

Last updated: 3 November 2016

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. 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*. If 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); Arnold, 1929b (southern African 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); Schmid-Egger, 2012:52 (Canary Islands); Nemkov, 2016c (Russia and adjacent territories).

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. Bohart and Menke, 1976:546 is in fact *Stizus jordanicus* Lohrmann, 1942.

1. *abercornensis* Arnold

Bembix abercornensis Arnold, 1960b:462, ♂. Holotype: ♂: Zambia: Abercorn, now Mbala (SAM). – R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae).

2. *abragensis* Priesner

Bembyx abragensis Priesner, 1958:31, ♀, ♂. Syntypes: se. Egypt: Wadi Atrag and Gebel Elba: Wadi Kansisrob (Ministry of Agriculture, Cairo). – **As *Bembix abragensis***: R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); Gadallah, 1997:262 (in revision of Egyptian *Bembix*), 2002:65 (in key to Egyptian *Bembix* based on male genitalia, as *Bembex*); Roche, 2007a:111 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

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 (in checklist of world Sphecidae); 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 (in checklist of world Sphecidae).

5. *afra* Handlirsch

Bembex afra Handlirsch, 1893c:740, ♂. 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 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:56 (geographic distribution: Western Cape Province, Zimbabwe).

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 (in checklist of world Sphecidae).

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 (in checklist of world Sphecidae).

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 (in checklist of world Sphecidae, as *abata*); S. Gess and F. Gess, 2003:121 (Namibia: visiting flowers of *Brownanthus kuntzei* (Schinz) Ihlenf. and Bittrich, *Brownanthus neglecta* Pierce and Gerbaulet, *Drosanthemum* sp., and *Psilocaulon salicornioides* (Pax) Schwant., Aizoaceae, *Zygophyllum clavatum* Schltr. and Diels and *Zygophyllum stapffii* Schinz, Zygophyllaceae); F. Gess and S. Gess, 2014:57 (distribution: coastal Namibia and northwestern South Africa, distribution map, flower records, prey, color photographs of imago).

Bembix 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 (in checklist of world Sphecidae).

9. *albicapilla* Arnold

Bembix albicapilla Arnold, 1946:93, ♂. Holotype: ♂, Zimbabwe: Insuza River (SAM). – R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:60 (distribution: two localities in Zimbabwe, distribution map, color photograph of female).

10. *albidula* R. Turner

Bembix 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 (in checklist of world Sphecidae).

11. *albofasciata* F. Smith

Bembix albofasciata F. Smith, 1873c:296, ♂. Holotype or syntypes: ♂, South Africa: Kwazulu 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 (in checklist of world Sphecidae); 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); S. Gess and F. Gess, 2003:121 (South Africa: visiting flowers of *Foeniculum vulgare* Mill., Apiaceae, *Calpurnia glabrata* Brummitt and *Medicago sativa* L., Fabaceae); Evans and O'Neil, 2007:183 (summary of information on nesting habits); F. Gess and S. Gess, 2014:60 (distribution: Zimbabwe and South Africa, distribution map, flower records, prey, color photographs of imago).

Bembix 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 *Bembix albofasciata* by R. Turner, 1912g:373. – Dalla Torre, 1897:507 (in catalog of world Sphecidae).

12. *alfierii* Priesner

Bembyx alfierii Priesner, 1958:10, ♀, ♂. Holotype: ♂, Egypt: Kerdasa near Cairo (originally A. Alfieri coll., Cairo, now USNM). – **As *Bembix alfierii***: R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); Gadallah, 1997:259 (in revision of Egyptian *Bembix*), 2002:63 (in key to Egyptian *Bembix* based on male genitalia, as *Bembex*); Roche, 2007a:110 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

13. *allunga* Evans and Matthews

Bembix allunga Evans and Matthews, 1973:137, ♀, ♂. Holotype: ♂, Australia: Queensland: Yeppoon (ANIC). – R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); 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).

14. *americana* Fabricius

Bembex americana Fabricius, 1793:250, sex not indicated. Holotype: ♂, South American islands: no specific locality (ZMUC). – 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 *Bembex*, as *americana americana*); Alcock, 1974a:158 (variation in number of larval cells); R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); 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*); Spofford, Kurczewski, and Downes, 1989:257, 258, 260, 261 (references to publications on nest parasites *Opsidia gonioides* Coquillett, *Phrosinella fulvicornis* (Coquillett), *Senotainia trilineata* (Wulp), and *Senotainia vigilans* Allen, miltogrammine flies, and undetermined Miltogrammini); Sánchez and Genaro, 1992b:150 (Cuba: La Habana: Güines); Spofford and Kurczewski, 1990:748, 749, 751 (nest parasites: *Senotainia trilineata* (Van der Wulp), *Senotainia vigilans* Allen, and unknown species of Miltogrammini, Sarcophagidae), 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); Portundo and Fernández, 2004:134 (Cuba: Sierra Maestra, as *americana* Evans and Matthews); Snelling, 2005:291 (British Virgin Islands: Guana Island); Evans and O'Neil, 2007:159, 171 (summary of information on nesting habits); Pagliano, 2011a:122 (specimens in coll. Spinola, Torino, are *Bembix* sp.); Ratzlaff, 2016:23 (Canada: British Columbia, after Krombein, 1979 and Buck, 2004).

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

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

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

Bembex foxi J. Parker, 1917:96, ♀, ♂. Holotype: ♂, USA: Illinois: no specific locality (ANSP). Synonymized with *Bembex 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

Bembex 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 (in checklist of world Sphecidae); 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 Portuondo, 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 *Epibembix 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); Krombein, 1958f:196 (in supplement to catalog of North American Hymenoptera: description of larva by Evans and Lin, 1956b, reported); Stainer, 1959:66 (Canada: British Columbia: Cherry Point, Hornby Island, Nanaimo). – As *Epibembix 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 (in checklist of world Sphecidae); 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); Radović, 1985:66 (sting apparatus analyzed); 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); Steiner, 1986:111 (references to publications on nesting habits); 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 *Epibembix 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 (in checklist of world Sphecidae); 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

Bembix 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 (in checklist of world Sphecidae); 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

Bembix 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); G. Peckham and E. Peckham, 1898:58 (nesting habits); Ashmead, 1899d:239 (in checklist of North American Crabronidae); Cockerell, 1899a:142 (New Mexico); J. Smith, 1900:517 (in list of insects of New Jersey); Cockerell, 1901:43 (visiting flowers of *Vicia* sp.); Harrington, 1902:221 (Canada: Ontario: Ottawa); W. Schulz, 1903:477 (Martinique); Viereck, 1903a:67 (New Mexico: Beulah); G. Peckham and E. Peckham, 1905:119 (popular account of nesting habits, prey robbery, parasitic flies); 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); J. Smith, 1910:679 (in new list of insects of New Jersey); Barber, 1915:187 (cocoon parasitized by *Macrosiagon flavipennis*, a rhipiphorid); Rohwer, 1917a:249 (Ohio or Texas); Rau and Rau, 1918:37 (nest with larva and many dipterous larvae); Carter, 1925:133 (Canada: Alberta; as *spinolae* Say); Rohwer in Viereck, 1925:694 (in key to Sphecidae of Connecticut); 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); Pagliano, 2011a:121 (specimens in coll. Spinola, Torino, are *Bembix Americana spinolae*). – **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); Krombein, 1958f:197 (in supplement to catalog of North American Hymenoptera: description of larva by Evans and Lin, 1956b, reported); Evans, 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); Piek and Spanjer, 1986:181 (in list of Sphecidae with known prey, as *spinola*); 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 (in checklist of world Sphecidae); Krombein, 1979b:1712 (in catalog of North American Hymenoptera, nesting sites, list of prey); Finnamore, 1982:231 (in Sphecid Fauna of Southern Quebec); Radović, 1985:66 (sting apparatus analyzed); Steiner, 1986:111 (references to publications on nesting habits); 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).

Bembix 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*);

Bembix 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. 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 (USNM). 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 (preying on tabanids); 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 *Epibembex 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.

15. *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); Snow, 1906:8 (Arizona: 20 mi SW Flagstaff); 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 (in checklist of world Sphecidae); Krombein, 1979b:1710 (in catalog of North American Hymenoptera, nesting sites, list of prey); Hilchie, 1982:110 (accessory burrows reviewed); Radović, 1985:66 (sting apparatus analyzed); Dollfuss, 1989:7 (lectotype in NHMW); Spofford, Kurczewski, and Downes, 1989:256, 258, 261 (reference to publications on nest parasites *Metopia argyrocephala* (Meigen), *Senotainia trilineata* (Wulp), miltogrammine flies, and undetermined Miltogrammini); Evans and O'Neil, 2007:162 (summary of information on nesting habits); Ratzlaff, 2016:23 (Canada: British Columbia, after Krombein, 1979).

16. *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 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:64 (description of female, distribution: Zambia, Zimbabwe, distribution map, color photographs of imago).

17. *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).

18. *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 and 1913b:5 (Tunisia: no specific locality). – **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 (in checklist of world Sphecidae); 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); Roche, 2007a:113 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Yildirim and Ljubomirov, 2007:118 (first record from Turkey: İçel: Aydıncık); Ljubomirov and Yildirim, 2008:116 (in catalog of Crabronidae of Turkey); Sakenin, Samin, and Bagriacik, 2010:16 (Iran: Ardabil: Meshkinshahr); Murai and Amr, 2011:118 (recorded from Syria by Handlirsch, 1893); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia); Yildirim, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); Schmid-Egger,

2014:541 (United Arab Emirates), 542 (color photographs of female), 543 (color photograph of male); S. Gess and Roosenschon, 2016:105 (Dubai Desert Conservation Reserve, visiting flowers of *Rumex dentatus* L., Polygonaceae).

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

19. *arlettae* de Beaumont

Bembix arlettae de Beaumont, 1970c:11, ♂. Holotype: ♂, Iran: Khuzestan: 18 km NE Shadegan (Ludwigsburg). – R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae).

20. *arnoldi* Arnold

Bembix 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 *Bembix arnoldi***: Lohrmann, 1948:449 (member of *arnoldi* species group of *Bembix*); Gess, 1986:151 (nesting habits); Evans and O'Neil, 2007:183 (summary of information on nesting habits); F. Gess and S. Gess, 2014:65 (distribution: southern coast of South Africa, distribution map, flower records, prey, color photograph of imago).

21. *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 *Bembix*). – **As *Bembix atrifrons***: J. Parker, 1929:140 (in revision of Stizini and Bembicini); nec Evans, 1966:357 and 488 (= *Bembix coonundura*); Evans and Matthews, 1973:154 (in revision of Australian *Bembix*), 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); 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 *Bembix*); Lohrmann, 1948:423 (in checklist of recently described *Bembix*).

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

22. *atrosinosa* R. Turner

Bembex atrosinosa R. Turner, 1917f:289, ♀, ♂ (as *atrosinosus*, 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 *Bembix atrosinosa***: R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:66 (distribution: southern part of South Africa, distribution map, color photographs of imago).

23. aureofasciata R. Turner

Bembix 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 (in checklist of world Sphecidae); Cardale, 1985:286 (in catalog of Australian Sphecidae); Pagliano, 2003a:506 (Australia: Northern Territory and Queensland).

24. barbara Handlirsch

Bembix 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 Qusantīnah Province); Morice, 1911:129 (Algeria: Constantine, now Qusantīnah, 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 (in checklist of world Sphecidae).

25. baringa Evans and Matthews

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

26. bataviana Strand

Bembix bataviana Strand, 1910c:47, ♂. Holotype: ♂, Indonesia: Java: Batavia, now Djakarta (Städtisches Mus. Wiesbaden). – Strand, 1927:253 (in list of species described by the author); Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 449 (member of *papua* species group of *Bembix*); R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae).

27. baumanni Handlirsch

Bembix 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 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:66 (distribution: Namibia and South Africa, color photograph of male).

28. bazilanensis Yasumatsu

Bembix 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 (in checklist of world Sphecidae); Tsuneki et al., 1992c:32, 33 (in key to *Bembix* of Philippines, as *bazilanensis*), 38 (bibliographic references).

29. belfragei Cresson

Bembix 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 *Bembix 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 evolution); Krombein, 1958f:196 (in supplement to catalog of North American Hymenoptera: description of larva by Evans and Lin, 1956b, reported); Evans, 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 (in checklist of world Sphecidae); Piek and Spanjer, 1986:180 (in list of Sphecidae with known prey); Steiner, 1986:111 (references to publications on nesting habits); Spofford, Kurczewski, and Downes, 1989:259 (reference to publication on nest parasite *Senotainia* sp. near *trilineata* (Wulp), a miltogrammine fly); 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, 1895d: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).

30. *bellatrix* J. Parker

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

31. *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 (in checklist of world Sphecidae).

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, in checklist of world Sphecidae).

32. *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 (in checklist of world Sphecidae); Cardale, 1985:286 (in catalog of Australian Sphecidae).

33. *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); Esmaili and Rastegar, 1974:46 (Iran). – **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 (in checklist of world Sphecidae); 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); Baratov and Nazarova, 1980:75 (Tajikistan: Kondara Valley, Kvak, Romit, Varzob; preying on five species of *Tabanus*); 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); Kazenas, 1992c:28 (Turkmenistan: Repetek Nature Reserve); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:270 (in Sphecid Fauna of Western Europe); Nazarova and Shomirsaidov, 1997:24 (Tajikistan: fruit tree orchards in Vakhsh River valley); 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 Sphecid Fauna of Italy); Yildirim and Ljubomirov, 2005:1789 (Turkey: Erzurum and Konya provinces); Hua, 2006:277 (in list of Chinese insects, geographic distribution); Kazenas, 2008c:255 (Kazakhstan: village Koktum S Lake Alakol'); 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); Bitsch, 2010:116 (in supplement to vol. II of Faune de France, 1997: recent record from Bulgaria reported, presence in Italy needs confirmation); Ghazi-Soltani, Khaghaninia, and Shahim, 2010:639 (Iran: East Azerbaijan: Horand Forests); Koçak and Kemal, 2010:6 (in checklist of pterygot insects of Afghanistan); Prisiy, 2012:51 (Russia: Belgorod Oblast'); Kazenas, 2013a:124, 124 (color photographs of adult wasps, short information on geographic distribution and nesting habits), 2013b:498 (southeast Kazakhstan: 15 km SE Borandysu 30 km E Chilik, 10 km NW Chundzha, Sortogay on Sharyn River); Dunford, Turbyville, and Leavengood, 2014:9 (listed as medically important in Afghanistan); Ebrahimi, 2014:30 (Iran: Lorestān and Markazi provinces); Yıldırım, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); Nemkov, 2016c:3, 6 (in key to *Bembix* of Russia and adjacent territories), 8 (bibliographic references, locality records from China, Kazakhstan, Mongolia, Tajikistan, Turkmenistan, and Uzbekistan).
- 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.

34. *bidentata* Vander Linden

Bembix 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 (redescription), 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, 1863:66 (Italy: Calabria Ulteriore:valle di Bruzzano), 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 Sphecid 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 Bofill, 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); Vängel, 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: Iyarbashi in Amanus Mts. = Gavur Dağları); Fahringer, 1922:179 (Turkey); Maidl, 1922:72 (Albania, Croatia); Morice, 1921:823 (Iran: Talish); Berland, 1925d:71 (in Sphecid 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); Drenowski, 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 Bat'a, 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, Nesebar, 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 Nesebar); de Beaumont, 1967a:298 (Turkey; variation); Scobiola-Palade, 1967b:37 (Romania: Barcia in Sîngeorgiu de Pă), 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); Erlands-son, 1974:66 (Italy, Yugoslavia), Scobiola-Palade, 1974:144 (Romania: Sărăturile sandbank in Danube delta); R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); Simon Thomas, 1976:5 (France: Lot-et-Garonne: Forêt de Campet); 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); Radović and Krunić, 1979:unpaginated foldout (nesting in sand, foreleg structure); 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); Radović, 1985:66 (sting apparatus analyzed); 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); Negrisolo *in* Minelli, Ruffo, and La Posta, 1995b:5 (in catalog of Italian fauna); Scharrer, 1995:28 (Italy: Trieste); Kuhlmann, 1996:219 (Portugal: Serra de Estrela); Minoranskiy and Shkuratov, 1996:81 (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); Tüzün, 2001:44 (Turkey); Kazenas, 2002a:130 (geographic distribution, collecting localities in Kazakhstan); Wurst and Schweigert, 2002:70 (France: Cevennes); Protsenko, 2003:68, 69 (first record from Ukraine: Odessa Oblast': Malyi Tataru island in Danube delta at 45.21°N 29.00°E); Gorobchishin and Protsenko, 2004:39 (first record from Ukraine: Kherson Oblast': Chernomorskiy Nature Reserve); Kazenas, 2004d:35 (Kazakhstan: delta of Ural River, Ashchisay near Kul'sary village); Shkuratov, 2004a:75 (Russia: Rostov and Volgograd Oblast's), 2004b:166 (Russia: Rostov Oblast': Gosudarstvennyi Muzey-Zapovednik M.A. Sholokhova); 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 Negrisolo, 2005:188 (in Sphecid Fauna of Italy); Yildirim and Ljubomirov, 2005:1790 (Turkey: Ankara, Balıkesir, Bingöl, Bitlis, Erzurum, Içel, Kars, and Konya provinces); Ljubomirov, 2006:537 (Bulgaria: earlier records from Rhodope Mountains summarized); Standfuss and Standfuss, 2006c:306 (Greece: Thessalia: Magnisia 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); González, Gayubo, Asís, and Tormos, 2009:625 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Guéorguiev and Ljubomirov, 2009:263 (Bulgaria: Maleshevska Planina); Tormos, Asís, Beneitez, and Gayubo, 2009:43 (description of mature larva; nest parasites: *Chrysidea disclusa* (Linsenmaier, 1959) and *Chrysura hybrida* (Lepelletier, 1806), chrysidids, and *Smicromyrme rufipes* (Fabricius, 1787) and *Nemka vidua* (Pallas, 1773), mutillids); Baghirov, 2010:678 (Russia: Altai Territories: Biysk); Bitsch, 2010:116 (in supplement to vol. II of Faune de France, 1997: recent description of larva and nest parasites reported); Ghazi-Soltani, Ebrahimi, Iranipour, and Pour Abad, 2010:801 (Iran: East Azarbaijan: Kaleibar: Vinagh; Tabriz: Sarab); Shorenko and Konovalov, 2010:14 (Ukraine: Lugansk Oblast': Kryakovka); Tüzün and Yüksel, 2010:4473 (Turkey: Niğde Province); Baghirov, 2011b:141 (Russia: Altayskiy Kray: Biysk); Cruz-Sánchez, Asís, Gayubo, Tormos, and González, 2011:500 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park: effects of wildfire); Pagliano, 2011a:119 (specimens in coll. Spinola, Torino); Japoshvili and Ljubomirov, 2012:96 (Turkey: Isparta: Gölcük Nature Park 8 km SW city of Isparta); Prisniy, 2012:51 (Russia: Belgorod Oblast'); Strumia, Pagliano, and Gayubo, 2012:56 (Italy: Toscana: Riserva di San Rossore); Yildirim, 2012:77 (Turkey: Erzurum and Tunceli provinces); Ebrahimi, 2014:31 (Iran: Alborz, Āzarbāijān-e Sharghi, Chārmahāl-e Bakhtiāri, Esfahān, Golestān, and Khorāsān-e Razavi provinces); Protsenko, Fateryga, and Ivanov, 2014:27 (Crimea: Lis'ya Bukhta near Feodosiya, and Zolotoye in Lenin District); Yıldırım, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); Samin, Bagriacik, and Monaem, 2015:195 (Iran: Mazandaran: Ramsar); Nemkov, 2016c:4, 6 (in key to *Bembix* of Russia and adjacent territories), 9 (bibliographic references, locality records from Abkhazia, Azerbaijan, Iran, Kazakhstan, Russia, and Ukraine); Mokrousov and Popov, 2016:566 (Russia: Krasnodarskiy Kray); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:19 (Turkey: Kars and Tunceli provinces).

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

35. *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 (in checklist of world Sphecidae, as *boarliri*); Cardale, 1985:286 (in catalog of Australian Sphecidae).

36. *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).

37. *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 (in checklist of world Sphecidae); Cardale, 1985:286 (in catalog of Australian Sphecidae).

