



Far Eastern Entomologist

Дальневосточный энтомолог

Journal published by Far East Branch
of the Russian Entomological Society
and Laboratory of Entomology,
Institute of Biology and Soil Science,
Vladivostok

Number 313: 1-34

ISSN 1026-051X

June 2016

<http://urn:lsid:zoobank.org:pub:B3571574-1748-4E1D-BF56-FFAD082B8EE6>

DIGGER WASPS OF THE GENUS *BEMBIX* FABRICIUS, 1775 (HYMENOPTERA: CRABRONIDAE, BEMBICINAE) OF RUSSIA AND ADJACENT TERRITORIES

P. G. Nemkov

*Institute of Biology and Soil Science, Far Eastern Branch of Russian Academy of
Sciences, Vladivostok, 690022, Russia. E-mail: p_nemkov@mail.ru*

The species of the genus *Bembix* Fabricius, 1775 from Russia and neighbouring territories are reviewed. The new synonymy is proposed: *Bembix eburnea* Radoszkowski, 1877 = *B. weberi* Handlirsch, 1893, **syn. n.**, = *B. subeburnea* Tsuneki, 1971, **syn. n.**, = *B. weberi lama* Tsuneki, 1971, **syn. n.**; *Bembix integra* Panzer, 1801 = *B. dubia* Gussakovskij, 1933, **syn. n.**, = *B. iliensis* Kazenas, 1978, = *B. iliensis* Kazenas, 1980, **syn. n.**; *Bembix lutescens* Radoszkowski, 1877 = *B. gracilis* Handlirsch, 1893, **syn. n.**; *Bembix niponica* F. Smith, 1873 = *B. picticollis* F. Morawitz, 1889, **syn. n.**; *Bembix oculata* Panzer, 1801 = *B. oculata mongolica* Tsuneki, 1971, **syn. n.**, = *B. oculata gegen* Tsuneki, 1971, **syn. n.**; *Bembix planifrons* F. Morawitz, 1891 = *B. parvula* F. Morawitz, 1897, **syn. n.**; *Bembix portchinskii* Radoszkowski, 1884 = *B. kirgisisica* F. Morawitz, 1891, **syn. n.**, = *B. trimaculata* Kazenas, 1978, **syn. n.**, = *B. trimaculata* Kazenas, 1980, **syn. n.**; *Bembix transcaspica* Radoszkowski, 1893 = *B. kazakhstanica* Kazenas, 1978, **syn. n.**, = *B. kazakhstanica* Kazenas, 1980, **syn. n.**; *Bembix turca* Dahlbom, 1845 = *B. melanura* F. Morawitz, 1889, **syn. n.**, = *B. gobiensis* Tsuneki, 1971, **syn. n.**, = *B. atra* Kazenas, 1978, **syn. n.**, = *B. atra* Kazenas, 1980, **syn. n.** The lectotypes are designated for *B. dubia* Gussakovskij, 1933, *B. picticollis* F. Morawitz, 1889, *B. planifrons* F. Morawitz, 1891, *B. kirgisisica* F. Morawitz, 1891. *Bembix eburnea* Radoszkowski, 1877 is newly

recorded from Russia; *B. dilatata* Radoszkowski, 1877 and *B. transcaspica* Radoszkowski, 1893 are newly recorded from China. The distribution of some species is enlarged. A key to 19 species from Russia and adjacent territories is given.

KEY WORDS: digger wasps, Crabronidae, *Bembix*, fauna, taxonomy, Russia.

П. Г. Немков. Роющие осы рода *Bembix* Fabricius, 1775 (Hymenoptera, Crabronidae, Bembicinae) России и сопредельных территорий // Дальневосточный энтомолог. 2016. N 313. С. 1-34.

Дается обзор видов рода *Bembix* Fabricius, 1775 фауны России и сопредельных территорий. Установлена новая синонимия: *Bembix eburnea* Radoszkowski, 1877 = *B. weberi* Handlirsch, 1893, **syn. n.**, = *B. subeburnea* Tsuneki, 1971, **syn. n.**, = *B. weberi lama* Tsuneki, 1971, **syn. n.**; *Bembix integra* Panzer, 1801 = *B. dubia* Gussakovskij, 1933, **syn. n.**, = *B. iliensis* Kazenas, 1978, = *B. iliensis* Kazenas, 1980, **syn. n.**; *Bembix lutescens* Radoszkowski, 1877 = *B. gracilis* Handlirsch, 1893, **syn. n.**; *Bembix niponica* F. Smith, 1873 = *B. picticollis* F. Morawitz, 1889, **syn. n.**; *Bembix oculata* Panzer, 1801 = *B. oculata mongolica* Tsuneki, 1971, **syn. n.**, = *B. oculata gegen* Tsuneki, 1971, **syn. n.**; *Bembix planifrons* F. Morawitz, 1891 = *B. parvula* F. Morawitz, 1897, **syn. n.**; *Bembix portchinskii* Radoszkowski, 1884 = *B. kirgisisca* F. Morawitz, 1891, **syn. n.**, = *B. trimaculata* Kazenas, 1978, **syn. n.**, = *B. trimaculata* Kazenas, 1980, **syn. n.**; *Bembix transcaspica* Radoszkowski, 1893 = *B. kazakhstanica* Kazenas, 1978, **syn. n.**, = *B. kazakhstanica* Kazenas, 1980, **syn. n.**; *Bembix turca* Dahlbom, 1845 = *B. melanura* F. Morawitz, 1889, **syn. n.**, = *B. gobiensis* Tsuneki, 1971, **syn. n.**, = *B. atra* Kazenas, 1978, **syn. n.**, = *B. atra* Kazenas, 1980, **syn. n.** Обозначены лектотипы для четырех видов: *B. dubia* Gussakovskij, 1933, *B. picticollis* F. Morawitz, 1889, *B. planifrons* F. Morawitz, 1891, *B. kirgisisca* F. Morawitz, 1891. Дополнено распространение некоторых видов. Приводится определительная таблица 19 видов фауны России и сопредельных территорий.

Биолого-почвенный институт ДВО РАН, Владивосток, 690022, Россия.

INTRODUCTION

This paper deals with *Bembix* of Russia and the adjacent territories (the former USSR, Mongolia, northern China, Korean Peninsula, and northern Japan) and includes 19 species registered here at present. These wasps have never been revised. Within the area considered, there are keys to the species of European part of former USSR (Pulawski, 1978), Kazakhstan and Middle Asia (Kazenas, 1978), China (Wu & Zhou, 1987), and Russian Far East (Nemkov *et al.*, 1995).

MATERIAL AND METHOD

This paper is based on the material from collections of the Zoological Institute of RAS, St Petersburg, Russia [ZISP] and Institute of Biology and Soil Science of

FEB RAS, Vladivostok, Russia, as well as several specimens from Zoological Museum of Moscow State University, Moscow, Russia [ZMMU] and California Academy of Sciences, San Francisco, USA. Totally about 900 specimens were studied. The distribution of species is given according to Pulawski (2015) and update based on the studied material. New records are asterisked (*). Descriptive terminology follows Bohart and Menke (1976), but the terms "mesosoma" instead of "thorax" and "metasoma" instead of "gaster" are used.

RESULTS

Genus *Bembix* Fabricius, 1775

Bembix Fabricius, 1775: xxiii. Type species: *Apis rostrata* Linnaeus, 1758, designated by Latreille, 1810: 438.

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

COMPOSITION. *Bembix* is one of the largest genera of digger wasps, currently includes about 350 species in the world fauna. These wasps are distributed worldwide and especially abundant in the Palaearctic, Australian, and Afrotropical regions (Nemkov, 2013; Pulawski, 2015). The females construct nests with one to several cells in hard or more often in sandy soil. The larvae feed on different Diptera (Bohart & Menke, 1976; Evans & O'Neill, 2007; Nemkov, 2012).

Key to species from Russia and adjacent territories

1. Female: flagellum with 10 articles, metasoma with six visible terga 2
 - Male: flagellum with 11 articles, metasoma with seven visible terga 20
2. Metasomal sterna 3–5 with large and distinct scattered punctures, interspaces smooth and shiny, at least in posterior half of sternum 3
 - Metasomal sterna 3–5 with small and dense regular punctures, without large scattered ones, if mixed with large, sparse and indistinct punctures, then interspaces with dense small punctures, semidull 6
3. Hind wing anal cell posteriorly distinctly longer than anteriorly. – Body with rich pale yellow coloration, metasomal terga almost entirely pale colored. Body length 14–17 mm ***B. olivacea***
 - Hind wing anal cell posteriorly about same length as anteriorly or shorter 4
4. Scape black. Inner eye orbit lacking yellow band or with small spot on upper frons. Body length 14–18 mm ***B. oculata***
 - Scape ventrally yellow. Inner eye orbit with yellow wide band extending to antennal socket 5
5. Clypeus basally evenly convex. Apical edge of metasomal tergum 5 without strong prominent spines. Body length 14–17 mm ***B. turca***
 - Clypeus basally roof-shaped. Apical edge of metasomal tergum 5 with strong prominent spines. Body length 17–23 mm ***B. bicolor***
6. Anal cell of hind wing posteriorly distinctly longer than anteriorly 7
 - Anal cell of hind wing posteriorly about same length or shorter than anteriorly 10

7. Pale band of metasomal tergum 5 twice interrupted, represented by one medial and two lateral spots. Metasomal sternum 2 medially with smooth impunctate longitudinal stripe. Clypeus with two black spots, basally strongly roof-shaped. Body length 17–24 mm ***B. bidentata***
- Pale band of metasomal tergum 5 not or narrowly interrupted medially. Metasomal sternum 2 without smooth impunctate longitudinal stripe 8
8. Clypeus with two black spots, basally strongly roof-shaped, laterally slightly concave. Metasomal sternum 2 medially with large and distinctly scattered punctures, interspaces smooth and shining. Body length 14–16 mm ***B. transcaspica***
- Clypeus without black spots, basally weakly roof-shaped, laterally convex. Metasomal sternum 2 medially with dense small punctures mixed with larger, sparse and indistinct punctures, semidull 9
9. Mandible basally black. Body length 18–20 mm ***B. rostrata***
- Mandible basally yellow. Body length 17–20 mm ***B. niponica***
10. Clypeus evenly convex. Metasomal sternum 6 with large and distinct scattered punctures, interspaces with dense small punctures 11
- Clypeus roof-shaped, at least basally. Metasomal sternum 6 without large scattered punctures 14
11. Pronotal lobe black. Head, mesosoma, metasomal segment 1, and femora with long and dense setae, longest setae not shorter than flagellomere 1 length. Body length 17–19 mm ***B. dilatata***
- Pronotal lobe yellow. Body and femora with shorter setae, setae distinctly shorter than flagellomere 1 length 12
12. Pronotum before pronotal lobe black, sometimes with small yellow spot. Mesopleuron and propodeum black, without yellow spots. Metasomal tergum 6 finely and densely punctured, interspaces less than puncture diameter. Body length 16–18 mm ***B. diversipes***
- Pronotum before pronotal lobe yellow. Mesopleuron usually partly yellow, rarely entirely black. Lateral surface of propodeum with yellow spot 13
13. Metasomal tergum 6 finely and densely punctured, interspaces less than puncture diameter. Body length 14–19 mm ***B. integra***
- Metasomal tergum VI with larger and sparser punctures, interspaces about puncture diameter. Body length 14–19 mm ***B. pallida***
14. Clypeus elongated, apical margin located far below at level of lower edge of eye, medially with two small black spots sometimes combined in large spot. Head, mesosoma, metasomal segment 1, and femora with long and dense setae, longest ones not shorter than flagellomere 1 length. Body length 14–16 mm
..... ***B. tadzhika***
- Clypeus shorter, apical margin located at level of lower edge of eye. Body and femora with shorter setae, longest ones distinctly shorter than flagellomere 1 length 15
15. Lower frons between antennal sockets roof-shaped. Sulcus between mesopleuron and lateral surface of propodeum below with deep fovea 16

- Lower frons between antennal sockets slightly convex, not roof-shaped. Sulcus between metapleuron and lateral surface of propodeum below without deep fovea 18
- 16. Metasomal terga with broad whitish band covered at least half of their length and almost reaching their posterior margin, dark space between pale band and posterior margin of tergum much less than band width. Body length 13–16 mm
..... ***B. lutescens***
- Metasomal terga with somewhat narrow whitish band covered not more than one-third of their length and removed from their posterior margin, dark space between pale band and posterior margin of tergum not less than band width 17
- 17. Mesopleuron yellow with small black spots. Body length 13–16 mm
..... ***B. eburnea***
- Mesopleuron black with small pale yellow spots. Body length 12–15 mm
..... ***B. cinctella***
- 18. Clypeus yellow. Setae on vertex not longer than maximal scape width. Lower half of mesopleuron with dense micropunctures only, without larger punctures. Body length 10–15 mm ***B. planifrons***
- Clypeus with black spot. Setae on vertex distinctly longer than maximal scape width. Lower half of mesopleuron with dense micropunctures mixed with rare small punctures 19
- 19. Inner edge of mandible with distinct widening between preapical tooth and apex. Black spot on clypeus rectangular, with parallel lateral borders. Mesoscutum without U-shaped yellow spot. Mesopleuron mostly black. Body length 14–18 mm ***B. megerlei***
- Inner edge of mandible without widening between preapical tooth and apex. Black spot on clypeus triangular or narrowly trapezoidal, with upwardly converging lateral borders. Mesoscutum with U-shaped yellow spot. Mesopleuron mostly yellow. Body length 13–15 mm ***B. portchinskii***
- 20. Protarsomeres 2–4 flattened, strongly triangularly dilated apically, shorter than its apical width 21
- Protarsomeres 2–4 not flattened, weakly dilated towards apex, much longer than its apical width 24
- 21. Metasomal terga black, without light band, sometimes terga II–IV medially with indistinct short remnant of light band. Metasomal sternum VI with semicircular prominent platform. Body length 17–19 mm ***B. dilatata***
- Metasomal terga I–VII with well developed light band. Metasomal sternum VI with triangular prominent platform 22
- 22. Protarsomeres 2–4 apically on inner side with long, dark, L-shaped curved apically bristle. Mesopleuron and propodeum black. – Metasomal sternum 7 apically narrow, its width much less than length of metatarsomeres 3. Body length 16–18 mm ***B. diversipes***
- Protarsomeres 2–4 apically on inner side with short, pale, not curved apically bristle. Mesopleuron and propodeum usually with yellow spots 23

23. Metasomal sternum 7 narrow, apically without notch, width of sternum much less than length of metatarsomere 3. Body length 14–19 mm ***B. integra***
 – Metasomal sternum 7 wide, apically with deep notch, width of sternum about length of metatarsomere 3. Body length 14–19 mm ***B. pallida***
24. Metasomal sterna 3–5 with large and distinct scattered punctures, interspaces smooth and shiny, at least in posterior half of sternum 25
 – Metasomal sterna 3–5 with small and dense regular punctures, if mixed with large, sparse and indistinct large punctures, then interspaces with dense small punctures, semidull 28
25. Anal cell of hind wing posteriorly distinctly longer than anteriorly. Metasomal tergum 7 with lateobasal tooth. Metasomal sternum 2 medially with smooth longitudinal line, without strong carina. – Body with rich pale yellow coloration, metasomal terga almost entirely pale colored. Body length 15–17 mm
 ***B. olivacea***
 – Anal cell of hind wing posteriorly about same length as anteriorly or shorter. Metasomal tergum 7 without laterobasal tooth. Metasomal sternum 2 medially with strong longitudinal carina 26
26. Clypeus basally roof-shaped. Metasomal sternum 6 without prominent elevation. Metasomal sternum 7 with one strong broad longitudinal carina. Body length 17–23 mm ***B. bicolor***
 – Clypeus basally evenly convex. Metasomal sternum 6 with prominent narrowly semielliptical elevation. Metasomal sternum 7 with three thin longitudinal carinae 27
27. Scape black or with small yellow spot. Inner eye orbit lacking yellow band or with small spot on upper frons. Apex of prominent elevation of metasomal sternum 6 without emargination. Body length 15–18 mm ***B. oculata***
 – Scape ventrally yellow. Inner eye orbit with yellow wide band extending to antennal socket. Apex of prominent elevation of metasomal sternum 6 with small emargination, Body length 15–18 mm ***B. turca***
28. Anal cell of hind wing posteriorly distinctly longer than anteriorly 29
 – Anal cell of hind wing posteriorly about same length or shorter than anteriorly ... 32
29. Pale band of metasomal tergum 5 twice interrupted, represented by one medial and two lateral spots. Metasomal tergum 7 with laterobasal tooth. Metasomal sternum 2 medially without longitudinal carina. Body length 17–24 mm
 ***B. bidentata***
 – Pale band of metasomal tergum 5 not or narrowly interrupted medially. Metasomal tergum 7 without laterobasal tooth. Metasomal sternum 2 medially with strong longitudinal carina 30
30. Clypeus basally roof-shaped. Metasomal sternum 2 medially with longitudinal carina, more than half of sternum length. Body with rich pale yellow coloration, metasomal terga almost entirely pale colored. Body length 14–16 mm
 ***B. transcaspica***

- Clypeus basally evenly convex. Metasomal sternum 2 medially with longitudinal carina no more than one-third of sternum length. Body usually with weak pale coloration 31
- 31. Longitudinal carina of metasomal sternum 7 apically bifurcated. Body length 18–22 mm ***B. rostrata***
- Longitudinal carina of metasomal sternum 7 apically not bifurcated. Body length 17–20 mm ***B. niponica***
- 32. Mesotibia without spur. Mesotarsomere 1 on inner side with strong bristle near middle and distinct emargination between bristle and apex of tarsomere 1 33
- Mesotibia with spur. Mesotarsomere 1 on inner side without strong bristle and emargination between bristle and apex of tarsomere 1 34
- 33. Clypeus with black spot. Mesoscutum black. Metasomal terga with narrow whitish band widely interrupted medially. Body length 14–18 mm ***B. megerlei***
- Clypeus yellow. Mesoscutum medially with U-shaped yellow spot or two longitudinal yellow strips. Metasomal terga with broad pale yellow band not interrupted medially. Body length 13–15 mm ***B. portchinskii***
- 34. Clypeus elongated, apical margin located far below at level of lower edge of eye, Head, mesosoma, metasomal segment 1, and femora with long dense setae, longest ones not shorter than flagellomere 1 length. Prominent elevation of metasomal sternum 6 almost rectangular, with weakly curved posterior margin. Body length 14–16 mm ***B. tadzhika***
- Clypeus shorter, apical margin located at level of lower edge of eye. Body and femora with shorter setae, longest ones shorter than flagellomere 1 length. Prominent elevation of metasomal sternum 6 semicircular or narrowly semielliptical, with strongly curved posterior margin 35
- 35. Lower frons between antennal sockets slightly convex, not roof-shaped. Lower half of mesopleuron with dense micropunctures only, not mixed with larger punctures. Prominent elevation of metasomal sternum 6 wide, elevation width more than metatarsomeres 3 length. Body length 10–15 mm ***B. planifrons***
- Lower frons between antennal sockets roof-shaped. Lower half of mesopleuron with dense micropunctures mixed with rare small punctures. Prominent elevation of metasomal sternum 6 narrow, elevation width less than metatarsomere 3 length 36
- 36. Metasomal terga with broad whitish band occupied at least half of their length and almost reaching their posterior margin, dark space between pale band and posterior margin of tergum much less than band width. Body length 13–16 mm ***B. lutescens***
- Metasomal terga with narrow whitish band occupied no more than one-third of their length, dark space between pale band and posterior margin of tergum no less than band width 37
- 37. Mesopleuron yellow with small black spots. Body length 13–16 mm long ***B. eburnea***
- Mesopleuron black with small pale yellow spots. Body length 12–15 mm ***B. cinctella***

List of the species

***Bembix bicolor* Radoszkowski, 1877**

Bembex (!) *bicolor* Radoszkowski, 1877: 47, ♀, ♂ (syntypes – ♀♂; Uzbekistan, Samarkand; Tajikistan, Varzaminor; Kyrgyzstan, Shakhimardan; [ZMMU]); Kohl & Handlirsch, 1889: 281; Handlirsch, 1893: 747; de Dalla Torre, 1897: 502; Gussakovskij, 1934: 13; Gussakovskij, 1935: 444; Islamov, 1970: 63.

