

**New data on Middle Asian representatives of the spider wasp genera
Hemipepsis Dahlbom, 1843, *Dipogon* Fox, 1897, *Tachyagetes* Haupt,
 1930, *Pareiocurgus* Haupt, 1962 and *Pamirospila* Wolf, 1970 stat. n.
 (Hymenoptera, Pompilidae)**

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Most part of the wasp specimens used for the study was collected during my field collecting trips of 1988 - 1999. Other material was received for examination from colleagues (see below). Few specimens were taken on time from the insect collection of Zoological Institute, Russian Acad. Sci., St. Petersburg (ZISP). The holotype specimens, except for the one of *Tachyagetes otus* (deposited in ZISP), are prepared to be placed into the entomological collection of Tel-Aviv University (TAU). Part of paratype specimens is distributed between ZISP and Zoological Museum of the Moscow University (ZMMU).

Terms that are used here to show the details of wings venation correspond to those, accepted in the most authoritative among the entomologists of the former USSR manuals. The main differences from Wolf (1988-1994) in using the terms to note the same structures are shown below (first term of the corresponding pair is used in this work): radial cell = Subcostalis; 1-3 radiomedial cells = 1.-3. Radialis; 1-2 discoidal cells = 2.-3. Medialis; 1-3 radiomedial veins = 1.-3. Radius transversus.

The major part of indexes is accurate to 0.1, only in those cases when the more precise ratios were required the appropriate indexes are specified to 0.01.

Few used abbreviations are the follows: OOL - ocular-ocellar line; POL - post-ocellar line; MM - ratio of two distances: first of them is distance between the beginning of medial vein and the ending of second radiomedial vein, and the second one is distance between the last point and the apical margin of fore wing; MR - ratio of total length of the first radiomedial vein and length of the sector of medial vein that is located between the crossings with the first and the second radiomedial veins; RM - radiomedial cells in fore wing; RQ - ratio of distance between the beginning of radial vein in hind wing and the point of its crossing with radiomedial vein on the one hand and total length of the last vein on the second one.

Other institutional acronyms mentioned are: BMNH - British Museum (of Natural History); MMB - Moravské Museum, Brno; NHW - Naturhistorisches Museum, Wien; ZMHU - Museum für Naturkunde der Humboldt-Universität, Berlin.

Genus *Hemipepsis* Dahlbom, 1943

***Hemipepsis sogdiana* Zonstein, sp.n. (Figs. 1, 2, 5, 6, 10-12)**

Hemipepsis sinensis: Zonstein, 1996: 376, not *Pompilus sinensis* Smith, 1855.

Types. Holotype ♀ - "S. Kirghizia, Toskaul, h 1200 m. 6.08.1964. Coll. K. E. Romanenko" (TAU). Paratypes: 9♂, 7♀. UZBEKISTAN: "Karzhantau, *Juniperus* forest, 3-rd belt, 3-VIII-37" - 1♀ (ZISP); "Tien-Shan oc., ms Bolshoi Tshimgan (prope Tshimgan), 1900-2000 m alt., 4-5.VIII.1937. L. Sheljuzhko & N. Pavlitskaja leg." - 1♀ (ZISP); "Bash-Kyzyl-Sai, Tchatkal Mt. Ridge, Uzbekistan, Nenilin, 7.07.1981" - 2♀ (ZMMU). KYRGYZSTAN: "S. Kirghizia, Toskaul, h 1200 m. 4.08.1964. Coll. K. E. Romanenko" - 1♂ (ZISP); "S. Kirghizia, Tchatkal Mt. R., Arkit, 1200 m, N.G. Sirota, 8 VIII 1987" - 1♀; "11 km N Tashkumyr, S. Kirghizia, 650 m. Zonstein, 23 VI 1992" - 2♂; "Karatyt, 14 km N Tashkumyr, 850 m, foothills, 41°26'N 72°13'E, Kirgh. S. Zonstein, 26.06.1996" - 5♂, 1♀; "Kirghizia, foothills of Ferghana Mt. R., nr. Toskaul, 10.07.1997. Coll. S.V. Ovtchinnikov" - 1♀; "nr. Sary-Kamysh, 2 km E Tashkumyr, Kirghizia, 15.07.1997. Coll. A. M. Klimenko" - 1♂.