38. *borneana* Cameron

Bembex borneana Cameron, 1901a:26, ♂. Holotype or syntypes: ♂, Indonesia: Borneo: no specific locality (BMNH). – As *Bembix 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 (in checklist of world Sphecidae).

39. *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 Bembix 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 (in checklist of world Sphecidae); 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); van Vondel, 1995:30 (specimens from India in Natuurmuseum Rotterdam); 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 (in checklist of world Sphecidae).

Bembix borrei thailana 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 (in checklist of world Sphecidae); 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 (in checklist of world Sphecidae).

40. *brachyptera* Arnolds

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

41. *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 (in checklist of world Sphecidae).

42. *brullei* Guérin-Méneville

Bembex brullei Guérin-Méneville, 1831:pl. 9, fig. 3, ♀ (as *Brullei*, incorrect original capitalization). Holotype: ♀, Chile: Concepción (MSNG). – 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); Ruiz Pereira, 1924:102 (Chile: Cerro San Cristóbal); 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); Gutiérrez, 1940:34 (Chile: Río 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 (in checklist of world Sphecidae); Sielfeld, 1981b:75 (in checklist of Chilean Sphecidae); Piek and Spanjer, 1986:180 (in list of Sphecidae with known prey); Steiner, 1986:111 (references to publications on nesting habits); Amarante, 2002:8 (in catalog of Neotropical Crabronidae) 2005a:9 (correction to his 2002 catalog); Chiappa, 2012:9 (Chile: Región de Valparaíso: no specific locality).

Bembex ventralis Dahlbom, 1844:180, ♀ (authorship attributed to Klug). Syntypes: ♀, Chile: Valparaíso (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.

43. *brunneri* Handlirsch

Bembex brunneri Handlirsch, 1893c:848, ♀, ♂ (as *Brunneri*, incorrect original capitalization). Syntypes: Algeria: Chott Melrhir (NHMW). – Dalla Torre, 1897:503 (in catalog of world Sphecidae); Morice, 1911:129 (Algeria: Biskra); Bischoff, 1933:4 (Morocco); Giner Mari, 1945e:236 (Western Sahara); R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); Roche, 2007a:141 (Morice, 1911, mentions Egyptian specimens, record questionable).

44. *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 (in checklist of world Sphecidae); 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); F. Gess and S. Gess, 2014:68 (distribution: South Africa, distribution map, flower records, prey, color photographs of imago).

45. *budha* Handlirsch

As *Bembex sulphurescens* (corrected to *Bembex 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); Rothney, 1903:105 (India: West Bengal: Barrackpore), 113 (found on sandy patches about Pulta). – As *Bembix budha*: Lohrmann, 1948:449 (member of *sulphurescens* species group of *Bembix*); R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); 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*).

46. 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); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia).

47. bulloni Giner Marí

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

48. buntor Evans and Matthews

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

49. burando Evans and Matthews

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

50. 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 (in checklist of world Sphecidae); Cardale, 1985:286 (in catalog of Australian Sphecidae).

51. 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 (in checklist of world Sphecidae); 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*).

52. 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 Hymenoptera, 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 (in checklist of world Sphecidae); Gess, 1981:21 (South Africa: 18 km WNW Grahamstown; nesting in friable soils), 1986:152 (nesting habits); Gess and Gess, 1994:100 (visiting flowers of *Aspalathus linearis*); S. Gess, 1996:276, 280, 281, 283, 295 (floral records); S. Gess

and F. Gess, 2003:122 (Namibia, South Africa: visiting flowers of *Prenia pallens* (Ait.) N.E. Br., *Psilocaulon junceum* (Haw.) Schwant., Aizoaceae, *Hermbstaedtia* sp., Amaranthaceae, *Athanasia trifurcata* (L.) L., *Lasiospermum bipinnatum* (Thunb.) Druce, and *Pteronia divaricata* Less., Asteraceae, *Limeum argute-carinatum* Wawra and Peyr., Molluginaceae, *Aspalathus pulicifolia* Dahlgren, Fabaceae, and *Limonium* sp., Plumbaginaceae); Evans and O'Neil, 2007:185 (summary of prey record); F. Gess and S. Gess, 2014:70 (distribution: Namibia and South Africa, distribution map, flower records, prey, color photographs of imago).

As *Bembix cameronii*: Dalla Torre, 1897.

53. *canescens* (Gmelin)

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

54. *capensis* Lepeletier de Saint Fargeau

Bembex capensis Lepeletier de Saint Fargeau, 1845:273, ♂. Holotype: ♂, South Africa: Cape Province: no specific locality (M. Spinola coll., Torino). – 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); van Vondel, 1995:25 (specimens from Namibia in Natuurmuseum Rotterdam); Gadallah, 2002:63 (in key to Egyptian *Bembix* based on male genitalia); Pagliano, 2011a:121 (specimens in coll. Spinola, Torino, are *Bembix capensis* and *Bembix* sp.). – 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 (in checklist of world Sphecidae); 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*); S. Gess and F. Gess, 2003:122 (Namibia, South Africa: visiting flowers of *Psilocaulon salicornioides* (Pax) Schwant., Aizoaceae, *Hermbstaedtia odorata* (Burch.) T. Cooke, Amaranthaceae, *Deverra denudata* (Viv.) Pfisterer and Podl., Apiaceae, *Sarcostemma viminalis* R. Br., Apocynaceae, *Athanasia trifurcata* (L.) L. and *Geigeria pectidea* (D.C.) Harv.), Asteraceae, *Anchusa capensis* Thunb., Boraginaceae, and *Zygophysllum stapffii* Schinz, Zygophyllaceae); Gadallah and Assery, 2004a:230 (in catalog of Sphecidae of Saudi Arabia); Roche, 2007a:109 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae, refdescription), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Gadallah, Al Dhaffer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia); F. Gess and S. Gess, 2014:73 (distribution: Egypt to southern coast of South Africa, map of distribution in southern Africa, flower records, prey, color photographs of imago).

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 *Bembex 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 (in checklist of world Sphecidae); Roche and Zalat, 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); Pennati and Mariotti, 2015:50 (in list of Hymenoptera described by G. Gribodo). – **As *Bembix expansa***: Lohrmann, 1948:448 (member of *fuscipennis* species group of *Bembix*); R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae).

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 Mari, 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).

Bembex 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*).

55. *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 *Bembex capicola***: R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); F. Gess, 1986:153 (prey); F. Gess and S. Gess, 2014:78 (distribution: Namibia, Zimbabwe, up to southern coast of South Africa, distribution map, prey, color photographs of imago).

56. *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 *Bembex carinata***: Lohrmann, 1939:142 (member of *melanopa* group); R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:79 (distribution: known only from Cape Town and Mossel Bay in South Africa).

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.

57. *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 (in checklist of world Sphecidae); Cardale, 1985:286 (in catalog of Australian Sphecidae).

58. *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); Storey, 1916:109 (Egypt: Ghiza, Heliopolis, Khanka, Maadi, Saqqara); 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 (in checklist of world Sphecidae); 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); Roche, 2007a:108 and 2007b:7 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Schmid-Egger, 2011b:497 (recorded from United Arab Emirates by Guichard, 1989a); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia).

59. *chopardi* Berland

Bembex chopardi Berland, 1950:297, ♀, ♂ (as *Chopardi*, incorrect original capitalization). Holotype: ♂, Niger: Agadez (MNHN). – 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 (in checklist of world Sphecidae); 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); Roche, 2007a:113 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Schmid-Egger, 2011b:497 (recorded from United Arab Emirates by Guichard, 1989a); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia); Schmid-Egger, 2014:541 (United Arab Emirates), 544 (color photographs of female), 545 (color photographs of male); S. Gess and Roosenschoon, 2016:105 (Dubai Desert Conservation Reserve, visiting flowers of *Acacia torrilis* (Forssk.) Hayne., Fabaceae).

60. *ciliciensis* de Beaumont

Bembex ciliciensis de Beaumont, 1967a:295, ♂, ♀. Holotype: ♂, Turkey: Maras: Maras area (BMNH). – R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); Ljubomirov and Yildirim, 2008:117 (in catalog of Crabronidae of Turkey); Yildirim, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces), 19 (is an endemic of Turkey).

61. *cinctella* Handlirsch

Bembex 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 *Bembyx 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 (in checklist of world Sphecidae); Guichard, 1978:270 (Greece); Schmidt and Westrich, 1983:124 (Greece); Gayubo, Borsato, and Osella, 1992:289 (Greece, Turkey); Shorenko, 2003:97 (Ukraine: Crimea); Gayubo and Özbek, 2005:22 (Turkey: Erzincan: Üzümlü); Shorenko, 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve, as *cinctella cinctella*); Ljubomirov and Yildirim, 2008:117 (in catalog of Crabronidae of Turkey); Ivanov, Fateryga, and Filatov, 2009:42 (Crimea: Botanical Garden of Taurida University near Simferopol', collected in 1927); Shorenko, 2009:369 (in list of Sphecidae s.l. of Crimea, as *cinctella cinctella*); Bitsch, 2010:116 (in supplement to vol. II of Faune de France, 1997: recent records from Greece and Ukraine reported); Protsenko, Fateryga, and Ivanov, 2014:27 (Crimea: Simferopol'); Yildirim, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); Nemkov, 2016c:5, 7 (in key to *Bembix* of Russia and adjacent territories), 9 (bibliographic references, locality records from Crimea, Greece, and 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 (in checklist of world Sphecidae).

62. *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); J. Smith, 1910:679 (in new list of insects of New Jersey: Anglesea, Cape May); Brimley, 1942:36 (North Carolina: mouth of Cape Fear River); Wray, 1967:125 (North Carolina: mouth of Cape Fear River). – **As *Epibembex 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); Krombein, 1958f:196 (in supplement to catalog of North American Hymenoptera: description of larva by Evans and Lin, 1956b, reported; prey: a wide variety of Diptera); Evans and Matthews, 1968b:1293 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae); Ahlstrom, 1995:113 (in checklist of insects of North Carolina); Krombein, 1979b:1711 (in catalog of North American Hymenoptera, nesting sites, list of prey); Steiner, 1986:111 (references to publications on nesting habits).

63. *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 (in checklist of world Sphecidae); 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); Rasmussen and Asenjo, 2009:6 (in checklist of Crabronidae of Peru).

Bembix inops Handlirsch, 1893c:833, ♀, ♂. Syntypes: Uruguay: Montevideo; Argentina: Buenos-Aires and Río 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 *Bembix 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. – Strand, 1927:253 (in list of species described by the author); 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: Bahia 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.

64. *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); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia).

65. *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); Buys, 2012b:74 (Brazil: recorded from Rio de Janeiro State by J. Parker, 1929).

66. *compedita* R. Turner

Bembex 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 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:79 (distribution: Kenya and Malawi, one record from South Africa).

67. *cooba* Evans and Matthews

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

68. *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 (in checklist of world Sphecidae); 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).

69. *cultrifera* Arnold

Bembex cultrifera Arnold, 1929b:339, ♂, ♀. Syntypes: Zimbabwe: Bulawayo (SAM). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae). **As *Bembix cultrifera***: R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:80 (distribution: Namibia, Zimbabwe, northeastern South Africa, distribution map, color photographs of imago).

ssp. ypsilon Arnold

Bembex cultrifera ypsilon Arnold, 1951:138, ♀. Holotype: ♀, Ethiopia: Ufdem (BMNH). – R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae).

70. *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 (in checklist of world Sphecidae); 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).

71. *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: Azazza to Tizi Ouzou, Biskra); Maidl, 1913:561 (Egypt: El Wasta); Storey, 1916:109 (Egypt: Maadi, Khanka, Ras el Bar); Maidl, 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. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); 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); Roche, 2007a:113 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae, as *dahlkbomii dahlbomii*), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae, as *dahlbomii dahlbomii*); Schmid-Egger, 2011b:497 (Guichard, 1989a, possibly confused this species with *Bembix hauseri*).

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

As *Bembex notata*: Gribodo, 1884a: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 dahlbomi* by Handlirsch, 1893:806.

ssp. *sabulosa* Bytinski-Salz

Bembex dahlbomi sabulosa Bytinski-Salz in de Beaumont and Bytinski-Salz, 1955:48, ♂, ♀. Holotype: ♂, Israel: Bat Yam (H. Bytinski-Salz coll., now Tel Aviv Univ.). – R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae).

72. *denticauda* Arnold

Bembex denticauda Arnold, 1946:91, ♂, ♀. Syntypes: Zimbabwe: Melseetter, now Chimanimani (SAM). – R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:82 (distribution: Zimbabwe, Limpopo Province of South Africa, color photographs of imago).

73. *dentilabris* Handlirsch

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

Bembix 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); Snow, 1906:8 (Arizona). – **As *Epibembix 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 (in checklist of world Sphecidae); 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 *Epibembix arcuata***: Burks in Muesebeck et al., 1951:998 (new combination, in catalog of North American Hymenoptera).

74. *dilatata* Radoszkowski

Bembix 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 (in checklist of world Sphecidae); Kazenas, 1978b:86, 89 (in key to Sphecidae of Kazakhstan and Central Asia); Baratov and Nazarova, 1980:76 (Tajikistan: Beshkent Valley); Nazarova and Baratov, 1981:99 (Tajikistan: Beshkent valley); Kazenas, 1992c:28 (Turkmenistan: Repetek Nature Reserve); 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), 2013b:498 (south-east Kazakhstan: Borandysu 30 km E Chilik, 60 km E Chilik), 2014a:138 (Kazakhstan: Karatau Mountain Range); Nemkov, 2016c:4, 5 (in key to *Bembix* of Russia and adjacent territories), 10 (bibliographic references, locality records from China, Kyrgyzstan, and Tajikistan).

75. *diversidens* Arnold

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

76. *diversipennis* F. Smith

Bembix 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 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:82 (distribution: from KwaZulu-Natal and Free State in South Africa north to Ethiopia, color photographs of imago).

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

77. *diversipes* F. Morawitz

Bembix 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 (in checklist of world Sphecidae); 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, Budrys, 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); Yildirim, 2012:77 (Turkey: Artvin, Erzurum, and Iğdır provinces); Akulov and Proshchalykin, 2013:117 (Russia: Siberia: Krasnoyarsk Krai: Krasnoyarsk); Yildirim, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); Nemkov, 2016c:4, 5 (in key to *Bembix* of Russia and adjacent territories), 10 (bibliographic references, locality records from Kazakhstan, Mongolia, and Russia); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:19 (Turkey: Erzurum: Şenkaya: Akşar).

78. *eburnea* Radoszkowski

Bembix 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 (in checklist of world Sphecidae); Kazenas, 1978b:90 (in key to Sphecidae of Kazakhstan and Central Asia); Baratov and Nazarova, 1980:76 (Tajikistan: Garavuty, near Kabadian, Kulyab Oblast', Tigrovaya Balka Nature Reserve); Nazarova and Baratov, 1981:99 (Tajikistan: Gara-

vuty, 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), 2004d:35 (Kazakhstan: Grebenshchikov, Ryn-Peski); 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); Kazenas, 2013b:498 (southeast Kazakhstan: Borandysu 30 km E Chilik, 3 km NE and 60 km E Chilik); Dunford, Turbyville, and Leavengood, 2014:9 (listed as medically important in Afghanistan); Ebrahimi, 2014:31 (Iran: Golestān and Khorāsān-e Razavi provinces); Yildirim, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); Nemkov, 2016c:5, 7 (in key to *Bembix* of Russia and adjacent territories), 11 (bibliographic references, locality records from China, Kazakhstan, Mongolia, Russia, Tajikistan, Turkmenistan, and Uzbekistan); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:19 (Turkey: Tunceli: Ovacık: Ovacık Valley).

Bembix weberi Handlirsch, 1893c:723, ♀, ♂ (as *Weberi*, incorrect original capitalization). Syntypes: North China: no specific locality (depository not indicated, probably Münster). Synonymized with *Bembix eburnea* by Nemkov, 2016c:11. – 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*); Tsuneki, 1969d:5 (nesting habits), corrected to *Bembix eburnea* by Tsuneki, 1971m:7, 1971m:7 (China: Peking: Tiendang); R. Bohart and Menke, 1976:549 (in checklist of world Sphecidae); Wu and Zhou, 1996a:155 (in revision in Economic Insect Fauna of China); Hua, 2006:277 (in list of Chinese insects, geographic distribution); Evans and O'Neil, 2007:178 (summary of Tsuneki, 1969d:5, observations).

Bembix subeburnea Tsuneki, 1971k:214, ♀, ♂. Holotype: ♂, Mongolia: Hovd Aymag: Somon Bulgan (TMB). Synonymized with *Bembix eburnea* by Nemkov, 2016c:11. – R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae).

Bembix weberi lama Tsuneki, 1971k:216, ♂. Holotype: ♂, Mongolia: S Gobi Aymag: Takhilga ul (TMB). Synonymized with *Bembix eburnea* by Nemkov, 2016c:11. – R. Bohart and Menke, 1976:549 (in checklist of world Sphecidae).

79. *egens* Handlirsch

Bembix 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 (in checklist of world Sphecidae); Cardale, 1985:287 (in catalog of Australian Sphecidae).

80. *eleebana* Evans and Matthews

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

81. *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).

82. *fantiorum* Arnold

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

83. *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 (in checklist of world Sphecidae); Tsuneki et al., 1992c:32 (in key to *Bembix* of Philippines), 38 (bibliographic references).

84. *finschii* Handlirsch

Bembix 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 (in checklist of world Sphecidae).

85. *fischeri* Spinola

Bembix 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); Pagliano, 2011a:122 (holotype in coll. Spinola, Torino, also two specimens from Senegal). – **As *Bembyx fischeri***: Priesner, 1958:18 (in revision of Egyptian *Bembix*). – **As *Bembix fischeri***: R. Bohart and Menke, 1996:546 (in checklist of world Sphecidae); 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); Roche, 2007a:108 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidaeas *fischeri fischeri*), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae, as *fischeri fischeri*); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia).

Bembix nasuta Morice, 1897:314, ♂. Holotype: ♂, Egypt: vicinity of Cairo (OXUM). Synonymized with *Bembix fischeri* by de Beaumont, 1956a:194. – Storey, 1916:109 (Egypt: Maadi). – **As *Bembix nasuta***: Lohrmann, 1948:421 (in checklist of recently described *Bembix*), 452 (member of *rostrata* species group of *Bembix*); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae); Gadallah, 1997:266 (in revision of Egyptian *Bembix*, as valid species); Roche, 2007a:114 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

ssp. tibesti de Beaumont

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

86. *fischeroides* Magretti

Bembix 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 (in checklist of world Sphecidae).

87. *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*; Bis-

choff, 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 (in checklist of world Sphecidae); 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); Krenn, Plant, and Szucsich, 2005:8 (scanning electron microscope image of mouthparts); Ljubomirov, 2008:256 (known from La Palma, Canary Islands, as *flavescens flavescens*); Bitsch, 2010:116 (in supplement to vol. II of Faune de France, 1997: diagnostic characters reported; France: first record from Lozère: Saint-Etienne-Vallée-Française); Schmid-Egger, 2012:52 (in key to *Bembix* of Canary Islands).

ssp. *algeriensis* Lohrmann (preoccupied)

Bembex algeriensis Lohrmann, 1942:156, ♀, junior primary homonym of *Bembex 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 (in checklist of world Sphecidae, as synonym of *Bembix flavescens bolivari*).

ssp. *bolivari* Handlirsch

Bembex 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; redescription); 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: Bouches-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: Castelnau, 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); Radović and Krunić, 1979:unpaginated foldout (nesting in sand, foreleg structure). – **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); Radović, 1985:66 (sting apparatus analyzed); 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); Negrisolo *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 Negrisolo, 2005:188 (in Sphecidae 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); Pagliano, 2011a: 120 (*Bembix algira* and *vidua* in coll. Spinola, Torino, is actually *Bembix flavescens bolivari*); Ballesteros, Tormos, Gayubo, and Asís, 2013: 283 (nesting habits).

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 (in checklist of world Sphecidae).