Bembex (!) *femoralis* Radoszkowski, 1877: 48, ♀, ♂ (syntypes – ♀♂, Kazakhstan, Kyzyl-Kum, no specific locality, [ZMMU]), synonymized by Handlirsch, 1893: 747; Kohl & Handlirsch, 1889: 281.

Bembex (!) *bipunctata* Radoszkowski, 1877: 50, ♀, ♂, junior subjective synonyms of *Bembex bipunctata* Dufour, 1861 (syntypes – ♀♂, Uzbekistan, Zarafshan valley, no specific locality, [ZMMU]), synonymized by Handlirsch, 1893: 747; Radoszkowski, 1887: 44, 1893: 66.

Bembex (!) *barbiventris* F. Morawitz, 1889: 142, ♂ (syntypes – ♂♂, Mongolia, "Gaotai" [North China, Gansu], [ZISP]), synonymized by Handlirsch, 1893: 747; F. Morawitz, 1893b: 423.

Bembix bicolor: Tsuneki, 1971a: 207; Kazenas, 1972: 141; Myartseva, 1972: 90; Kazenas, 1974: 109, 110; Bohart & Menke, 1976: 545; Kazenas, 1978: 86, 89; Pulawski, 1978: 208, 209; Baratov & Nazarova, 1980: 75; Nazarova & Baratov, 1981: 98; Kazenas, 1992: 28; Nazarova & Shomirsaidov, 1997: 24; Nazarova, 1998: 42; Kazenas, 2001: 49, 50, 238, 2002: 130; Nazarova, 2004: 108, 2005: 94; Kazenas, 2008: 255; Prismaniy, 2012: 51; Kazenas, 2013: 498.

MATERIAL. Kazakhstan: Kyzylordinskaya Oblast, Balamurun, 24, 25.V 1913, 1♀, 1♂ (Kozhanchikov). **Uzbekistan:** Karayantak, 13, 16.V 1915, 2♂; 30 km S Samarkand, Amankutan tract, 4.VII 1932, 1♀ (Gussakovskij). **Turkmenistan:** Kopetdag ridge, 29-30.IV 1888, 1♂ (Semenov); Krasnovodsk, 1♂ (coll. F. Morawitz); *ibid.*, 29.VI 1901, 1♀ (Anger); *ibid.*, 22.VI 1925, 1♀ (Gussakovskij); *ibid.*, 3.VI 1927, 1♂ (coll. Ushinski); Uch-Adzhi, 1-3.V 1929, 1♀ (Shestakov); Kara-Kala, 2.VI 1952, 1♂ (Steinberg); Bolshoi Balhan ridge, Shahi-Burun, 16.VI 1934, 1♀ (Popov); Jebel, 29.VI 1934, 1♀ (Popov); Akhcha-Kuima, 2.VI 1953, 1♀ (Steinberg); North Karakum, Shasenem, 5-6.VI 1953, 1♀ (Ahrens); Bolshoi Balhan ridge, Aidin, 4.VI 1953, 1♀ (Odintsova); Kopetdag ridge, 12 km SW Serdar, 24.V 1953, 5♀, 1♂ (Odintsova, Steinberg); West Kopetdag ridge, 12 km S Iskander, 14.VI 1953, 1♂ (Odintsova); *ibid.*, Syunt mountain, 21, 23.VI, 9.VII 1953, 4♀, 3♂ (Odintsova, Ponomareva, Ahrens); *ibid.*, Iol-Dere, 29.VI 1953, 1♀ (Ahrens). **Tajikistan:** Yagnob river, Ausol, 18.VII 1892, 1♂ (Glazunov); Zarafshan river, Darch, 11.VIII 1892, 1♀ (Glazunov); Shurab, 20.V 1915, 1♀ (Shestakov); southern slope of Hissar ridge, Dara-i-Hodzh, 31.VIII 1930, 1♂ (Kuznetsov); Ayvaj, Kafir-nigan river mouth, 18.VI 1936, 1♀ (Gussakovskij); Khorog, Shahdara river mouth, 1936, 1♀ (Bregotova); 35 km N Dushanbe, Kwak tract, 21.VII 1937, 1♂ (Gussakovskij); near Dushanbe, Kondara gorge, Varzob river mouth, 9.VIII 1937, 16.VII 1938, 15.VI 1939, 1♀, 2♂ (Gussakovskij); Dushanbe, botanical garden, 20.V, 8.VI 1944, 3♀ (Popov). **Mongolia:** Umnugovi Aimag, 60 km WNW of Baya-Dalai,

Khongoryn-els, 30-31.VII 1967, 1♂ (Emelyanov); *ibid.*, 60 km E of Talyn-Bilgeh-Bulak spring, 17-19.VIII 1969, 2♀ (Kozlov). **China:** Inner Mongolia, Alashan, Dyn-Yuan-In, 10-18.VI 1908, 8♀, 4♂ (Kozlov); *ibid.*, Gobi, Ikhengun, 24.VI 1909, 8♂ (Kozlov).

DISTRIBUTION. Italy, Greece, Bulgaria, Cyprus, Turkey, Israel, Oman, Russia (Belgorodskaya Oblast), Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, Iraq, Iran, Afghanistan, Mongolia, China (Qinghai, Gansu, Inner Mongolia).

***Bembix bidentata* Vander Linden, 1829**

Bembex (!) *bidentata* Vander Linden, 1829:13, ♂, also tentatively ♀ (holotype – ♂, southern France, no specific locality, [Bruxelles]); Handlirsch, 1893: 773; de Dalla Torre, 1897: 502.

Bembix bidentata: Parker, 1929:182; Romanova, 1969: 134; Bohart & Menke, 1976: 545; Kazenas, 1978: 89; Pulawski, 1978: 208, 209; Minoranskiy & Shkuratov, 1996: 81; Shkuratov, 2000: 57; Kazenas, 2001: 50, 239, 2002: 130; Protsenko, 2003: 68, 69; Gorobchishin & Protsenko, 2004: 39; Kazenas, 2004a: 35; Shkuratov, 2004a: 75, 2004b: 166; Evans & O'Neill, 2007: 173; Baghirov, 2010: 678; Shorenko & Konovalov, 2010: 14; Baghirov, 2011: 141; Prisniy, 2012: 51; Protsenko et al., 2014: 27.

MATERIAL. Russia: Volgogradskaya Oblast, Volgograd, 1♀ (coll. F. Morawitz); *ibid.*, 20.VI 1906, 1♂ (Wollman); Dagestan, Alexandro-Nevskoe, 1.VII, 3, 5.VIII 1927, 23.VIII 1928, 3♀, 2♂ (Olsufiev, Popov); Astrakhanskaya Oblast, Verkhnyaya Chekannaya, 9.VI 1911, 1♂ (Lukasz). **Austria:** "Austria", 1867, 1♂ (Erber). **Ukraine:** Luganskaya Oblast, Lugansk, 27.VI 1921, 1♂; Khersonskaya Oblast, Tsyurupinsk, 14.VII, 22.VI 1914, 1♀, 3♂ (Fedorov). **Abkhazia:** Gagra, 26.VI 1909, 2♂ (Zhuravsky). **Azerbaijan:** Agdere, 1♀ (coll. F. Morawitz); Kudula, 29.VI 1928, 1♂ (Bocharnikov). **Kazakhstan:** Zapadno-Kazakhstanskaya Oblast, Uralsk, 29-30.VII 1926, 1♂ (Shestakov); *ibid.*, Yanvartzevo, 8-31.VII 1949, 4♀, 6♂ (Rudolf, Popov); *ibid.*, Mergenevo, Ural river, 10.VI 1951, 1♀ (Steinberg); *ibid.*, Kharkin, 4.VII 1951, 1♂ (Romadina). **Iran:** Tabriz, 2.VI 1914, 1♂ (Andrievsky).

DISTRIBUTION. France, Portugal, Spain, Italy (including Sicily and Sardinia), Austria, Croatia, Albania, Macedonia, Greece (including Crete and Rhodes), Slovakia, Hungary, Romania, Bulgaria, Ukraine, Turkey, Russia (Crimea, Belgorodskaya Oblast, Volgogradskaya Oblast, Rostovskaya Oblast, Dagestan, *Astrakhanskaya Oblast, Altai), *Abkhazia, *Azerbaijan, Kazakhstan, Iran.

***Bembix cinctella* Handlirsch, 1893**

Bembex (!) *cinctella* Handlirsch, 1893: 721, ♀, ♂ (syntypes – ♀♂, Albania and Greece, no specific locality, [depository not indicated]); de Dalla Torre, 1897: 503.

Bembix cinctella: Bohart & Menke, 1976: 545; Shorenko, 2003: 97; Shorenko, 2005b: 98; Ivanov, Fateryga & Filatov, 2009: 42; Protsenko, Fateryga & Ivanov, 2014: 27.

MATERIAL. Russia: Crimea, Enisharskaya bay, 13-26.VIII 1916, 1♀ (Wuczeticz); *ibid.*, Otuzskaya valley, 26.VII-9.VII 1922, 1♂ (Wuczeticz). **Greece:** Corfu,

1867, 2♀, 7♂ (Erber). **Turkey:** Chiftlik, 10-20.VII 1928, 1♂ (Wagner); Konya, Tuz lake, 4.VII 1962, 1♂ (Soika).

DISTRIBUTION. Albania, Greece (including Crete and Rhodes), Turkey, Jordan, Russia (Crimea).

***Bembix dilatata* Radoszkowski, 1877**

Bembex (!) *dilatata* Radoszkowski, 1877: 47, ♂ (syntypes – ♂♂, Uzbekistan, Tashkent and Karakazyk, [ZMMU]); Handlirsch, 1893: 714; F. Morawitz, 1893b: 423; de Dalla Torre, 1897: 504; F. Morawitz, 1897: 152.

Bembix dilatata: Bohart & Menke, 1976: 546; Kazenas, 1978: 86, 89; Baratov & Nazarova, 1980: 76; Nazarova & Baratov, 1981: 99; Kazenas, 1992: 28; Nazarova, 1998: 42; Kazenas, 2001: 50, 2002: 130, 2004a: 111, 2013: 498.

MATERIAL. **Kyrgyzstan:** Irkeshtam, 16.VII 1935, 2♂ (Olsufiev); Moldotau ridge, 20.VIII 1972, 1♂ (Tarbinski). **Tajikistan:** Yagnob river, 1♀, 1♂ (coll. F. Morawitz); *ibid.*, 1892, 1♀, 2♂ (Glazunov); Zarafshan river, Zahmat-Abad, 1892, 1♀ (Glazunov); 40 km N Dushanbe, Ruidasht tract, 4.IX 1937, 1♀ (Gussakovskij); southern slope of Hissar ridge, Khodzha-Obi-Garm, 2.IX 1946, 1♀ (Popov); near Dushanbe, Kok-Kul tract, Lyuchob river, 20-22.VIII 1940, 1♂ (Gussakovskij). **China:** Xinjiang, Kyzyl-Su river valley, 22.VII 1935, 1♀ (Olsufiev); *ibid.*, Sulu-Sakal river valley, 24.VII 1935, 1♀ (Olsufiev).

DISTRIBUTION. Kazakhstan, *Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, *China (Xinjiang).

***Bembix diversipes* F. Morawitz, 1889**

Bembex (!) *diversipes* F. Morawitz, 1889: 138, ♂ (holotype – ♂, "Kansu, Nan-pin"[China, Gansu] [ZISP], examined); Handlirsch, 1893: 711; F. Morawitz, 1893b: 423; de Dalla Torre, 1897: 504; Tsuneki, 1971a: 208, 1971b: 8.

Bembix diversipes: Bohart & Menke, 1976: 546; Kazenas, 1978: 89; Nemkov, 1986: 108, 1990: 83; Nemkov et al., 1995: 466; Kazenas, 2001: 50, 2002: 131; Hua, 2006: 277; Nemkov, 2008: 25, 2009: 142; Akulov & Proshchalykin, 2013: 117.

Bembix pallida: Baghirov, 2010: 678, 2011: 141.

MATERIAL. Holotype of *Bembix diversipes* F. Morawitz, 1889 – ♂, China, "Kansu, Nan-pin" (coll. F. Morawitz). **Russia:** Altai, 1♀ (coll. F. Morawitz); *ibid.*, Ongudai, 1♂ (Steinfeld); *ibid.*, Katun river, Uznezya, 16.VIII 1909, 1♀ (Gorchakovski); *ibid.*, 20 km WSW of Aktash, Chuya river, 10.VIII 1987, 1♀, 1♂ (Pesenko); *ibid.*, 15 km ESE of Ongudai, Khabarovka river, 12.VIII 1987, 1♀ (Pesenko); *ibid.*, Ongudai, 8-10, 21.VII 1998, 1♀, 1♂ (Berezovsky); Krasnoyarskii Krai, Krasnoyarsk, 1♀ (coll. F. Morawitz); Irkutskaya Oblast, 15 km E Ust-Orda, Ordinsk, 2.VIII 1994-22.VII 2008, 12♀, 12♂ (Nemkov); Buryatiya, Naushki, 26.VII 1924, 1♂ (Mikhno); *ibid.*, Gusinoe lake, 2.VIII 1927, 1♂ (Mikhno); *ibid.*, Kyakhta, 28.VII 1977, 1♂ (Kupyanskaya); Primorskii Krai, Vinogradovka, 7.VIII 1929, 1♀ (Dyakov, Philipiev); *ibid.*, Kamen-Rybolov, 11.IX 1945, 1♀ (Onisimova). **Kazakhstan:**

Vostochno-Kazakhstanskaya Oblast, Zaysan lake, 1♂ (coll. F. Morawitz); Karagandinskaya Oblast, near Jan-Ark, Koksengir, 8.VII 1959, 2♂ (Demyanova). **Mongolia:** Kentei ridge, upper reaches of Khara-Gol river, Sugu-Nur stream, 31.VII-2.VIII 1924, 1♂ (Kozlov); Uvurhangai aimag, 20 km S Hovd, Arts-Bogdo ridge, 12.VIII 1967, 1♀ (Emelyanov, Kerzner).

DISTRIBUTION. Turkey, Russia (Altai, Krasnoyarskii Krai, Irkutskaya Oblast, Buryatiya, *Primorskii Krai), Kazakhstan, Kyrgyzstan, Uzbekistan, Iran, Mongolia, China (Inner Mongolia, Gansu).

REMARKS. The material from Altai, identified by Bagirov (2010, 2011) as *B. pallida*, really belongs to *B. diversipes*.

***Bembix eburnea* Radoszkowski, 1877**

Bembix (!) *eburnea* Radoszkowski, 1877: 49, ♂ (holotype – ♂, Uzbekistan, Samarkand, [ZMMU]); Handlirsch, 1893: 722; Radoszkowski, 1893: 66; de Dalla Torre, 1897: Gussakovskij, 1933: 293, 1935: 444.

Bembix (!) *weberi* Handlirsch, 1893: 723, ♀, ♂ (syntypes – ♀♂, North China, no specific locality, [depository not indicated, probably Münster]; de Dalla Torre, 1897: 515; **syn. n.**

Bembix subeburnea Tsuneki, 1971a: 214, ♀, ♂ (holotype – ♂, Mongolia, Hovd Aymag, Somon Bulgan, [Budapest]); Bohart & Menke, 1976: 548; **syn. n.**

Bembix weberi lama Tsuneki, 1971a: 216, ♂ (holotype – ♂, Mongolia, South Gobi Aymag, "Takhilga ul", [Budapest]); Bohart & Menke, 1976: 549; **syn. n.**

Bembix weberi: Yasumatsu, 1942: 110; Tsuneki, 1969: 5; Tsuneki, 1971b: 7; Bohart & Menke, 1976: 549; Wu & Zhou, 1996: 155; Hua, 2006: 277; Evans & O'Neill, 2007: 178.