Diagnosis. *H. sogdiana* belongs to the nominative subgenus, where it appears to be most closely related to *H. sinensis* (Smith, 1855). It differs from the last species by character of propodeal sculpture (which is less developed in the new species), details of the fore wing venation (sf. Figs. 5-8), and configuration of hypopygium (sf. Figs. 10-13). By the character of coloration the new species can be easily distinguished from the neighboring congeners: from Mediterranean *H. brunnea* (Klug, 1834) and *H. barbara* (Lepeletier, 1845) - by uniformly dark-colored wings (which are partially yellow in those

species), and from South Iranian *H. semenovi* (Gussakovskij, 1932)* possessing concolorous wings – by bicolorous abdomen (that is uniformly dark-brown in the last species); besides, male differs from males of *H. semenovi* by the shape of hypopygium (sf. Figs. 10, 11 and 14).

Female. Head 1,2 times as broad as long. Face as shown on Fig. 1. Ratio POL – OOL 0.75. Anterior clypeal margin slightly excavate. Ratio of 1–4 antennal segments: 4.3 - 1 - 7 - 4.2. Third antennal segment 4.0 times as long as broad apically. Propodeal ridges dense but low, weakly developed posteriorly. Ratio of 1–4 segments of radial vein: 1 - 3 - 5 - 3 (Fig. 5). Black; antennae light reddish orange; clypeus, labrum, mandibles except dark distal edge, legs save coxae, tergites 2–6 and narrow posterior transverse fascia of first tergite brick-reddish orange; head, dorsal portion of pronotum, central part of scutum and tegulae dark rufous. Wings chestnut-colored with weak greenish-violet reflection, pterostigma and veins brown. Head, pronotum, mesonotum, abdomen and legs covered with appressed golden pubescence; frons, temples and propodeum covered with short dark hairs. Length 13.4–16.8 mm.

Male. Head 1.1 times as broad as long. Face as shown on Fig. 2. Ratio POL – OOL 0.95. Anterior clypeal margin as in female. Ratio of 1–4 antennal segments: 3.6 - 1 - 5 - 5. Third antennal segment 3.2 times as long as broad apically. Ratio of 1–4 segments of radial vein: 1 - 3.2 - 5 - 3 (Fig. 6). Hypopygium with convex lateral margins, posterior margin straight or slightly concave; posterior quarter of hypopygium covered with dense inclined hairs (Figs. 10–12). Apex of paramerae with dense short bristles. Color of body and legs as in female with some distinctions: head black except dark orange clypeus and eye orbitae; pronotum black with reddish orange shoulder corners; first abdominal tergite black entirely, other tergites brick-reddish orange with more dark posterior margins. Color of wings, hairs and pubescence as in female. Length 11.8–13.2 mm.

Etymology. The specific name is derived from the ethnonym: the Sogdians were a tribe inhabiting Central Asia in ancient times.

Habitat and biology. The species occurs from semi-deserts at 600–800 m to open woodlands at 1200–2000 m. Males and females *H. sogdiana* were observed visiting flowers of *Prangos pabularia* Lindl. (Apiaceae).

***Dipogon variegatum* (Linnaeus, 1758)**

Material. TURKMENISTAN: “Alekseevka, Turkm., near Kushka, 13 VIII 1930. A. Shestakov” – 1♀ (ZISP).

Notes. Outside of the limits of Central Asia where the species is registered for the first time, areal of *D. variegatum* includes Western Europe, Eastern Mediterranean region, Caucasus and North Africa (Wolf, 1972; Tobias, 1978). Judging by the character of areas, this species appears to belong to the number of Mediterranean elements penetrating into Central Asia from the west.

***Dipogon bifasciatum* (Geoffroy, 1785)**

Dipogon bifasciatum: Milko & Makogonova, 1999: 139.

Material. KAZAKHSTAN: “5 km S Almaty. SE Kazakhstan, 26.05.1997. V. L. Kazenas leg.” – 1♀; “Sarytogoï, Tcharyn riv. 43°35'N 79°18'E, SE Kazakhstan, 750 m, Zonstein, 12.06.1993” – 1♀; KYRGHYZSTAN: “Kirghizsky Mt.R., 1700 m, Kashkasu gor., Kirghizia. 17.07.1996, I. Makogonova” – 3♀; “Arkit, S. Kirghizia, Tchatkal Mt.R., 1400 m, Zonstein, 17.06.1992” – 1♀; “Kirghizia, Alai Mt.R., Langar, 13.07.1997. Coll. S. V. Ovtchinnikov” – 1♀.

