337. wilcannia Evans and Matthews

Bembix wilcannia Evans and Matthews, 1973:135, ♀, ♂. Holotype: ♂, Australia: New South Wales: 10 mi W Wilcannia (ANIC). – Evans and Matthews, 1975:111 (preying on ant lions); R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:295 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:199 (summary of information on nesting habits).

338. wiluna Evans and Matthews

Bembix wiluna Evans and Matthews, 1973:89, ♀, ♂. Holotype: ♂, Australia: Western Australia: Wiluna (ANIC). – R. Bohart and Menke, 1976:549 (listed); Evans, 1982:12 (Queensland); Cardale, 1985:295 (in catalog of Australian Sphecidae).

339. wollowra Evans and Matthews

Bembix wollowra Evans and Matthews, 1973:175, ♀. Holotype: ♀, Australia: Western Australia: Milly Milly (CAS). – R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:295 (in catalog of Australian Sphecidae).

340. wolpa Evans and Matthews

Bembix wolpa Evans and Matthews, 1973:311, ♀. Holotype: ♀, Australia: Northern Territory: 16 mi W Alice Springs (ANIC). – R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:295 (in catalog of Australian Sphecidae).

341. wowine Evans and Matthews

Bembix wowine Evans and Matthews, 1973:81, ♂. Holotype: ♂, Australia: Nilemah Station 50 mi S Denham (ANIC). – R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:295 (in catalog of Australian Sphecidae); Evans, 1990:30 (in key to males of *promontorii* group).

342. yalta Evans and Matthews

Bembix yalta Evans and Matthews, 1973:206. Holotype: ♂, Australia: Western Australia: Bolgart (BMNH). – R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:296 (in catalog of Australian Sphecidae).

343. yunkara Evans and Matthews

Bembix yunkara Evans and Matthews, 1973:92, ♂. Holotype: ♂, Australia: Western Australia: Nilemah Station 50 mi S Denham (ANIC). – R. Bohart and Menke, 1976:549 (listed); Cardale, 1985:296 (in catalog of Australian Sphecidae).

344. zarudnyi Gussakovskij

Bembex zarudnyi Gussakovskij, 1933b:295, ♂, ♀. Syntypes: Iran: Kerman: Bampur and Kaskin-Bazman (ZIN). – **As *Bembix zarudnyi***: Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 449 (member of *hova* species group of *Bembix*); de Beaumont, 1970c:13 (Iran: Baluchistan); R. Bohart and Menke, 1976:549 (listed).

345. zinni Gess

Bembix zinni Gess, 1986:140, ♂, ♀. Holotype: ♂, South Africa: Cape Province: Merweville District (South African Museum). – S. Gess, 1996:266, 284 (floral records).

346. zonata Klug

Bembex zonata Klug in Walth 1835:96, ♀. Holotype: ♀, Spain: Andalusia: no specific locality (ZMHU). – Klug in Walth, 1835:87 (in list of Hymenoptera of Andalusia); Kirchner, 1867:218 (in catalog of European Hymenoptera); Handlirsch, 1893c:712 (in revision of world Bembicinae); Dalla Torre, 1897:515 (in catalog of world Sphecidae); Antiga and Bofill, 1904:18 (Spain: Cataluña Province); Mercet, 1904a:350, 354 (in key to Spanish *Bembix*); W. Schulz, 1904b:94 (Spain: Murcia); Medina, 1905:136 (Spain: Cádiz: Chiclana); de Gaulle, 1908:120 (in catalog of Hymenoptera of France); Berland, 1925d:70 (in Sphecid Fauna of France); Picard, 1930:42 (France: Hérault: Balaruc, Grau d'Agde, Montpellier, Sète); Bernard, 1934b:249 (prey: *Lathyrophthalmus aeneus* Scopoli); Giner Marí, 1934:131 (Spain); Bernard, 1935:63 (France: Var: Fréjus area; prey: *Lathyrophthalmus aeneus* Scopoli, a