Bembix eburnea: Tsuneki, 1971b: 7; Bohart & Menke, 1976: 546; Kazenas, 1978: 90; Baratov & Nazarova, 1980: 76; Nazarova & Baratov, 1981: 99; Nazarova, 1998: 42; Kazenas, 2001: 50, 2002: 131, 2004: 35; Yildirim & Ljubomirov, 2005: 1790 (description of ♀); Kazenas, 2013: 498.

MATERIAL. **Russia:** Crimea, Sevastopol, 19.VI 1912, 1♀ (Pliginski); *ibid.*, Koktebel, 17.VIII 1924, 1♀ (Wuczeticz); Volgogradskaya Oblast, Volgograd, 1866-1872, 3♀, 1♂ (Bekker); *ibid.*, 17, 20.VI 1906, 2♀ (Wollman). **Kazakhstan:** Aktyubinskaya Oblast, Malye Barsuki, 28.VI 1910, 2♂ (Androssov); Kyzylordinskaya Oblast, Baigakum, 10.VI 1907, 1♂ (Wollman); *ibid.*, Kyzylorda, 16.VI 1908, 1♂ (Wollman); *ibid.*, Tastubek, 20.VI 1933, 1♂; Akmolinskaya Oblast, Kuropatkino, 29.VII 1930, 1♂ (Gussakovskij). **Uzbekistan:** Khiva, 24.VI-1.VII 1927, 2♀, 2♂ (Gussakovskij); near Khatyrchi, Yargak, 11-15.VI 1928, 19.VI 1929, 4♀, 2♂ (Zimin, Gussakovskij); Sariasia, 1.VI 1928, 1♂ (Kuznetsova); near Vabkent, Makhallya-Gedzha, 21.V 1932, 1♀ (Kuznetsova); Juma, 11.VI 1937, 1♂ (Popov). **Turkmenistan:** Krasnovodsk, 2♀ (coll. F. Morawitz); Ashgabat, 27.VI 1924, 1♂ (coll. Ushinski); Kushka, 13-18.VI 1925, 2♂ (Gussakovskij); Komarovskii, 22, 25.VI 1928, 1♀, 1♂ (Gussakovskij); Firuza, 28.VI 1928, 1♂ (Semenov); Farab, 12-28.V 1929, 1♀ (Gussakovskij); 40 km N Serdar, Kara-Bogaz, 19.V 1952, 1♀ (Steinberg); Kara-Kala, 14.VI 1952, 3.VII 1955, 2♂ (Ponomareva, Kryzhanovsky); 100 km NE Serdar, Kirpili, 15.V 1953, 2♀ (Ahrens). **Tajikistan:** southern slope of

Hissar ridge, Gushari, 28.VII 1930, 1♀ (Kuznetsova); near Kulyab, 1.VIII 1933, 1♂ (Popov); Vakhsh river, Staraya Pristan, 9.IX 1948, 1♂ (Popov). **Iran:** Ungyut-Mugan, 17, 20.III 1927, 1♀, 1♂ (Bocharnikov); Kuru-Chai, 20.VIII 1927, 2♀, 1♂ (Dovnar-Zapolsky). **Mongolia:** Gobi-Altai Aimag, Adzh-Bogdo ridge, 10 km SSE Ikh-Obo-Ula mountain, 18.VII 1970, 1♀ (Narchuk). **China:** Xinjiang, Gashun Gobi, Sajou, 4, 5.VIII 1895, 2♀ (Roborovsky, Kozlov); Tianjin, 1♂ (Weber).

DISTRIBUTION. Turkey, *Russia (Crimea, Volgogradskaya Oblast), Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Iran, Afghanistan, Mongolia, China (*Xinjiang, Inner Mongolia, Hebei, Beijing, Tianjin).

REMARKS. The specimen in ZISP with the labels "Weber Tientsin." and "Bembex Weberi ♂ Handl. Typ." is the probable syntype of *B. weberi*. The study of this male as well as two females from Xinjiang with the labels "Bembex Weberi Handl. det. Kohl ♀" revealed no significant differences between *B. weberi* and *B. eburnea*. A comparison of the examined material with original descriptions and figures (Tsuneki, 1971a) of *B. subeburnea* and *B. weberi lama* showed that the diagnostic features of these taxa are within the variability of *B. eburnea*. Therefore I regard the *B. weberi* Handlirsch, *B. subeburnea* Tsuneki, and *B. weberi lama* Tsuneki as a junior subjective synonyms of *B. eburnea* Radoszkowski.

***Bembix integra* Panzer, 1801**

Bembex (!) *integra* Panzer, 1801: 21, ♂ (holotype [or syntypes] – ♂, Germany, no specific locality, [depository not indicated]); Handlirsch, 1893: 701, 1895: 1002; de Dalla Torre, 1897: 506; Müller, 1930: 181.

Bembex (!) *dubia* Gussakovskij, 1933: 293, ♀, ♂ (lectotype, designated here – ♂, Iran, Kerman, Enaric, [ZISP], examined); **syn. n.**

Bembix iliensis Kazenas, 1978: 86, ♀ (lectotype, designated by Kazenas, 1980a – ♀, Kazakhstan, Alma-Atinskaya Oblast, Kegen river valley, [ZISP], examined); Kazenas, 2001: 50 (as tentative synonym of *Bembix diversipes*); **syn. n.**

Bembix iliensis Kazenas, 1980a: 141, ♀, junior objective synonym and primary homonym of *Bembix iliensis* Kazenas, 1978 (holotype – ♀, Kazakhstan, Alma-Atinskaya Oblast, Kegen river valley, [ZISP], examined); **syn. n.**

Bembix integra: Parker, 1929:103; Kazenas, 1978: 87, 89; Pulawski, 1978: 208, 209; Protsenko, Fateryga & Ivanov, 2014: 27.

Bembix dubia: Bohart & Menke, 1976: 546; Kazenas, 2001: 50.

MATERIAL. Lectotype of *Bembix dubia* Gussakovskij, 1933 – ♂, Iran, Kerman, Enaric, 19.VIII 1898 (Zarudny); paralectotypes – ♀, with the same label; ♂, Russia, Dagestan, Akhty (coll. F. Morawitz). Lectotype of *B. iliensis* Kazenas, 1978 and holotype of *B. iliensis* Kazenas, 1980 – ♀, Kazakhstan, Alma-Atinskaya Oblast, Kegen river valley, 26.VIII 1961 (Kazenas). **Portugal:** Portu, 2♀. **Spain:** Sierra de Guadarrama mountains, 8.VIII 1911, 9.VIII 1913, 2♀ (Dusmet). **Hungary:** "Hungary centralis", 1♀ (coll. F. Morawitz). **Ukraine:** Kharkovskaya Oblast, Dar-Nadezhda, 1921, 1♀; Kirovogradskaya Oblast, Kirovograd, 15.VII 1902, 1♀. **Kazakhstan:** Pavlodarskaya Oblast, Fedorovka, 26.VIII 1928, 1♀ (Belizin); Karagandinskaya Oblast, Koksengir near Jana Arka, 22.VII 1959, 1♀ (Demyanova). **Turkmenistan:** West Kopetdag ridge, Syunt mountain, 9.VII 1953, 1♂ (Ahrens).

DISTRIBUTION. France, Portugal, Spain, Switzerland, Italy, Germany, Austria, Croatia, Serbia, Poland, Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Ukraine, Russia (Crimea, Dagestan), Kazakhstan, Turkmenistan, Iran.

REMARKS. The study of the type specimens of *B. dubia* showed that they correspond to diagnostic criteria of *B. integra*. Kazenas (1980a), when designated the holotype of *B. iliensis* Kazenas, 1980, actually also designated the lectotype of *B. iliensis* Kazenas, 1978, according to article 74.6 of the Code (ICZN, 1999). Later Kazenas (2001) suggested the synonymy of *B. diversipes* F. Morawitz and *B. iliensis* Kazenas, but my study of the types of both species did not confirm this. The comparison of the lectotype of *B. iliensis* Kazenas and material on *B. integra* Panzer did not reveal the significant differences between them. Therefore I regard *B. dubia* Gussakovskij, *B. iliensis* Kazenas, 1978 and *B. iliensis* Kazenas, 1980 as a junior subjective synonyms of *B. integra* Panzer.

***Bembix lutescens* Radoszkowski, 1877**

Bembex (!) *lutescens* Radoszkowski, 1877: 49, ♂ (holotype – ♂, Kyzyl-Kum [probably Uzbekistan], no specific locality, [ZMMU], examined); Handlirsch, 1893: 889; de Dalla Torre, 1897: 507.

Bembex (!) *gracilis* Handlirsch, 1893: 725, ♀, ♂ (syntypes – ♀ ♂: Russia, Volgogradskaya Oblast, Sarepta [currently Krasnoarmeisk]; Azerbaijan: Arax river valley, no specific locality; Transcaspia, no specific locality, [depository not indicated]); de Dalla Torre, 1897: 505; **syn. n.**

Bembex gracilis: Kazenas, 1974: 109; Bohart & Menke, 1976: 546; Myartseva, 1972: 90; Kazenas, 1978: 87, 90; Pulawski, 1978: 208, 210; Nazarova, 1998: 42; Baratov & Nazarova, 1980: 76; Nazarova & Baratov, 1981: 99; Nazarova & Shomirsaidov, 1997: 24; Shkuratov, 2000: 57; Kazenas, 2001: 50, 239, 2002: 131; Shorenko, 2003: 97; Gorobchishin & Protsenko, 2004: 39; Kazenas, 2004a: 111; Shkuratov, 2004a: 75, 2004b: 166; Nazarova, 2005: 94; Shorenko, 2005b: 98; Kazenas, 2008: 255; Shorenko & Konovalov, 2010: 14; Kazenas, 2013: 498; Protsenko, Fateryga & Ivanov, 2014: 27.

Bembix lutescens: Bohart & Menke, 1976: 547; Kazenas, 2001: 50, 2002: 131.

MATERIAL. Holotype of *Bembex lutescens* Radoszkowski, 1877 – ♂, Kyzyl-Kum (Fedchenko). **Azerbaijan**: Arax river, Kurugai, 20.VIII 1924, 1♀ (Dovnar-Zapolsky). **Kazakhstan**: Kyzylordinskaya Oblast, Baigakum, 28.V 1913, 4♂ (Gutbier); *ibid.*, 70 km N Aralsk, 25.VIII 1930, 1♀ (Gozhev). **Uzbekistan**: 1♂, Khiva, 15.VI 1927, 1♀ (Gussakovskij); 15 km N Bukhara, Baga-Abzal, 15, 17.V 1929, 2♀, 1♂ (Kuznetsova); near Khatyrchi, Yargak, 19.VI 1929, 1♀, 1♂ (Gussakovskij). **Turkmenistan**: Imam-Baba, 12-14.V 1912, 2♀, 4♂ (Kozhanchikov); Ashgabat, 25.VII 1924, 1♀ (coll. Ushinski); *ibid.*, 17.VI 1928, 1♀, 1♂ (Gussakovskij, Vlasov); Kushka, 13-18.VI 1925, 1♀, 2♂ (Gussakovskij); Krasnovodsk, 14.VI 1928, 1♀ (Gussakovskij); Uch-Adzhi, 1-3.V 1929, 2♀, 2♂ (Shestakov); Farab, 6.VII 1928, 12-28.V 1929, 3♀, 6♂ (Shestakov); Jebel, 6-7.VI 1934, 1♂ (Popov); Repetek, 22, 26.VI, 10.VII 1925, 24.VI 1937, 2♀, 2♂ (Gussakovskij, Kostylev); 100 km NE Serdar, Kirpili, 15.V 1953, 1♂ (Ahrens); Karakum, Orta-Kuyu, 19-21.V

1953, 3♀, 1♂ (Ahrens); North Karakum, Shasenem, 1-5.VI 1953, 1♀, 10♂ (Ahrens); 40 km N Serdar, Kara-Bogaz, 18.V-27.VI 1953, 6♀, 6♂ (Kryzhanovsky, Odintsova, Steinberg); Kara-Kala, 20.VII 1953, 1♀ (Ponomareva). **Tajikistan:** Khodzha-Kala, 1♀ (coll. F. Morawitz); Vakhsh river, Jilikul, 10, 13.VI 1934, 1♀, 1♂ (Gussakovskij); near Kubadiyan, Koi-Pyaz-Tau mountain, 20.VI 1934, 1♀ (Gussakovskij); Pyanj river, Parkhar, 3.VII 1936, 1♀ (Gussakovskij); Dushanbe, botanical garden, 9.VII 1943, 24.IX 1946, 2♀ (Popov, Romadina); Vakhsh river, Staraya Pristan, 12.IX 1948, 1♀ (Popov); Kurgan-Tyube, 26, 30.VIII, 5.IX 1948, 3♀, 3♂ (Popov, Rudolf); Khodzha-Kala, 25.VI 1953, 1♀ (Odintsova).

DISTRIBUTION. Ukraine, Turkey, Russia (Crimea, Volgogradskaya Oblast, Rostovskaya Oblast), Azerbaijan, Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Iran.

REMARKS. The study of the holotype of *B. lutescens* Radoszkowski showed its complete identity with *B. gracilis* Handlirsch, therefore I regard *B. gracilis* as a junior subjective synonym of *B. lutescens*.

***Bembix megerlei* Dahlbom, 1845**

Bembex (!) *megerlei* Dahlbom, 1845: 492, ♂ (holotype [or syntypes] – ♂, "Austria" [probably today's Hungary], no specific locality, [depository not indicated, probably Lund or Stockholm]); Handlirsch, 1893: 729; de Dalla Torre, 1897: 508; Gorobchishin, 1995: 19.

Bembex (!) *sarafschani* Radoszkowski, 1877: 48, ♀, ♂ (syntypes – ♀♂, Uzbekistan, Zarafshan river valley, no specific locality, [ZMMU]), synonymized by Handlirsch, 1893: 729.

Bembix megerlei: Parker, 1929:115; Bohart & Menke, 1976: 547; Kazenas, 1978 :87, 90; Pulawski, 1978: 209; Minoranskiy & Shkuratov, 1996: 81; Kazenas, 2001: 50, 239; Kazenas, 2002: 131; Shkuratov, 2002: 140, 2004a: 75, 2004b: 166; Shorenko, 2005b: 98; Gorobchishin, 2006: 142; Danilov & Tshernyshev, 2008: 42; Shorenko & Konovalov, 2010: 14; Baghirov, 2011: 141; Nemkov, 2012: 123; Prisniy, 2012: 51; Protsenko, Fateryga & Ivanov, 2014: 30.

MATERIAL. **Russia:** Crimea, Evpatoria, 1♀ (Yakovlev); Volgogradskaya Oblast, Volgograd, 18.VI 1906, 1♀ (Wollman). **Ukraine:** Kharkovskaya Oblast, Kuryazh, 1♂ (coll. F. Morawitz); *ibid.*, 8, 9.VII 1884, 4♂ (Yaroshevski); Kirovogradskaya Oblast, Kirovograd, 12.VII 1902, 1♂; Poltavskaya Oblast, Yareski, 15.VII-5.VIII 1922, 3♀, 2♂ (Belgovsky); *ibid.*, Tribny tract, 27.VIII 1923, 2♀ (Belgovsky); *ibid.*, Yareski, 24.VII 1930, 1♂ (Hildebrandt). **Turkey:** Chiftlik, 10-20.VII 1928, 1♂ (Wagner). **Kazakhstan:** Zapadno-Kazakhstanskaya Oblast, Yanvartzevo, 20.VI-1.VIII 1949, 2♀, 3♂ (Popov); Aktyubinskaya Oblast, Malye Barsuki, 1.VI, 2.VII 1909, 23.VI 1910, 2♀, 1♂ (Androssov).

DISTRIBUTION. Serbia, Slovakia, Hungary, Romania, Bulgaria, Ukraine, Turkey, Russia (Crimea, Belgorodskaya Oblast, *Volgogradskaya Oblast, Rostovskaya Oblast), Kazakhstan, Uzbekistan.

***Bembix niponica* F. Smith, 1873**

Bembex (!) *niponica* F. Smith, 1873: 194, ♂ (syntypes – ♂♂, Japan, Honshu, Hyogo, [London]); Handlirsch, 1893: 889; de Dalla Torre, 1897: 509.

Bembex (!) *picticollis* F. Morawitz, 1889: 144, ♀, ♂ (lectotype, designated here – ♀, China, "Tibet, Chetschuen" [probably Sichuan], [ZISP], examined); Handlirsch, 1893: 767; de Dalla Torre, 1897: 511; **syn. n.**

Bembix miserabilis Parker, 1929: 108, ♀, ♂ (holotype – ♂, Japan, no specific locality, [Cornell]), synonymized by Tsuneki, 1965: 27.

Bembix picticollis: Parker, 1929: 114; Yasumatsu & Narisada, 1935: 72; Yasumatsu, 1940: 31, 1942:108.

Bembix niponica: Parker, 1929: 120; Tsuneki, 1965: 27; Bohart & Menke, 1976: 547; Kazenas, 1980c: 85, 2001: 50, 2002: 132; Terayama, 2006: 18; Evans & O'Neill, 2007: 174; Nemkov, 2008: 25; Kazenas, 2013: 498.

Bembix niponica picticollis: Tsuneki, 1965: 27, 1967: 2, 1971a: 207, 1971b: 8, 1974: 361; Bohart & Menke, 1976: 547; Kazenas, 1978b: 87, 89; Tsuneki, 1982: 11, 18; Tsuneki, 1991: 199; Nemkov et al., 1995: 466; Wu & Zhou, 1996: 15; Hua, 2006: 277; Nemkov, 2009: 142, 2012: 446; Akulov & Proshchalykin, 2013: 118.