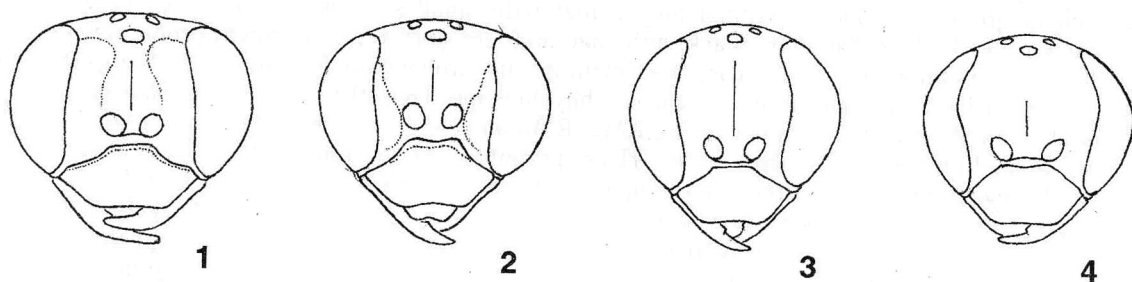
Notes. According to A. S. Lelej (1986, 1995), *D. bifasciatum* belongs to transpalearctic species distributed from Western Europe to Japan. In Central Asia this species was found mainly in relatively humid mountainous regions.

***Dipogon vehti* Day, 1979**

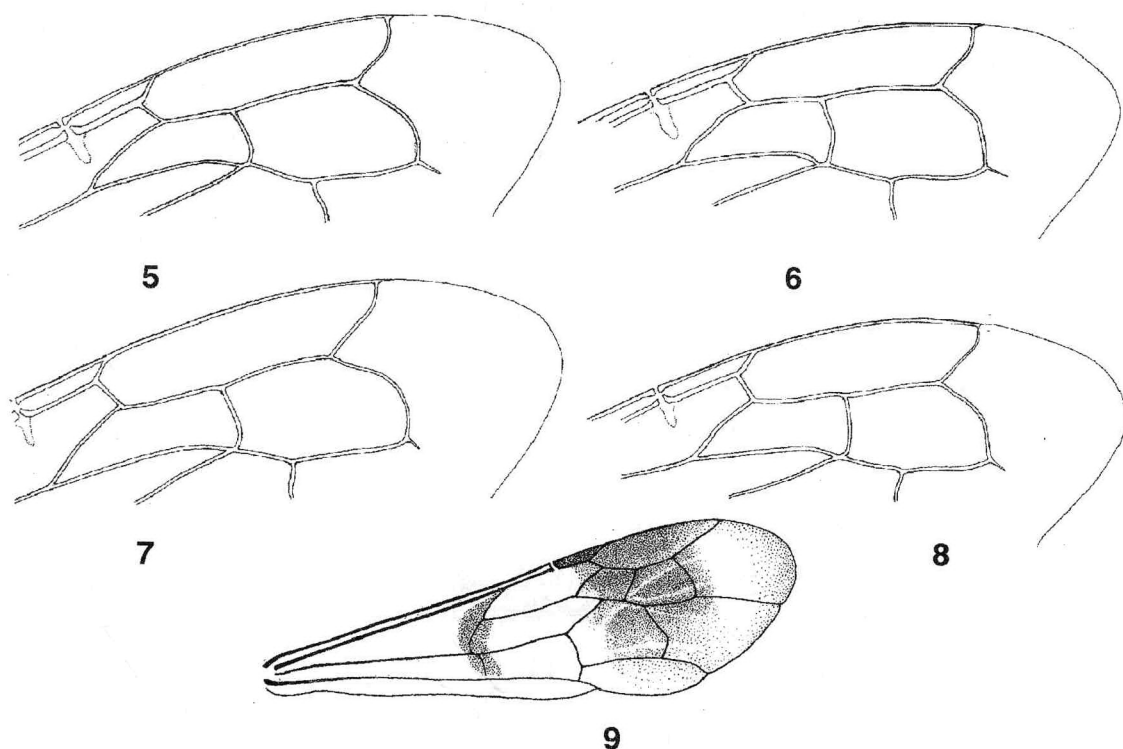
Material KAZAKHSTAN: “Zailiysky Mt.R., N-slope, Pravyy Talgar r., 1800 m, SE Kazakhstan, V. Kazenas, 16.08.1993” – 1♀; “12 km S Saty, Kungei Alatau, SE Kazakhstan. Ishkov, 12.07.1998” – 1♀. KYRGHYZSTAN: “Terskei Mt. R., 2000 m, Aksu vall., NE-Kirghizia, 42°28'N 78°32'E, S. Zonstein, 27.08.1996” – 1♀.