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 (in checklist of world Sphecidae).

ssp. *inimica* de Beaumont

Bembex inimica Kohl: Fertton, 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 (in checklist of world Sphecidae).

ssp. *kittyae* de Beaumont

Bembix flavescens kittyae de Beaumont, 1957e:615, ♂, ♀. Holotype: ♂, Libya: Tripolitania: Gargaresc (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 (in checklist of world Sphecidae); Gadallah, 1997:263 (in revision of Egyptian *Bembix*); Roche, 2007a:111 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

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 fla-*

vescens 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 *Bembyx flavescens picturata***: de Beaumont, 1957e:616 (new subspecific combination, recognition, Israel; Lebanon: Beirut; Egypt: Port Said); R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); Roche and Zalot, 1994:116 (Egypt: Sinai Peninsula); Gadallah, 1997:263 (in revision of Egyptian *Bembix*); Roche, 2007a:112 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

88. *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 Afrotropical Sphecidae). – **As *Bembyx flavicincta***: Lohrmann, 1948:448 (member of *fuscipennis* species group of *Bembix*); R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae, as *flavicincta*); F. Gess, 1986:153 (prey); F. Gess and S. Gess, 2014:86 (distribution: Malawi and Zimbabwe to Limpopo Province of South Africa, distribution map, prey, color photographs of imago).

89. *flavifrons* F. Smith

Bembex 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 *Bembyx flavifrons***: Evans and Matthews, 1973b:36 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); Cardale, 1985:287 (in catalog of Australian Sphecidae).

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

90. *flavipes* F. Smith

Bembex 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 *Bembyx flavipes***: Evans and Matthews, 1973:246 (in revision of Australian *Bembix*), 1975:111 (preying on bees and wasps); R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); 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*),

91. *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 (bibliographic references), 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 (in checklist of world Sphecidae); Cardale, 1985:288 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:201 (summary of information on nesting habits).

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

92. *forcipata* Handlirsch

Bembix 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 *Bembix melanoparace 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 (in checklist of world Sphecidae).

93. *formosana* Bischoff

Bembix 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 (Pescadore 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 (in checklist of world Sphecidae); Tsuneki, 1973a:3 (Japan: Ryukyu Islands: island of Ishigaki), 1977j:265 (Taiwan: Takao, Kosempo), 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); Terayama, 2006:18 (in key to Japanese Bembicinae); Watanabe, Kobayashi, and Yoshizawa, 2012:53 (Japan: Ryūkyū Islands: Iriomote Island; nesting habits).

Bembix 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. – Strand, 1927:253 (in list of species described by the author).

94. *fossoria* F. Smith

Bembix 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 (in checklist of world Sphecidae).

95. *fraudulenta* Arnold

Bembix fraudulenta Arnold, 1929b:367, ♂, ♀. Syntypes: South Africa: KwaZulu-Natal: Durban (Durban Mus.). – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix fraudulenta***: R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); F. Gess, 1986:153 (floral records, prey); F. Gess and S. Gess, 2014:87 (distribution: coast of Mozambique and of eastern South Africa, map of distribution, flower records, prey, color photographs of imago).

96. *freygessneri* Morice

Bembix 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 (in checklist of world Sphecidae); 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); Roche, 2007a:112 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Schmid-Egger, 2011b:497 (United Arab Emirates: several localities), 500 and 501 (color photographs of male and female); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia); Schmid-Egger, 2014:541 (United Arab Emirates); S. Gess and Roosenschoon, 2016:105 (Dubai Desert Conservation Reserve, visiting flowers of *Aerva javanica* (Burm. f.), Amaranthaceae), of *Centaurea pseudosinaica* Czerep., Asteraceae, of *Heliotropium kotschyi* Gürke, Boraginaceae, and of *Tribulus macropterus* Boiss., Zygophyllaceae).

Bembix 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 *Bembix dissimilis***: Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 452 (member of *oculata* species group of *Bembix*).

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

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

97. *frommeri* R. Bohart

Bembix 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 (in checklist of world Sphecidae); Krombein, 1979b:1709 (in catalog of North American Hymenoptera).

98. *frontalis* Olivier

Bembix 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 *Bembix frontalis***: R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae).

99. *fucosa* J. Parker

Bembix 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 (in checklist of world Sphecidae).

100. *fumida* J. Parker

Bembix 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 (in checklist of world Sphecidae); Tsuneki, 1965c:27 (in key to Bembicinae of Japan and Korea); Terayama, 2006:18 (in key to Japanese Bembicinae).

101. *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), 1915e:443 (in revision of Australian *Bembix*); W. Wheeler and Dow, 1933:59 (tabanid prey); von Schulthess, 1935:306 (Australia: New South Wales: Kiandra, Mount Kosciuszko); Guiglia, 1948b:179 (specimens determined by Guérin-Méneville); Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); Pagliano, 2011a:121, 122 (specimens in coll. Spinola, Torino). – **As *Bembix furcata***: Evans and Matthews, 1973:99 (in revision of Australian *Bembix*), 1975:111 (preying on Diptera); R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); 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).

102. *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 Afrotropical Sphecidae); Schouteden, 1930:96 (Zaire); Cuthbertson, 1939:1 (nest parasite: *Criticulina tabaniformis* (Fabricius), a sarcophagid); Berland, 1950b:296 (Niger: Aïr area); Pagliano, 2011a:121 (specimens in coll. Spinola, Torino). – **As *Bembix 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 (in checklist of world Sphecidae); 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); S. Gess and F. Gess, 2003:123 (Namibia, South Africa: visiting flowers of *Hermbsaedia odorata* (Burch.) T. Cooke, Amaranthaceae, *Geigeria pectinata* (D.C.) Harv. and *Osteospermum* sp., Asteraceae, *Anchusa capensis* Thunb., Boraginaceae, and *Tribulus terrestris* L., Zygophyllaceae); Gadallah and Assery, 2004a:230 (in catalog of Sphecidae of Saudi Arabia); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia, as *fuscipennis* Guichard); F. Gess and S. Gess, 2014:89 (geographic variation in color, distribution: southern Africa north to Ethiopia and Zaire, distribution map, flower records, prey, color photographs of imago).

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

ssp. *centralis* Berland

Bembex 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, in checklist of world Sphecidae).

103. *galactina* Dufour

Bembex 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 (in checklist of world Sphecidae).

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

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

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

104. *gazella* Guichard

Bembex gazella Guichard, 1989a:141, ♂, ♀. Holotype: ♂, Muscat: Qurum (BMNH). – Schmid-Egger, 2011b:497 (recorded from United Arab Emirates by Guichard, 1989a); S. Gess and Roosenschoon, 2016:105 (Dubai Desert Conservation Reserve, visiting flowers of *Limeum arabicum* Fried., Molluginaceae, of *Prosopis cineraria* (L.) Druce, Fabaceae, and of *Tribulus macropterus* Boiss., Zygophyllaceae).

105. *gelane* Evans and Matthews

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

106. *geneana* A. Costa

Bembex 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 *Bembex geneana***: Guiglia, 1944b:17 (Italy: Sardegna), 1948c:201 (Italy: Sardegna: Cagliari); R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); 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.

107. *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 (in checklist of world Sphecidae).

108. *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 (in checklist of world Sphecidae); Krombein, 1979b:1709 (in catalog of North American Hymenoptera).

109. *ginjulla* Evans and Matthews

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

110. *glauca* Fabricius

Bembex glauca Fabricius, 1787:286, sex not indicated. Holotype: ♂, India: Tamil Nadu: Tranquebar (ZMUC). – 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; Pagliano, 2011a:124 (specimens in coll. Spinola, Toirino, are *Bembex olivacea* and *Bembix* sp.). – **As *Bembix glauca***: van der Vecht, 1961a:59 (study of holotype); R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); 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 *Bembix 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); Rothney, 1903:105 (India: West Bengal: Barrackpore). – **As *Bembix indica***: Lohrmann, 1948:449 (member of *indica* species group of *Bembix*).

111. *goyarra* Evans and Matthews

Bembix goyarra Evans and Matthews, 1973:84, ♂. Holotype: ♂, Australia: Western Australia: Kathleen Valley (WAMP). – R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); Cardale, 1985:288 (in catalog of Australian Sphecidae); Evans, 1990:29 (lack of tibial spur a constant character; additional locality record), 30 (in key to males of *promontorii* group).

112. *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 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:94 (distribution: Namibia).

113. *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); Pagliano, 2011a:125 (specimen in coll. Spinola, Torino). – **As *Bembix grisescens***: R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae).

114. *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 (in checklist of world Sphecidae); 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).

115. *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).

116. *hameri* Guichard

Bembix hameri Guichard, 1989a:148, ♂, ♀. Holotype: ♂, United Arab Emirates: Suweihan (BMNH). – Schmid-Egger, 2011b:497 (United Arab Emirates: Mahafiz), 501 and 502 (color photographs of male and female); Schmid-Egger, 2014:541 (United Arab Emirates); S. Gess and Roosenschoon, 2016:105 (Dubai Desert Conservation Reserve, visiting flowers of *Leptadenia pyrotechnica* (Forssk.) Decne., Apocynaceae, and of *Heliotropis kotschyi* Gürke, Boraginaceae).

117. *handlirschi* Cameron

Bembix handlirschi Cameron, 1901d:57, ♂. Holotype or syntypes: ♂, India: Maldives: 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 (in checklist of world Sphecidae).

118. *hauseri* Schmid-Egger

Bembix hauseri Schmid-Egger, 2011b:497, ♀, ♂. Holotype: ♂, United Arab Emirates: Sharjah Desert Park (ZMHU). Paratypes: Oman. – Schmid-Egger, 2011a:504 and 505 (color photographs of male and female); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia); S. Gess and Roosenschoon, 2016:105 (Dubai Desert Conservation Reserve, visiting flowers of *Calotropis procera* (Aiton) W.T. Aiton, Apocynaceae), and of *Heliotropium kotschyi* Gürke and of *Moltkopsis ciliata* (Forssk.) I.M. Johnst., Boraginaceae).

119. *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 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:94 (distribution: southern coast of South Africa, distribution map, prey, color photographs of imago).

120. *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 (in checklist of world Sphecidae).

121. *hesione* Bingham

Bembix hesione Bingham, 1893:381, ♀. Holotype: ♀, Myanmar: Tenasserim: Maulmain in Thauingyin 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 (in checklist of world Sphecidae).

122. *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 (in checklist of world Sphecidae).

123. *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 (in checklist of world Sphecidae).

124. *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); Krombein, 1958f:196 (in supplement to catalog of North American Hymenoptera: description of nesting habits by Strandtmann, 1953, reported); Evans, 1959b:156 (description of larva); Evans and Matthews, 1968b:1293 (in revision of North American *Bembix*); R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); 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).

125. *hofufensis* Guichard

Bembix hofufensis Guichard, 1989a:142, ♂, ♀. Holotype: ♂, Saudi Arabia: Hofuf (BMNH). – Gadallah and Assery, 2004a:231 (in catalog of Sphecidae of Saudi Arabia); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia). Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia)

126. *hokarra* Evans and Matthews

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

127. *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 (in checklist of world Sphecidae).

128. *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 (Madagascar; 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 (in checklist of world Sphecidae); Madl, 1997:821 (Madagascar: Nosy Boraha Island), 822 (in checklist of Nosy Boraha Sphecidae); Pulawski, 2003b:795 (in checklist of Malagasy Sphecidae); Madl, 2014a:943 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Malagasy subregion, with synonymy and locality records).

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

129. *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 (in checklist of world Sphecidae).

130. *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 (in checklist of world Sphecidae); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruíz 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.

131. *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); Pagliano, 2011a:122 (specimens from Senegal in coll. Spinola, Torino). – **As *Bembix inscripta***: R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae);

132. *integra* Panzer (preoccupied)

Bembix integra Panzer, 1801, Heft 84:21, [♂]. Holotype or syntypes: Germany: “habitat in subalpinis”: no specific locality (depository unknown). Junior primary homonym of *Bembix integra* Fabricius, 1793 (now in *Stizus*). – Panzer, 1806:132 (in critical review of his earlier work); 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); Berland, 1928b:176 (add Grandi, 1926 to bibliography in Berland, 1925d); 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: Bazarjic, Moldova or Ukraine: Tarutino); Picard, 1930:41 (France: Hérault: Aigoual between 1300 and 1400 m alt., Salvétat); 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); Marchand and Dulac, 1935:61 (France: Saône-et-Loire: Saint Laurent d’Andenay); pVergne, 1935:117 (France: Auvergne: Billom, Pont-du-Chateau); Dulac, 1937:10 (France: Saône-et-Loire: Saint-Laurent d’Andenay); Zavadil, Šusterka, 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 Sphecid 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 Thrakia); 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 Sphecida 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); Schmidt, 1969:162 (Germany: Rhein-Main area); 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: no longer occurring in Rheinland Pfalz: Mainz area); Balthasar, 1972:376 (in Sphecida 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: Forêt de Campet); 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); Piek and Spanjer, 1986:181 (in list of Sphecidae with known prey); Steiner, 1986:111 (references to publications on nesting habits); 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); Bičik and Láska, 1997:9 (preying on syrphid *Xylota segnis* (Linnaeus)); Litt, 2004:222 (Switzerland: Valais:Sierre); Protsenko, Fateryga, and Ivanov, 2014:27 (Crimea: Simferopol'); Nemkov, 2016c:4, 6 (in key to *Bembix* of Russia and adjacent territories), 12 (bibliographic references, locality records from Hungary, Kazakhstan, Portugal, Spain, Turkmenistan, and Ukraine). – **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).

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

Bembix dubia Gussakovskij, 1933b:293, ♂, ♀. Lectotype: ♂, Iran: Kerman: Enarik (ZIN), designated by Nemkov, 2016:12. Synonymized with *Bembix integra* Panzer by Nemkov, 2016:12. – 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 (in checklist of world Sphecidae); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia).

Bembix iliensis Kazenas, 1978b:86, ♀. Lectotype: Kazakhstan: Alma-Ata Oblast': Kegen River Valley (ZIN), designated by Nemkov, 2016:12 (Nemkov, 2016:12 incorrectly gives Kazenas, 1980:141 as lectotype designer). – Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia, as tentative synonym of *Bembix diversipes*).

Bembix iliensis Kazenas, 1980c:141, ♀. Holotype: ♀, Kazakhstan: Alma Ata Oblast': Kegen River valley (ZIN), objective synonym of *Bembix iliensis* Kazenas, 1978. Synonymized with *Bembix integra* Panzer, 1801 by Nemkov, 2016:12.

133. *inyoensis* L. Kimsey and R. Kimsey

Bembix 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).

134. *irritata* Nurse

Bembix 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 (in checklist of world Sphecidae); 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); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia, as *variegata*).

135. *isabellae* de Beaumont

Bembix isabellae de Beaumont, 1970c:9, ♂. Holotype: ♂: Iran: Baluchistan: SW Iranshar (Ludwigsburg). – R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae).

136. *joeli* Bytinski-Salz

Bembix 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 (in checklist of world Sphecidae); Roche, 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

137. *johnstoni* R. Turner

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

138. *kamulla* Evans and Matthews

Bembix kamulla Evans and Matthews, 1973:77, ♀, ♂. Holotype: ♂, Australia: New South Wales: Caldwell (AMS). – R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); Evans, Evans, and Hook, 1982:74 (nesting habits, prey includes Myrmeleontidae); 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).

139. *karooensis* Gess

Bembix karooensis Gess, 1986:144, ♂, ♀. Holotype: ♂, South Africa: Western Cape Province: Merweville District (South African Mus.). – S. Gess and F. Gess, 2003:124 (South Africa: Richtersveld National Park: visiting flowers of *Hermestaedtia glauca* (Wendl.) Reichb. ex Steud., Amaranthaceae, and *Deverra denudata* (Viv.) Pfisterer and Podl., Apiaceae); F. Gess and S. Gess, 2014:95 (distribution: Namibia, western South Africa, distribution map, flower records, color photographs of imago).

140. *kohlîi* Morice

Bembix kohlîi 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 kohlîi***: Priesner, 1958:14 (in revision of Egyptian *Bembix*). – **As *Bembix kohlîi***: Lohrmann, 1948:421 (in checklist of recently described *Bembix*, as *kohlîi*), 451 (member of *megerlei* species group of *Bembix*, as *kohlîi*); de Beaumont and Bytinski-Salz, 1955:47 (Israel); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae);

Guichard, 1980:230 (Oman); Roche, 1981:4 (in checklist of Sphecidae of United Arab Emirates); Guichard, 1989a:146 (United Arab Emirates); Roche and Zalut, 1994:116 (Egypt: Sinai Peninsula); Gadallah, 1997:260 (in revision of Egyptian *Bembix*); Roche, 2007a:110 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Schmid-Egger, 2011b:506 (United Arab Emirates: Mahafiz, Sharjah Desert Park), 507 and 508 (color photographs of male and female); 2014:543 (United Arab Emirates: Mahafiz); S. Gess and Roosenschoon, 2016:105 (Dubai Desert Conservation Reserve, visiting flowers of *Calotropis procera* (Aiton) W.T. Aiton, Apocynaceae, of *Heliotropium kotschyi* Gürke, Boraginaceae, and of *Tribulus macropterus* Boiss., Zygophyllaceae).

141. *kora* Evans and Matthews

Bembix kora Evans and Matthews, 1973:143, ♀, ♂. Holotype: ♂, Australia: Queensland: 50 mi S Napamerry (ANIC). – R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae); 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).

142. *kriechbaumeri* Handlirsch

Bembex kriechbaumeri Handlirsch, 1893c:816, ♀, ♂ (as *Kriechbaumeri*, incorrect original capitalization). Syntypes: Gabon, Guinea, Zaire (NHMW, ZMHU, Zool. Mus. Hamburg, München, Dresden, Bruxelles). – Kohl, 1894:342 (Congo: Gabon, 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 kriechbaumeri***: J. Parker, 1929:128 (in revision of Stizini and Bembicini); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae).

ssp. scitula Arnold

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

143. *kununurra* Evans and Matthes

Bembix kununurra Evans and Matthews, 1973:284, ♂. Holotype: ♂, Australia: Western Australia: Kununurra (ANIC). – R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae); 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).

144. *labiata* Fabricius

Bembex 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 (in checklist of world Sphecidae).

145. 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 (in checklist of world Sphecidae).

146. 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* species group of *Bembix*). – **As *Bembix lactea***: Lohrmann, 1948:423 (in checklist of recently described *Bembix*); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae).

147. 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 (in checklist of world Sphecidae).

148. 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 (in checklist of world Sphecidae); Cardale, 1985:289 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:205 (summary of information on nesting habits).

149. 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 (in checklist of world Sphecidae); Pulawski, 2003b:795 (in checklist of Malagasy Sphecidae); Madl, 2014a:944 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Malagasy subregion, with synonymy and locality records).

150. 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 (in checklist of world Sphecidae); Cardale, 1985:289 (in catalog of Australian Sphecidae).

151. latigenata Willink

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

152. latitarsis Handlirsch

Bembix 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 (in checklist of world Sphecidae); S. Gupta, 1995:86 (India: Uttar Pradesh).

153. *leeuwinensis* R. Turner

Bembix 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 (in checklist of world Sphecidae); Cardale, 1985:289 (in catalog of Australian Sphecidae).

154. *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 (in checklist of world Sphecidae).

155. *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 (in checklist of world Sphecidae).

156. *lineatifrons* Cameron

Bembix lineatifrons Cameron, 1908a:292, ♀. Syntypes: Tanzania: Mount Meru lowlands: Ngare na nyuki (NRS). – Arnold, 1929b:380 (species unrecognizable from original description). – **As *Bembix lineatifrons***: R. Bohart and Menke, 1976:547 in checklist of world Sphecidae).

157. *littoralis* R. Turner

Bembix littoralis R. Turner, 1908:502, ♂. Holotype or syntypes: ♂, Australia: Northern Territory: Darwin (BMNH). – R. Turner, 1910a:353 (similar to *Bembix 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 (in checklist of world Sphecidae); 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.

158. *liturata* R. Turner

Bembix liturata R. Turner, 1917c:440, ♀, ♂. Syntypes: South Africa: Eastern 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 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:96 (color variation, distribution: Zimbabwe, South Africa, flower records, color photographs of imago).

ssp. *flavopicta* Arnold

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

159. *liventis* J. Parker

Bembix liventis J. Parker, 1929:144, ♀. Holotype: ♀, Tanzania: Mikidani (ZMHU). – Arnold, 1931:218 (original description copied); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae).