MATERIAL. Lectotype of *Bembix picticollis* F. Morawitz, 1889 – ♀, China, "Tibet Chetschen." (probably Sichuan) (coll. F. Morawitz); paralectotype – ♂, China, "Tibet Chetschen" (Potanin). **Russia:** Krasnoyarskii Krai, Minusinsk, 1♀ (coll. F. Morawitz); Buryatiya, Gusinoe lake, 27.VII 2007, 3♀ (Lelej, Proshchalykin, Loktionov); *ibid.*, Dzhizha, 27.VII 2007, 1♀ (Lelej, Proshchalykin, Loktionov); *ibid.*, Naushki, 2, 3.VIII 1984, 30.VII 2007, 15♀ (Lelej, Proshchalykin, Loktionov); Amurskaya Oblast, Blagoveshchensk, 16.VII 1982, 1♀ (Lelej); Primorskii Krai, Kamen-Rybolov, Hanka lake, 19.VII 1908, 1♀ (Chersky); *ibid.*, Troitskoe, Hanka lake, 6.VII 1909, 1♂ (Chersky); *ibid.*, Yakovlevka, 17.VII 1926, 1♂ (Dyakov, Philipiev); *ibid.*, Baranovskii, Sujfun river, 16.VIII 1947, 1♂ (Onisimova); *ibid.*, Hasan, 7.VIII 1976, 1♂ (Kurzenko); *ibid.*, Golubinyi Utes, 10.VII 1976, 7.IX 1982, 4♀, 3♂ (Lelej, Kurzenko); *ibid.*, 15 km W Spassk-Dalny, 7.IX 1981, 1♀ (Lelej); *ibid.*, Ryazanovka, 14-18.VII 1982, 7.IX 1982, 1♀ (Shalagina); *ibid.*, Khasanskii Nature Reserve, Przewalski spit, 1.VII 2005, 1♀ (Sidorenko). **Kazakhstan:** Kyzyl-ordinskaya Oblast, Baigakum, 9.VI 1907, 1♂ (Wollman); *ibid.*, Chiili, 25.V 1910, 1♂ (Kuzmin). **Uzbekistan:** Kaunchi, 7.VI 1930, 1♂ (Gussakovskij). **Turkmenistan:** Kushka, 13-18.VI 1925, 1♂ (Gussakovskij). **Mongolia:** Uvs Aimag, 50 km E Ulangom, 10-11.VII 1968, 3♀ (Kozlov). **China:** "N. China", 6.VII 1914, 1♀ (Vasilev); Qinghai, Nanshan mountains, Xining-Hae river, 28, 29.VII 1908, 2♀ (Kozlov); Inner Mongolia, Ordos plateau, 22.VIII 1884, 1♀ (Potanin); Sichuan, near Batan, 2-5.VI 1893, 1♀ (Potanin); *ibid.*, Vasykou-Tsali, 15.VII 1895, 1♀ (Potanin); Liaoning, Mukden, 20.VII 1952, 1♀ (Rubtsov). **Japan:** Honshu, 1♂; *ibid.*, Fukui, Tsuruga, 23.VIII 1960, 23.VII 1965, 1♀, 1♂ (Tsuneki); Kagoshima, Yaku Island, 21.VII 1928, 1♂.

DISTRIBUTION. Russia (*Krasnoyarskii Krai, Buryatiya, Amurskaya Oblast, Khabarovskii Krai, Primorskii Krai), Kazakhstan, *Uzbekistan, *Turkmenistan, Mongolia, China (Qinghai, Sichuan, Inner Mongolia, Heilongjiang, Liaoning, Beijing, Tianjin, Taiwan), Korean Peninsula, Japan (Honshu, Kyushu, Ryukyu).

REMARKS. *Bembix niponica picticollis* F. Morawitz considered as a continental subspecies of the eastern-palaeartic species *B. niponica* F. Smith, and differed from the nominotypical island subspecies *B. niponica niponica* (Japan and Taiwan) mainly by less developed bright body colouration. The study of the type specimens of *B. picticollis* from China showed that they not differ from specimens of *B. niponica* from Japan, therefore I regard *B. picticollis* F. Morawitz as a junior subjective synonym of *B. niponica* F. Smith.

***Bembix oculata* Panzer, 1801**

Bembex (!) *oculata* Panzer, 1801: 22, ♀ (holotype [or syntypes] – ♀, Germany, no specific locality, [depository not indicated]); Eversmann, 1849: 397; Radoszkowski, 1877: 51; Yaroshevskiy, 1881: 124; F. Morawitz, 1891: 225; Handlirsch, 1893: 854; Radoszkowski, 1893: 65; de Dalla Torre, 1897: 509; Kokujev, 1902: 10; Gussakovskij, 1933: 296; Gussakovskij, 1934: 13; Gussakovskij, 1935: 444.

Bembix oculata mongolica Tsuneki, 1971a: 209, ♂ (holotype – ♂, Mongolia, Hovd Aymag, Somon Bulgan, [Budapest]); Bohart & Menke, 1976: 547; **syn. n.**

Bembix oculata gegen Tsuneki, 1971a: 210, ♀, ♂ (holotype – ♂, Mongolia, Bayanhongor Aymag: oasis Ehingol, [Budapest]); Bohart & Menke, 1976: 547; **syn. n.**

Bembix oculata: Parker, 1929: 106; Myartseva, 1963: 60, 1965: 91; Kazenas, 1972: 142; Myartseva, 1972: 90; Kazenas, 1974: 109, 111; Bohart & Menke, 1976: 547; Kazenas, 1978: 86, 88; Pulawski, 1978: 208, 209; Baratov & Nazarova, 1980: 77; Nazarova & Baratov, 1981: 100; Islamov, 1986: 523; Nazarova & Gafarov, 1986: 71; Minoranskiy & Shkuratov, 1996: 81; Nazarova & Shomirsaidov, 1997: 24; Nazarova, 1998: 42; Kazenas, 2001: 50, 239, 2002: 132; Shorenko, 2003: 97; Gorobchishin & Protsenko, 2004: 39; Kazenas, 2004a: 111, 2004b: 35; Nazarova, 2004: 108; Shkuratov, 2004a: 75, 2004b: 166; Nazarova, 2005: 94; Shorenko, 2005a: 168, 2005b: 98; Evans & O'Neill, 2007: 175; Kazenas, 2008: 255; Baghirov, 2010: 678; Shorenko & Konovalov, 2010: 14; Baghirov, 2011: 141; Prisniy, 2012: 51; Kazenas, 2013: 498; Protsenko, Fateryga & Ivanov, 2014: 30.

MATERIAL. **Russia:** Crimea, Evpatoria, 14.VIII 1916, 1♀ (Pliginski); *ibid.*, Sevastopol, 13.VI 1918, 1♂ (Pliginski); Dagestan, Derbent, 3.VII 1910, 1♂ (Satunin). **Azerbaijan:** Gumbashi, 1.VII 1910, 1♀, 1♂ (Satunin); Balaken, 2, 4.VIII 1928, 1♀, 1♂ (Bocharnikov). **Kazakhstan:** Aktyubinskaya Oblast, Bolsye Barsuki, 6.VII 1908, 1♀ (Androssov); Aktyubinskaya Oblast, Malye Barsuki, 30.VI, 1.VII 1910, 1♀, 1♂ (Androssov); Zapadno-Kazakhstanskaya Oblast, Kharkin, 21.VI-28.VII 1953, 4♂ (Popov, Rudolf). **Uzbekistan:** Khiva, 24.VI 1927, 1♂ (Gussakovskij); Kaunchi, 7.VI 1930, 1♂ (Gussakovskij); 15 km N Bukhara, Baga-Abzal, 16.VII 1930, 1♀ (Kuznetsova); 30 km S Samarkand, Amankutan tract, 5.VII 1932, 1♀ (Gussakovskij); Nazarkhan, 4.VIII 1946, 1♀ (Lutta). **Turkmenistan:** Krasnovodsk, 1♂ (coll. F. Morawitz); Khazar, 26.VII, 2♀, 4♂ (Varentsov); Ashgabat, 8.VII 1924, 1♀ (coll. Ushinski); Kushka, 14.VI 1925, 1♀ (Gussakovskij); Farab, 2.VIII 1925, 1♀ (Gussakovskij); Krasnovodsk, 21.VIII 1927, 1♀ (coll. Ushinski); *ibid.*, 19.VII 1934, 1♀ (Popov); 16 km SW Serdar, Adzhi-Dere, 5.VII 1953, 2♀ (Odintsova); West Kopetdag ridge, Syunt mountain, 9.VII 1953, 2♀, 3♂ (Ahrens); Kara-Kala, 16.VI-15.VII 1953, 8.VII 1955, 4♀ (Ponomareva, Ahrens). **Tajikistan:** Jilikul,

25.V 1931, 1♂ (Fursov); near Kulyab, 20.VIII 1933, 1♀ (Popov); Garm, 5.VIII 1936, 1♀ (Gussakovskij); near Dushanbe, Kondara gorge, Varzob river mouth, 15.VII 1937, 16.VII 1938, 8.IX 1946, 1♀, 3♂ (Gussakovskij, Popov); Nizhnii Pyanj, Pyanj river, 17, 19.VII 1943, 2♂ (Shtakelberg); Vang, 15.IX 1943, 1♀ (Shtakelberg); near Khorog, 22, 25.IX 1943, 3♀ (Shtakelberg); Dushanbe, botanical garden, 13.IX 1943, 24.IX 1946, 1♀, 1♂ (Popov); Kurgan-Tyube, 13.VIII 1948, 1♂ (Popov). **Iran:** Kuusha-Lyarumba, 6-10.V 1901, 1♂ (Zarudny). **Mongolia:** Umnugovi Aimag, 15 km NE Onch-Hkairkhan-Ul mountain, 4.VIII 1967, 1♀ (Kerzner); Hovd Aimag, lower reaches of Bodankin-Gol river, 20 km SW Altai-Somon, 4.VIII 1968, 1♀ (Kozlov).

DISTRIBUTION. France, Portugal, Spain, Switzerland, Italy (including Sicily and Sardinia), Germany, Austria, Slovenia, Croatia, Serbia, Albania, Greece (including Crete and Rhodes), Hungary, Romania, Bulgaria, Malta, Cyprus, Ukraine, Turkey, Syria, Lebanon, Israel, Palestine, Jordan, Saudi Arabia, UAE, Oman, Russia (Crimea, Belgorodskaya Oblast, *Dagestan, Astrakhanskaya Oblast, Orenburgskaya Oblast, Altai), Azerbaijan, Kazakhstan, Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, Iran, Afghanistan, Pakistan, Mongolia, China (Inner Mongolia), Western Sahara, Morocco, Algeria, Tunisia, Libya, Egypt, Sudan, Djibouti, Angola.

REMARKS. The study of extensive material on *B. oculata* (including specimens from Mongolia, a type locality of *B. oculata mongolica* Tsuneki and *B. oculata gegen* Tsuneki) revealed a significant variability of this species in body colouration, punctuation and pubescence. The diagnostic characters of *B. oculata mongolica* and *B. oculata gegen* listed by Tsuneki (1971a) are within the species variability of *B. oculata*. I believe that *B. oculata mongolica* Tsuneki and *B. oculata gegen* Tsuneki are junior subjective synonyms of *B. oculata* Panzer.

***Bembix olivacea* Fabricius, 1787**

Bembix (!) *olivacea* Fabricius, 1787: 285, sex not indicated (lectotype – ♂, Tunisia, Porto Farina, [Copenhagen], designated by van der Vecht, 1961: 60); F. Morawitz, 1891: 225; Handlirsch, 1893: 894; Dalla Torre, 1897: 510.

Bembix (!) *mediterranea* Handlirsch, 1893: 807, ♀, ♂ (syntypes – ♀♂, many localities from France, Portugal, Spain, Italy, Greece, Hungary, Russia, [depository not indicated]), synonymized by de Beaumont, 1951: 272; W. Schulz, 1904: 94.

Bembix mediterranea: Myartseva, 1963: 60.

Bembix olivacea: Myartseva, 1965: 91, 1972: 90; Bohart & Menke, 1976: 548; Kazenas, 1978: 85, 88; Pulawski, 1978: 208, 209; Minoranskiy & Shkuratov, 1996: 81; Gorobchishin & Protsenko, 2004: 39; Shkuratov, 2000: 57; Kazenas, 2001:50, 239, 2002: 132, 2004b: 35; Shkuratov, 2004a: 75, 2004b: 166; Shorenko, 2005a: 168, 2005b: 98; Evans & O'Neill, 2007: 176; Shorenko & Konovalov, 2010: 14; Protsenko, Fateryga & Ivanov, 2014: 30.

MATERIAL. **Russia:** Crimea, Evpatoria, 3♂ (Yakovlev); *ibid.*, Koktebel, 21.VIII 1924, 2♀ (Dyakovov); Volgogradskaya Oblast, Volgograd, 1865, 3♀, 5♂ (Bekker); *ibid.*, 1.VII 1906, 2♀ (Wollman); Dagestan, Derbent, 3♀, 3♂ (Bekker); Dagestan, Alexandro-Nevskoe, 9.VIII 1927, 23.VIII 1928, 2♀ (Olsufiev); Astra-

khanskaya Oblast, Sasykoli, 25.VII 1924, 1♀. **Ukraine:** Khersonskaya Oblast, Tsyurupinsk, 22, 26.VI, 21.VII 1924, 14.VII 1926, 3♀, 2♂ (Fedorov, Znoiko). **Azerbaijan:** Arax river, Kurugai, 20.VIII 1924, 3♂ (Dovnar-Zapolsky); *ibid.*, Bekmenly, VII 1925, 2♂ (Dovnar-Zapolsky). **Kazakhstan:** Zapadno-Kazakhstanskaya Oblast, "Bukeevskaya", 1♀ (Kharuzin); *ibid.*, Ryn-Peski, 1♂ (coll. F. Morawitz). **Iran:** Ungyut-Mugan, 19.III 1901, 7.III 1927, 1♀, 1♂ (Bocharnikov); Kuru-Chai, 20.VIII 1928, 5♂ (Dovnar-Zapolsky).

DISTRIBUTION. France, Portugal, Spain, Italy (including Sicily and Sardinia), Serbia, Greece (including Crete and Rhodes), Slovakia, Hungary, Romania, Bulgaria, Cyprus, Ukraine, Turkey, Israel, Saudi Arabia, Yemen, Russia (Crimea, *Volgogradskaya Oblast, Rostovskaya Oblast, *Dagestan, Astrakhanskaya Oblast), Azerbaijan, Kazakhstan, Turkmenistan, Iran, the Canary Islands, Mauritania, Western Sahara, Morocco, Algeria, Tunisia, Libya, Egypt, Chad, Sudan, Ethiopia, Somalia, Madagascar.

***Bembix pallida* Radoszkowski, 1877**

Bembix (!) *pallida* Radoszkowski, 1877:50, ♀, ♂ (syntypes – ♀♂, Uzbekistan, Shakhimardan, [ZMMU]); Handlirsch, 1893: 709; de Dalla Torre, 1897: 510; Gussakovskij, 1935.

Bembix pallida: Islamov, 1970: 63, 64; Bohart & Menke, 1976: 548; Kazenas, 1978: 87, 89; Pulawski, 1978: 208, 209; Baratov & Nazarova, 1980: 77; Nazarova & Baratov, 1981: 100; Shkuratov, 2000: 57; Kazenas, 2001: 50; Gorobchishin & Protsenko, 2004: 39; Kazenas, 2007: 93; Prisniy, 2012: 51; Protsenko, Fateryga & Ivanov, 2014: 30.

MATERIAL. **Hungary:** "Hungary centralis", 1♂ (coll. F. Morawitz). **Tajikistan:** Yagnob river, 1♂ (coll. F. Morawitz); southern slope of Hissar ridge, Gushari, 1.VIII 1930, 1♀ (Kuznetsova); West Pamir, Kala-i-Vamor, 5.VII 1937, 2♀ (Luppova); *ibid.*, Vanch river, 7.IX 1946, 1♀ (Stakelberg); 35 km N Dushanbe, Kwak tract, 27.VIII 1937, 2♂ (Gussakovskij); near Dushanbe, Kondara gorge, Varzob river mouth, 15.VII 1938, 1♀ (Gussakovskij).

DISTRIBUTION. *Hungary, Greece, Bulgaria, Ukraine, Turkey, Israel, Russia (Crimea, Belgorodskaya Oblast, Rostovskaya Oblast), Uzbekistan, Tajikistan.

***Bembix planifrons* F. Morawitz, 1891**

Bembix (!) *planifrons* F. Morawitz, 1891: 227, ♀ (lectotype [designated here] – ♀, Kazakhstan, Ryn-Peski, "Chanskaja Stawka", [ZISP], examined); Handlirsch, 1893: 869; de Dalla Torre, 1897:511.

Bembix (!) *mervensis* Radoszkowski, 1893: 64, ♀ (holotype [or syntypes] – ♀, Turkmenistan, Merv, [Kraków]), synonymized by Handlirsch, 1893: 869.

Bembix (!) *parvula* F. Morawitz, 1897: 155, ♀, ♂ (syntypes – ♀♂, Turkmenistan, Mikhailovskaya [currently Germab], [ZISP]); Gussakovskij, 1933: 296; Myartseva, 1972: 90; **syn. n.**

Bembix planifrons: Myartseva, 1972: 90; Kazenas, 1972: 142; Bohart & Menke, 1976: 548; Kazenas, 1978: 87, 90; Pulawski, 1978: 208, 210; Kazenas, 1992: 28, 2001: 50, 2002: 132, 2008: 105, 2013: 498.