*New combination from *Mygnumia semenovi* Gussakovskij, 1932. Lectotype ♀ (ZISP; designated here) – “Kerman, str.Bampur Shashapust 8-9 IV 1901. N. Zarudnyi”, “*Mygnumia semenovi* m. types V. Gussakovskij”. Paralectotypes: “Kerman, str.Ge Keshi-Kadzha 28 III – 2 IV 1901. N. Zarudnyi”, “*Mygnumia semenovi* m. types V. Gussakovskij” – 2♂ (ZISP).

Notes. Like the previous species *D. vehti* possesses the transpalearctic type of areal (Lelej, 1986). In Central Asia it appears to be more closely connected with forest biotopes than *D. bifasciatum*; at least two of the mentioned specimens were collected in the coniferous forest zone of North-Eastern Tien-Shan.



Figs. 1-4. Head, anterior view: 1,2 - *Hemipepsis sogdiana*; 3,4 - *Dipogon ridestricolor*; 1,3 - ♀; 2,4 - ♂



Figs. 5-9. Details of the fore wing venation: 5, 6 - *Hemipepsis sogdiana*; 7, 8 - *H. sinensis*; 9 - *Dipogon ridestricolor*; 5, 7, 9 - ♀; 6, 8 - ♂.

***Dipogon ridestricolor* Zonstein, sp.n. (Figs. 3, 4, 9, 15, 16)**

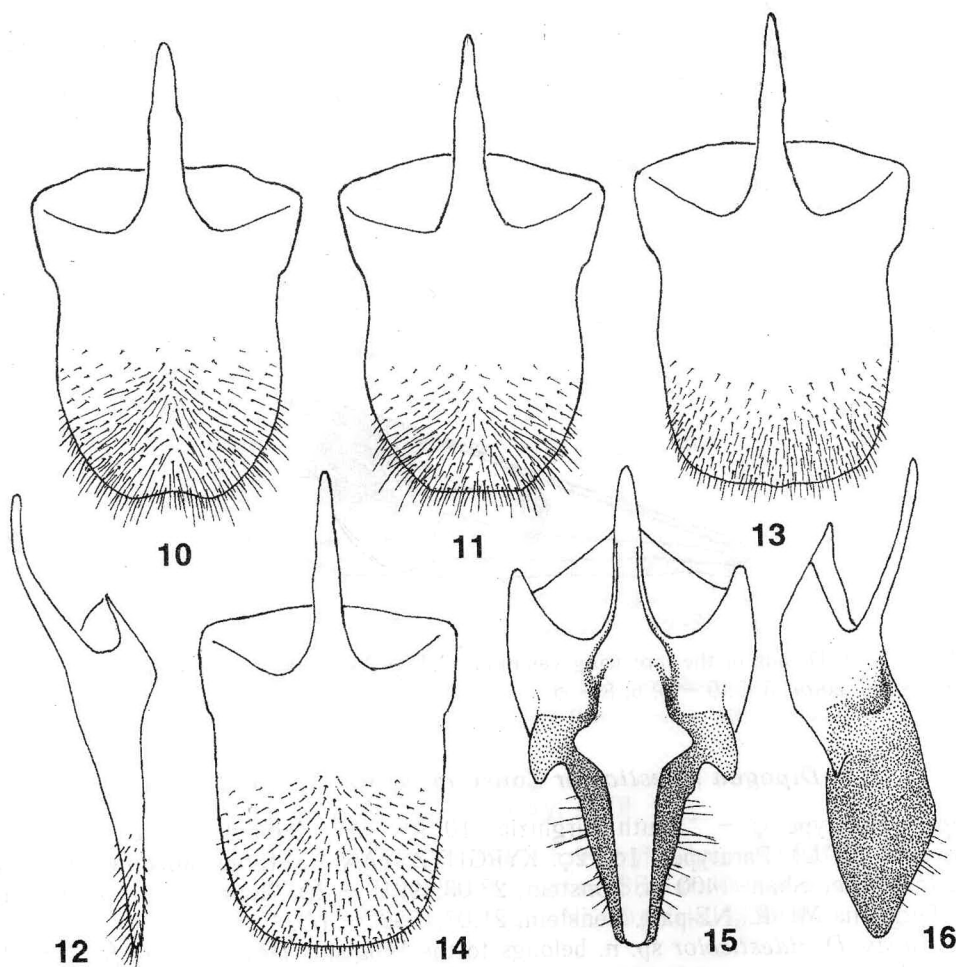
Types. Holotype ♀ - "South Kirghizia, 10 km SW Karakul t., 4.06. 1997. Coll. S. V. Ovtchinnikov" (TAU). Paratypes: 1♂, 2♀. KYRGHYZSTAN: "Kotursu, Kokomeren r., Kir., 41°45'N 73°59'E, Inner Tien-Shan, 1400 m, Zonstein, 23.06.1991" - 2♀; "Karasu r., 1650 m, Kirg., 41°36'N 73°10'E, Ferghana Mt. R., NE-part. Zonstein, 21.07.1993" - 1♂.