160. *lobatifrons* R. Turner

Bembix 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 *Bembix lobatifrons***: R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae)

161. *lobimana* Handlirsch

Bembix 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 *Bembix*). – **As *Bembix lobimana***: Evans and Matthews, 1973:106 (in revision of Australian *Bembix*); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae); Cardale, 1985:290 (in catalog of Australian Sphecidae).

162. *longipennis* J. Parker

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

163. *loorea* Evans and Matthews

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

164. *loupata* J. Parker

Bembix loupata J. Parker, 1929:73, ♀, ♂. Holotype: ♂, Tanzania: Kanoga (ZMHU). – Arnold, 1931:211 (original description copied); Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembix*); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:97 (distribution: Tanzania and Zimbabwe, distribution map, color photograph of imago).

165. *lunata* Fabricius

Bembix lunata Fabricius, 1793:249, sex not indicated. Lectotype: ♂, India: Tamil Nadu: Tranquebar (ZMUC), 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 *Bembix*); F. Smith, 1856:328 (in catalog of Hymenoptera in British Museum), 1871a:366 (in catalog of Oriental Aculeata); 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); Rothney, 1903:105 (India: West Bengal: Barrackpore), 113 (small colony found on sandy bank at Pulta); Ayyar, 1919:909 (prey). – **As *Bembix lunata***: R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae); Krombein and van der Vecht, 1987:6 (Ayyar, 1919, prey record copied), 18 (in revision of Sri Lankan and South Indian *Bembix*). – **As *Vespa lunata***: Turton, 1802:537 (new combination, Tranquebar).

166. *lusca* Spinola

Bembix lusca Spinola, 1839:467, ♀, ♂ (authorship attributed to Klug). Lectotype: ♀, Egypt: no specific locality (Torino), 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); Storey, 1916:109 (Egypt: Alexandria, Ghiza, Maadi, Mallaha, Suez, Tura); 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); Pagliano, 2011a:123 (lectotype and paratypes in coll. Spinola, Torino). – **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, Eलो); de Beaumont, 1966:212 (Egypt: Abukir near Alexandria); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae); 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); Roche, 2007a:113 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia).

Bembix pectoralis Dahlbom, 1845:489, ♀. Holotype: ♀, southern Egypt or northern Sudan: Nubia: no specific locality (Stockholm). Synonymized with *Bembix 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); Pagliano, 2011a:126 (specimens in coll. Spinola, Torino, are *Bembix* sp.).

167. *lutescens* Radoszkowski

Bembix 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 (in checklist of world Sphecidae); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 2002a:131 (geographic distribution, collecting localities in Kazakhstan); Nemkov, 2016c:5, 7 (in key to *Bembix* of Russia and adjacent territories), 13 (bibliographic references, locality records from Azerbaijan, Kazakhstan, Tajikistan, and Turkmenistan).

Bembix gracilis Handlirsch, 1893c:725, ♀, ♂. Syntypes: Russia: Sarepta; Armenia or Azerbaijan: Arax River Valley; and Transcaspiya: no specific locality (depository not indicated). Synonymized with *Bembix lutescens* by Nemkov, 2016:13. – 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 (in checklist of world Sphecidae); 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, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve); Baratov and Nazarova, 1980:76 (Tajikistan: Garavuty, and Beshkent valley: Aivazh, Chiluchorchashma; preying on bombyliid and tabanids: *Hybomitra peculiaris* and three species of *Tabanus*); Nazarova and Baratov, 1981:99 (Tajikistan: Vakhsh valley: Garavuty, Ak-Tau range, and Beshkent valley: Aivazh, Chiluchorchashma; preying on tabanids: list of prey species given); Nazarova and Shomirsaidov, 1997:24 (Tajikistan: fruit tree orchards in Vakhsh River valley); 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); Gorobchishin and Protsenko, 2004:39 (Ukraine: Kherson Oblast': Chernomorskiy Nature Reserve); Kazenas, 2004b:111 (Kazakhstan: western Tien Shan); Shkuratov, 2004a:75 (Russia: Rostov Oblast'), 2004b:166 (Russia: Rostov Oblast': Gosudarstvennyi Muzei-Zapovednik M.A. Sholokhova); 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); Kazenas, 2008c:255 (Kazakhstan: village Koktum S Lake Alakol'); Ljubomirov and Yildirim, 2008:119 (in catalog of Crabronidae of Turkey); Shorenko,

2009:369 (in list of Sphecidae s.l. of Crimea); Sakenin, Samin, and Bagriacik, 2010:16 (Iran: Guilan: Lahijan, Chaboksar); Shorenko and Kononov, 2010:14 (Ukraine: Khar'kov); Japoshvili and Ljubomirov, 2012:96 (Turkey: Isparta: Gölcük Nature Park 8 km SW city of Isparta); Yildirim, 2012:77 (Turkey: Erzurum: Oltu: Sarisaz); Kazenas, 2013a:127 (color photograph of adult wasp, short information on geographic distribution and nesting habits), 2013b:498 (southeast Kazakhstan: deserts and foothills, Ili River valley), 2014a:138 (Kazakhstan: Karatau Mountain Range); Protsenko, Fateryga, and Ivanov, 2014:27 (Crimea: Tarkhankut Promontory); Yildirim, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); Atbaei, Fallahzadeh, and Ljubomirov, 2015:7 (Iran: Fars Province).

168. *luzonensis* J. Parker

Bembix 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 (in checklist of world Sphecidae); Tsuneki et al., 1992c:32 (in key to *Bembix* of Philippines), 38 (bibliographic references).

169. *madecassa* de Saussure

Bembix 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 (in checklist of world Sphecidae); 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); Madl, 2014a:944 (in catalog of Ampulicidae, Crabronidae, and Sphecidae of Malagasy subregion, with synonymy and locality records).

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

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

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

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

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

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

Bembix aldabra J. Parker, 1929:99, ♂. Holotype: ♂, Indian Ocean: Aldabra Island (USNM). Synonymized with *Bembix madecassa* by Madl, 1914:945. – Lohrmann, 1948:448 (member of *mediterranea* species group of *Bembix*); Vesey-Fitzgerald, 1956b:362 (Seychelles); R. Bohart and Menke, 1976:545 (in checklist of world Sphecidae).

170. *magarra* Evans and Matthews

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

171. *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 (in checklist of world Sphecidae, as *magdalena*); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae, as *magdalena*).

172. *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 (in checklist of world Sphecidae); Gadallah, 1997:266 (in revision of Egyptian *Bembix*), 2002:65 (in key to Egyptian *Bembix* based on male genitalia); Roche, 2007a:113 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

173. *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 *maldivensis*), 450 (member of *megadonta* species group of *Bembix*, as *maldivensis*); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae, as *maldivensis*, a misspelling from Zoological Records, 1902).

174. *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 (in checklist of world Sphecidae); Cardale, 1985:290 (in catalog of Australian Sphecidae).

175. *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 (in checklist of world Sphecidae); 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).

176. *marhra* Evans and Matthews

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

177. *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*).

sion of Australian *Bembix*); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae); Cardale, 1985:290 (in catalog of Australian Sphecidae).

178. *massaica* Cameron

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

Bembex massaica Cameron, 1908a:290, ♀, ♂. Syntypes: Tanzania: Mount Meru lowlands: Ngare na nyuki and Usambara Mts: Mombo (NRS). – Turner, 1917c:439 (as synonym of *Bembex 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 *Bembex forcipata*); F. Gess and S. Gess, 2014:98 (distribution: Ethiopia and Zaire to Zimbabwe, color photographs of imago).

179. *megadonta* Cameron

Bembex 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 *megodonta*), 450 (member of *megadonta* species group of *Bembix*, as *megodonta*); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae).

180. *megerlei* Dahlbom

Bembex 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, Šustera, 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* Šedivý, 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: Nesebar, Sozopol, Varna); Scobiola-Palade, 1966b:391 (Romania: Tulcea District: Chilia Veche, Periprava); Balthasar, Hrubant, and Hrubant, 1967:175 (Bulgaria: Slanchev Bryag near Nesebar); 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 (in checklist of world Sphecidae); 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); Józán, 2001:281 (Hungary: Somogy County); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 239 (preys

on *Deixomorpha licata* 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); Józán, 2003:228 (Hungary: Látrányi Puszta Nature Conservation Area); Shkuratov, 2004a:75 (Russia: Rostov Oblast', preys: undetermined Asilidae and Bombyliidae), 2004b:166 (Russia: Rostov Oblast': Gosudarstvennyi Muzei-Zapovednik M.A. Sholokhova); Jacobs, 2005a:440 (Bulgaria: Arkutino near Burgas, Michurin); Shorenko, 2005a:168 (Ukraine: Crimea), 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve); Gorobchishin, 2006:142 (Ukraine: Cherkasy Oblast': Kaniv 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); Shorenko, 2009:369 (in list of Sphecidae s.l. of Crimea); Bitsch, 2010:117 (in supplement to vol. II of Faune de France, 1997: recent records from Bulgaria, Hungary, Romania, Slovakia, Ukraine, and western Asia reported); Shorenko and Konovalov, 2010:14 (Ukraine); Baghirov, 2011b:141 (Russia: recorded from Altayskiy Krai by Danilov, 2008, in error); Nemkov, 2012b:123 (review of known prey); Prisniy, 2012:51 (Russia: Belgorod Oblast'); Protsenko, Fateryga, and Ivanov, 2014:30 (Crimea: Lake Donuzlav, Karatobe in Saks District, Zolotoye in Lenin District); Yıldırım, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); Nemkov, 2016c:5, 7 (in key to *Bembix* of Russia and adjacent territories), 14 (bibliographic references, locality records from Crimea, Kazakhstan, Russia, Turkey, and Ukraine); Mokrousov and Popov, 2016:566 (Russia: Krasnodarskiy Krai); Yıldırım, Ljubomirov, Özbek, and Yüksel, 2016:19 (Turkey: Kars: Sarıkamış: Karakurt).

? *Bembix undata* Dahlbom, 1845:487, ♀. Holotype or syntypes: ♀, southern Europe: no specific locality (LUND). Tentatively synonymized with *Bembix 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).

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

181. *melanaspis* J. Parker

Bembix 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 *Bembix*); Evans and Matthews, 1968b:1297 (in revision of North American *Bembix*); R. Bohart and Horning, 1971:18 (in revision of California Bembicini); Alcock and Gamboa, 1975b:160 (nesting habits); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae); Krombein, 1979b:1713 (in catalog of North American Hymenoptera, nest structure, list of prey); Radović, 1985:66 (sting apparatus analyzed); 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); Wiesenborn, Heydon, and Lorenzen, 2008:54 (Arizona: Topock Marsh). – As *Epibembix melanaspis*: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera).

182. *melancholica* F. Smith

Bembix melancholica F. Smith, 1856:328, ♀, ♂. Syntypes: Indonesia: Sumatra: no specific locality (BMNH). – F. Smith, 1857b:105 (Borneo: Sarawak), 1859a:160 (Indonesia: island of Aru), 1862:55 (Indonesia), 1863b:135 (known from China, Borneo, Singapore, Sumatra, Batjan, Sulawesi, and Aru); A. Costa, 1864a:61 (one specimen from Sumatra in Museo Zoologico di Napoli); F. Smith, 1865a:85 (New Guinea: Salawati Island; Moluccas: Mo-

rotai Island), 1871a:367 (in catalog of Oriental Aculeata); 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 *melancolica*); Cameron, 1906b:58 (New Guinea: no specific locality), 1906c:58 (citation of earlier records); J. Parker, 1937:129 (Sarawak). – **As *Bembix melancholica***: J. Parker, 1929:148 (in revision of Stizini and Bembicini); Lohrmann, 1939:139 (member of *papua* species group of *Bembix*); Baltazar, 1966:350 (occurrence in Philippines doubtful); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae).

Bembix khasiana Cameron, 1904e:123, ♀ (as *Khasiana*, incorrect original capitalization). Holotype or syntypes: ♀, India: Assam: Khasia Hills (OXUM). Synonymized with *Bembix 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 *Bembix khasiana***: Lohrmann, 1948:422 (in checklist of recently described *Bembix*), 450 (member of *integra* species group of *Bembix*); R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae).

183. *melanopa* Handlirsch

Bembix 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 *Bembix 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 (in checklist of world Sphecidae); 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); S. Gess and F. Gess, 2003:124 (South Africa: visiting flowers of *Foeniculum vulgare* Mill., Apiaceae, and *Athanasia trifurcata* (L.) L., Asteraceae); Evans and O'Neil, 2007:185 (summary of information on nesting habits); F. Gess and S. Gess, 2014:99 (distribution: Kenya to South Africa, flower records, distribution map, flower records, prey, color photographs of imago).

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); Penati and Moretti, 2015:89p (in list of Hymenoptera described by G. Gribodo). – **As *Bembix melanosoma***: R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae); Tommasini and Marini, 1984:45 (type depository).

ssp. algoensis Arnold

Bembix melanopa race *litoralis* Arnold, 1929b:356, ♀, ♂, junior primary homonym of *Bembex 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 *Bembex littoralis***: Lohrmann, 1939:142 (member of *melanopa* group).

Bembex melanopa algoensis Arnold, 1946:97. Substitute name for *Bembex littoralis* Arnold, 1929. – R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae).

184. *merceti* J. Parker

Bembex handlirschi Mercet, 1904a:343, ♀, ♂ (as *Handlirschi*, incorrect original capitalization), junior primary homonym of *Bembex 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 Mari, 1943a:200 (in Sphecidae Fauna of Spain), 1943b:24 (Spain; redescription); de Beaumont, 1953c:77 (interpretation of species); Steiner, 1986:111 (references to publications on nesting habits).

Bembix merceti J. Parker 1929:110. Substitute name for *Bembex 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 (in checklist of world Sphecidae); Gayubo, 1983e:235 (Spain: Salamanca Province), 1985c:171 (Spain: Segovia: Cantalejo; Valladolid: Puenteduro), 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 Sphecidae 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); Bitsch, 2010:117 (in supplement to vol. II of Faune de France, 1997: recent description of larva and nesting habits reported); Asís, Baños-Picón, Tormos, Ballesteros, Alonso, and Gayubo, 2011:194 (female capture prey of possible largest size, not of particular family); Polidori, Ballesteros, Santoro, Tormos, and Asís, 2012:445 (individual differences in prey selection); Ballesteros, Tormos, Gayubo, and Asís, 2013: 284 (nesting habits); Ballesteros, Polidori, Tormos, Baños-Picon, and Asís, 2014:1 (individual differences in prey choice). – **As *Bembex merceti***: Giner Mari, 1943b:24 (Spain; redescription); Ceballos, 1949:101 (Spain), 1964:92 (in supplement to catalog of Spanish Sphecidae).

185. *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 (in checklist of world Sphecidae); Cardale, 1985:290 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:202 (summary of information on nesting habits).

186. *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 (in checklist of world Sphecidae); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997: 274 (listed).

187. *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 (in checklist of world Sphecidae); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruíz Cancino, Coronado Blanco, Varela Fuente, and Horta Vega, 2002:666 (in checklist of Mexican Sphecidae).

188. *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).

189. *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 (in checklist of world Sphecidae); 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).

190. *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 *Bembix modesta***: R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae).

191. *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 *Bembix 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 (in checklist of world Sphecidae); Gess, 1986:154 (South Africa: former Transvaal; prey); F. Gess and S. Gess, 2014:104 (distribution: Ethiopia to north-eastern South Africa, distribution map, prey, color photographs of imago).

Bembex 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 *Bembex moebii* by Brauns, 1917:241. – Brauns, 1917:241 (holotype is ♀).

192. *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 (in checklist of world Sphecidae); Cardale, 1985:291 (in catalog of Australian Sphecidae).

193. *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 (in checklist of world Sphecidae); 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).

194. *monedula* Handlirsch

Bembex 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 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:106 (distribution, Mozambique, eastern coast of South Africa, distribution map, color photographs of imago).

195. moonga Evans and Matthews

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

196. 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 (in checklist of world Sphecidae); Cane and Miyamoto, 1979:672 (nest defense and foraging); Nascimento and Overal, 1980:3 (Brazil); Steiner, 1986:111 (references to publications on nesting habits); 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*).

197. 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. Bohart and Menke, 1976:547 (in checklist of world Sphecidae); Cardale, 1985:291 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:201 (summary of information on nesting habits).

198. 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 (in checklist of world Sphecidae); Cardale, 1985:291 (in catalog of Australian Sphecidae).

199. musca Handlirsch

Bembix 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 (in checklist of world Sphecidae); Evans, Evans, and Hook, 1982:78 (nesting site); Cardale, 1985:291 (in catalog of Australian Sphecidae); Piek and Spanjer, 1986:181 (in list of Sphecidae with known prey); 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).

Bembix 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*).

200. *namibensis* Gess

Bembix namibensis Gess, 1986:138, ♂. Holotype: ♂, Namibia: Namib Plain 15 mi E Natab (Albany Mus.). – S. Gess and F. Gess, 2003:124 (Namibia: visiting flowers of *Blepharis obmitrata* C.B. Clarke, Acanthaceae, *Psilocaulon glareosum* (Berger) Dinter and Schwant., Aizoaceae, and *Tribulus pterophorus* Persl., Zygophyllaceae, as *namibiensis*), 2006:20 (Namibia, visiting flowers of *Blepharis obmitrata*, Acanthaceae, as *namibiensis*); F. Gess and S. Gess, 2014:106 (distribution: Namibia, distribution map, flower records, color photographs of imago)

201. *nigrispina* Guichard

Bembix nigrispina Guichard, 1989a:145, ♂. Holotype: ♂, United Arab Emirates: Suweihan (BMNH). – Schmid-Egger, 2011b:506 (recorded from United Arab Emirates by Guichard, 1989a).

202. *nigropectinata* R. Turner

Bembix 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 (in checklist of world Sphecidae); Cardale, 1985:291 (in catalog of Australian Sphecidae).

203. *nilotica* Priesner

Bembyx 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 (in checklist of world Sphecidae); 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); Roche, 2007a:111 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Schmid-Egger, 2011b:506 (United Arab Emirates: Al-Ajban, Mahafiz), 509 and 510 (color photographs of male and female); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharrawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia); Schmid-Egger, 2014:543 (United Arab Emirates: Mahafiz).

204. *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, as *nipponica*). – **As *Bembix 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 *Bembix*); Tsuneki, 1956h:77 (detailed study of nesting habits), 1957a:1 (nesting habits: experiments), 1958a:1 (monograph of nesting habits), 1965c:27 (in key to Bembicinae of Japan and Korea), 1965e:19 (nesting habits), 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 (in checklist of world Sphecidae); Tsuneki, 1971i:5 (Taiwan; discussion); Suda, 1973:123 (Japan: Yamanashi Prefecture); Kazenas, 1980e:85 (Russia: Far East); Hilchie, 1982:110 (accessory burrows reviewed); Tsuneki, 1982g:63 (known from Ryukyu archipelago); Steiner, 1986:111 (references to publications on nesting habits); 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 Prefec-

ture); Kinota, Haneda, and Tano, 2005:31 (Japan: Hokkaido); Negoro, Haneda, and Tano, 2005:49 (Japan: Toyama Prefecture); Haneda, Nozaka, Tano, Kurokawa, and Murota, 2006a:30 (Japan: Toyama Prefecture); Hisamatsu, 2006:25 (Japan: nesting outside Ibaraki Nature Museum); Terayama, 2006:18 (in key to Japanese Bembicinae); Evans and O'Neil, 2007:174 (summary of information on nesting habits); Nemkov, 2008b:25 (in catalog of Crabronidae of Asiatic Russia); Kazenas, 2013b:498 (southeast Kazakhstan: near landing place Dubun' on Ikli River, 30 km SSW Koktal on Ili River); Nakayama, 2013:33 (nesting activities); Murao, 2015:40 (Japan: Kyushu: coast of northwestern Fukuoka Prefecture, as *nipponica nipponica*); Nemkov, 2016c:4, 7 (in key to *Bembix* of Russia and adjacent territories), 15 (bibliographic references, locality records from China, Japan, Kazakhstan, Mongolia, Russia, Turkmenistan, and Uzbekistan).