Bembix parvula: Bohart & Menke, 1976: 548; Kazenas, 1992: 28, 2001: 50.

MATERIAL. Lectotype of *Bembix planifrons* F. Morawitz, 1891 – ♀, Kazakhstan, "Chanskaja Stawka" (Zapadno-Kazakhstanskaya Oblast, Ryn-Peski, Khan Ordasy) (coll. F. Morawitz). **Uzbekistan:** Khiva, 8, 15.VI 1927, 3♂ (Gussakovskij); 15 km N Bukhara, Baga-Abzal, 15.VII 1929, 1♀ (Kuznetsova). **Turkmenistan:** Uzun-Ada, 2♀, 2♂ (coll. F. Morawitz); Annau, 16.VIII, 1♀, 2♂ (Varentsov); right bank of Amu Darya river opposite Chardzhou, IV-V 1884, 1♂ (Regel); Ashgabat, 18.VI 1923, 3♀ (coll. Ushinski); ibid., 10.VII 1928, 1♂ (Gussakovskij); Repetek, 15.VI 1989, 22, 23.VI 1925, 24.VI 1937, 3♀, 10♂ (Semenov, Gussakovskij, Kostylev); Uch-Adzhi, 1-3.V 1929, 2♀, 3♂ (Shestakov); Farab, 12-28.V 1929, 4♀, 3♂ (Shestakov); Karakum, Orta-Kuyu, 21, 24.V 1953, 4♀, 1♂ (Ahrens); 40 km N Serdar, Kara-Bogaz, 21.V-2.VII 1953, 3♀, 5♂ (Odintsova, Steinberg, Maslennikova); North Karakum, Shasenem, 30.V-5.VI 1953, 5♀, 8♂ (Ahrens); 75 km E Krasnovodsk, 15.VII 1953, 1♂ (Ahrens). **Iran:** Kerman, 19.III 1901, 1♂ (Zarudny). **China:** Xinjiang, near Hami, Bugas, 28.VIII 1895, 1♀ (Roborovsky, Kozlov).

DISTRIBUTION. Kazakhstan, Kyrgyzstan, *Uzbekistan, Turkmenistan, Iran, China (Xinjiang).

REMARKS. The study of the material of *B. planifrons* showed unusually large variability in body length (10-15 mm). The smaller individuals (10-12 mm) correspond to *B. parvula* F. Morawitz. The type specimens of *B. parvula* not found in ZISP, but I found in this collection 2♀ and 2♂ from Turkmenistan with label "Uzun-Ada" which identified as *B. parvula* (handwriting label of F. Morawitz). A comparison of these specimens with lectotype of *B. planifrons* F. Morawitz showed no differences between them except body length; therefore I regard *B. parvula* F. Morawitz as a junior subjective synonym of *B. planifrons* F. Morawitz.

***Bembix portchinskii* Radoszkowski, 1884**

Bembex (!) *portchinskii* Radoszkowski, 1884: 26, ♂ (holotype [or syntypes] – ♂, Caucasus, no specific locality [Kraków]); Radoszkowski, 1887: 44.

Bembex (!) *seminigra* F. Morawitz, 1889: 148, ♂ (holotype – ♂, "Monasterium Pabo" (China, North Gansu, Monastery Pabao (Pabaortasi), on the river Ejina (Eijina river, Edzingol) tributary of Heihe river, 2734 m, 10–11.V.1886, G.N. Potanin) (Potanin, 1950), [ZISP], examined), synonymized by Handlirsch, 1893: 731.

Bembex (!) *kirgistica* F. Morawitz, 1891: 225, ♀ (lectotype [designated here] – ♀, Kazakhstan, Ryn-Peski, no specific locality, [ZISP], examined); Handlirsch, 1893: 72; de Dalla Torre, 1897: 504; F. Morawitz, 1897: 153 (description of ♂); Gussakovskij, 1933: 294; **syn. n.**

Bembex (!) *ganglbaueri* Handlirsch, 1893: 732, ♂ (holotype – ♂, Kazakhstan or Turkmenistan, eastern shore of Caspian Sea, [depository not indicated, probably Vienna or Kraków]), synonymized by Gussakovskij, 1933: 294; de Dalla Torre, 1897: 505.

Bembix trimaculata Kazenas, 1978: 88, ♀ (lectotype [designated by Kazenas, 1980a] – ♀, Kazakhstan, Alma-Atinskaya Oblast, near Alma-Ata, [ZISP], examined); Kazenas, 2001: 51, 2002: 133; **syn. n.**

Bembix trimaculata Kazenas, 1980a: 142, ♀ (holotype – ♀, Kazakhstan, Alma-Atinskaya Oblast, near Alma-Ata, [ZISP], examined), junior objective synonym and primary homonym of *Bembix trimaculata* Kazenas, 1978; **syn. n.**

Bembex portschinskii: Handlirsch, 1893: 731; de Dalla Torre, 1897: 511; Gussakovskij, 1934: 13; Gussakovskij, 1933: 294.

Bembex portschinskii: Tsuneki, 1971a: 213; Bohart & Menke, 1976; Kazenas, 2001: 50.

Bembex kirgisica: Bohart & Menke, 1976: 546; Kazenas, 1978: 88, 90; Pulawski, 1978: 208, 210; Shkuratov, 2002: 140, 2004a: 75.

Bembex ganglbaueri: Bohart & Menke, 1976: 546; Kazenas, 2001: 50.

MATERIAL. Holotype of *Bembex seminigra* F. Morawitz, 1889 – ♂, Mongolia, "Monasterium Pabo" (Potanin). Lectotype of *B. kirgisica* F. Morawitz, 1891 – ♀, Kazakhstan, Ryn-Peski (coll. F. Morawitz). Holotype of *Bembex trimaculata* Kazenas, 1980 – ♀, Kazakhstan, Alma-Atinskaya Oblast, near Alma-Ata, 5.VIII 1950 (students of Kazakh State University). **Russia:** Astrakhanskaya Oblast, near Astrakhan, 25.V 1930, 1♀ (Ogloblin). **Kyrgyzstan:** Kyrgyz ridge, 2♂ (Kirichenko). **Uzbekistan:** boundary of Kyzyl-Kum and Golodnaya Steppe, Syr-Darya river, 12.V 1903, 1♂ (Jacobson); Khiva, 2-17.VI 1927, 2♀, 5♂ (Gussakovskij). **Turkmenistan:** Germab, 1♀, 3♂ (coll. F. Morawitz); Khazar, 1♀ (coll. Wolman); Annau, 16.VIII, 1♀, 1♂ (Varentsov); Uzuzn-Ada, 21.VI 1896, 2♀ (Varentsov); Farab, 30.VI 1915, 1♂ (Golbeck); Ashgabat, 25.VII 1924, 1♀, 2♂ (coll. Ushinski); Krasnovodsk, 14.VI 1928, 1♀ (Gussakovskij); Gasan-Kuli, 11.VII 1932, 1♀ (Ushinski); Jebel, 11.VI, 13.VII 1934, 2♀ (Popov); North Karakum, Shasenem, 4-6.VI 1953, 2♀, 2♂ (Ahrens). **Tajikistan:** Shurab, 20.V 1915, 2♀ (Shestakov). **Iran:** Enarik, 19.VIII 1898, 1♂ (Zarudny); Kerman, 19.VIII, 26.IV 1901, 2♂ (Zarudny). **Mongolia:** Hovd Aimag, lower reaches of Bodankin-Gol river, 20 km SW Altai-Somon, 4.VIII 1968, 1♀ (Kozlov); Gobi-Altai Aimag, Tuin-Gol river valley, Orok-Nor lake, 2.VIII 1926, 1♀ (Kirichenko); Gobi-Altai Aimag, Adzh-Bogdo ridge, 10 km SSE Ikh-Obo-Ula mountain, 18.VII 1970, 1♀, 2♂ (Narchuk); Uvurhangai Aimag, Tatsyn-Tsagan-Nur lake, 2-4.VIII 1969, 5♀ (Kozlov); Dundgovi Aimag, Ulan-Khuduk, 28.VIII 1925, 1♀ (Kozlov); Umnugovi Aimag, Sumu-Khuduk, 10.IX 1925, 2♀ (Kozlov); *ibid.*, Shimbityn-Gol river, 16.IX 1925, 2♀ (Kozlov); *ibid.*, 60 km E Talyn-Bilgeh-Bulak spring, 17-19.VIII 1969, 3♀ (Kozlov); *ibid.*, 30 km S Ozvrai-Somon, 22.VIII 1969, 1♀ (Kozlov); *ibid.*, 20 km W Barun-Bugatyn-Khuduk well, 25-27.VIII 1969, 2♀ (Kozlov). **China:** Xinjiang, near Hami, Bugas, 21.VIII, 6, 7.IX 1895, 2♀, 1♂ (Roborovsky, Kozlov).

DISTRIBUTION. Turkey, Russia (Rostovskaya Oblast, *Astrakhanskaya Oblast), Kazakhstan, *Kyrgyzstan, Uzbekistan, Turkmenistan, Tajikistan, Iran, Afghanistan, Mongolia, China (*Xinjiang, Qinghai, Inner Mongolia), Western Sahara, Egypt, Sudan.

REMARKS. When designated the holotype of *Bembex trimaculata* Kazenas, 1980, Kazenas (1980a), actually also designated the lectotype of *B. trimaculata* Kazenas, 1978, according to the article 74.6 of the Code (ICZN, 1999). The study of the type specimens of *B. kirgisica* F. Morawitz and *B. trimaculata* Kazenas and a comparison of them with the material on *B. portschinskii* did not reveal significant differences between them, therefore I regard *B. kirgisica* F. Morawitz and *B. trimaculata* Kazenas, 1978 and *B. trimaculata* Kazenas, 1980 as a junior subjective synonyms of *B. portschinskii* Radoszkowski.

***Bembix rostrata* (Linnaeus, 1758)**

Apis rostrata Linnaeus, 1758: 577, sex not indicated (lectotype – ♂, Europe, no specific locality, [London], designated by Day, 1979: 70).

Apis rostrata Gmelin, 1790: 2791, sex not indicated, junior subjective synonyms of *Apis rostrata* Linnaeus, 1758 (holotype [or syntypes] – Russia, Ural Steppe north of Caspian Sea [probably Orenburgskaya Oblast], [lost]), synonymized by Bischoff, 1940: 70.

Bembex (!) *vidua* Lepeletier de Saint Fargeau, 1845: 264, ♀ (holotype [or syntypes] – ♀, Italy, Lombardia, no specific locality, [Turin]), synonymized by Handlirsch, 1893: 108; Beletskiy, 1873: 80; Yaroshevskiy, 1881: 124.

Bembex (!) *rostrata*: Eversmann, 1849: 397; Belke, 1853: 433; Kawall, 1857: 24; Assmuss, 1859: 611; Belke, 1859: 71; Siła-Nowicki, 1864: 55, 1865: 55; Wierzejski, 1868: 117; Ivanov, 1872: 152; Wierzejski, 1874: 259; Becker, 1880: 150; Yaroshevskiy, 1881: 124; F. Morawitz, 1889: 138, 1891: 225; Handlirsch, 1893: 764; F. Morawitz, 1893a: 112; Handlirsch, 1895: 1002; de Dalla Torre, 1897: 512; N. Arnold, 1902: 89; W. Schulz, 1904: 94; Kohl, 1913: 15; Kerenskiy, 1919: 33; Shestakov, 1925: 36; Kokujev, 1927: 71; Wnukowskij, 1927: 32; Bischoff, 1930: 218; Müller, 1930: 181; Gussakovskij, 1934: 13.

Bembix rostrata: Parker, 1929: 114; Wengris, 1962: 205; Myartseva, 1963: 60, 1965: 91; Kazenas, 1972: 141; Bohart & Menke, 1976: 548; Kolesnikov, 1977: 318; Kazenas, 1978: 86, 89; Pulawski, 1978: 208, 209; Baratov & Nazarova, 1980: 77; Nazarova & Baratov, 1981: 100; Nemkov, 1986: 108; Kuznetsova, 1990: 19; Chinin, 1991: 111; Budrys, 1992: 29; Blagoveshchenskaya, 1994: 90; Nemkov et al., 1995: 466; Minoranskiy & Shkuratov, 1996: 81; Voblenko, Gorobchishin & Nesterov, 1996: 15; Wu & Zhou, 1996: 157; Nazarova & Shomirsaidov, 1997: 24; Nazarova, 1998: 42; Ananeva & Kochetkov, 1999: 7; Shkuratov, 2000: 57; Kazenas, 2001: 50, 240, 2002: 132; Shkuratov, 2002: 140; Shlyakhtenok & Skibinska, 2002: 35; Kazenas, 2004b: 35; Shkuratov, 2004a: 76, 2004b: 166; Nazarova, 2005: 94; Shorenko, 2005a: 168; Gorobchishin, 2006: 142; Shlyakhtenok, 2006: 113; Baghirov, 2007: 93; Evans & O'Neill, 2007: 176; Kazenas, 2007: 93; Danilov, 2008: 348; Nemkov, 2008: 25; Ivanov, Fateryga & Filatov, 2009: 42; Nemkov, 2009: 142; Ruchin, Antropov & Shibayev, 2009: 170; Mokrousov, 2010: 61; Shorenko & Konovalov, 2010: 14; Baghirov, 2011: 141; Mokrousov, Berezin & Egorov, 2011: 66; Protsenko & Drozdovskaya, 2011: 91; Nemkov, 2012: 123; Prisniy, 2012: 51; Shibayev & Polumordvinov, 2012: 278; Akulov & Proshchalykin, 2013: 118; Kazenas, 2013: 498; Mokrousov, Ruchin & Egorov, 2013: 199; Shlyakhtenok, 2013: 237; Mokrousov & Vafin, 2014: 55; Protsenko, Fateryga & Ivanov, 2014: 30; Ruchin & Antropov, 2014: 37.

MATERIAL. Russia: Leningradskaya Oblast, Zherebutsкое lake, 22.VIII 1914, 1♀; *ibid.*, Luga, 23.VI 1934, 1♂ (Shtakelberg); Kostromskaya Oblast, Baidarki, 26, 27.VII 1922, 1♀, 1♂ (Gussakovskij); *ibid.*, Kostroma, 11.VII 1924, 1♀; Stavropol'skii Krai, Stavropol, 21.VII 1985, 4♀, 2♂ (Nemkov); Chuvashiya, Ilinka, 24.VII 1928, 1♀; Orenburgskaya Oblast, Mayachnaya, 21.VII 1933, 1♀ (Zimin); Tomskaya Oblast, Tomsk, 25-30.VIII 1912, 1♀ (Johansen); Altai, Barnaul, 12.VII 1922, 1♂ (Dodonov); Novosibirskaya Oblast, Ordynskoe, 29.VII 1926, 1♀ (Levchuk); Krasnoyarskii Krai, Krasnoyarsk, 1♀ (coll. F. Morawitz); Irkutskaya Oblast, Angarsk, 11.VII-9.IX 1983, 8♀, 10♀ (Nemkov); *ibid.*, Bolshaya Elan, 24.VII 1983, 2♂ (Nemkov); *ibid.*, 15 km E Ust-Orda, Ordinsk, 31.VII 1994-9.VII 2009, 26♀, 26♂ (Nemkov). **Estonia:** Peedu, 14.VII 1951, 1♂ (Stakelberg). **Moldova:** Gagauzia, Baurchi, 28.VI 1911, 1♀ (Chernavin). **Ukraine:** Poltavskaya Oblast, Zinty, 18.VI

1922, 1♂ (Belgovsky); *ibid.*, Yareski, VI 1922, 24, 30.VII 1925, 1♂ (Belgovsky, Fabri); *ibid.*, Poltava, 20.VI 1923, 1♀ (Belgovsky); Khersonskaya Oblast, Tsyurupinsk, 1.VIII 1914, 1♀, 1♂ (Fedorov). **Azerbaijan:** Belokany, 6.VIII 1928, 2♀ (Bocharnikov). **Kazakhstan:** Zapadno-Kazakhstanskaya Oblast, Kirsanovo, Samodurovo lake, 13.VI 1949, 1♂ (Rudolf); *ibid.*, Ural river, 14.VII 1952, 1♀ (Slepyan); *ibid.*, Yanvartzevo, 10.VI-13.VIII 1949, 19, 24.VI 1950, 7♀, 6♂ (Rudolf, Steinberg, Popov); *ibid.*, Kharkin, 10, 16.VII 1951, 1♀ (Rudolf, Steinberg); Kustanaiskaya Oblast, Turgai, 1♂ (coll. F. Morawitz); Vostochno-Kazakhstanskaya Oblast, Semipalatinsk, 1♀ (coll. F. Morawitz). **Uzbekistan:** Khiva, 12.VI 1927, 1♀ (Gussakovskij); Kaunchi, 13.VI 1931, 1♀, 2♂ (Gussakovskij). **Turkmenistan:** Farab, 12-28.V 1929, 1♀, 1♂ (Shestakov). **Mongolia:** Töv Aimag, 25 km SW Ulan Bator, 30-31.VII 1961, 1♀ (Zaitsev).

DISTRIBUTION. Netherlands, Belgium, France, Portugal, Spain, Switzerland, Italy (including Sicily and Sardinia), Denmark, Germany, Austria, Croatia, Serbia, Albania, Greece, Poland, Czech Republic, Slovakia, Hungary, Romania, Bulgaria, Sweden, Finland, *Estonia, Latvia, Lithuania, Belarus, *Moldova, Ukraine, Turkey, Russia (Leningradskaya Oblast, Nizhegorodskaya Oblast, Yaroslavl'skaya Oblast, *Kostromskaya Oblast, Moskovskaya Oblast, Ivanovskaya Oblast, Vladimirskaya Oblast, Bryanskaya Oblast, Belgorodskaya Oblast, Ryazanskaya Oblast, Voronezhskaya Oblast, Penzenskaya Oblast, Volgogradskaya Oblast, Rostovskaya Oblast, *Stavropolskii Krai, Astrakhanskaya Oblast, Chuvashiya, Tatarstan, Mordoviya, Ulyanovskaya Oblast, Samarskaya Oblast, Orenburgskaya Oblast, *Tomskaya Oblast, *Novosibirskaya Oblast, Altai, Krasnoyarskii Krai, Irkutskaya Oblast), *Azerbaijan, Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Iran, Afghanistan, Mongolia, China (Inner Mongolia), Western Sahara, Morocco, Algeria, Tunisia.