Diagnosis. *D. ridestricolor* sp. n. belongs to the subgenus *Deutragenia* Šustera, 1912. In the structure of body punctures, coloration of fore wings and configuration of the fore wing cells the new species seems to be most closely related to *D. bifasciatum* (Geoffroy, 1785). Both male and female differs from the last species by the type of coloration (which is uniformly black in *D. bifasciatum*).

Besides, males of new species can be distinguished from males of *D. bifasciatum* by the shape of hypopygium (see: Figs. 15, 16).

Female. Head 1,1 times as broad as long. Face as shown on Fig. 3. Ratio POL-OOL 1.05. Anterior clypeal margin only slightly concave. Ratio of 1-4 antennal segments: 2.3 - 1 - 2.8 - 2.5. Third antennal segment 3.5 times as long as broad. Propodeum fine-wrinkled transversely, with certain longitudinal groove. Second abdominal tergite mat with small shallow pits, distance between pits noticeably exceeds their diameter. Black; antennae and legs dark reddish brown; pronotum, scutum, scutellum, postnotal junction, tegulae, mesopleurae and propodeum brownish-red. Wings hyaline, slightly brownish distally with large preapical subhyaline spot (Fig. 9); fascia at the base of nervulus and basal vein light brown; fascia occupying RM2, RM3 and distal tip of RM1 brown in more intensive tonality; pterostigma and veins dark brown. Head, pronotum, mesonotum and abdomen covered with appressed greyish pubescence; frons and temples with few dark hairs. Length 8.0 - 11.4 mm.

Male. Head 1,07 times as broad as long. Face as shown on Fig. 4. Ratio POL-OOL 1.05. Anterior clypeal margin certainly concave. Antennae serrate interiorly. Ratio of 1-4 antennal segments: 2.4 - 1 - 2.1 - 2. Third antennal segment 2.5 times as long as broad. Propodeum with certain longitudinal groove. Propodeal surface occupied with large pits, distance between nailbor pits less then their diameter. Hypopygium narrow posteriorly, trapezoidal in the cross-section, with moderately high ventral mound covered with stout hairs (Figs. 15, 16). Color of body and legs as in female with some distinctions: only pronotum, scutum, scutellum and tegulae brownish-red; mesopleurae and propodeum black; fore tibiae and tarsi yellowish-brown. Color of wings as in female but both fasciae less intensively colored; hairs and pubescence as in female. Length 6.8 mm.



Figs. 10-16. Male hypopygium of *Hemipepsis* and *Dipogon* species: 10-12 - *H. sogdiana*; 13 - *H. sinensis*; 14 - *H. semenovi*; 15, 16 - *D. ridesticolor*; 10, 11, 13-15 - ventral view; 12, 16 - ditto, lateral view.

Etymology. The specific name emphasizes the very characteristic type of coloration resembling rather than in some species of the pompilinae genus *Ridestus* Banks, 1912.

Habitat and biology. The species occurs in steppe biotopes and riverside forests. The collected specimens were found visiting bark of trees, precipices and house walls.

Genus *Tachyagetes* Haupt, 1930

Notes. According to Wolf (1982–1994) the genus includes about 90 species, 23 of which are occurred in Middle Asian region. The given study contains new data concerning mainly the representatives of the *T. grandis* species-group.