syrphid), 1936c:287 (France: Bouches-du-Rhône: Port-de-Bouc; Var: Fréjus); Giner Marí, 1943a:198 (in Sphecid Fauna of Spain), 1943b:21 (Spain; redescription); Deleurance, 1946b:67 (France: Bouche-du-Rhône: Camargue: Bois des Rièges); de Andrade, 1949:20 (Portugal); Diniz, 1959:30 (Portugal: Estoril, Lisboa, Vale de Gaio); Suárez, 1959:55 (Spain: Almería Province); de Beaumont, 1962b:22 (Spain), 31 (geographic variation); Ceballos, 1964:92 (in supplement to catalog of Spanish Sphecidae). – **As *Bembix zonata***: J. Parker, 1929:128 (in revision of Stizini and Bembicini); Hertzog, 1954:100 (France: Bouches-du-Rhône: Camargue); Harant and Leclercq, 1955:251 (France: Hérault: Courparan); Ceballos, 1956:386 (in catalog of Hymenoptera of Spain); Balthasar, 1972:377 (in Sphecid Fauna of Czechoslovakia: may be expected in the country); Erlandsson, 1974:67 (France, Spain); R. Bohart and Menke, 1976:549 (listed); Marion, 1978:87 (France: Var Department); Pagliano, 1980:118 (Italy: Lombardia); Gayubo, 1982b:49 (Spain: Ávila, Cáceres, and Salamanca provinces); , 1882e:109 (Spain: Cádiz Province), 1983e:236 (Spain: Salamanca Province), 1984c:381 (Portugal: El Algarve Province), 1986d:121 (Spain: Zamora Province); Gayubo and Tormos, 1984:23 (Spain: Valencia); Chevin and Chevin, 1985:39 (France: Aude); Gayubo and Heras, 1986:67 (Spain: Segovia and Valladolid Provinces; floral records); Gayubo and Sanza, 1986:83 (Spain: Burgos, Segovia); Gayubo and Tormos, 1986a:14 (Spain: Castellón de la Plana); Tormos and Jiménez, 1987a:127 (Spain: Valencia), 1987b:317 (Spain: Valencia: Dehesa de El Saler); Asís and Jiménez, 1988:275 (Spain: Castellón Province); Dollfuss, 1989:8 (type material in NHMW); Gayubo, Asís, and Tormos, 1990b:79 (Spain); Pagliano, 1990:77 (in catalog of Italian Sphecidae); Gayubo and Torres, 1991:Table I (Spain: Salamanca; effects of urban pressure); Asís, Gayubo, and Tormos, 1992:228 (nesting habits); Pagliano, 1992:47 (in key to Italian Bembicinae); Torregrosa, Gayubo, Tormos, and Asís, 1993:20 (Spain: Alicante Province); Ghazoul and Willmer, 1994:103 (ability to warm up endothermically); Tormos, Asís, and Gayubo, 1994:190, 223 (Spain: Albacete Province, list of prey); Gayubo, 1985c:172 (Spain: Valladolid: Mojados, Traspinedo, Valladolid); Negrisoló *in* Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna, presence in Italy needs confirmation); Asís, Gayubo, and Tormos, 1997a:3 (description of adult larva); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:281 (in Sphecid Fauna of Western Europe); Gonzáles, Gayubo, and Torres, 1998:74, 75 (Spain: Valladolid Province); Gayubo, García, Torres, and González, 1999:91 (Spain: Soria Province); Gonzáles, Gayubo, and Torres, 1999:356 (Spain: Valladolid: Viana de Cega); Gayubo, González, and Torres, 2000:187 (Spain: Salamanca Province); Drewes, 2003:133 (Spain: Tarragona); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavaler); Asís, Tormos, and Gayubo, 2004:1805 (nesting habits and provisioning); Cruz-Sánchez, Gayubo, González, and Torres, 2005:220 (Spain: Salamanca: San Martín del Castañar); Pagliano and Negrisoló, 2005:193 (in Sphecid Fauna of Italy); Evans and O’Neil, 2007:178 (summary of information on nesting habits); Gayubo, González, Tormos, and Asís, 2008:137 (Spain: Salamanca: Parque Natural de Las Batuecas – Sierra de Francia), 2009:365 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero).

Bembex bipunctata Dufour, 1861:12, ♀, ♂ (♀ included conditionally = *Bembix sinuata*). Syntypes: Spain: Madrid (♀, ♂) and Tudela (♀), and France (♀): Saint-Séver (MNHN). Synonymized with *Bembex zonata* by Handlirsch, 1893c:712. – Kirchner, 1867:218 (in catalog of European Hymenoptera).

spp. *lichtensteini* Mocsáry

Bembex lichtensteini Mocsáry, 1883:39, ♂ (as *Lichtensteini*, incorrect original capitalization). Holotype or syntypes: ♂, southeastern France: no specific locality (TMB). – Handlirsch, 1893c:711 (as new synonym of *Bembex zonata*). – **As *Bembex lichtensteini***: R. Bohart and Menke, 1976:549 (listed). – **As *Bembex zonata lichtensteini***: de Beaumont, 1962b:31 (new status; s. France, n. Spain).

sp.