***Bembix tadhika* Kazenas, 1980**

Bembix tadhika Kazenas, 1980b: 53, ♂ (holotype – ♂, Tajikistan, "Tigrovaya Balka" Nature Reserve, [ZISP], examined); Baratov & Nazarova, 1980: 77; Nazarova & Baratov, 1981: 101; Nazarova, 1998: 42; Kazenas, 2001: 51.

MATERIAL. Holotype of *Bembix tadhika* Kazenas, 1980 – ♂, Tajikistan, "Tigrovaya Balka" Nature Reserve, 23.IV 1978 (Nazarova). **Uzbekistan:** 15 km N Bukhara, Baga-Abzal, 24.V 1932, 1♀ (Kuznetsova). **Turkmenistan:** Uch-Adzhi, 1-3.V 1929, 2♀ (Shestakov); Karakum, Orta-Kuyu, 20-24.V 1953, 4♀ (Ahrens); 100 km NE Serdar, Kirpili, 29.IV 1953, 1♂ (Ahrens).

DISTRIBUTION. *Uzbekistan, *Turkmenistan, Tajikistan.

***Bembix transcaspica* Radoszkowski, 1893**

Bembex (!) *transcaspica* Radoszkowski, 1893: 63, ♂ (holotype [or syntypes] – ♂, "Transcaspia", probably Turkmenistan, no specific locality, [Kraków]); Handlirsch, 1893: 738; de Dalla Torre, 1897: 515; Gussakovskij, 1933: 295, 1935: 444.

Bembix kazakhstanica Kazenas, 1978: 85, 88, ♀, ♂ (lectotype [designated by Kazenas, 1980a] – ♀, Kazakhstan, Alma-Atinskaya Oblast, Ili river, Kapchagai tract, [ZISP], examined); Baratov & Nazarova, 1980: 76; Nazarova & Baratov, 1981: 100; Nazarova & Gafarov, 1986: 71; Nazarova & Shomirsaidov, 1997: 24; Nazarova, 1998: 42; Kazenas, 2001: 50, 2002: 131; Nazarova, 2004: 108, 2005: 94; Kazenas, 2013: 498; **syn. n.**

Bembix kazakhstanica Kazenas, 1980a: 139, ♀, ♂, junior synonym and primary homonym of *Bembix kazakhstanica* Kazenas, 1978, (holotype – ♀, Kazakhstan, Alma-Atinskaya Oblast, Ili river, Kapchagai tract, [ZISP], examined); **syn. n.**

Bembix transcaspica: Myartseva, 1972: 90; Bohart & Menke, 1976: 549; Kazenas, 1978: 87; Baratov & Nazarova, 1980: 77; Nazarova & Baratov, 1981: 100; Nazarova & Gafarov, 1986: 71; Nazarova & Shomirsaidov, 1997: 24; Nazarova, 1998: 42; Kazenas, 2001: 51, 2002: 133; Nazarova, 2005: 94.

MATERIAL. Holotype of *Bembix kazakhstanica* Kazenas, 1980 – ♀, Kazakhstan, Alma-Atinskaya Oblast, Ili river, Kapchagai tract, 20.VIII 1967 (Kazenas); paratype – ♂, **ibid.** **Kazakhstan:** Alma-Atinskaya Oblast, Akshii, 23.VII 1935, 1♀ (Olsufiev). **Uzbekistan:** Khiva, 15, 21.VI 1927, 1♀, 2♂ (Gussakovskij); Nazarkhan, 4.VIII 1946, 2♀ (Lutta). **Turkmenistan:** Farab, 2♂ (Wollman); Bayramali, 5.V 1917, 1♀ (Pliginski); Ashgabat, 25.VII 1924, 1♀, 1♂ (coll. Ushinski); Kaka, 7.VI 1928, 1♂ (Gussakovskij); Farab, 12-28.V 1929, 1♂ (Shestakov); Tashauz, 4.VIII 1931, 1♂ (Ushinski); Jebel, 12-13.VI, 23.VII 1934, 2♀, 2♂ (Popov); 40 km N Serdar, Kara-Bogaz, 9, 18.VI 1953, 2♀, 6♂ (Odintsova, Kryzhanovsky); Akhcha-Kuima, 3.VII 1953, 1♀, 2♂ (Odintsova). **Tajikistan:** Kangurt, 27.VIII 1931, 1♂ (Fursov); near Kulyab, 8.VIII 1933, 1♂ (Popov); Kurgan-Tyube, 12.VIII 1948, 1♂ (Popov). **China:** Xinjiang, near Hami, Bugas, 21.VIII-7.IX 1895, 4♀, 6♂ (Roborovsky, Kozlov).

DISTRIBUTION. Kazakhstan, Uzbekistan, Turkmenistan, Tajikistan, Iraq, Iran, *China (Xinjiang).

REMARKS. When designated the holotype of *B. kazakhstanica* Kazenas, 1980, Kazenas (1980a), actually also designated the lectotype of *B. kazakhstanica* Kazenas, 1978 according to the article 74.6 of the Code (ICZN, 1999). A comparison of the material on *B. transcaspica* Radoszkowski with the type specimens of *B. kazakhstanica* Kazenas showed their identity, therefore I regard *B. kazakhstanica* Kazenas, 1978 and *B. kazakhstanica* Kazenas, 1980 as a junior subjective synonym of *B. transcaspica* Radoszkowski.

***Bembix turca* Dahlbom, 1845**

Bembix turca Dahlbom, 1845: 488, ♂ (syntypes – ♂♂, Greece, Rhodes, no specific locality, [Stockholm]); Handlirsch, 1893: 859; de Dalla Torre, 1897: 515; de Beaumont, 1957: 609; Kazenas, 1972: 142, 1974: 109; Bohart & Menke, 1976: 549; Kazenas, 1978: 86, 88; Pulawski, 1978: 208, 209; Nazarova & Baratov, 1981: 101; Minoranskiy & Shkuratov, 1996: 81; Nazarova, 1998: 42; Baratov & Nazarova, 1980: 77; Shkuratov, 2000: 57; Kazenas, 2001: 51, 2002: 133; Shkuratov, 2004a: 76, 2004b: 166; Kazenas, 2013: 499; Protsenko, Fateryga & Ivanov, 2014: 30.

Bembex (!) *melanura* F. Morawitz, 1889: 141, ♂ (holotype – ♂, "Mongolia, Monasterium U-tai" [China, Gansu], [ZISP], examined); Handlirsch, 1893: 858; de Dalla Torre, 1897: 508; Gussakovskij, 1933: 296, 1935: 444; **syn. n.**

Bembex (!) *asiatica* Radoszkowski, 1893: 65, ♂ (holotype [or syntypes] – ♂, Turkmenistan, Serax, [Kraków]), synonymized by Handlirsch, 1893: 858.

Bembix gobiensis Tsuneki, 1971a: 211, ♂ (holotype – ♂, Mongolia, Hovd Aymag, Somon Bulgan, [Budapest]); Bohart & Menke, 1976: 546; **syn. n.**

Bembix atra Kazenas, 1978: 86, ♀ (lectotype [designated by Kazenas, 1980a] – ♀, Kazakhstan, Alma-Atinskaya Oblast, Boguty mountains, [ZISP], examined); Baratov & Nazarova, 1980: 75; Nazarova & Baratov, 1981: 98; Nazarova, 1998: 42; Kazenas, 2001: 49, 2002: 130; **syn. n.**

Bembix atra Kazenas, 1980a: 137, ♀, junior synonym and primary homonym of *Bembix atra* Kazenas, 1978, (holotype – ♀, Kazakhstan, Alma-Atinskaya Oblast, Boguty mountains, [ZISP], examined); **syn. n.**

Bembix melanura: Bohart & Menke, 1976: 547; Baratov & Nazarova, 1980: 76; Nazarova & Baratov, 1981: 100; Wu & Zhou, 1996: 158; Kazenas, 2001: 50; Hua, 2006: 277.

MATERIAL. Holotype of *Bembix melanura* F. Morawitz, 1889 – ♂, China, Gansu, "Monasterium Utai. Potanin", "к. Ф. Моравица". Holotype of *Bembix atra* Kazenas, 1980 – ♀, Kazakhstan, Alma-Atinskaya Oblast, Boguty mountains, 11.VII 1968 (Kazenas). **Russia:** Crimea, Evpatoria, 14.VIII 1916, 1♀ (Pliginski); *ibid.*, Enychary, 3.VIII 1924, 1♀ (Dyakov); Volgogradskaya Oblast, Volgograd, 1872, 2♂ (Bekker); *ibid.*, 16-20.VIII 1929, 1♂ (Shestakov); Astrakhanskaya Oblast, Astrakhan, 1♀ (coll. F. Morawitz). **Greece:** "Epirus", 1♂ (coll. Shestakov). **Poland:** Varna, 9.VIII 1956, 1♂ (Pulawski). **Ukraine:** Poltavskaya Oblast, Zintsy, 13.IX 1923, 2♀ (Belgovsky); *ibid.*, Yareski, 10.VII 1922-5.IX 1925, 5♀, 6♂ (Belgovsky, Fabri). **Kazakhstan:** Zapadno-Kazakhstanskaya Oblast, Ural river, 14.VII 1952, 1♂ (Slepyan); Alma-Atinskaya Oblast, near Zharkent, Ili river, 5.VII 1948, 2♀ (Bei-Bienko); Yuzhno-Kazakhstanskaya Oblast, Saryagach, 11.VI 1926, 1♂ (Prinada). **Turkmenistan:** Krasnovodsk, 1♂ (coll. F. Morawitz); Krasnovodsk, 3.VI 1901, 19.VII 1934, 19.VII 1953, 4♂ (Anger, Popov, Ahrens); Ashgabat, 25.VII 1924, 1♀, 3♂ (coll. Ushinski); Repetek, 22.VI-15.VII 1925, 20.VII 1934, 2♀, 3♂ (Gussakovskij, Kostylev); Kara-Kala, 27.V 1953, 1♂ (Steinberg); 40 km N Serdar, Kara-Bogaz, 31.V 1953, 1♂ (Steinberg); 75 km E Krasnovodsk, 15.VII 1953, 1♀, 2♂ (Ahrens). **Tajikistan:** southern slope of Hissar ridge, Dara-i-Hodzh, 31.VIII 1930, 1♂ (Kuznetsov); near Dushanbe, Kondara gorge, Varzob river mouth, 12.VI-7.IX 1937, 2♀, 4♂ (Gussakovskij); Dushanbe, botanical garden, 22.VII 1939, 24.IX 1946, 1♀, 1♂ (Gussakovskij, Kostylev); Vanch river, 15.IX 1943, 1♀ (Stakelberg). **Iran:** Bazman-Tagab, 9.VIII 1898, 1♂ (Zarudny); Khorasan, 5-6.VIII 1901, 1♂ (Zarudny). **Mongolia:** Hovd Aimag, 10 km N Uench-Somon, 2-3.VIII 1968, 4♂ (Kozlov); Gobi-Altai Aimag, Adzh-Bogdo ridge, 10 km SSE Ikh-Obo-Ula mountain, 18.VII 1970, 1♀ (Narchuk); Bayanhongor Aimag, Ekhin-Gol oasis, 11-14.VIII 1969, 1♀ (Kozlov); Umnugovi Aimag, 30 km SSE Sujin-Khuduk well, 3.VIII 1967, 1♀ (Kerzner); *ibid.*, 40 km SSE of Nomgon, 9.VIII 1967, 1♀ (Kerzner). **China:** Xinjiang, near Hami, Bugas, 20.VIII-6.IX 1895, 2♀, 4♂ (Roborovsky, Kozlov).

DISTRIBUTION. Albania, Greece (including Rhodes), Poland, Romania, Bulgaria, *Ukraine, Turkey, Russia (Crimea, Volgogradskaya Oblast, Rostovskaya Oblast, *Astrakhanskaya Oblast), Kazakhstan, Turkmenistan, Tajikistan, Iran, Afghanistan, Mongolia, China (*Xinjiang, Gansu), Libya, Egypt.

REMARKS. When designated the holotype of *B. atra* Kazenas, 1980, Kazenas (1980a), actually also designated the lectotype of *B. atra* Kazenas, 1978 according to the article 74.6 of the Code (ICZN, 1999). The study of extensive material on *B. turca* Dahlbom (including specimens from Mongolia, a type locality of *B. gobiensis* Tsuneki) revealed a significant variability of this species in body colouration, punctuation and pubescence. The diagnostic characters of *B. gobiensis* listed by Tsuneki (1971a) are within the species variability of *B. turca* Dahlbom. A comparison of the type specimens of *B. melanura* F. Morawitz and *B. atra* Kazenas with the material on *B. turca* Dahlbom did not reveal significant differences between them, therefore I regard *B. melanura* F. Morawitz, *B. atra* Kazenas, 1978, *B. atra* Kazenas, 1980, and *B. gobiensis* Tsuneki as a junior subjective synonyms of *B. turca* Dahlbom.

ACKNOWLEDGMENTS

The author is sincerely grateful to S.A. Belokobylskij, A.V. Antropov and W.J. Pulawski for providing the study material, as well as A.S. Lelej for critical editing of the manuscript. The work is executed at support of the Russian Foundation for Basic Research grant No. 14-04-00649 and the grant of President of Russian Federation for state support of leading scientific schools No. HIII-150.2014.4.

REFERENCES

- Akulov, E.N. & Proshchalykin, M.Yu. 2013. Contribution to the digger wasp fauna (Hymenoptera, Sphecidae, Crabronidae) of Krasnoyarsk Territory. *A. I. Kurentsov's Annual Memorial Meetings*, 24: 107–121. [In Russian].
- Ananeva, S.I. & Kochetkov, D.N. 1999. The aculeate fauna of the Ryazanskaya Oblast. In: Ananeva, S.I. (Ed.). *Fauna i Ekologiya Zhivotnykh. Sbornik Nauchnykh Dokladov Zoologicheskogo Obshchestva RGPU*. Ryazan: Ryazanskiy Oblastnoy Institut Razvitiya Obrazovaniya. 4–12. [In Russian].
- Arnold, N. 1902. *Catalogus Insectorum provinciae Mohilevensis*. St.-Peterburg: Tipolitografiya M.P. Frolovoy. 150 p.
- Assmuss, E.Ph. 1859. Symbola ad faunam hymenopterologicam Mosquensem. Enumeratio Hymenopterorum Spheciformium gubernii Mosquensis. *Bulletin de la Société Impériale des Naturalistes de Moscou*, 32(1): 604–620.
- Baghirov, R.T-o. 2007. Ecological-faunistic characterization of sphecid wasps (Hymenoptera: Sphecidae) of some areas of southwestern Siberia. *Vestnik Tomskogo Gosudarstvennogo Universiteta*, 300(2): 93–96. [In Russian].
- Baghirov, R.T-o. 2010. New records of digger wasps (Hymenoptera: Sphecidae, Crabronidae) from Western Siberia. *Euroasian Entomological Journal*, 9(4): 677–680. [In Russian].
- Baghirov, R.T-o. 2011. Fauna of the digger wasps (Hymenoptera: Sphecidae, Crabronidae) of the Altaiskii Krai and Republic of Altai. *Entomologicheskoye Obozreniye*, 90(1): 138–158. [In Russian].
- Baratov, Sh.B & Nazarova, Sh.D. 1980. Materials on *Bembix* Fabr. of the fauna of Tajikistan and their role in destroying horse-flies (Tabanidae). *Izvestiya Akademii Nauk Tadzhikskoy SSR, Otdeleniye Biologicheskikh Nauk*, 79: 74–79.