Tachyagetes testaceus (Radoszkowski, 1877) (Figs. 17, 46, 47, 67, 68, 91)

Aporus testaceus Radoszkowski, 1877: 11 (♂ holotype from Tchardara, South Kazakhstan; dep. ZMMU).

Tachyagetes testaceus: - Haupt, 1930b: 696 (♂, not ♀).

Tachyagetes turkmenicus Wolf, 1987: 419 (♀ holotype from Khary-Kul, Turkmenistan; dep. NHW), **syn. n.**

Type: ♂ holotype labeled "Tchardara 26.VI.1871 Fedtchenko", "26", "*Aporus testaceus* Rad." (red label), "♂ *Tachyagetes testaceus* Rad., det. M. C. Day, 1977" Left antenna with five antennal segments, right - with three ones, left hind leg with first tarsal segment only.

Other material examined: TURKMENISTAN: "S.-E. Turkmenia, Murgab. 11.5.1963 Coll. Ponomaryova" - 1♂; "nr. Bairam-Ali, Turkm. SE-Karakum desert, sands. 18 IV 1993. Coll. D.V.Logunov" - 1♀; UZBEKISTAN: "Uzbekistan, Kyzylkum, nr. Navoi. S.Zonstein, 5.05.1989" - 1♀; KAZAKHSTAN: "S. Kazakhstan, Moinkum Des., sands 80 km N Ulanbel, V.L. Kazenas, 4.06.1988" - 1♂; "6 km N Amanatkol, Syr-Daria riv., Kazakhstan. 1 VII 1990. V.L.Kazenas" - 1♀; "50 km SW Bairkum, South Kazakhstan. Kyzylkum desert. Kazenas, 14 V 1992" - 2♂, 2♀; ibidem, 5.07.1993 - 3♀. **Male** (redescription). Head 1.1 times as broad as long and 1.3 times wider than pronotum. Face as shown on Fig. 17. Temples 3.6 times shorter than eye (viewed from above). Ratio POL - OOL 1.17–1.30. Ocellar angle 100°. Anterior margin of clypeus straight. Ratio of 1–4 antennal segments: 1.8 - 1 - 1.8 - 2.1. Third antennal segment 2.7 times as long as broad apically. Postnotal junction equal in length to metanotum. Distal tarsal segment of hind leg without spines. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 46, 47. MM = 0.98–1.07. MR = 1.64–1.67. RQ = 1.32. Hypopygium as shown on Figs. 67, 68. Genitalia as shown on Fig. 91. Head, thorax, antennae and tergite-VI black; inner orbitae with yellow or yellowish-orange spot, clypeus black with yellow anterior margin; mandibles yellow with darkened apical parts; interior half of first antennal segment, posterior margin of pronotum and tegulae yellow to yellowish-orange; tergite-VII greyish-white or yellowish-white with black margins. Legs brick-reddish orange with darkened distal segments and black spines. Tergites I–VI reddish-black to brick-red. Wings hyaline with intensive-brown preapical spot; pterostigma and veins dark-brown. Whole body and legs covered with appressed and flattened feather-like pubescence. Head and thorax with dense light grey to greyish-white toment hiding completely integument; legs and abdomen with lesser in size and density reddish pubescence. Length 7.5–9.0 mm.

Notes. Although *T. testaceus* was described from a single male collected in surroundings of Tchardara, recent South Kazakhstan, Haupt (1930) referred to this species a female from Turkmenistan that could be erroneously misidentified with female of *T. testaceus* due to somewhat similar habitus and type of coloration. When redescribing *T. testaceus* Wolf (1982) also considered the mentioned female to be conspecific with the holotype and used the first instead the second. Following to this assumption he gave a redescription that was based actually on the examination of a specimen belonging to a undescribed species of the subgenus *Epagetes* Priesner, 1955 distributed within Turkmenistan only (Zonstein, in prep.). Few years later Wolf (1987) referred the true females of *T. testaceus* which were undescribed by that time to a distinct species (*T. turkmenicus*). Since both these names are undoubtedly used for the same taxon, *T. turkmenicus* Wolf falls into synonymy of *T. testaceus* Rad.

Distribution. Kazakhstan (Radoszkowski, 1877), Turkmenistan, Mongolia (Wolf, 1987). The species belonging to the *T. sericans* species-group is registered in Uzbekistan for the first time.