Bembix picticollis F. Morawitz, 1889a:144, ♀, ♂. Lectotype: ♀, China: Chetschuen [probably Sichuan] (ZIN), designated by Nemkov, 2016c:15. Synonymized with *Bembix nipponica* by Nemkov, 2016c:15 – 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 nipponica*). – **As *Bembix 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 *Bembix*). – **As *Bembix nipponica 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 (in checklist of world Sphecidae); Tsuneki, 1976d:295 (China: Heilungkiang); Kazenas, 1978b:87, 89 (in key to Sphecidae of Kazakhstan and Central Asia); Tsuneki, 1982b:11 (Korea), 18 (known from Korea); Paik, 1985:202 (in list of Sphecidae of Korea); Tsuneki, 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), 2012c:446 (in catalog of Crabronidae of Russian Far East); Akulov and Proshchalykin, 2013:118 (Russia: Siberia: Krasnoyarsk Kray: 12 km E Minusinsk); J.-K. Kim, 2014:421 (in catalog of Sphecidae s.l. of Korean Peninsula).

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

205. *notabilis* Arnold

Bembix notabilis Arnold, 1952:473, ♂. Holotype: ♂, Kenya: Olgasalic (BMNH). – R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae).

206. *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); Snow, 1881:96 (in checklist of Hymenoptera of Kansas: Douglas County: no specific locality); Cresson, 1887:278 (in catalog of North American Hymenoptera); nec Cameron, 1890a:101 (= *Bembix infumata* Handlirsch); Ashmead, 1890:33 (in checklist of Hymenoptera of Colorado); C. Robertson, 1892:108 (visiting flowers of *Pycnanthemum lanceolatum* and *linifolium*), 1894:458 (visiting flowers of *Solidago lanceolata* Linnaeus), 469 (visiting flowers of *Lepachys pinnata* Torr. and Gray), 470 (visiting flowers of *Helianthus grosse-serratus* Martens), 473 (visiting flowers of *Coreopsis aristosa* Michx.); 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); Snow, 1906:8 (Arizona: 18 mi. E Douglas, 20 mi SW Flagstaff); Johnson and Rohwer, 1908:378 (Colorado: Rocky Ford); H. Smith, 1908b:386 (in revision of Nebraskan Sphecidae); J. Parker, 1910:163 (nesting habits); Rau and Rau, 1918:9 (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 *Epibembex 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 (in checklist of world Sphecidae); Krombein, 1979b:1713 (in catalog of North American Hymenoptera, nesting sites, list of prey); Steiner, 1986:111 (references to publications on nesting habits); Spofford, Kurczewski, and Downes, 1989:258, 261 (references to publications on nest parasite *Senotainia trilineata* (Wulp), a miltogrammine fly, and undetermined Miltogrammini); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruiz 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 Potosi (originally Mass. Agric. College, now USNM). Synonymized with *Bembix nubilipennis* by ... – Lohrmann, 1948:446 (member of *nubilipennis* species group of *Bembix*).

207. *nupera* J. Parker

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

208. *obiri* Evans

Bembix obiri Evans, 1982b:10, ♀, ♂. Holotype: ♂, Australia: Northern Territory: 16 km E Mount 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).

209. *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 (in checklist of world Sphecidae).

210. *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 *Epibembex 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 (in checklist of world Sphecidae); 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); 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).

Bembex beutenmulleri W. Fox, 1901a:83, ♂. Syntypes: USA: California: Fresno County: no specific locality (ANSP). Synonymized with *Bembex occidentalis* by Evans and Matthews, 1968b:1298. – **As *Bembex 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 *Epibembex occidentalis beutenmülleri***: Burks in Muesebeck et al., 1951:999 (new combination, new status, in catalog of North American Hymenoptera). – **As *Bembex occidentalis beutenmuelleri***: G. Bohart and MacSwain, 1939:84 (nesting habits); Evans and Lin, 1956b:58 (description of larva); Krombein, 1958f:196 (in supplement to catalog of North American Hymenoptera: description of larva by Evans and Lin, 1956b, reported).

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

211. *ochracea* Handlirsch

Bembex 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 *Bembex ochracea***: J. Parker, 1929:118 (in revision of Stizini and Bembicini); R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); S. Gess and F. Gess, 2003:124 (Namibia: visiting flowers of *Galenia papulosa* Eckl. and Zeyh.) Sond., *Monechma genistifolia* (Engl.) C.B. Cl., Acanthaceae, *Brownanthus kuntzei* (Schinz) Ihlenf. and Bittrich, *Psilocaulon glareosum* (Berger) Dinter and Schwant., and *Psilocaulon salicornioides* (Pax) Schwant., Aizoaceae, *Hermbstaedtia* sp., Amaranthaceae, *Deverra denudata* (Viv.) Pfisterer and Podl., Apiaceae, *Asclepias bucheniana* Schinz., Apocynaceae, *Geigeria pectidea* (D.C.) Harv., Asteraceae, *Acacia karoo* Hayne, Fabaceae, *Tribulus* sp. and *Zygophyllum simplex* L., Zygophyllaceae); F. Gess and S. Gess, 2014:108 (distribution: Namib and western South Africa, distribution map, flower records, color photographs of imago).

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

212. *octosetosa* Lohrmann

Bembex 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 (in checklist of world Sphecidae); 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).

213. *oculata* Panzer

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

Bembex oculata Panzer, 1801, Heft 84:22, [♀]. Holotype or syntypes: ♀, Germany: "habitat in montanis": no specific locality (depository ?). – Latreille, [1805]:300 (redescription); Panzer, 1806:132 (in critical review of his earlier work); 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 (in list of species discussed in this paper); Radoszkowski, 1881:208 (Angola); A. Costa, 1882b:22 (Italy: Sardegna); De Stefani Perez, 1882:39 (Italy: Sicilia: Sciacca, as *Bembex 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: Tiszaalpar); 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 and 1913b:5 (Tunisia: no specific locality); Storey, 1916:109 (Egypt: Barrage, Embaba, Maadi, Naag Hamadi, Zazazig, as *oculata* Latreille); 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); Berland, 1928b:176 (add Grandi, 1926 to bibliography in Berland, 1925d); Grandi, 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 Mari, 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 Mari, 1943a:202 (in Sphecid Fauna of Spain), 1943b:39 (Spain; redescription); Timon-David, 1943:29 (France: Bouches-du-Rhône: plage de Fos); Giner Mari, 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 Mari, 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); Esmaili and Rastegar, 1974:46 (Iran); Pagliano, 2011a:123 (specimens in coll. Spinola, Torino). – **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, Turmu); 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 (in checklist of world Sphecidae); Simon Thomas, 1976:5 (France: Lot-et-Garonne: Forêt de Campet); 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); Radović and Krunić, 1979:unpaginated foldout (nesting in sand, foreleg structure); Valletta, 1979:215 (Malta); Guichard, 1980:229 (Oman); Baratov and Nazarova, 1980:77 (Tajikistan: Chiluchorchashma, Garavuty, Kondara, Kulyab Oblast',

Varzob; preying on tabanids *Hybomitra peculiaris*, *Tabanus accipiter*, and *T. leleani*); 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 Sanguín), 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); Radović, 1985:66 (sting apparatus analyzed); 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); Piek and Spanjer, 1986:181 (in list of Sphecidae with known prey); Steiner, 1986:111 (references to publications on nesting habits); 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); Negrisoló, 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); Negrisoló 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); Negrisoló, 1995a:18 (visiting flowers of *Eryngium maritimum* L. and *Echinophora spinosa* L.), 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); 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 Sphecid Fauna of Western Europe); Nazarova and Shomirsaidov, 1997:24 (Tajikistan: fruit tree orchards in Vakhsh River valley); Gonzáles, Gayubo, and Torres, 1998:74, 75 (Spain: Valladolid Province); Nazarova, 1998:42 (Tajikistan: Tigrovaya Balka Nature Reserve); El-Banna, Zalat, Abo-Ghalia, and Gilbert, 1999:99 (foraging activities near Port Said, Egypt); Gonzáles, 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); Józán, 2001:281 (Hungary: Somogy County); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia), 239 (review of known biology); Tüzün, 2001:44 (Turkey); Jacobi, 2002:22 (mating behavior); Józán, 2002:54 (Hungary: Mecsek Mountains); Kazenas, 2002a:132 (geographic distribution, collecting localities in Kazakhstan); Nabil, Zalat, 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); Gorobchishin and Protsenko, 2004:39 (Ukraine: Kherson Oblast': Chernomorskiy Nature Reserve); Kazenas, 2004b:111 (Kazakhstan: western Tien Shan), 2004d:35 (Kazakhstan: Ryn-Peski); Nazarova, 2004:108 (Tajikistan: Badakhshan Region: Rushan District: villages Dasht and Visav in Bartang River valley); Shkuratov, 2004a:75 (Russia: Rostov Oblast' and Ukraine: Donetsk Oblast'), 2004b:166 (Russia: Rostov Oblast': Gosudarstvennyi Muzey-Zapovednik M.A. Sholokhova); Gayubo and Özbek, 2005:23 (Turkey: seven localities); Jacobs, 2005a:440 (Bulgaria); Nazarova, 2005:94 (alfalfa fields in southwestern Tajikistan); Pagliano and Negrisolò, 2005:189 (in Sphecid 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: earlier 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: Magnisia 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); Kazenas, 2008c:255 (Kazakhstan: village Koktum S Lake Alakol'); 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); González, Gayubo, Asís, and Tormos, 2009:625 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Guéorguiev and Ljubomirov, 2009:263 (Bulgaria: Maleshevska Planina); Józán, 2009:166 (Croatia); Shorenko, 2009:369 (in list of Sphecidae s.l. of Crimea); Baghirov, 2010:678 (Russia: Altai Territories: village Savvushka); Bitsch, 2010:117 (in supplement to vol. II of Faune de France, 1997: recent observations on mating behavior reported; France: first records from Bas-Rhin: Schirrhein, and Loir-et-Cher: Saint-Laurent-des Eaus, Suèvres); Ghazi-Soltani, Ebrahimi, Iranipour, and Pour Abad, 2010:801 (Iran: East Azarbaijan: Kaleybar: Gheshlagh); Shorenko and Kononov, 2010:14 (Ukraine); Tüzün and Yüksel, 2010:4473 (Turkey: Niğde Province); Baghirov, 2011b:141 (Russia: Altayskiy Kray: Savvushka); Cruz-Sánchez, Asís, Gayubo, Tormos, and González, 2011:500 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park: effects of wildfire); Gogala, 2011:30 (Slovenia: Piran); Murai and Amr, 2011:110, 118 (first record from Syria: Al Thawrah Nature Reserve at 35°51'N 28°38'E); Schmid-Egger, 2011b:506 (United Arab Emirates: Wadi al-Helo, Wadi Shawkah, Wadi Wurayah), 511 and 512 (color photographs of male and female); Boillat, 2012:227 (Switzerland: in checklist of insects of Canton de Genève); Prisiy, 2012:51 (Russia: Belgorod Oblast'); Schmid-Egger, 2012:51 (recently introduced to Canary Islands), 52 (in key to *Bembix* of Canary Islands); Strumia, Pagliano, and Gayubo, 2012:56 (Italy: Toscana: Riserva di San Rossore); Yildirim, 2012:77 (Turkey: Adana: Karaisalı: Kızıldağ, Akpınar; Aksaray: Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:348 (in new catalog of Sphecidae of Saudi Arabia); Kazenas, 2013a:126, 127 (color photographs of adult wasps, short information on geographic distribution and nesting habits), 2013b:498 (southeast Kazakhstan: near landing place Dubun' on Ili River, 30 km SSW Koktal on Ili River, Sortogay on Sharyn River); Baldock, 2014:359 (Spain: Island of Mallorca); Dunford, Turbyville, and Leavengood, 2014:9 (listed as medically important in Afghanistan); Ebrahimi, 2014:32 (Iran: Golestān, Hormozgān, Khorāsān-e Razavi, Māzandarān, and Markazi provinces); Kazenas, 2014a:138 (Kazakhstan: Karatau Mountain Range); Protsenko, Fateryga, and Ivanov, 2014:30 (Crimea: many localities); Yıldırım, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); Atbaei, Fallahzadeh, and Ljubomirov, 2015:7 (Iran: Fars Province, as *oculata oculata*); P. Rosa and Pagliano, 2015:97 (Italy: Lombardia and Piemonte: Parco del Ticino); Mokrousov and Popov, 2016:566 (Russia: Abkhazia, Krasnodarskiy Kray); Nemkov, 2016c:3, 6 (in key to *Bembix* of Russia and adjacent territories), 16 (bibliographic references, locality records from Azerbaijan, Iran, Mongolia, Kazakhstan, Russia, Tajikistan, Turkmenistan, and Uzbekistan); Schmid-Egger, Dandria, and Xuereb, 2016:80 (in checklist of Crabronidae of Maltese Islands); S. Gess and Roosenschoon, 2016:105 (Dubai Desert Conservation

- Reserve, visiting flowers of *Rumex dentatus* L., Polygonaceae); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:19 (Turkey: Erzurum Province, as *oculata oculata*).
- Bembix latreillii* Lepeletier de Saint Fargeau, 1845:266, ♀, ♂ (as *Latreillii*, incorrect original capitalization). Synonyms: 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, 1983c: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); Pagliano, 2011a:123 (specimens in coll. Spinola, Torino, are *Bembix bidentate*, *Bembex oculata*, and *Bembex* sp.).
- ? *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 Sphecidae 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 Sphecidae Fauna of Spain). – **As *Bembex 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).
- Bembex oculata mongolica* Tsuneki, 1971k:209, ♂. Holotype: ♂, Mongolia: Hovd Aymag: Somon Bulan (TMB). Synonymized with *Bembex oculata* by Nemkov, 2016:16. – R. Bohart and Menke, 1976:547 (in checklist of world Sphecidae).
- Bembex oculata gegen* Tsuneki, 1971k:210, ♀, ♂. Holotype: ♂, Mongolia: Bayanhongor Aymag: oasis Ekhingol (TMB). Synonymized with *Bembex oculata* by Nemkov, 2016:16. – R. Bohart and Menke, 1976:547 (in checklist of world 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 (Ita-

ly: 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

Bembix basalis Dahlbom, 1845:490, ♂. Lectotype: ♂, Greece: Island of Rhodes: no specific locality (Stockholm), designated by de Beaumont, 1949a:128. Synonymized with *Bembix oculata* by Handlirsch, 1893c:855. – F. Smith, 1856:321 (in catalog of Hymenoptera in British Museum). – **As *Bembix oculata* var. *basalis***: Dalla Torre, 1897:510 (in catalog of world Sphecidae, new status). – **As *Bembix oculata basalis***: de Beaumont, 1949a:128 (new status). – **As *Bembix oculata basalis***: Bytinski-Salz, 1956:225 (Turkey: Baltaliman, Istanbul, Karpınar); 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 (in checklist of world Sphecidae); 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 (in checklist of world Sphecidae).

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 (in checklist of world Sphecidae).

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, in checklist of world Sphecidae).

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, in checklist of world Sphecidae); 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); Pagliano, 2011a:125 (specimens in coll. Spinola, Torino, are *Bembix oculata soror*). – **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 (in checklist of world Sphecidae); Roche and Zalut, 1994:116 (Egypt: Sinai Peninsula); Gadallah, 1997:264 (in revision of Egyptian

Bembix); Roche, 2007a:112 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

214. *odontopyga* R. Turner

Bembix odontopyga R. Turner, 1917c:439, ♂. Holotype or syntypes: ♂, Malawi: Ngara (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 (in checklist of world Sphecidae).

215. *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 (in checklist of world Sphecidae); Cardale, 1985:292 (in catalog of Australian Sphecidae).

216. *olivacea* Fabricius

Bembix olivacea Fabricius, 1787:285, sex not indicated. Lectotype: ♂, Tunisia: Porto Farina (ZMUC), 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 Qasantinah, 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: Grebenáč, now in Timiș District in Romania); Marquet, 1881:180 (southern France); A. Costa, 1882b:23 (Italy: Sardegna); Sajó, 1882:3 (Hungary); A. Costa, 1863:66 (Italy: Calabria Ulteriore: valle di Bruzzano); nec Magretti, 1884c:590 (= *Bembix dahlbomi*); Cuni 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); Cuni 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 Horr 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); Pagliano, 2011a:124 (specimens in coll. Spinola, Torino), 125 (specimens in coll. Spinola, Torino, are *Bembix* sp.). – **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); Myartseva, 1966:48 (preying on Diptera), 49 (Turkmenistan: lower course of Murgab and Tedjen rivers; preying on many Diptera including tabanids and house fly); 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 Sphecid 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 (in checklist of world Sphecidae); 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); Radović and Krnić, 1979:unpaginated foldout (nesting in sand, foreleg structure); Pagliano, 1980:118 (Italy: Basilicata); Gayubo, 1982e:108 (Spain: Cádiz Province), 1983a:125 (prey: Syrphidae: *Lathyrophthalmus 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); Radović, 1985:66 (sting apparatus analyzed); 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); Steiner, 1986:111 (references to publications on nesting habits); Tormos and Jiménez, 1987a:126 (Spain: Valencia), 1987b:317 (Spain: Valencia Province: Dehesa de El Saler); Guichard, 1989a:143 (Arabian Peninsula); 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: 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); Negrisolo and Pagliano, 1993:92 (Italy: Sardegna); Gayubo and Borsato, 1994:219 (Italy: Toscana); Roche and Zalát, 1994:116 (Egypt: Sinai Peninsula); Negrisolo, 1995a: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); Scharrer, 1995:28 (Caspian Sea area); Minoranskiy and Shkuratov, 1996:81 (Russia: Rostov Oblast'); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:277 (in Sphecid Fauna of Western Europe);

- Józan, 1998:307, 312 (Hungary: Duna-Dráva National Park); 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); Gorobchishin and Protsenko, 2004:39 (first record from Ukraine: Kherson Oblast': Chernomorskiy Nature Reserve); Kazenas, 2004d:35 (Kazakhstan: Ryn-Peski); Shkuratov, 2004a:75 (Russia: Rostov Oblast'; nest structure, list of prey), 2004b:166 (Russia: Rostov Oblast': Gosudarstvennyi Muzey-Zapovednik M.A. Sholokhova, list of prey); Pagliano and Negrisolo, 2005:190 (in Sphecid Fauna of Italy); Shorengo, 2005a:168 (Ukraine: Crimea), 2005b:98 (Ukraine: Crimea: Karadagh Nature Reserve); Ljubomirov, 2006:537 (Bulgaria: earlier records from Rhodope Mountains summarized); Tezcan, Yildirim, Anlaş, and Beyaz, 2006:58 (Turkey: Manisa: Sarıgöl: Bahadrlar, 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); Shorengo, 2009:369 (in list of Sphecidae s.l. of Crimea); Shorengo and Konovalov, 2010:14 (Ukraine); Murai and Amr, 2011:118 (recorded from Syria by El Hariri, 1968, 1971); Koçak and Yalçın, 2012:1 (Turkey: Van: village Uğurveren); Prisniy, 2012:51 (Russia: Belgorod Oblast'); Schmid-Egger, 2012:51 (recently introduced to Canary Islands), 52 (in key to *Bembix* of Canary Islands); Strumia, Pagliano, and Gayubo, 2012:56 (Italy: Toscana: Riserva di San Rossore); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharrawy, 2013:349 (in new catalog of Sphecidae of Saudi Arabia); Polidori, Crottini, Della Venezia, Selfa, Saino, and Rubolini, 2013:40 (animal protein as food for larva, unable to manipulate food load, flight muscle ratio, wing loading); Protsenko, Fateryga, and Ivanov, 2014:30 (Crimea: several localities); Yildirim, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); P. Rosa and Pagliano, 2015:97 (Italy: Lombardia and Piemonte: Parco del Ticino); Mokrousov and Popov, 2016:567 (Russia: Krasnodarskiy Krai); Nemkov, 2016c:3, 6 (in key to *Bembix* of Russia and adjacent territories), 17 (bibliographic references, locality records from Azerbaijan, Kazakhstan, Russia, and Ukraine). – **As *Bembix 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).
- Bembex senilis* Fabricius, 1804:226. Lectotype: ♀, Morocco: Tanger (ZMUC). 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).
- ? *Bembex octopunctata* Donovan, 1810:21, sex not indicated (as, *octo-punctata*, incorrect original hyphenation). Syntypes: England: no specific locality (depository?). – Stephens, 1829a:364, footnote (in catalog of British insects), 1829b:33 (in checklist of British insects); R. Bohart and Menke, 1976:548 (as tentative synonym of *Bembix olivacea*).
- Bembex 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: Khartoum); nec Gribodo, 1884c:387 (= *Bembix dahlbomii*); Handlirsch, 1893c:890 (original description copied); Dalla Torre, 1897:509 (in catalog of world Sphecidae).
- Bembex 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 *Bembex 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 Dağı); Medina, 1905:136 (Spain: Cádiz: Chiclana, and Sevilla); Vágel, 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: Khartoum); 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 and 1913b:5 (Tunisia: no specific locality); Ferton, 1914:115 (nest deposited in empty cell); Storey, 1916:109 (Egypt: abundant everywhere); Fahringer and Friese, 1921:161 (Turkey: Erzurum: Dörtjol in Amanus Mts. = Gavur Dağları); 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 mutillid), 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, Šusterka, and Baťa, 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); Esmaili and Rastegar, 1974:46 (Iran); 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 pardo 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 (in checklist of world Sphecidae) – **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: En-nedi; as *saharea*); Gadallah, 1997:266 (in revision of Egyptian *Bembix*); Roche, 2007a:113 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

217. *olivata* Dahlbom

Bembex olivata Dahlbom, 1845:491, ♀. Holotype or syntypes: ♀, South Africa: Western Cape Province: Cape of Good Hope (Lund or Stockholm). – Handlirsch, 1893c:812 (in revision of world Bembicinae); 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 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:113 (distribution: Namibia and South Africa, distribution map, flower records, color photographs of imago).