- Becker, A. 1880. Beiträge zu meinem Verzeichnissen der um Sarepta und am Bogdo vorkommenden Pflanzen und Insekten, und Beschreibung einer *Mylabris*-Larve. *Bulletin de la Société Impériale des Naturalistes de Moscou*, 55(1): 145–156.
- Beletskiy, N. 1873. Perechen vidov pereponchatokrylykh nasekomykh okrestnostey g. Kharkova. *Trudy Obshchestva Ispytateley Prirody pri Imperatorskom Kharkovskom Universitete*, 7: 75–83. [In Russian].
- Belke, G. 1853. Quelques mots sur le climat et la faune de Kamieniec-Podolski. *Bulletin de la Société Impériale des Naturalistes de Moscou*, 26(2): 410–437.
- Belke, G. 1859. Esquisse de l'histoire naturelle de Kamienietz-Podolski, précédée d'un coup-d'oeil sur les travaux des Naturalistes des provinces occidentales de la Russie et du Royaume de Pologne au XIX siècle. *Bulletin de la Société Impériale des Naturalistes de Moscou*, 32(1): 24–106.
- Bischoff, H. 1930. Entomologische Ergebnisse der Deutsch-Russischen Alai-Pamir Expedition 1928 (I). 3. Hymenoptera I (Sphecidae, Vespidae, Scoliidae, Mutillidae, Chrysididae, Ichneumonidae, Evaniidae). *Mitteilungen aus dem Zoologischen Museum in Berlin*, 16: 215–225.
- Bischoff, H. 1940. Deutung einiger von Gmelin 1790 beschriebenen Hymenopterenarten aus Südost-Russland. *Sitzungsberichte der Gesellschaft Naturforschender Freunde zu Berlin*, 1940: 68–71.
- Blagoveshchenskaya, N.N. 1994. Catalog of aculeate Hymenoptera of Ulyanovskoi Oblasti. In: Shustov, M.V. (Ed.). *Priroda Ulyanovskoy Oblasti. Vypusk 5. Nasekomye Ulyanovskoy Oblasti*. Ulyanovsk: Rossiyskaya Akademiya Nauk, Institut Ekologii Volzhskogo Basseina, Ulyanovskiy Filial MGU im. M.V. Lomonosova, Ulyanovskiy Oblastnoy Komitet po Okhrane Prirody. 82–93. [In Russian].
- Bohart, R.M. & Menke, A.S. 1976. *Sphecid Wasps of the World. A generic revision*. Berkeley, Los Angeles, London: University of California Press. ix+695 p.
- Budrys, E.R. 1992. Digger wasps (Hymenoptera, Sphecidae) of Lithuania: checklist of species. In: Jonaitis, V. (Ed.). *New and rare for Lithuania insect species. Records and descriptions of 1992*. Vilnius: Lithuanian Entomologists Society. 20–39.
- Chinin, A.A. Contribution to the sphecid fauna (Hymenoptera, Sphecidae) of Samarskoe Zareche. *Samarskaya Luka*, 1: 110–112. [In Russian].
- Dahlbom, A.G. 1845. *Hymenoptera Europaea praecipue borealia; formis typicis nonnullis Specierum Generumve Exoticorum aut Extraneorum propter nexum systematicum associatis; per Familias, Genera, Species et Varietates disposita atque descripta. Tomus: Spheces in sensu Linneano. Fasc. 3*. Lund: Officina Lundbergiana. 353–528.
- Danilov, Yu.N. 2008. The digger wasps (Hymenoptera: Sphecidae, Crabronidae) of the Altai forest-steppe near Barnaul. *Euroasian Entomological Journal*, 7: 3345–352. [In Russian].
- Danilov, Yu.N. & Tshernyshev, S.E. 2008. Digger wasps (Hymenoptera: Sphecidae, Crabronidae) in the Kulundinskaya forest-steppe of West Siberia. *Euroasian Entomological Journal*, 7: 40–46. [In Russian].
- Day, M.C. 1979. The species of Hymenoptera described by Linnaeus in the genera *Sphex*, *Chrysis*, *Vespa*, *Apis* and *Mutilla*. *Biological Journal of the Linnean Society*, 12: 45–84.
- de Beaumont, J. 1951. Hyménoptères récoltés par une mission suisse au Maroc (1947). Sphecidae 1. *Bulletin de la Société des Sciences Naturelles et Physiques du Maroc*, 29: 259–284.
- de Beaumont, J. 1957. *Bembix turca* Dahlb. et *flavescens* Sm. (Hym. Sphecid.). *Revue Suisse de Zoologie*, 64: 607–623.
- de Dalla Torre, C.G. 1897. *Catalogus Hymenopterorum hucusque Descriptorum Systematicus et Synonymicus. Volumen VIII: Fossores (Sphegidae)*. Lipsiae: Guilelmi Engelmann. viii+750 p.

- Evans, H.E. & O'Neill, K.M. 2007. *The sand wasps. Natural history and behavior*. Cambridge, Massachusetts, London, England: Harvard University Press. ix+340 p.
- Eversmann, E. 1849. Fauna Hymenopterologica Volgo-Uralensis. Fam. III. Sphegidae Latr.. *Bulletin de la Société Impériale des Naturalistes de Moscou*, 22(3): 359–436.
- Fabricius, J.Ch. 1775. *Systema Entomologiae, sistens Insectorum classes, ordines, genera, species, adiectis synonymis, locis, descriptionibus, observationibus*. Lipsiae: Kortii, Flensburgi. xxxii+832 p.
- Fabricius, J.Ch. 1777. *Genera Insectorum eorumque characteres naturales secundum numerum, figuram, situm et proportionem omnium partium oris adiecta mantissa specierum nuper detectarum*. Chilonii: M. F. Bartsch. xvi+310 p.
- Fabricius, J.Ch. 1787. *Mantissa Insectorum sistens eorum species nuper detectas adiectis characteribus genericis, differentiis specificis, emendationibus, observationibus. T. 1*. Hafniae: Impensis Christ. Gottl. Proft. xx+348 p.
- Gmelin, J.F. 1790. *Caroli Linnei, Systema naturae per regna tria naturae secundum classes, ordines, genera, species, cum characteribus, differentiis, synonymis, locis. Tomus I. Editio XIII aucta, reformata. Pars V*. Lipsiae: Georg Emanuel Beer. 2225–3020.
- Gorobchishin, V.A. 1995. Digger wasps (Hymenoptera, Sphecidae) of Kanev Reserve and bordering territories. *Izvestiya Kharkovskogo Entomologicheskogo Obshchestva*, 3(1-2): 17–19. [In Russian].
- Gorobchishin, V.A. 2006. Digger wasps (Hymenoptera: Sphecidae: Larrinae, Crabroninae, Mellininae, Nyssoninae, Philanthinae) of forest-steppes of Ukraine (fauna and ecology information). *Pratsi Zoologichnogo Muzeju Kyivskogo Natsional'nogo Universytetu imeni Tarasa Shevchenka*, 4: 105–154. [In Ukrainian].
- Gorobchishin, V.A. & Protsenko, Yu.V. 2004. Ryini osy (Hymenoptera, Sphecidae) Ivano-Rybalchanskoï dilnytsi Chornomorskogo zapovidnyka ta ikhni deyaki ekologichni osoblyvosti. *Visnik Kyivskogo Natsionalnogo Universytetu Imeni Tarasa Shevchenka. Fiziologia. Problemy Regulatsii Fiziologichnykh Funktsiy*, 9: 39–40. [In Ukrainian].
- Gussakovskij, V.V. 1933. Sphecidae et Psammocharidae (Hymenoptera), a cl. N. Zarudnyi in Persia orientali collectae. *Travaux de l'Institut Zoologique de l'Académie des Sciences de l'URSS*, 1: 269–307. [In Russian].
- Gussakovskij, V.V. 1934. Schwedisch-chinesische wissenschaftliche Expedition nach den nordwestlichen Provinzen Chinas, unter Leitung von Dr. Sven Hedin und Prof. Sü Ping-chang. Insekten gesammelt vom schwedischen Arzt der Expedition Dr. David Hummel. 41. Hymenoptera, 6. Sphegidae. *Arkiv för Zoologie*. 27A(21): 1–15.
- Gussakovskij, V.V. 1935. Sphecodea und Vespodea von Tadjikistan. *Travaux de la Filiale de l'Académie des Sciences de l'URSS au Tadjikistan*, 5: 409–467. [In Russian].
- Handlirsch, A. 1893. Monographie der mit *Nysson* und *Bembex* verwandten Grabwespen. VII. (Schluss). *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe. Abtheilung I*, 102: 657–942, Taf. I–VII.
- Handlirsch, A. 1895. Nachträge und Schlusswort zur Monographie der mit *Nysson* und *Bembex* verwandten Grabwespen. *Sitzungsberichte der Kaiserlichen Akademie der Wissenschaften. Mathematisch-Naturwissenschaftliche Classe. Abtheilung I*, 104: 801–1079, Taf. I–II.
- Hua, L. 2006. Superfamily Apoidea (Sphecoidea). In: Hua, L. (Ed.). *List of Chinese insects. Vol. IV*. Guangzhou: Sun-Yat-sen University Press. 274–299.
- International Commission on Zoological Nomenclature (ICZN). 1999. *International Code of Zoological Nomenclature. Fourth Edition*. London: ITZN. xxx+306 p.

- Islamov, Sh.D. 1970. To the knowledge of wasps of Chirchik Basin, Uzbekistan. *Tashkentskiy Gosudarstvennyi Universitet im. V.I. Lenina. Nauchnyie Trudy*, 378: 61–66. [In Russian].
- Islamov, Sh.D. 1986. Digger-wasps (Hymenoptera, Sphecidae) in the mountainous regions of Uzbekistan. *Entomologicheskoye Obozreniye*, 65(3): 513–534. [In Russian].
- Ivanov, P.I. 1872. Perechen pereponchatokrylykh Hymenoptera, Monotrocha, vstrechayushchikhsya v okrestnostyakh g. Kupyanska. *Trudy Obshchestva Ispytateley Prirody pri Imperatorskom Khar'kovskom Universitete*, 6: 149–166. [In Russian].
- Ivanov, S.P., Fateryga, A.V. & Filatov, M.A. 2009. Retrospective assessment of species diversity of wild bees and wasps (Hymenoptera, Aculeata) of the Botanical Garden of Vernadskiy Taurida National University. *Uchenyie Zapiski Tavricheskogo Natsionalnogo Universiteta im. V.I. Vernadskogo. Seriya Biologiya, Khimiya*, 22: 40–51. [In Russian].
- Kawall, H. 1857. Hymenopteren in Kurland, mit Berücksichtigung von Livland. Die Stachelträger (Aculeata Latr.). *Correspondenzblatt des Naturforschenden Vereins zu Riga*, 9: 17–28.
- Kazenas, V.L. 1972. Sphecidae (Hymenoptera) of the South-East Kazakhstan. *Horae Societatis Entomologicae Unionis Sovieticae*, 55: 93–186. [In Russian].
- Kazenas, V.L. 1974. Feeding of sphecid wasps. *Trudy Instituta Zoologii Akademii Nauk Kazakhskoy SSR*, 35: 108–113. [In Russian].
- Kazenas, V.L. 1978. *The digger wasps of Kazakhstan and Middle Asia (Hymenoptera, Sphecidae). The determinant*. Alma Ata: Izdatelstvo Nauka Kazakhskoy SSR. 172 p. [In Russian].
- Kazenas, V.L. 1980a. Novyie vidy roda *Bembix* F. (Hymenoptera, Sphecidae) iz Kazakhstana. *Trudy Instituta Zoologii Akademii Nauk Kazakhskoy SSR*, 39: 137–143. [In Russian].
- Kazenas, V.L. 1980b. Novyie vidy royushchikh os (Hymenoptera, Sphecidae) iz Tadjikistana. *Izvestiya Akademii Nauk Tadjikskoy SSR. Otdeleniye Biologicheskikh Nauk*, 4: 49–55. [In Russian].
- Kazenas, V.L. 1980c. Contributions to the digger wasp fauna (Hymenoptera, Sphecidae) of the Soviet Far East. In: Lehr, P.A., Kurzenko, N.V. & Fedikova, V.S. (Ed.). *Taxonomiya nasekomykh Dalnego Vostoka*. Vladivostok: Akademiya Nauk SSSR, Dalnevostochnyi Nauchnyi Tsentr. 80–94. [In Russian].
- Kazenas, V.L. 1992. Digger wasps (Hymenoptera, Sphecidae) of Repetek Nature Reserve, Turkmenistan. *Izvestiya Akademii Nauk Turkmenistana. Seriya Biologicheskikh Nauk*, 6: 24–30. [In Russian].
- Kazenas, V.L. 2001. *Fauna and biology of sphecid wasps (Hymenoptera, Sphecidae) of Kazakhstan and Central Asia*. Almaty: KazgosINTI. 333 p. [In Russian].
- Kazenas, V.L. 2002. Digger wasps (Hymenoptera, Sphecidae) of Kazakhstan. *Tethys Entomological Research*, 4: 1–174. [In Russian].
- Kazenas, V.L. 2004a. Digger wasps (Hymenoptera: Apoidea: Sphecidae) of the Western Tien Shan. *Tethys Entomological Research*, 10: 97–116. [In Russian].
- Kazenas, V.L. 2004b. A review of Sphecidae and Crabronidae (Hymenoptera) of northern Caspian region]. *Biologicheskkiye Nauki Kazakhstana*, 1-2: 25–38. [In Russian].
- Kazenas, V.L. 2007. A faunal survey of digger wasps (Hymenoptera: Sphecidae, Crabronidae) of Kurgaldzhin Reserve and adjacent territories. *Selevinia*, 2006: 89–94. [In Russian].
- Kazenas, V.L. 2008. Rare species of digger wasps (Hymenoptera: Ampulicidae, Sphecidae, Crabronidae) of Southeast Kazakhstan and their protection. *Tethys Entomological Research*, 16: 97–108. [In Russian].
- Kazenas, V.L. 2013. Crabronid digger wasps (Hymenoptera, Crabronidae) of the Sharyn National Park and adjacent territories (southeast Kazakhstan). *Euroasian Entomological Journal*, 12(5): 493–500. [In Russian].

- Kerenskiy, I.P. 1919. Contribution to the knowledge of Hymenoptera of Russia (P. 2). Hymenoptera of Kerensk and Chembar Districts, Penza Government. *Acta Universitatis Tanaitici*, 1: 1–48. [In Russian].
- Kohl, F.F. 1913. Fascicula 11. Hymenoptera. In: Velitchkovsky, V. (Ed.). *Faune du District de Walouyki du gouvernement de Woronège (Russie)*. Stockerau: Johann Zellmayer. 21 p.
- Kohl, F.F. & Handlirsch, A. 1889. Transcaspische Hymenopteren. *Verhandlungen der kaiserlich-königlichen Zoologisch-Botanischen Gesellschaft in Wien*, 39: 267–286, Taf. VII.
- Kokujev, N.R. 1902. Materyaly dlya fauny pereponchatokrylykh Rossii. *Revue Russe d'Entomologie*, 2: 4–12. [In Russian].
- Kokujev, N.R. 1927. Hymenoptera, sobrannyye V.V. Sovinskim na beregakh ozera Baykala v 1902 godu. *Travaux de la Commission pour l'Étude du Lac Bajkal*, 2: 63–76. [In Russian].
- Kolesnikov, V.A. Sphecids wasps (Hymenoptera, Sphecidae) of the Bryansk region and their role as entomophagous insects. *Entomologicheskoye Obozreniye*, 56(2): 315–325.
- Kuznetsova, V.T. 1990. Hymenoptera of "Galichya Gora" Nature Reserve (an annotated list of species). *Flora i Fauna Zapovednikov SSSR*, 34: 1–87. [In Russian].
- Latreille, P.A. 1810. *Considérations générales sur l'ordre naturel des animaux composant les classes des Crustacés, des Arachnides, et des Insectes, avec un tableau méthodique de leurs genres, disposés en familles*. Paris: F. Shoell. 444 p.
- Lepeletier de Saint Fargeau, A.L.M. 1845. *Histoire naturelle des Insectes. Hyménoptères. Vol. 3*. Paris: Librairie Encyclopédique de Roret. 646 p.
- Linnaeus, C. 1758. *Systema Naturae Per Regna Tria Naturae, Secundum Classes, Ordines, Genera, Species, Cum characteribus, differentiis, synonymis, locis. Tomus 1. Editio decima, reformata*. Holmiae: Laurentii Salvii. 823 p.
- Minoranskiy, V.A. & Shkuratov, A.V. 1996. On the sphecid fauna of Rostovskaya Oblast. *Izvestiya Vysshikh Uchebnykh Zavedenii. Severo-Kavkazskii Regyon. Estestvennye nauki*, 1996(4): 80–83. [In Russian].
- Mokrousov, M.V. 2010. Fauna of digger wasps (Hymenoptera: Ampulicidae, Sphecidae, Crabronidae) of the Upper and Middle Volga basin. *Proceedings of the Russian Entomological Society*, 81: 59–66. [In Russian].
- Mokrousov, M.V., Berezin, A.Yu. & Egorov, L.V. 2011. The digger wasps (Hymenoptera: Ampulicidae, Sphecidae, Crabronidae) of the Chuvashskaya Republic. *Eversmannia*, 27-28: 62–86. [In Russian].
- Mokrousov, M.V., Ruchin, A.B. & Egorov, L.V. 2013. The wasp fauna of Mordovian State Nature Reserve and adjacent territories. *Proceedings of P.G. Smidovitch Mordovian State Nature Reserve*, 11: 193–205. [In Russian].
- Mokrousov, M.V. & Vafin, A.R. 2014. Digger wasps (Hymenoptera: Sphecidae, Crabronidae) of the Republic of Tatarstan. *Trudy Kazanskogo Otdeleniya Russkogo Entomologicheskogo Obshchestva*, 3: 52–61. [In Russian].
- Morawitz, F. 1889. Insecta, a Cl. G. N. Potanin in China et in Mongolia novissime lecta. IV. Hymenoptera Aculeata. *Horae Societatis Entomologicae Rossicae*, 23: 112–168.
- Morawitz, F. 1891. Ueber Astrachan'sche Fossorien. *Horae Societatis Entomologicae Rossicae*, 25: 175–233.
- Morawitz, F. 1893a. Kareliens Fossoria. *Horae Societatis Entomologicae Rossicae*, 27: 95–115.
- Morawitz, F. 1893b. Catalog der von D. Glasunov in Turkestan gesammelten Hymenoptera Fossoria. *Horae Societatis Entomologicae Rossicae*, 27: 391–428.