Tachyagetes testaceoides Wolf, 1982

Material: TURKMENISTAN: "Khary-Kul 65 km N Ashkhabad. 16 V 1964. leg. Ponomaryova" - 1♀ (ZISP). UZBEKISTAN: "Bag-Abzal 50 km N Bukhara, 5 IX 1931 A.Zhelokhovtsev" - 1♀ (ZISP); "S-Uzbekistan, Dzharkurgan. Zonstein, 12 IV 1990" - 1♀. KAZAKHSTAN: "Peski Koilibai, M.

Barsuki, Turgai. Luppova, 9 IX 1931" – 1♀ (ZISP); "Kazakhstan, Kokshengel, peski Taukum. Yu.A. Pesenko, 2 VII 1979" – 1♀ (ZISP); "South Kazakhstan, Tchu riv., 4 km SE Furmanovka. V.L.Kazenas, 7 VII 1988" – 1♀; "Kazakhstan, Shishaga 15 km N Aralsk. V.L.Kazenas, 26 VI 1990" – 1♀; "3 km N Kamyshtybash L. Aral Reg., Kazakhstan. 28 VI 1990. V.L.Kazenas" – 1♀; "6 km N Amanatkol, Syr-Daria riv., Kazakhstan. 1 VII 1990. V.L.Kazenas" – 1♀; "7 km SSE Aralsk. Aral Reg., Kazakhstan. sands. 7 VII 1990. V.L.Kazenas leg" – 3♀; "20 km S Yany-Kurgan, sands. Kazakhstan. Kazenas, 14 VII 1990" – 1♀; "sands nr. Borokhudzir. Ili r., SE-Kazakhstan. 1 VII 1993 V.L.Kazenas leg." – 1♂, 5♀; ibidem, 5.07.1993 – 3♀. The given species belongs to the subgenus *Epagetes* Priesner, 1955.

Distribution. Turkmenistan, Kazakhstan (Wolf, 1982; 1994). The species is registered in Uzbekistan for the first time.

***Tachyagetes hirtipes* Zonstein, sp. n.** (Figs. 18, 19, 37, 48, 49, 79, 80, 97)

Diagnosis. By the character of the fore tarsi spination in females and by configuration of second radiomedial cell and male hypopygium the new species appears to be more closely related to *T. grandis* (Tournier, 1889), *T. dudichi* Móczár, 1944 and *T. bactrianus* Zonstein, sp. n.; it differs from these species by considerably more hirsute legs in females and by more narrow hypopygium in males.

Types: Holotype ♀ – "Kirghizia, Ferghana Mts., foothills 2 km NE Suzak v., 40°56'N 72°54'E, 850 m, S. Zonstein, 22.06.1998" (TAU). Paratypes: 2♂ – ibidem.

Female. Head 1.2 times as broad as long and 1.3 times wider than pronotum. Face as shown on Fig. 18. Temples 2.5 times shorter than eye (viewed from above). Ratio POL – OOL 0.79. Ocellar angle 110°. Anterior clypeal margin almost straight with polished submarginal area. Ratio of 1–4 antennal segments: 2.5 - 1 - 3.5 - 2.8. Third antennal segment 4.3 times as long as broad apically. Postnotal junction 2 times shorter than metanotum. Propodeum with short medial groove. Ratio of 1–5 tarsal segments of fore leg: 7.5 - 2.9 - 2.0 - 1 - 3.2; first segment 5.0 times as long as broad apically, with 3 spines; apical spine 1.3 times longer than maximal width of first tarsal segment and equal 0.7 length of second segment (Fig. 37). Distal tarsal segment of hind leg with 3 ventral spines. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 48. MM = 1.23. MR = 1.71. RQ = 1.31. Black; medial parts of mandibles reddish; tergites with almost indistinctly reddish-black colored posterior margins. Wings light brown with more dark apical margin, pterostigma and veins dark brown. Whole body and legs covered with appressed brownish-black pubescence; mandibles proximally with grey pubescence. Frons, temples, clypeus, pronotum, propodeum, tergite-I, lateral parts of tergites II–VI, sternites, coxae and femora covered with long dark hairs; all femora with dense erect hairs. Length 9.5 mm.