Bembex intermedia Dahlbom, 1845:491, ♀. Holotype or syntypes: ♀, South Africa: Kwazulu Natal: Port Natal, now Durban (Lund). Tentatively synonymized with *Bembex 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 *Bembex olivata*), 1930:21 (in checklist of Afrotropical Sphecidae), 1935a:503 (South Africa: Kalahari). – **As *Bembex intermedia***: Arnold, 1951:138 (Ethiopia: Danakil: Mille River); S. Gess and F. Gess, 2003:123 (Namaibia, South Africa: visiting flowers of *Limeum argute-carinatum* Wawra and Peyr., Aizoaceae, *Hermbsstaedtia odorata* (Burch) T. Cooke, Amaranthaceae, *Deverra denudata* (Viv.) Pfisterer and Podl., Apiaceae, *Geigeria pectidea* (D.C.) Harv. And *Senecio* sp., Asteraceae, *Selago dinteri* Rolfe, Scrophulariaceae, and *Tribulusgophyllum simplex* L, Zygophyllaceae).

218. *omanensis* Guichard

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

219. *oomborra* Evans and Matthews

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

220. *opinabilis* J. Parker

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

221. *orientalis* Handlirsch

Bembex 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); Rothney, 1903:105 (India: West Bengal: Barrackpore); Dutt, 1912:228 (India: Bihar: Pusa; nesting in soft sandy soil); Hua, 1989:116 (China). – **As *Bembex 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 (in checklist of world Sphecidae); 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); Nemkov, 2012b:123 (review of known prey).

222. ornatilabiata Cameron

Bembix ornatilabiata Cameron, 1908a:291, ♀. Holotype or syntypes: ♀, Tanzania: Mount Meru lowlands: Ngare na nyuki (NRS). – Arnold, 1929b:280 (unrecognizable species). – **As *Bembix ornatilabiata***: R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae).

223. 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 (in checklist of world Sphecidae); Cardale, 1985:292 (in catalog of Australian Sphecidae).

224. 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 (in checklist of world Sphecidae).

225. 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 (in checklist of world Sphecidae); Gadallah, 1997:259 (in revision of Egyptian *Bembix*), 2002:63 (in key to Egyptian *Bembix* based on male genitalia, as *Bembex*); Roche, 2007a:110 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae). – **As *Bembyx palaestinensis***: Priesner, 1958:8 (in revision of Egyptian *Bembix*).

226. 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 (in checklist of world Sphecidae); Roche and Zalat, 1994:116 (Egypt: Sinai Peninsula); Gadallah, 1997:260 (in revision of Egyptian *Bembix*); Roche, 2007a:111 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae).

227. 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: Elmali, Erdcyas 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 (in checklist of world Sphecidae); 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); Baratov and Nazarova, 1980:77 (Tajikistan: Kvak); 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.); Gorobchishin and

Protsenko, 2004:39 (Ukraine: Kherson Oblast': Chernomorskiy Nature Reserve); 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); Baghirov, 2010:678 (Russia: Altai Territories: Aktash, village Onguday); Bitsch, 2010:117 (in supplement to vol. II of Faune de France, 1997: recent records from Greece, Asia Minor, and central Asia reported); ; Baghirov, 2011b:141 (Russia: Altay Republic: Aktash, Ongudai); Japoshvili and Ljubomirov, 2012:96 (Turkey: Isparta: Gölcük Nature Park 8 km SW city of Isparta); Prisiy, 2012:51 (Russia: Belgorod Oblast'); Protsenko, Fateryga, and Ivanov, 2014:30 (Crimea: Tarkhankut Promontory); Rezaei and Fallahzadeh, 2015:3 (first record from Iran: Fars: Dasht e Arzhan at 29°38'N 51°58'E); Yıldırım, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); Nemkov, 2016c:4, 6 (in key to *Bembix* of Russia and adjacent territories), 18 (bibliographic references, locality records from Hungary and Tajikistan).

228. *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 (in checklist of world Sphecidae); 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 pruinosus 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. Smith, 1900:517 (in list of insects of New Jersey: "should occur in New Jersey")J, 1910:679 (in new list of insects of New Jersey: Anglesea); 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 *Epibembix pruinosus***: 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 pruinosus***: 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); Krombein, 1958f:196 (in supplement to catalog of North American Hymenoptera: description of larva by Evans and Lin, 1956b, reported); Evans, 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); Spofford, Kurczewski, and Downes, 1989:258 (reference to publication on nest parasite *Senotainia inyoensis* Reichardt, a miltogrammine fly); 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).

229. palmata F. Smith

Bembex 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 (in checklist of world Sphecidae); Cardale, 1985:292 (in catalog of Australian Sphecidae); Evans and O’Neil, 2007:187 (summary of information on nesting habits).

Bembex 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).

230. palona Evans and Matthews

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

231. papua Handlirsch

Bembex 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 (in checklist of world Sphecidae); Dollfuss, 1989:7 (lectotype in NHMW).

232. parkeri Lohrmann

Bembex 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 (in checklist of world Sphecidae, as synonym of *Bembix galactina*), 548 (listed as valid species).

233. 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 (in checklist of world Sphecidae); 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).

234. 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 (in checklist of world Sphecidae).

235. *persimilis* R. Turner

Bembix 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 (in checklist of world Sphecidae).

236. *physopoda* Handlirsch

Bembix 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 (in checklist of world Sphecidae); Amarante, 2002:8 (in catalog of Neotropical Crabronidae).

237. *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 (in checklist of world Sphecidae); Cardale, 1985:293 (in catalog of Australian Sphecidae).

238. *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 (in checklist of world Sphecidae); Cardale, 1985:293 (in catalog of Australian Sphecidae).

239. *pinguis* Handlirsch

Bembix 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); Rothney, 1903:105 (India: West Bengal: Barrackpore). – **As *Bembix pinguis***: Lohrmann, 1939:139 (member of *papua* species group of *Bembix*); R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae); Dollfuss, 1989:8 (lectotype in NHMW).

240. *pirapora* J. Parker

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

241. *placida* F. Smith

Bembix 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 (in checklist of world Sphecidae); Amarante, 2002:8 (in catalog of Neotropical Crabronidae).

242. *planifrons* F. Morawitz

Bembix planifrons F. Morawitz, 1891a:227, ♀. Lectotype: ♀, European Kazakhstan: Ryn-Peski: Khanskaya Stavka (ZIN), designated by Nemkov, 2016c:18. – 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 (in checklist of world Sphecidae); 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, 1992c:28 (Turkmenistan: Repetek Nature Reserve), 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), 2013b:498 (southeast Kazakhstan: 60 km E Chilik); Nemkov, 2016c:5, 7 (in key to *Bembix* of Russia and adjacent territories), 18 (bibliographic references, locality records from China, Turkmenistan, and Uzbekistan).

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

Bembix parvula F. Morawitz, 1897a:155, ♀, ♂. Syntypes: Turkmenistan: Mikhailovskaya, now Germab (ZIN). Synonymized with *Bembix planiferons* by Nemkov, 2016c:18. – 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 (in checklist of world Sphecidae); Kazenas, 1992c:28 (Turkmenistan: Repetek Nature Reserve), 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia).

243. *portchinskii* Radoszkowski

Bembix portchinskii Radoszkowski, 1884:26, ♂ (as *Portchinskii*, incorrect original capitalization). Holotype or syntypes: ♂, Caucasus (Kraków). – Radoszkowski, 1887a:44 (China: Tsinghai: Tsaidam region: no specific locality). – **As *Bembix portschinskii***: Handlirsch, 1893c:731 (in revision of world Bembicinae); Dalla Torre, 1897:511 (in catalog of world Sphecidae); Storey, 1916:109 (Egypt: Ghiza, Maadi, Saqqara); Maidl, 1924:241 (Sudan: Tuti Island near Khartum); Gussakovskij, 1934a:13 (China: Inner Mongolia), 1933b:294 (Iran); Giner Mari, 1947:27 (Western Sahara). – **As *Bembix portschinskii***: 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 (in checklist of world Sphecidae); Gadallah, 1997:262 (in revision of Egyptian *Bembix*); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia); Roche, 2007a:111 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae). – **As *Bembix portchinskii***: Ljubomirov and Yildirim, 2008:122 (correct spelling is *portchinskii*, in catalog of Crabronidae of Turkey); Yıldırım, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); Nemkov, 2016c:5, 7 (in key to *Bembix* of Russia and adjacent territories), 19 (bibliographic references, locality records from China, Iran, Kyrgyzstan, Mongolia, Russia, Tajikistan, Turkmenistan, and Uzbekistan).

Bembix seminigra F. Morawitz, 1889a:148, ♂. Holotype or syntypes: ♂, Mongolia: "Monasterium Pabö (ZIN). Synonymized with *Bembix portchinskii* by Handlirsch, 1893c:731.

Bembix kirgisisca F. Morawitz, 1891a:225, ♀. Lectotype: ♀, European Kazakhstan: Ryn Peski: no specific locality (ZIN). Synonymized with *Bembix portchinskii* by Nemkov, 2016c:19. – 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 kirgisisca***: Lohrmann, 1948:451 (member of *megerlei* species group of *Bembix*); de Beaumont, 1961b:274 (Afghanistan); R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae, 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); Shkuratov, 2002b:140 (Russia: Rostov Oblast': Rostovskiy Nature Reserve at 46°27'N 42°41'E), 2004:75 (Russia: Rostov Oblast'); Dunford, Turbyville, and Leavengood, 2014:9 (listed as medically important in Afghanistan).

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 kirgisisca* by Gussakovskij, 1933b:294. – Dalla Torre, 1897:505 (in catalog of world Sphecidae). – **As *Bembex ganglbaueri***: Lohrmann, 1948:451 (member of *megerlei* species group of *Bembix*); R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae); Kazenas, 2001b:50 (in checklist of Sphecidae of Kazakhstan and Central Asia).

Bembix trimaculata Kazenas, 1978b:88, ♀. Holotype or syntypes: ♀, Kazakhstan: Alma Ata Oblast': Alma Ata area (ZIN), designated by Nemkov, 2016c:12 (Nemkov, 2016:12 incorrectly gives Kazenas, 1980:141 as lectotype designer). Synonymized with *Bembix portchinskii* by Nemkov, 2016c:19. – 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 (ZIN). Objective synonym of *Bembix trimaculata* Kazenas, 1978. Synonymized with *Bembix portchinskii* by Nemkov, 2016c:19.

244. *priesneri* de Beaumont

Bembix priesneri de Beaumont, 1966:209, ♂, ♀. Holotype: ♂, Egypt: Fayed (Lausanne). – R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae); 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); Roche, 2007a:111 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Schmid-Egger, 2011b:506 (United Arab Emirates: N Ajman, Mahafiz, Sharjah/Tawi as-Saman oasis), 513 (color photographs of female); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:349 (in new catalog of Sphecidae of Saudi Arabia); Schmid-Egger, 2014:543 (United Arab Emirates: Liwa desert 8 km S Arada, Mahafiz).

245. *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 (in checklist of world Sphecidae); 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).

246. *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 (in checklist of world Sphecidae); 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).

247. *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 (in checklist of world Sphecidae); Cardale, 1985:293 (in catalog of Australian Sphecidae).

248. *quadrinaculata* Taschenberg

Bembex quadrinaculata 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 quadrinaculata*: R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae).

249. *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 (in checklist of world Sphecidae); Tsuneki et al., 1992c:32, 33 (in key to *Bembix* of Philippines), 37 (bibliographic references).

250. *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); Storey, 1916:109 (Egypt: Maadi, as *radoszkowskyi*); 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 Bytinski-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 (in checklist of world Sphecidae); Guichard, 1989a:145 (United Arab Emirates; Mali, Niger, Nigeria, Sudan); Gadallah, 1997:264 (in revision of Egyptian *Bembix*); Roche, 2007a:112 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae, as *radoszkowskii*), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae, as *radoszkowskii*); Schmid-Egger, 2011b:506 (recorded from United Arab Emirates by Guichard, 1989a). – **As *Bembyx radoszkowskyi***: Priesner, 1958:33 (in revision of Egyptian *Bembix*).

251. *rava* Arnold

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

252. *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 (in checklist of world Sphecidae).

253. *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, 1960b:464 (valid species); R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae).

254. *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 (in checklist of world Sphecidae).

255. *regnata* J. Parker

Bembix regnata J. Parker, 1929:111, ♂, ♀ (June). Holotype: ♂, Tanzania: "Usaramo, Rufiaji Klurtusteppe" (ZMHU). Paratype: Malawi: Lake Nyassa, now Lake Malawi. – Benson, 1934:75 (prey: Pieridae, Nymphalidae, Hesperiidae); R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae); Gess, 1986:156 (Benson's identification confirmed); Evans, 2002a:5 (known to prey on Lepidoptera); F. Gess and S. Gess, 2014:114 (distribution: Tanzania, Malawi, Zimbabwe, and eastern South Africa, distribution map, prey, color photographs of imago).

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

256. *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 (in checklist of world Sphecidae).

257. *residua* J. Parker

Bembex 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 (in checklist of world Sphecidae).

258. *robusta* Lohrmann

Bembex 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 (in checklist of world Sphecidae); Tsunekii et al., 1992c:33 (in key to *Bembix* of Philippines), 38 (bibliographic references).

259. *rochei* Guichard

Bembex rochei Guichard, 1989a:147, ♂, ♀. Holotype: ♂, United Arab Emirates: Shweib-Madam Road (BMNH). Paratypes: Algeria, India, Mali, Tunisia. – Schmid-Egger, 2011b:506 (United Arab Emirates: Jebel Hafit S al-Ain), 514 (color photographs of female), 2014:543 (United Arab Emirates: N Ajman); S. Gess and Roosenschoon, 2016:106 (Dubai Desert Conservation Reserve, visiting flowers of *Heliotropium kotschyi* Gürke, Boraginaceae, and of *Tribulus macropterus* Boiss., Zygophyllaceae).

260. *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); Panzer, 1792, Heft 1:10 (in revision of German insects); 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); Panzer, 1806:132 (in critical review of his earlier work); 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); von Siebold, 1844:133 (Germany: Preussen: vicinity of Danzig, now Poland: Gdańsk); Dahlbom, 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 (Germa-

ny: 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); A. Costa, 1863:66 (Italy: Calabria Ulteriore: Brancaleone, near Reggio); Brischke, 1864:209 (Germany: Preussen Province, now Poland: Pomorze Region); A. Costa, 1864c:124 (Italy: Campania: Benevento area); Siła-Nowicki, 1864:55 (Poland: Tatry Mountains, Ukraine: L'viv), 1865:55 (western Ukraine: Galicia region: no specific locality); 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); von 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 Krasnoarmeysk S Volgograd); Kohl, 1880:174 (Austria: Tirol, and Italy: Trentino–Alto Adige); Magretti, 1881:117 (Italy: Lombardia), 270 (in list of species discussed in this paper); 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 earlier

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); Morice, 1911:130 (Algeria: Médéa, Le Tarf); Adlerz, 1912:24 (nesting habits); 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 Sphecid 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); Schütze, 1925:112 (Germany: Lausitz Region); 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); Wnukowskij, 1927:32 (Russia: Western Siberia: village Kornilovo at 53°57'N 81°10'E, as *rostrata rostrata*); Berland, 1928b:176 (add Hemmingsen and Nielsen, 1925 to bibliography in Berland, 1925d); van der Vecht, 1928:93 (Netherlands: Meijendel sand dunes); 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); Pulkkinen, 1931:59 (in revision of Sphecidae of Finland, not yet found in Finland); Bondroit, 1932:38 (Belgium: Ostende: dunes); Giordani Soika, 1932a:21 (Italy: Lido di Venezia); Motaş, 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 Marí, 1934a:31 (Spain); Gussakovskij, 1934a:13 (China: Inner Mongolia); Jansson, 1934:289 (Sweden); Minkiewicz, 1934:213 (nesting

habits); Motaş, 1935:42 (Romania: Agigea); E. Nielsen, 1935:204 (metabolism of paralyzed prey is not different from that of not-paralyzed specimens); Richards, 1935a:169 (current interpretation of species is correct); Vergne, 1935:117 (France: Auvergne: Lezoux, Pont-du-Château); Crèvecoeur and Maréchal, 1936:254 (in catalog of Belgian Hymenoptera); Heldmann, 1936:103 (Germany: Hessen: Bergstrasse); Minkiewicz, 1936:14 (male of l'escorteur type); Pattri, 1936:113 (Germany: Hessen: Darmstadt area, on sandy habitats); 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 Baťa, 1937:186 (in catalog of Sphecidae of Czechoslovakia); Redikortsev, 1938:144 (Russia: Mordovian State Nature Reserve); 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 Marí, 1943a:201 (in Sphecida Fauna of Spain), 1943b:29 (Spain; redescription); Baťa, 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 Marí, 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); Niesiołowski, 1950:225 (Poland: Lubasz 40 km N Tarnów); Scobiola, 1950:17 (Romania: Budeşti-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: Podkova 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); Plavil'shchikov, 1964:122 (Russia: Mordovian State Nature Reserve); Chmurzyński, 1967:224 (relation between landmarks and nest-hole in proximate orientation); Levi, Sysoletina, and Shernin, 1974:270 (Russia: Kirov Oblast': Chernovskoye, Kirov, Medvedok, Slobodskoy); Chmurzyński, 1977 (stimuli eliciting sexual pursuit in male); Vestergaard, 1981:114 (Netherlands: Oostvoorne); Brugge, 1982: (Netherlands: Texel Island); Litt, 1987:21 (Belgium, nesting habits); Pagliano, 2011a:126 (specimens in coll. Spinola, Torino, are *Bembix rostrata* and *Bembix* sp.). – **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); Paul, 1941:43 (Germany: Mittel- and Ostpommern, now Poland: Pomorze rodkowe i wschodnie: no specific locality); 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);