Bouvier, 1900a:974 (finding nest); Roubaud, 1910:505 (preying on tsetse flies); G. Carpenter, 1918:xli (preying on hesperiids); von Schulthess, 1935:306 (Indonesia: Flores: Ende); Giner Marí, 1945b:363 (Morocco: Western Sahara: El Aiun); Pulawski, 1958a:169 (aff. *turca*, Bulgaria: Nesebar, Sozopol, Varna); de Beaumont, 1961b:274 (Afghanistan), 1967b:507 (Namibia), 1970c:13 (aff. *megerlei*, Iran), 14 (aff. *olivacea*, Iran); Roche, 1981:4 (in check-

list of Sphecidae of United Arab Emirates); Palacios-Vargas, Llampallas, and Hogue, 1982:144 (Mexico: Socorro Island); Guichard, 1980:230 (Oman); Kingsley, Bailowitz, and Smith, 1987:19 (Arizona: Organ Pipe Cactus National Monument: Quitobaquito Springs area); Al-Houty, 1989:158 (Kuwait); S. Gess, 1996:282 (floral records); Kephart and Theiss, 2004:270 (pollinating flowers of *Asclepias*); Ruiz Cancino, Coronado Blanco, and Horta Vega, 2005:170 (Mexico: recorded from Tamaulipas State); Kazenas, 2007a:93 (Kazakhstan: Akkala Oblast': Kurgandzhin Nature Reserve and vicinity, sp. aff. *megerlei*); Ljubomirov and Yildirim, 2008:124 (in catalog of Crabronidae of Turkey); Polidori, Ouadragou, Gadallah, and Andrietti, 2009:1 (sp. near *capensis* in Burkina Faso: potential role of evasive flights and nest closure against a parasitic satellite fly).

LICHTENSTEIN'S AUCTION CATALOG NAMES

cingulata Lichtenstein

Bembex cingulata Lichtenstein, 1796:205, sex not indicated. Holotype or syntypes: India: no specific locality (lost).

guttata Lichtenstein

Bembex guttata Lichtenstein, 1796:205, sex not indicated. Holotype or syntypes: cap. Bon. Spei = Cape of Good Hope (lost).

NOMINA NUDA IN *BEMBIX*

Bembex adelaidae: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection).

Bembex arabica: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection).

Bembex algira: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection).

Bembex anomala Turner: Schouteden, 1930:96 (Zaire).

Bembex buqueti: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection).

Bembex contigua: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection).

Bembex lucae Cresson: W. Fox, 1893d:10 (Mexico: Baja California).

Bembex melanopa Kl.: Taschenberg, 1870:19 (South Africa: Cape Province).

Bembex nigrilabris: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection).

Bembex pallidiventrtris: Casolari and Casolari Moreno, 1980:114 (specimens in M. Spinola collection).

Bembex quadrifasciata: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection, possibly *Bicyrtes quadrifasciata*, as *4-fasciata*).

Bembex regularis Cresson: Wolcott, 1951:846 (Puerto Rico).

Bembex selenitica Klug: Taschenberg, 1870:19 (South Africa: Cape Province).

SPECIES DESCRIBED IN *BEMBIX* AND TRANSFERRED TO OTHER GENERA

anilis Handlirsch, 1893 = *Microbembex*

argentifrons Cresson, 1865 = *Microbembex*

argentina Brèthes, 1913 = *Microbembex*

armata Cresson, 1865 = *Microbembex cubana* R. Bohart, 1976

carolina Fabricius, 1793 = *Stictia*

chilensis Dahlbom, 1844 = *Zyzyx chilensis* (Eschscholz, 1822)

ciliata Fabricius, 1804 = *Microbembex*

continua Fabricius, 1804 = *Rubrica nasuta* (Christ)

defecta Brèthes, 1909 = *Bicyrtes simillima* (F. Smith, 1856)

difformis Handlirsch, 1893 = *Microbembex*

fasciata Fabricius, 1781 = *Stizus*

gratiosa F. Smith, 1856 = *Microbembex*

guiana Cameron, 1912 = *Bicyrtes*
heros Fabricius, 1804 = *Stictia*
integra Fabricius, 1793 = *Stizus fasciatus* (Fabricius, 1781)
interrupta Fabricius, 1787 = *Palarus*
lineata Fabricius, 1793 = *Stizus*
longirostra Say, 1837 = *Steniolia*
maculata Fabricius, 1804 = *Stictia*
monodonta Say, 1824 = *Microbembex*
patagonica Brèthes, 1913 = *Microbembex*
peruviana Guérin-Ménéville, 1835 = *Zyzyx chilensis* (Eschschholz, 1822)
punctata Fabricius, 1775 = *Stictia*
pygidialis Handlirsch, 1893 = *Microbembex*
ruficornis Fabricius, 1787 = *Stizus ruficornis* (J. Forster, 1771)
rufipes Olivier, 1789 = *Stizoides crassicornis* (Fabricius, 1787)
sexfasciata Fabricius, 1793 = *Stizus*
spinosa Fabricius, 1794 = *Bicyrtes spinosus* (Fabricius, 1794)
striata Fabricius, 1793 = *Rubrica*
subgratiosa Strand, 1910 = *Microbembex*
sulphurea Spinola, 1851 = *Microbembex*
uruguayensis Holmberg, 1884 = *Microbembex*
vespoides Rossi, 1790 = *Cerceris tuberculata* (Villers, 1789)
variegata Olivier, 1789 = *Bicyrtes*