- Morawitz, F. 1897. Ueber einige transcaspische Raubwespen. *Horae Societatis Entomologicae Rossicae*, 30: 144–160.
- Müller, A. 1930. Zur Kenntnis der Insektenfauna der Süddobrudscha und Südbessarabiens. *Verhandlungen und Mitteilungen des Siebenbürgischen Vereins für Naturwissenschaften zu Hermannstadt*, 79–80: 167–187.
- Myartseva, S. N. 1963. Ekologicheskoye raspredeleniye royushchikh os (Hymenoptera, Sphecidae) v nizoviyakh Murgaba. *Izvestiya Akademii Nauk Turkmenskoy SSR. Seriya Biologicheskikh Nauk*, 4: 56–63. [In Russian].
- Myartseva, S. N. 1965. Royushchiye osy (Hymenoptera, Sphecidae) nizoviy Murgaba. In: Medvedev, G.S., Luppova, A.N. (Eds). *Nasekomyie nizoviy Murgaba (vostochnaya Turkmeniya). Fauna, ekologiya, khozaystvennoye znacheniyе*. Ashhabad: Ylym. 74–99. [In Russian].
- Myartseva, S. N. 1972. Fauna sfetsid yuzhnoy Turkmenii. In: Tokgayev, T., Myartseva, S.N. (Eds). *Nasekomyie yuzhnoy Turkmenii*. Askhabad: Ylym. 75–100. [In Russian].
- Nazarova, Sh.D. 1998. Sphecid wasps of the Nature Reserve "Tigrovaya Balka". *Izvestiya Akademii Nauk Respubliki Tadjikistan. Otdeleniye Biologicheskikh i Meditsinskikh Nauk*, 139: 38–43. [In Russian].
- Nazarova, Sh.D. 2004. On the sphecid wosp of Badakhshan Region, Tajikistan. In: Abdusalyamov, I.A. (Ed.). *Fauna i ekologiya zhivotnykh Tadjikistana*. Dushanbe: Akademiya Nauk Respubliki Tadjikistan. Institut Zoologii i Parazitologii im. E.N. Pavlovskogo. 103–109. [In Russian].
- Nazarova, Sh.D. 2005. Hymenopterous – pollinators of the alfalfa fields in southwestern Tajikistan. *Izvestiya Akademii Nauk Respubliki Tadjikistan. Otdeleniye Biologicheskikh i Meditsinskikh Nauk*, 152: 92–95. [In Russian].
- Nazarova, Sh. & Baratov, Sh.B. 1981. On the predatory wasps (Hymenoptera: Sphecidae, Vespidae) of Tajikistan and their role in regulation of the horse-flies. *Entomologicheskoye Obozreniye*, 60: 97–102. [In Russian].
- Nazarova, Sh.D. & Gafarov, S. 1986. Digger wasps (Sphecidae) controlling the number of hover flies (Syrphidae) in cotton agrobiocenoses in southern Tadjikistan. *Izvestiya Akademii Nauk Tadjikskoy SSR. Otdeleniye Biologicheskikh Nauk*, 2(103): 70–72. [In Russian].
- Nazarova, Sh. & Shomirsaidov, Sh. Digger wasps (Hymenoptera, Sphecidae) of the fruit tree orchards of Vakhsh River valley in Tajikistan. *Doklady Akademii Nauk Respubliki Tadjikistan*, 11(1): 21–26. [In Russian].
- Nemkov, P.G. 1986. To fauna of digger wasps (Hymenoptera, Sphecidae) of Baikal region. In: Lehr, P.A., Belokobylskij, S.A., Storozheva, N.A. (Eds). *Pereponchatokrylyie Vostochnoi Sibiri i Dalnego Vostoka*. Vladivostok: Akademiya Nauk SSR, Dalnevostochnyi Nauchnyi Tsentr, Biologo-Pochvennyi Institut. 92–110. [In Russian].
- Nemkov, P.G. 1990. New and little known species of digger wasps (Hymenoptera, Sphecidae) of Siberia and Far East. In: Lelej, A.S. (Ed.). *Novosti sistematiki nasekomykh Dalnego Vostoka*. Vladivostok: Akademiya Nauk SSSR. Dalnevostochnoe Otdeleniye. Biologo-Pochvennyi Institut. 79–85. [In Russian].
- Nemkov, P.G. 2008. The digger wasps fauna (Hymenoptera: Sphecidae, Crabronidae) of the Asiatic part of Russia. *A.I. Kurentsov's Annual Memorial Meetings*, 19: 15–34. [In Russian].
- Nemkov, P.G. 2009. *Annotated catalogue of digger wasps (Hymenoptera: Sphecidae, Crabronidae) of Asian part of Russia*. Vladivostok: Dalnauka. 194 p. [In Russian].

- Nemkov, P.G. 2012. Biological features of the digger wasps of the subfamily Bembicinae (Hymenoptera, Crabronidae). *A.I. Kurentsov's Annual Memorial Meetings*, 23: 114–132. [In Russian].
- Nemkov, P.G. 2013. Peculiarities of the geographic distribution of the digger wasps of the subfamily Bembicinae (Hymenoptera, Crabronidae). *A.I. Kurentsov's Annual Memorial Meetings*, 24: 58–70. [In Russian].
- Nemkov, P.G., Kazenas, V.L., Budrys, E.R. & Antropov, A.V. 1995. Superfam. Sphecoidea. 67. Fam. Sphecidae – Digger wasps. In: Lehr, P.A. (Ed.). *Key to the insects of Russian Far East. Vol. IV. Neuropteroidea, Mecoptera, Hymenoptera. Part 1*. St-Petersburg: Nauka. 368–480. [In Russian].
- Panzer, G.W.F. 1801. *Faunae Insectorum Germaniae initia oder Deutschlands Insecten. Fasc. 84*. Nürnberg: Felssecker. 24 pl.
- Parker, J.B. 1929. A generic revision of the fossorial wasps of the tribes Stizini and Bembicini, with notes and descriptions of new species. *Proceedings of the United States National Museum*, 75: 1–203, pl. 1–15.
- Plavilshchikov, N.N. 1964. List of insects found in Mordovian State Nature Reserve. *Trudy Mordovskogo Gosudarstvennogo Zapovednika imeni P.G. Smidovicha*, 2: 105–134. [In Russian].
- Potantin, N.G. (1950) *Tangutsko-Tibetskaya okraina Kitaya i Tsentralnaya Mongolia [Tangut-Tibet part of China and Central Mongolia]*. Moscow, 652 pp. + map. [In Russian].
- Prisniy, A.V. 2012. Digger wasps (Hymenoptera: Sphecidae, Crabronidae) of the Belgorodskaya Oblast. *Euroasian Entomological Journal*, 11: 44–54. [In Russian].
- Protsenko, Yu.V. 2003. Sphecidae of Malyi Tataru island and their relationships to flowering plants. *Zapovidna Sprava v Ukraini*, 9(1): 67–70. [In Russian].
- Protsenko, Yu.V. & Drozdovskaya, A.V. 2011. Preliminary checklist of Sphecidae, Crabronidae, Chrysididae (Hymenoptera) in "Bugs'kii Gard" National Park. *Zapovidna Sprava v Ukraini*, 17(1-2): 89–93. [In Russian].
- Protsenko, Yu.V., Fateryga, A.V. & Ivanov, S.P. 2014. Digger wasps (Hymenoptera: Crabronidae) of the collection of V.I. Vernadskiy Taurida National University. Subfamilies Astatinae, Bembicinae, Mellininae and Philanthinae. *Optimization and Protection of Ecosystems*, 11: 25–41. [In Russian].
- Pulawski, W.J. 1978. Nadsem. Sphecoidea – Digger wasps. In: Medvedev, G.S. (Ed.). *Keys to the Identification of insects of European USSR. Vol. III. Hymenoptera. Part 1*. Leningrad: Nauka. 173–279. [In Russian].
- Pulawski, W.J. 2015. *Catalog of Sphecidae sensu lato (= Apoidea excluding Apidae)*. California Academy of Sciences, Golden Gate Park, San Francisco, California, USA. Available from: http://researcharchive.calacademy.org/research/entomology/entomology_resources/hymenoptera/sphecidae/ (accessed 15 October 2015)
- Radoszkowski, O.I. 1877. Chrysidiformis, Mutillidae, and Sphegidae (Hymenoptera). *Izvestiya Imperatorskogo Obshchestva Lyubiteley Estestvoznaniya, Antropologii i Etnografii pri Imperatorskom Moskovskom Universitete*, 26(1): 1–87, pl. I–VIII. [In Russian].
- Radoszkowski, O. 1884. Etudes hyménoptérologique. *Horae Societatis Entomologicae Rossicae*, 18: 23–29.
- Radoszkowski, O. 1887. Insecta in itinere Cl. N. Przewalskii in Asia centrali novissime lecta. III. Sphegidae. *Horae Societatis Entomologicae Rossicae*, 21: 41–52, pl. II–III.
- Radoszkowski, O. 1893. Faune hyménoptérologique transcaspienne (Suite et fin). *Horae Societatis Entomologicae Rossicae*, 27: 38–81.

- Romanova, V.P. 1969. On the fauna of sphecid wasps (Hymenoptera, Sphecidae) from the North Caucasus. *Entomologicheskoye Obozreniye*, 48: 132–137. [In Russian].
- Ruchin, A.B. & Antropov, A.V. 2014. On the wasp fauna (Hymenoptera, Vespomorpha) of the Republic of Mordovia. *Aktualnyie Problemy Gumanitarnykh i Estestvennykh Nauk*, 3(62): 29–36. [In Russian].
- Ruchin, A.B., Antropov, A.V. & Shibayev, S.V. 2009. Materials to the wasp fauna (Hymenoptera: Chrysididae, Scoliidae, Tiphiidae, Pompilidae, Vespidae, Sphecidae, Crabronidae, Trigonalidae) of the Republic of Mordovia. *Vestnik Mordovskogo Universiteta. Seriya Biologicheskoye Nauki*, 1: 164–172. [In Russian].
- Schulz, W.A. 1904. Ein Beitrag zur Faunistik der paläarktischen Spheciden. *Zeitschrift für Entomologie (Neue Folge)*, 29: 90–102.
- Shestakov, A.V. 1925. Matériaux pour servir à la faune des guêpes fam. Crabronidae gouv. du Jaroslavl. *Trudy Yaroslavl'skogo Yestestvenno-Istoricheskogo Obshchestva*, 4: 35–37. [In Russian].
- Shibayev, S.V. & Polumordvinov, O.A. 2012. A review of species diversity of Hymenoptera (Insecta, Hymenoptera) in Penza region. *Izvestiya Penzenskogo Gosudarstvennogo Pedagogicheskogo Universiteta Imeni V.G. Belinskogo. Estestvennyye Nauki*, 29: 274–279. [In Russian].
- Shkurov, A.V. 2000. Sphecid wasps in the village Vëshenskaya area. In: Minoranskiy, V.A. (Ed.). *Priroda Gosudarstvennogo Muzeya-Zapovednika M.A. Sholokhova*. Rostov-na-Donu: Rostizdat. 54–60. [In Russian].
- Shkurov, A.V. 2002. Fauna royushchikh os (Hymenoptera, Sphecidae) stepnogo zapovednika "Rostovskiy" i eyo osobennosti po sravneniyu s faunoy raznotravo-tipchakovo-kovyl'nykh stepey Rostovskoy oblasti. *Trudy Gosudarstvennogo Zapovednika "Rostovskiy"*, 3: 138–156. [In Russian].
- Shkurov, A.V. 2004a. Digger wasps (Hymenoptera: Sphecidae) of Rostov Region and some neighbouring territories. *The Kharkov Entomological Society Gazette*, 11(1-2): 70–85. [In Russian].
- Shkurov, A.V. 2004b. Digger wasps. In: *Flora, fauna i microbiota Gosudarstvennogo Muzeya-Zapovednika M.A. Sholokhova*. Gosudarstvennyi Muzei-Zapovednik M.A. Sholokhova, Vëshenskaya. 164–168. [In Russian].
- Shlyakhtenok, A.S. 2006. Species composition and structure of communities family digger wasps Hymenoptera, Sphecidae in Polesye Radiological Nature Reserve. *Vesti Natsyonal'noy Akademii Navuk Belarusi. Seryya Bialagichnykh Navuk*, 3: 109–115. [In Russian].
- Shlyakhtenok, A.S. 2013. *An annotated catalog of the wasps (Hymenoptera, Apocrita, Aculeata) of Belarus*. Minsk: Navuka. 259 p. [In Russian].
- Shlyakhtenok, A.S. & Skibinska, E. 2002. Contribution to the knowledge of aculeate Hymenoptera of Belarus. Family digger wasps (Sphecidae). *Vestnik Zoologii*, 36: 31–40. [In Russian].
- Shorenko, K.I. 2003. New data on the digger wasps fauna (Apoidea: Sphecidae, Crabronidae) of Ukraine. *The Kharkov Entomological Society Gazette*, 10(1-2): 96–98. [In Russian].
- Shorenko, K.I. 2005a. On the digger wasp fauna (Hymenoptera: Ampulicidae, Sphecidae, Crabronidae) of Crimea. *Caucasian Entomological Bulletin*, 1(2): 161–170. [In Russian].
- Shorenko, K.I. 2005b. Digger wasps (Hymenoptera: Sphecidae, Crabronidae) of Karadagh Nature Reserve. In: *Nature reserves of Crimea: nature protection, biodiversity, ecoformation. Materials of the IIIrd Scientific Conference, 22 April 2005, Simferopol, Crimea*. 97–100. [In Russian].

- Shorenko, K.I. & Konovalov, S.V. 2010. Novyie dannyye o royushchikh osakh (Hymenoptera: Ampulicidae, Sphecidae, Crabronidae) fauny Ukrainy. *Ukrainska entomofaunistika*, 1(2): 9–32. [In Russian].
- Siła-Nowicki, M. 1864. *Przyczynek do owadniczej fauny Galicyi*. Kraków: Druk. Uniw. Jagiellońskiego. 69 p.
- Siła-Nowicki, M. 1865. *Insecta Haliciae Musei Dzieduszyckiani*. Cracoviae: Typis Universitatis Jagiellonicae. 87 p.
- Smith, F. 1873. Descriptions of aculeate Hymenoptera of Japan, collected by Mr. George Lewis at Nagasaki and Hiogo. *The Transactions of the Entomological Society of London*, [1873]: 181–206.
- Terayama, M. 2006. Taxonomic guide to the Japanese Aculeate wasps. 6. Family Nyssonidae. *Tsunekibachi*, 10: 1–27.
- Tsuneki, K. 1965. A guide to the study of the Japanese Hymenoptera (22) (10). Nyssoninae of Japan and Korea (1). *The Life Study (Fukui)*, 9: 24–33.
- Tsuneki, K. 1967. Further studies on the fossorial Hymenoptera from Manchuria. *Etizenia*, 23: 1–17.
- Tsuneki, K. 1969. Gleanings on the bionomics of the East-Asiatic non-social wasps (Hymenoptera). IV. Some species of Bembicini, Stizini, Gorytini, Mellinini and Alyssonini. *Etizenia*, 41: 1–19.
- Tsuneki, K. 1971a. Ergebnisse der zoologischen Forschungen von Dr. Z. Kaszab in der Mongolei. 239. Sphecidae (Hymenoptera). I–II. *Acta Zoologica Academiae Scientiarum Hungaricae*, 17: 139–217.
- Tsuneki, K. 1971b. Spheciden aus der Inneren Mongolei und dem nördlichen China (Hym.). *Etizenia*, 58: 1–38.
- Tsuneki, K. 1974. Sphecidae (Hymenoptera) from Korea. *Annales Historico-Naturales Musei Nationalis Hungarici*, 66: 359–387.
- Tsuneki, K. 1982. Sphecidae from North Korea (II) with the list of the species of the family known from the Korean Peninsula (Hymenoptera). *Special Publications of the Japan Hymenopterists Association*, 20: 1–22.
- Tsuneki, K. 1991. Sphecidae (Hymenoptera) from Korea. *Insecta Koreana*, 2(Supplement): 198–203.
- Vander Linden, P.L. 1829. Observations sur les Hyménoptères d'Europe de la famille de Fouisseurs, deuxième partie, Bembecides, Larrates, Nyssoniens et Crabronites. *Nouvelles Mémoires de l'Académie Royale des Sciences et Belles Lettres de Bruxelles*, 5: 11–125.
- van der Vecht, J. 1961. Hymenoptera Sphecoidea Fabriciana. *Zoologische Verhandelingen*, 48: 1–85.
- Voblenko, A.S., Gorobchishin, V.A. & Nesterov, M.A. 1996. Digger wasps (Hymenoptera, Sphecidae) of Ukrainian Polesye. *Sphecos*, 30: 14–15.
- Wierzejski, A. 1868. Przyczynek do fauny owadów błonkoskrzydłych (Hymenoptera). *Sprawozdanie Komisji Fizyograficznej c. k. Towarzystwa Naukowego Krakowskiego*, 2: 108–120.
- Wierzejski, A. 1874. Dodatek do fauny błonkówek (Hymenoptera). *Sprawozdanie Komisji Fizyograficznej Akademii Umiejętności w Krakowie*, 8: 253–273.
- Wengris, J. 1962. Materiały do fauny błonkoskrzydłych (Hymenoptera) najbliższych okolic Wilna. *Studia Societatis Scientiarum Torunensis. Toruń – Polonia. Sectio E (Zoologia)*, 6(10): 191–209.
- Wnukowski, W. 1927. Verzeichnis der Hymenopteren des Bezirkes Kamenj (südwestliches Sibirien, früheres Gouvernement Tomsk). *Konowia*, 6: 31–34.

- Wu, Y. & Zhou, Q. 1996. *Economic Insect Fauna of China. Fasc. 52. Hymenoptera: Sphecidae*. Beijing: Science Press. 197 p.
- Yaroshevskiy, V.A. 1881. Materials for the entomology of Kharkov government. III. A list of Hymenoptera occurring in Kharkov government. *Trudy Obshchestva Ispytateley Prirody pri Imperatorskom Kharkovskom Universitete*, 15: 105–144. [In Russian].
- Yasumatsu, K. 1940. Contributions to the hymenopterous fauna of Inner Mongolia and North China. *Transactions of the Sapporo Natural History Society*, 16: 90–95.
- Yasumatsu, K. 1942. Hymenoptera Aculeata collected by Mr. K. Tsuneki in North China and Inner Mongolia. I. Sphecoidea. 1. List of the species. *Mushi*, 14: 103–115.
- Yasumatsu, K. & Narisada, G. 1935. Miscellaneous notes on the Hymenopterous fauna of South Manchuria (first report). *Mushi*, 8: 64–82.
- Yildirim, E. & Ljubomirov, T. 2005. Contribution to the knowledge of Sphecidae and Crabronidae (Hymenoptera, Aculeata) fauna of Turkey. *Linzer Biologische Beiträge*, 37(2): 1786–1808.