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Sarıkamýb, Karakurt at 40°07'5"N 42°29'9"E); Jacobs, 2005a:440 (Bulgaria); Kowalczyk and Kurzac, 2005:104 (Poland: Botanical Garden in Łódź); Mandery, 2005:173 (Germany: Bayern: Hainberg Nature Reserve near Nürnberg); Mokrousov and Selivanova, 2005:752 (Russia: Voronezh Oblast'); Nazarova, 2005:94 (alfalfa fields in southwestern Tajikistan); Pagliano and Negrisola, 2005:191 (in Sphecidae Fauna of Italy); Reder, 2005:948 (Germany: Rheinland-Pfalz: Eisenberg); Riemann and Hohmann, 2005:546 (Germany: Niedersachsen: city of Bremen and adjacent area); Saure, 2005:13 (Germany: Berlin); 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 (*Bembex rostrata* recorded from Plauenscher Grund near Dresden, Germany, by von Block, 1799, is now *Bembex rostrata*); Gadoum and Barbier, 2006:43 (France: départements of Val-d'Oise and Yvelines: Parc Naturel Régional du Vexin Français: Saint-Martin-la-Garenne); Gorobchishin, 2006:142 (Ukraine: Cherkasy Oblast': Kaniv Nature Reserve; Kyiv Oblast': Kyiv, Pushcha-vodytsya; Mikolaiv Oblast': village Kuripchyno; Poltava Oblast': village Matviivka); Liebig, 2006:37 (Germany: Sachsen: Muskauer Heide); Magdalou, 2006b:110 (France: Pyrénées-Orientales: Mas Larrieu Nature Reserve near Argelès-sur-Mer); Shlyakhtenok, 2006:113 (Belarus': Polesye Radiological Nature Reserve); Standfuss and Standfuss, 2006c:306 (Greece: Thessalia: Magnisia Peninsula at 39°N 23°E); Baghirov, 2007:93 (Russia: southwestern Siberia); 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); Jansen and Kaluza, 2007:22 (Germany: northwestern Sachsen); Józán, 2007:180 (Hungary: Zselic hills); Kazenas, 2007a:93 (Kazakhstan: Akmala Oblast': Kurgandzhin Nature Reserve and vicinity); Saure, 2007:81 (in checklist of Aculeata of Brandenburg Land, Germany); Vago, 2007:174 (France: départements d'Aisne, Nord, Pas-de-Calais, and Somme); Vepřek and Straka, 2007:209 (in catalog of Sphecidae of Czech Republic and Slovakia); Danilov, 2008:348 (Russia: Altayskiy Kray: Barnaul area); Larnhof, 2008:45 (Austria: Niederösterreich: Nature Reserve "in den Sandbergen" near Drösing); 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, distributiou in Germany); Gayubo, González, Tormos, and Asís, 2009:365 (Spain: Valladolid: Reserva Natural Riberas de Castronuño – Vega del Duero); González, Gayubo, Asís, and Tormos, 2009:625 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Ivanov, Fateryga, and Filatov, 2009:42 (Crimea: Botanical Garden of Taurida University near Simferopol', collected in 1927); Kowalczyk, Kurzac, and Nadolski, 2009:62 (Poland: between Warta and Widawka rivers); Kowalczyk, Kurzac, and Soszyński, 2009:129 (Poland: Łódź region); Nemkov, 2009b:142 (in new catalog of Sphecidae and Crabronidae of Asiatic Russia); Pagliano, 2009:179 (Italy: Molise: Mafalda); Ruchin, Antropov, and Shibayev, 2009:170 (Russia: Republic of Mordovia); Shorenko, 2009:369 (in list of Sphecidae s.l. of Crimea); Bitsch, 2010:117 (in supplement to vol. II of Faune de France, 1997: recent observations on nesting and prey reported; France: first records from Hautes-Alpes: Réotier, and Loiret: Beaugency); Esser, Fuhrmann, and Venne, 2010:35 (Germany: in checklist of aculeates of Nordrhein-Westfalen); Mokrousov, 2010a:61 (Russia: Ivanovo, Nizhniy Novgorod, and Vladimir, Oblast's, Chuvash Republic, Mordovian Republic, and Tatarstan: no specific localities), 2010c:107 (Russia: Chuvash Republic: State Nature Reserve "Prisurskiy"); Rudoiskatel', 2010:151 (Russia: central and southern Ural Mountains); Saure, 2010a:87 (Germany: Berlin-Reinickendorf: Baumberge), 2010b:174 (Germany: Berlin-Reinickendorf: airport Tempel and Flughafensee Protected Area); Schmid-Egger, 2010a:14 (in red list of Aculeata of Germany: rare); Shorenko and Konovalov, 2010:14 (Ukraine); Smetana, Roller, Beneš, Bogusch, Dvořák, Holý, Karas, Macek, Straka, Šima, Tyrner, Vepřek, and Zeman, 2010:87 (Western Slovakia: Borská Nížina), 101 (Western Slovakia: recorded from Borská Nížina); Tüzün and Yüksel, 2010:4473 (Turkey: Niğde Province); van der Smissen, 2010a:332 (Germany: Schleswig-Holstein: Söllingen), 2010c:395 (Sweden: Öland Gårdby); Baghirov, 2011b:141 (Russia: Altayskiy Kray: Savvushka; Altay Republic: Aktash, Chike-Taman); Matushkina, 2011:41 (sting microsculpture); Mokrousov, Berezin, and Egorov, 2011:66 (Russia: Chuvash Republic); Protsenko and Drozdovskaya, 2011:91 (Ukraine: Mikolaiv Oblast': Bugskiy Guard National

Park); Saure, 2011c:197 (Germany: Berlin-Spandau: Fort Hahneberg); Theunert, 2011a:18 (Germany: in checklist of aculeates of Niedersachsen including city of Bremen); Tischendorf, Frommer, Flügel et al., 2011:67 (Germany: Hessen: endangered); Japoshvili and Ljubomirov, 2012:96 (Turkey: Isparta: Gölcük Nature Park 8 km SW city of Isparta); Nemkov, 2012b:123 (review of known prey); Piguët and Dodelin, 2012:285 (France: Seine-Maritime: rive nord de l'estuaire de la Seine); Prismany, 2012:51 (Russia: Belgorod Oblast'); Saure, 2012b:228 (Germany: Berlin-Spandau: Spandauer Forst); Shibayev and Polumordvinov, 2012:278 (Russia: Penza Oblast'); Strumia, Pagliano, and Gayubo, 2012:56 (Italy: Toscana: Riserva di San Rossore); Yildirim, 2012:77 (Turkey: Erzurum: Oltu); Akulov and Proshchalykin, 2013:118 (Russia: Siberia: Krasnoyarsk Krai: 6 km E and 20 km S Minusinsk); Kazenas, 2013a:128, 129 (color photograph of adult wasp, short information on geographic distribution and nesting habits), 2013b:498 (southeast Kazakhstan: Masak on Chilik River, Sortogay on Sharyn River); Mokrousov, Ruchin, and Egorov, 2013:199 (Russia: Republic of Mordovia: Mordovian State Nature Reserve); Pankov, 2013:229 (Russia: Ivanovo Oblast'); Saure, 2013:17 (Berlin: Treptow-Köpenick: Gosener Wiesen); Shlyakhtenok, 2013:237 (in annotated catalog of aculeate wasps of Belarus'); Wiśniowski and Szczepko, 2013:23 (Poland: Kampinos National Park near Warszawa); Bitsch, 2014:398 (reference to record from France by Piguët and Dodelin, 2013); Dunford, Turbyville, and Leavengood, 2014:9 (listed as medically important in Afghanistan); Ebrahimi, 2014:32 (Iran: Lorestān: Khormābād); Hellqvist, Abenius, and Norén, 2014:90 (in catalog of Ampulicidae, Sphecidae, and Crabronidae of Sweden, by provinces); Mokrousov and Vafin, 2014:55 (Russia: Republic of Tatarstan); Protsenko, Fateryga, and Ivanov, 2014:30 (Crimea: several localities); Ruchin and Antropov, 2014:37 (Russia: Republic of Mordovia); Yildirim, Ljubomirov, and Lelej, 2014:7 (distribution in Turkey by biogeographic provinces); P. Rosa and Pagliano, 2015:97 (Italy: Lombardia and Piemonte: Parco del Ticino); Saure, 2015:12 (Germany: Berlin-Lichterfelde); Mokrousov and Popov, 2016:566 (Russia: Krasnodarskiy Krai); Nemkov, 2016c:4, 7 (in key to *Bembix* of Russia and adjacent territories), 21 (bibliographic references, locality records from Azerbaijan, Estonia, Kazakhstan, Moldova, Mongolia, Russia, Turkmenistan, Ukraine, and Uzbekistan); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:20 (Turkey: Tunceli Province, as *rostrate rostrata*). – **As *Epibembix rostrata***: Bischoff and Stadler, 1954:127 (new combination, Germany: Bayern: Romberg); Olberg, 1959:29 (photographs of specimens visiting flowers of *Calluna vulgaris*, *Centaurea scabiosa*, *Melilotus albus*, and *Thymus serpyllum*), 342-345 (photographs of female digging nest), 346-347 and 349-350 (photographs of prey carrying), 348 (photograph of stinging fly prey); 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); Steiner, 1986:111 (references to publications on nesting habits); Pagliano, 2011a:119 (specimen in coll. Spinola, Torino, is *Bembix flavescens bolivari*).

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); Pagliano, 2011a:126 (specimens in coll. Spinola, Torino, are *Bembex rostrata* and *Bembex* sp.).

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 Mari, 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.

ssp. *algeriensis* W. Schulz

Bembex rostrata algeriensis W. Schulz, 1905b:39, ♀, ♂. Syntypes: Algeria: no specific locality (Mus. Strasburg). – W. Schulz, 1904b:94 (nomen nudum); Giner Mari, 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 (in checklist of world Sphecidae).

261. *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 (in checklist of world Sphecidae); 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); Gadallah, 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); Roche, 2007a:108 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:8 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae, redescription), 2007b:8 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Schmid-Egger, 2011b:508 (United Arab Emirates: Jebel Hafit S al-Ain, Wadi Hayl, Wadi al-Helo, Wadi Mahda, Wadi Wurayah), 515 and 516 (color photographs of male and female); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:349 (in new catalog of Sphecidae of Saudi Arabia); Schmid-Egger, 2014:543 (United Arab Emirates: Wadi Shawkah 2 km N Shawkah).

262. *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 (in checklist of world Sphecidae); 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).

263. *saadensis* Guichard

Bembix saadensis Guichard, 1989a:141, ♂. Holotype: ♂, United Arab Emirates: Al Saad (BMNH). – Schmid-Egger, 2011b:508 (recorded from United Arab Emirates by Guichard, 1989a); S. Gess and Roosenschoon, 2016:106 (Dubai Desert Conservation Reserve, visiting flowers of *Heliotropium kotschy* Gürke, Boraginaceae, of *Dipterygium glalucum* Decne., Capparaceae, and of *Limeum arabicum* Fried., Molluginaceae).

264. 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 (in checklist of world Sphecidae); Dollfuss, 1989:8 (type material in NHMW).

265. 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); Gadallah, Al Dhafer, Aldryhim, Fadl, and Elgharbawy, 2013:349 (in new catalog of Sphecidae of Saudi Arabia).

266. 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); Snow, 1906:8 (Arizona); 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 (in checklist of world Sphecidae); 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); Spofford, Kurczewski, and Downes, 1989:256, 258, 259 (references to publications on nest parasites *Macronychia confundens* (Townsend), *Senotainia opiparis* Reinhard, *Senotainia rubriventris* Macquart, *Senotainia trilineata* (Wulp), and *Senotainia* sp. near *trilineata* (Wulp), miltogrammine flies); 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); Matthews and Matthews, 2005:63 (Nebraska: Keith County; nesting habits); 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).

267. *scaura* Arnold

Bembix 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 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:115 (distribution: Zimbabwe, distribution map).

268. *scotti* R. Turner

Bembix 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 (in checklist of world Sphecidae).

269. *seculata* J. Parker

Bembix 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 (in checklist of world Sphecidae).

270. *semoni* Cameron

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

271. *severa* F. Smith

Bembix 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 (in checklist of world Sphecidae); Cardale, 1985:293 (in catalog of Australian Sphecidae).

272. *sibilans* Handlirsch

Bembix 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 (in checklist of world Sphecidae); F. 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); S. Gess and F. Gess, 2003:125 (South Africa: visiting flowers of *Foeniculum vulgare* Mill., Apiaceae, *Berkheya heterophylla* (Thunb.) O. Hoffm. and *Chrysocoma ciliaata* L., Asteraceae, *Anchusa capensis* Thunb., Boraginaceae, and *Phyllopodium cuneifolium* (L. f.) Benth., Scrophulariaceae); Evans and O'Neil, 2007:185 (summary of information on nesting habits); F. Gess and S. Gess, 2014:116 (distribution: Lesotho, southeastern South Africa; distribution map, flower records, prey, color photographs of imago).

273. *silvestrii* Maidl

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

274. *sinuata* Panzer

Bembix sinuata Panzer, 1804, Heft 86:13, [♀]. Holotype or syntypes: ♀, in revision of German insects, but not occurring in Germany: locality unknown (depository ?). – Latreille, [1805]:303 (redescription, France); Panzer, 1806:132 (in critical review of his earlier work); 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 Mari, 1934:132 (Spain); Bernard, 1935:63 (France: Var: Fréjus area); Giner Mari, 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); Hertzog, 1956:171 (prey: *Tubifera trivittata* (Fabricius), *Lucilia sericata* (Meigen); prey paralyzed in flight); 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 (in checklist of world Sphecidae); Radović and Krunić, 1979:unpaginated foldout (nesting in sand, foreleg structure); 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: Canded; Valladolid: Hornillos, Valladolid); Radović, 1985:66 (sting apparatus analyzed); Gayubo, 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, Gayubo, 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 Sphecidae 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); Tüzün, 2001:44 (Turkey, probably a misdetermination of *bicolor*); 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 Sphecidae 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 Castroñaño – Vega del Duero); González, Gayubo, Asís, and Tormos, 2009:625 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Tüzün and Yüksel, 2010:4473 (Turkey: Niğde Province, probably a misdetermination of *bicolor*); Pagliano, 2011a:119 (specimen in coll. Spinola, Torino); Polidori, Crottini, Della Venezia, Selfa, Saino, and Rubolini, 2013:40 (animal protein as food for larva, unable to manipulate food load, flight muscle ratio, wing loading); Yildirim, Ljubomirov, and Lelej, 2014:8 (distribution in Turkey by biogeographic provinces).

Bembex bipunctata Dufour, 1861:12, ♀ only ($\sigma = Bembex sinuata$). Synonymized with *Bembex sinuata* by Handlirsch, 1893c:744.

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

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

spp. mauritanica de Beaumont

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

275. smithii Handlirsch

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

276. spatulata J. Parker

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

277. *spiritalis* J. Parker

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

278. *splendida* Arnold

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

279. *stadelmanni* Handlirsch

Bembex 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 (in checklist of world Sphecidae).

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

280. *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 (in checklist of world Sphecidae); 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); Piek and Spanjer, 1986:181 (in list of Sphecidae with known prey); 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).

281. *sulphurescens* Dahlbom

Bembex 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); F. Smith, 1871a:366 (in catalog of Oriental Aculeata); 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 (in checklist of world Sphecidae); 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.

282. *tadzhika* Kazenas

Bembix tadzhika Kazenas, 1980f:53, ♂. Holotype: ♂, Tajikistan: Tigrovaya Balka Nature Reserve (ZIN). – Baratov and Nazarova, 1980:77 (Tajikistan: Tigrovaya Balka Nature Reserve); 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); Nemkov, 2016c:4, 7 (in key to *Bembix* of Russia and adjacent territories), 22 (bibliographic references, locality records from Turkmenistan and Tajikistan).

283. 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” Taihanroku); R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae); 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. – Strand, 1927:253 (in list of species described by the author); 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.

284. tangadee Evans

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).

285. 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); von 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); Clerc and Clerc, 1907:79 (Russia: Ekaterinburg district, as *tarsata* Linn.); Graeffe, 1911:46 (Italy: Trieste area); R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae); 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); Radović, 1985:66 (sting apparatus analyzed); 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); Schwammler 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 Sphecidae 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: Mount 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); González, Gayubo, and Tormos, 2000:21 (Andorra: Santa Coloma); Józán, 2000:113 (Hungary: Bakony Mountains: Fenyőfő); Ljubomirov, 2000:13 (Bulgaria, specimens in N. Nedelkov collection); Józán, 2001:281 (Hungary: Somogy County); 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); Józán, 2002:54 (Hungary: Mecsek Mountains); Drewes, 2003:133 (Italy: Trentino: Arco, Arco-Nago); González, Gayubo, Asís, Tormos, and García, 2003:61 (Spain: Soria: Chavaler); Józán, 2003:228 (Hungary: Látrányi Puszta Nature Conservation Area); 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); Bitsch, 2010:117 (in supplement to vol. II of Faune de France, 1997: occurring in Austria, Bulgaria, Czech Republic, Switzerland; France: first records from Landes: Sore, and Loire-et-Cher: Suèvres); Schmid-Egger, 2010a:14 (in red list of Aculeata of Germany: extinct, last collected around 1900); Smetana, Roller, Beneš, Bogusch, Dvořák, Holý, Karas, Macek, Straka, Šima, Tyrner, Vepřek, and Zeman, 2010:88 (Western Slovakia: Borská Nižina), 101 (Western Slovakia: recorded from Borská Nižina); Gogala, 2011:30 (Slovenia); Pagliano, 2011a:119 (specimens in coll. Spinola, Torino), 125 (specimen in coll. Spinola, Torino, is *Bembix* sp.); Schmid-Egger, 2011a:36 (France: Parc National du Mercantour, and Italy: Parco delle Alpi Marittime); Tischendorf, Frommer, Flügel et al., 2011:181 (Germany: never found in Hessen); Boillat, 2012:227 (Switzerland: in checklist of insects of Canton de Genève); Srba and Heneberg, 2012:559 (nesting in loose soils); Strumia, Pagliano, and Gayubo, 2012:56 (Italy: Toscana: Riserva di San Rossore); P. Rosa and

Pagliano, 2015:98 (Italy: Lombardia and Piemonte: Parco del Ticino); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:20 (Turkey: Aksaray: Ağaçoören)).

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

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

286. *taschenbergi* Handlirsch

Bembex 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 *Bembex taschenbergi*: R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae).

287. *tenuifasciata* J. Parker

Bembex tenuifasciata J. Parker, 1929:82, ♂, ♀. Holotype: ♂, Nigeria: Lagos (ZMHU). – Arnold, 1931:213 (original description copied); R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae).

288. *texana* Cresson

Bembex 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*); Pagliano, 2011a:121 (specimens in coll. Spinola, Torino, as *texiana*). – As *Epibembex 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 *Bembex 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 *Bembex*); Krombein, 1958c:107 (nesting habits, prey); Evans and Lin, 1956b:62 (description of larva); Evans, 1957c:135 (study of behavior); Krombein, 1958f:197 (in supplement to catalog of North American Hymenoptera: description of larva by Evans and Lin, 1956b, reported; prey: a wide variety of Diptera); Evans, 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 two or more wasps per cattle head significantly reduced tabanid population); Evans and Matthews, 1968b:1297 (in revision of North American *Bembex*); R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae); Krombein, 1979b:1714 (in catalog of North American Hymenoptera, nesting sites, list of prey); Hilchie, 1982:110 (accessory burrows reviewed); Spofford, Kurczewski, and Downes, 1989:258, 259 (references to publications on nest parasites *Senotainia trilineata* (Wulp) and *Senotainia* sp. near *trilineata* (Wulp), miltogrammine flies); Ahlstrom, 1995:113 (in checklist of insects of North Carolina); Weislo, 1998:181 (proportions of antennae in relations to parasitic/non-parasitic behavior); Pagliano, 2011a:120 (*Bembex fasciata* in coll. Spinola, Torino, are *Bembex texana*).

? *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 *Bembex*); 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); Snow, 1881:96 (in checklist of Hymenoptera of Kansas: Douglas and Wallace counties: no specific locality); Cresson, 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); C. Robertson, 1892:108 (visiting flowers of *Pycnanthemum lanceolatum* and *linifolium*), 1894:473 (visiting flowers of *Coreopsis aristosa* Michx.), 475 (visiting flowers of *Helenium autumnale* Linnaeus); Snow, 1906:8 (Arizona); 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); Pagliano, 2011a: 120 (specimens in coll. Spinola, Torino, are *Bembix texana*).

289. *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 (in checklist of world Sphecidae); 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).

290. *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 (in checklist of world Sphecidae); Cardale, 1985:293 (in catalog of Australian Sphecidae).

291. *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 (in checklist of world Sphecidae).

292. *tranquebarica* (Gmelin)

Bembex repanda Fabricius, 1787:286, ♂. Lectotype: ♂, India: Tamil Nadu: Tranquebar (ZMUC), 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, obviously in error); 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, obviously in error); 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); A. Costa, 1863:66 (Italy: Calabria Ulteriore: valle di Bruzzano, near Reggio, obviously in error, authorship attributed to Latreille); 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: Grebenáč, 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 (refer-

ence 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 *Bembex tranquebarica***: R. Bohart and Menke, 1976:548 (in checklist of world Sphecidae); 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); Roche, 2007a:141 (Walker, 1871, records from Sinai Peninsula are questionable); Schmid-Egger, 2011b:508 (recorded from United Arab Emirates by Guichard, 1989a).

Bembex trepanda Dahlbom, 1844:181, ♀, ♂. Syntypes: Bangla Desh: no specific locality (Lund). Synonymized with *Bembex 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), 1863b:135 (known from India, Gilolo, and Sulawesi); Sichel, 1867:141 (Sri Lanka); F. Smith, 1871a:366 (in catalog of Oriental Aculeata); 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); Rothney, 1903:105 (India: West Bengal: Barrackpore), 113 (common in low jungle about Pulta); 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); van Vondel, 1995:30 (specimens from India in Natuurmuseum Rotterdam). – **As *Bembex trepanda***: J. Parker, 1929:101 (in revision of Stizini and Bembicini); Lohrmann, 1948:429 (illustration of color pattern).

As *Bembex 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); Pagliano, 2011a: 120 (specimens in coll. Spinola, Torino, are *Bembix oculata*), 122 (specimens in coll. Spinola, Torino, are *Bembex tranquebarica* and *Bembix* sp.).

293. *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 *Bembex transcaspica***: de Beaumont, 1961e:3 (Iraq); Myartseva, 1972a:90 (Turkmenistan); R. Bohart and Menke, 1976:549 (in checklist of world Sphecidae); Kazenas, 1978b:87 (in key to Sphecidae of Kazakhstan and Central Asia); Baratov and Nazarova, 1980:77 (Tajikistan: Ayvadh, near Dushanbe; preying on tabanids *Hybomitra peculiaris* and *Tabanus leleani*); 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 and Shomirsaidov, 1997:24 (Tajikistan: fruit tree orchards in Vakhsh River valley); 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), 2014:32 (Iran: Hormozgān,

Khorāsān-e Razavi, and Sistān-Baluchestān provinces); Nemkov, 2016c:4, 6 (in key to *Bembix* of Russia and adjacent territories), 22 (bibliographic references, locality records from China, Kazakhstan, Tajikistan, Turkmenistan, and Uzbekistan).

Bembix kazakhstanica Kazenas, 1978b:85 and 88, ♀, ♂. Lectotype: Kazakhstan: near Ili, now Kopchagay (ZIN), designated by Nemkov, 2016c:22. (Nemkov, 2016:12 incorrectly gives Kazenas, 1980:141 as lectotype designer) – Baratov and Nazarova, 1980:76 (first record from Tajikistan: common, near Leninabad, Takob Valley, and Vakhsh Valley; preying on five species of *Tabanus*); 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 and Shomirsaidov, 1997:24 (Tajikistan: fruit tree orchards in Vakhsh River valley); 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); Kazenas, 2013b:498 (southeast Kazakhstan: Borandysu 30 km E Chilik, 60-75 km E Chilik, 30 km SSW Koktal on Ili River).

Bembix kazakhstanica Kazenas, 1980c:139, ♀, ♂. Holotype: ♀, Kazakhstan: Alma Ata Oblast': near Ili, now Kopchagay (ZIN). Objective synonym of *Bembix kazakhstanica* Kazenas, 2978.

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

294. *trepida* Handlirsch

Bembex 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 (in checklist of world Sphecidae); 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*).

295. *triangulifera* Arnold

Bembex 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), 1944:23 (description of ♀).

Bembix triangulifera Arnold, 1944:23. Substitute name for *Bembix stevensoni* Arnold, 1929 (also description of ♀). – R. Bohart and Menke, 1976:549 (in checklist of world Sphecidae); F. Gess and S. Gess, 2014:117 (distribution: Zimbabwe and northern South Africa, distribution map, color photographs of imago).

296. *tricolor* Dahlbom

Bembex 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 (in checklist of world Sphecidae).

297. *troglydtes* Handlirsch

Bembex troglydtes 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); Snow, 1906:8 (Arizona); H. Smith, 1908b:386 (in revision of Nebraskan Sphecidae). – **As *Epibembix troglodytes***: Burks in Muesebeck et al., 1951:1000 (new combination, in catalog of North American Hymenoptera). – **As *Bembix troglodytes***: 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); Krombein, 1958f:197 (in supplement to catalog of North American Hymenoptera: description of larva by Evans and Lin, 1956b, reported); Evans, 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 (in checklist of world Sphecidae); Krombein, 1979b:1714 (in catalog of North American Hymenoptera, nesting sites, list of prey); Hilchie, 1982:110 (accessory burrows reviewed); Steiner, 1986:111 (references to publications on nesting habits); Amarante, 2002:8 (in catalog of Neotropical Crabronidae); Ruíz 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); Polidori, Crottini, Della Venezia, Selfa, Saino, and Rubolini, 2013:40 (animal protein as food for larva, unable to manipulate food load, flight muscle ratio, wing loading).

Bembix helianthopolis J. Parker, 1917:113, ♀, ♂. Holotype: ♀, USA: Graham County: no specific locality (Kansas Univ.), see Cockerell, 1918:59. Synonymized with *Bembix 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 *Epibembix helianthopolis***: Burks in Muesebeck et al., 1951:999 (new combination, in catalog of North American Hymenoptera).

298. *truncata* Handlirsch

Bembix 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 (in checklist of world Sphecidae); Amarante, 2002:8 (in catalog of Neotropical Crabronidae).

299. *tuberculiventris* R. Turner

Bembix 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 (in checklist of world Sphecidae); Evans, Evans, and Hook, 1982:78 (nesting habits); Cardale, 1985:294 (in catalog of Australian Sphecidae); Piek and Spanjer, 1986:181 (in list of Sphecidae with known prey); Evans, 2002a:5 (known to prey on Apidae); Evans and O'Neil, 2007:204 (summary of information on nesting habits).

300. *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 kittyaе*); nec Mantero, 1915:326 (= *Bembix flavescens kittyaе*); Storey, 1916:109 (Egypt: Abu Qir, Alexandria, Edfina, Edku, Mallaha, Mamura, Montaza); nec von Schulthess, 1926b:218 (= *Bembix flavescens kittyaе*); nec Guiglia, 1932d:480 (= *Bembix flavescens kittyaе*); nec de Beaumont, 1953a:174 (= *Bembix freygessneri*) and 1956a:195 (= *Bembix flavescens kittyaе*); 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 kittya*); nec Priesner, 1958:28 (= *flavescens kittya*); 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 Sphecidae 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 (in checklist of world Sphecidae); 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); Baratov and Nazarova, 1980:77 (Tajikistan: Auni, Garavuty); 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); Shkuratov, 2004a:76 (Russia: Rostov Oblast': Yelanskaya), 2004b:166 (Russia: Rostov Oblast': Gosudarstvennyi Muzey-Zapovednik M.A. Sholokhova); Jacobs, 2005a:440 (Bulgaria: Arkutino near Burgas, Nesebar); Ljubomirov and Yildirim, 2008:124 (in catalog of Crabronidae of Turkey); Bitsch, 2010:117 (in supplement to vol. II of Faune de France, 1997: description of larva cited in error, recent records from Albania, Bulgaria, and Greece reported); Kazenas, 2013b:499 (southeast Kazakhstan: Sortogay on Sharyn River); Protsenko, Fateryga, and Ivanov, 2014:30 (Crimea: several localities); Yildirim, Ljubomirov, and Lelej, 2014:8 (distribution in Turkey by biogeographic provinces); Nemkov, 2016c:3, 6 (in key to *Bembix* of Russia and adjacent territories), 23 (bibliographic references, locality records from Bulgaria (as Poland): Varna, China, Greece, Iran, Kazakhstan, Mongolia, Russia, Tajikistan, Turkmenistan, and Ukraine).

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).

Bembex melanura F. Morawitz, 1889a:141, ♂. Holotype or syntypes: ♂, China: Gansu: U-tai Monastery (ZIN). Synonymized with *Bembex turca* by Nemkov, 2016c:23. – 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 (in checklist of world Sphecidae); Baratov and Nazarova, 1980:76 (Tajikistan: Kondara Valley, Daran-Khodzha Valley); 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); Roche, 2007a:112 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae), 2007b:7 (in checklist of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Dunford, Turbyville, and Leavengood, 2014:9 (listed as medically important in Afghanistan).

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

Bembex gobiensis Tsuneki, 1971k:211, ♂. Holotype: ♂, Mongolia: Hovd Aymag: Somon Bulgan (TMB). Synonymized with *Bembex turca* by Nemkov, 2016c:23. – R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae).

Bembex atra Kazenas, 1978b:86, ♀. Lectotype: ♀, Kazakhstan: Alma Ata Oblast': Boguty Mountains (ZIN), designated by Nemkov, 2016c:24 (Nemkov, 2016:12 incorrectly gives Kazenas, 1980:141 as lectotype designer). Synonymized with *Bembex turca* by Nemkov, 2016c:24.

Bembix atra Kazenas, 1980c:137, ♀. Holotype: ♀, Kazakhstan: Alma Ata Oblast': Boguty Mountains (ZIN). Objective synonym of *Bembix atra* Kazenas, 1978. Synonymized with *Bembix turca* by Nemkov, 2016c:24. – Nazarova, 1998:42 (first record from Tajikistan: Tigrovaya Balka Nature Reserve); Baratov and Nazarova, 1980:75 (Tajikistan: Garavuty, 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).

301. *ugandensis* R. Turner

Bembix ugandensis R. Turner, 1913:746, ♂, ♀. Holotype: one of the following: Uganda: eastern Mbale District S Mount 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 (in checklist of world Sphecidae).

302. *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 (in checklist of world Sphecidae); Cardale, 1985:294 (in catalog of Australian Sphecidae).

303. *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 (in checklist of world Sphecidae); Gess, 1986:147 (justification of synonymy with *Bembix junodi*); F. Gess and S. Gess, 2014:119 (distribution: Namibia to Zimbabwe, South Africa, distribution map; flower records, color photographs of imago).

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. – Arnold, 1930:21 (in checklist of Afrotropical Sphecidae). – **As *Bembix junodi***: R. Bohart and Menke, 1976:546 (in checklist of world Sphecidae).

304. *undeneya* Evans and Matthews

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

305. *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); Pagliano, 2011a:123 (specimens in coll. Spinola, Torino, are *Bembix undulate* and *Bembix* sp.), 126 (specimens in coll. Spinola, Torino, are missing). – **As *Bembix undulata***: R. Bohart and Menke, 1976:549 (in checklist of world Sphecidae).

306. *usherii* Arnold

Bembix usherii Arnold, 1960b:464, ♀. Syntypes: ♀, Mozambique: Chinda (SAM). – R. Bohart and Menke, 1976:549 (in checklist of world Sphecidae).

307. *variabilis* F. Smith

Bembix 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 (in checklist of world Sphecidae); 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).

Bembix raptor F. Smith, 1856:326, ♂. Holotype or syntypes: ♂, Australia: South Australia: Adelaide (BMNH). Synonymized with *Bembix 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).

Bembix crabroniformis F. Smith, 1873c:296, ♂. Holotype or syntypes: ♂, Australia: Northern Territory: Port Essington (BMNH). Synonymized with *Bembix 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).

308. *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 (in checklist of world Sphecidae).

309. *velox* Handlirsch

Bembix 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 (in checklist of world Sphecidae).

310. *venusta* Arnold

Bembix 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 (in checklist of world Sphecidae); S. Gess and F. Gess, 2003:125 (Namibia: visiting flowers of *Hermbstaedtia odorata* (Burch.) T. Cooke, Amarantaceae, and *Leucas pechuelii* (Kuntze) Guerke, Lamiaceae); F. Gess and S. Gess, 2014:120 (distribution: Namibia, southern Angola, distribution map, flower records, prey, color photographs of imago).

311. *versuta* Arnold

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

312. *vespiformis* F. Smith

Bembix 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 (in checklist of world Sphecidae); Cardale, 1985:294 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:189 (summary of information on nesting habits); Jacobi, 2007:14 (coloration).

313. *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 (in checklist of world Sphecidae); Cardale, 1985:294 (in catalog of Australian Sphecidae).

314. *wagleri* Gistel

Bembix 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 (in checklist of world Sphecidae).

315. *wangoola* Evans and Matthews

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

316. *wanna* Evans and Matthews

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

317. *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 (in checklist of world Sphecidae); Cardale, 1985:295 (in catalog of Australian Sphecidae).

318. *weema* Evans and Matthews

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

319. *westermanni* Spinola

Bembix 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); Pagliano, 2011a:124 (lectotype in coll. Spinola, Torino). – **As *Bembix westermanni***: R. Bohart and Menke, 1976:549 (in checklist of world Sphecidae), 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 (in checklist of world Sphecidae).

320. *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 (in checklist of world Sphecidae); Wu and Zhou, 1996a:158 (in revision in Economic Insect Fauna of China); Hua, 2006:277 (in list of Chinese insects, geographic distribution).

321. *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 (in checklist of world Sphecidae); Cardale, 1985:295 (in catalog of Australian Sphecidae); Evans and O'Neil, 2007:199 (summary of information on nesting habits).

322. *wiluna* Evans and Matthews

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

323. *wollowra* Evans and Matthews

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

324. *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 (in checklist of world Sphecidae); Cardale, 1985:295 (in catalog of Australian Sphecidae).

325. *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 (in checklist of world Sphecidae); Cardale, 1985:295 (in catalog of Australian Sphecidae); Evans, 1990:30 (in key to males of *promontorii* group).

326. *yalta* Evans and Matthews

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

327. *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 (in checklist of world Sphecidae); Cardale, 1985:296 (in catalog of Australian Sphecidae).

328. *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 (in checklist of world Sphecidae).

329. *zinni* Gess

Bembix zinni Gess, 1986:140, ♂, ♀. Holotype: ♂, South Africa: Cape Province: Merweville District (South African Museum). – S. Gess, 1996:266, 284 (floral records); S. Gess and F. Gess, 2003:126 (Namibia, South Africa: visiting flowers of *Sesuvium sesuvioides* (Fenzl) Verdc., Aizoaceae, *Deverra denudata* (Viv.) Pfisterer and Podl., Apiaceae, *Pentzia incana* (Thunb.) Kuntze, Asteraceae, *Indigofera* sp., Fabaceae, *Limeum aethiopicum* Burm., *Limeum argute-carinatum* Wawra and Peyr., and *Limeum sulcatum* (Klotsch) Hutch., Molluginaceae, and *Tribulus cristatus* Presl, Zygophyllaceae); F. Gess and S. Gess, 2014:121 (distribution: Namibia and western South Africa, distribution map, flower records, color photographs of imago).

330. *zonata* Klug

Bembix zonata Klug in Walzl 1835:96, ♀. Holotype: ♀, Spain: Andalusia: no specific locality (ZMHU). – Klug in Walzl, 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 Sphecidae Fauna of France); Picard, 1930:42 (France: Hérault: Balaruc, Grau d'Agde, Montpellier, Sète); Bernard, 1934b:249 (prey: *Lathyrrophthalmus aeneus* Scopoli); Giner Mari, 1934:131 (Spain); Bernard, 1935:63 (France: Var: Fréjus area; prey: *Lathyrrophthalmus aeneus* Scopoli, a syrphid), 1936c:287 (France: Bouches-du-Rhône: Port-de-Bouc; Var: Fréjus); Giner Mari, 1943a:198 (in Sphecidae 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 Sphecidae Fauna of Czechoslovakia: may be expected in the country); Erlandsson, 1974:67 (France, Spain); R. Bohart and Menke, 1976:549 (in checklist of world Sphecidae); 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); Piek and Spanjer, 1986:181 (in list of Sphecidae with known prey); 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); Piek and Spanjer, 1986:181 (in list of Sphecidae with known prey); 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 mature larva); Bitsch, Barbier, Gayubo, Schmidt, and Ohl, 1997:281 (in Sphecidae 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); González, Gayubo, Asís, and Tormos, 2009:625 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park); Bitsch, 2010:117 (in supplement to vol. II of Faune de France, 1997: recent description of larva and nesting habits reported; France: first record from Gers: Cagnet); Cruz-Sánchez, Asís, Gayubo, Tormos, and González, 2011:500 (Spain: Salamanca and Zamora provinces: Arribes del Duero Natural Park: effects of wildfire); Polidori, Ballesteros, Santoro, Tormos, and Asís, 2012:445 (individual differences in prey selection); Ballesteros, Tormos, Gayubo, and Asís, 2013: 284 (nesting habits); Yildirim, Ljubomirov, Özbek, and Yüksel, 2016:20 (first record from Turkey: Erzurum Province).

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

ssp. *lichtensteini* Mocsáry

Bembix 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 *Bembix zonata*). – **As *Bembix lichtensteini***: R. Bohart and Menke, 1976:549 (in checklist of world Sphecidae). – **As *Bembix 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); Baratov and Nazarova, 1980:77 (Tajikistan: Tigrovaya Balka Nature Reserve); Roche, 1981:4 (in checklist 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); Kazenas, 1992c:28 (Turkmenistan: Repetek Nature Reserve, sp. aff. *gracilis*); S. Gess, 1996:282 (floral records); S. Gess and F. Gess, 2003:126 (Namibia, South Africa: visiting flowers of *Athanasia* sp., Asteraceae, and *Zygophyllum stapfii* Schinz, Zygophyllaceae); Kephart and Theiss, 2004:270 (pollinating flowers of *Asclepias*); Ruiz Cancino, Coronado Blanco, and Horta Vega, 2005:170 (Mexico: recorded from Tamaulipas State); S. Gess and F. Gess, 2006:10 (South Africa and Namibia: visiting flowers of *Hembsstaedtia glauca* and *odorata*, Amaranthaceae); Kazenas, 2007a:93 (Kazakhstan: Akmala Oblast: Kurgandzhin Nature Reserve and vicinity, sp. aff. *megerlei*); Roche, 2007a:111 (in catalog of Egyptian Ampulicidae, Sphecidae, and Crabronidae); Ljubomirov and Yildirim, 2008:124 (in catalog of Crabronidae of Turkey); Polidori, Ouadrageou, Gadallah, and Andrietti, 2009:1 (sp. near *capensis* in Burkina Faso: potential role of evasive flights and nest closure against a parasitic satellite fly); Pagliano, 2011a:119 (specimen in coll. Spinola, Torino, is *Bembix bidentata*), 123 (specimen in coll. Spinola, Torino).

LICHTENSTEIN'S AUCTION CATALOG NAMES

***cingulata* Lichtenstein**

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

***guttata* Lichtenstein**

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

NOMINA NUDA IN *BEMBIX*

Bembix adelaidae: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); Pagliano, 2011a:126 (specimens in coll. Spinola, Torino, are *Bembix* sp.).

Bembix arabica: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); Pagliano, 2011a:123 (specimen in coll. Spinola, Torino, is *Bembix cpensis*).

Bembix algira: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); Pagliano, 2011a: 120 (specimens in coll. Spinola, Torino, are *Bembix flavescens bolivari*).

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

Bembix buqueti: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); Pagliano, 2011a:125 (specimens in coll. Spinola, Torino, are *Bembix* sp.).

Bembix contigua: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); Pagliano, 2011a:121 (specimens in coll. Spinola, Torino, are *Bembix* sp. from Fench Guiana).

Bembix latreillei Pagliano, 2011a: 120 (specimen in coll. Spinola, Torino, is *Bembix tarsata*.)

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

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

Bembix nigrilabris: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection); ; Pagliano, 2011a:122 (specimens in coll. Spinola, Torino, are *Bembix* sp. from Senegal).

Bembix pallidiventris: Casolari and Casolari Moreno, 1980:114 (specimens in M. Spinola collection); Pagliano, 2011a: 120 (specimens in coll. Spinola, Torino, are *Bembix* sp. from South Africa).

Bembix quadrifasciata: Casolari and Casolari Moreno, 1980:115 (specimens in M. Spinola collection, possibly *Bicyrtes quadrifasciata*, as *4-fasciata*); Pagliano, 2011a:122 (specimens in coll. Spinola, Torino, as *4-fasciata*, are *Bembix* sp. from Senegal).

Bembix regularis Cresson: Wolcott, 1951:846 (in review of insects of Puerto Rico).

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

SPECIES DESCRIBED IN *BEMBIX* AND TRANSFERED 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-Méneville, 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*