Male. Head 1.1 times as broad as long and 1.2 times wider than pronotum. Face as shown on Fig. 19. Temples 4.0 times shorter than eye (viewed from above). Ratio POL – OOL 0.95. Ocellar angle 100°. Clypeus as in female. Ratio of 1–4 antennal segments: 1.9 - 1 - 1.6 - 2.3. Third antennal segment 1.8 times as long as broad apically. Postnotal junction 1.9 times shorter than metanotum. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 49. MM = 1.22. MR = 1.59. RQ = 1.63. Hypopygium narrow spoon-shaped (Figs. 79, 80). Genitalia as shown on Fig. 97. Color of body and legs as in female, but wings less intensively colored; body and legs covered with thin greyish-black pubescence, propodeum also with more dense bronze toment. Length 8.0–8.5 mm.

Habitat and biology. The species was found in foothills covered by open park *Pistacea* forest. Female holotype was collected on flowers of *Prangos pabularia* Lindl. (Apiaceae).

***Tachyagetes huszar* Zonstein, sp. n.** (Figs. 20, 50, 71, 72, 93)

Diagnosis. The new species belongs to the *T. argentatus* species-group where by the peculiarities of coloration it seems to be most closely related to *T. pseudoargentatus* Wolf, 1994; it can be distinguished from the last species by less developed light spots at inner orbitae and considerably more wide second radiomedial cell (sf. Wolf, 1994, Abb. 8, 32).

Types: Holotype ♂ – "Kirghizia, Alai Mt. R., N-slope, Katta-Karakol riv. 39°52'N 73°22'E, 2600 m. S. Zonstein, 22.07.1998" (TAU). Paratype: 1♂. KYRGHYZSTAN: "Kirghizia, Ferghana Mts., foothills 2 km NE Suzak v., 40°56'N 72°54'E, 850 m, S. Zonstein, 22.06.1998" – 1♂.

Female. Unknown.

Male. Head 1.1 times as broad as long and 1.4 times wider than pronotum. Face as shown on Fig. 20. Temples 3.6 times shorter than eye (viewed from above). Ratio POL – OOL 1.15–1.23. Ocellar angle 90°. Clypeus as in female. Ratio of 1–4 antennal segments: 1.9 - 1 - 1.9 - 2.1. Third antennal segment 2.5 times as long as broad apically. Postnotal junction equal in length to metanotum.

Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 50. $MM = 0.93-0.95$. $MR = 1.64-1.67$. $RQ = 0.80-0.83$. Hypopygium narrow drop-shaped (Figs. 71, 72). Genitalia as shown on Fig. 93. Black; inner orbitae with small narrow white spot, mandibles with reddish apical parts, tibia-III with dorsal white spot occupying $2/3$ of its length, sternite-VII with transverse white spot. Wings hyaline with brown preapical spot; pterostigma and veins dark-brown. Most part of head and thorax covered with thin silver pubescence; frons, anterior part of scutum, abdomen and legs with brownish pubescence. Length 5.9–7.0 mm.

Habitat and biology. It seems that this rare but wide-spread species ranges from dry foothills covered with semi-arid vegetation to highland subalpine meadows and *Juniperus* forests. Holotype male was taken on flowers of giant umbrelliferous *Ferula* sp.

***Tachyagetes maculipennis* Zonstein, sp. n.** (Figs. 21, 22, 38, 51, 52, 73, 74, 94)

Diagnosis. The new species belonging to the *T. grandis* species-group can be easily distinguished from all the congeners except *T. bytinskii* Haupt, 1962 (Israel, Turkmenistan) and *T. taeniopterus* Wolf, 1987 (Pakistan) by uniformly dark-colored fore wings possessing narrow transverse light-brown fascia at second radiomedial cell; from both mentioned species it differs by noticeable lesser developed lateral spines of fore tarsi in females and more wide hypopygium in males.

Types: Holotype ♂ – “Uzbekistan, Kughitang Mts., dry canyon 1 km NW Vandob, 37°43'N 66°38'E, 1300 m, S. Zonstein, 1.06.1995” (TAU). Paratypes: 2♂, 1♀. UZBEKISTAN: “10 km S Zaamin t., Uzb., Turkestan Mts., foothills, 39°49'N 68°23'E, 950 m, S. Zonstein, 13.06. 1997” – 1♂. KAZAKHSTAN: “S. Kazakhstan, Dzhambul Reg., Talass Distr., Bostandyk, Talass Riv. E. Shalepo, 16.07.1988” – 1♀. KYRGYZSTAN: “Kirghizia, Ferghana Mts., foothills 2 km NE Suzak v., 40°56'N 72°54'E, 850 m, S. Zonstein, 22.06.1998” – 1♂.

Other material examined: UZBEKISTAN: “Tashkent, 30.V.1930, V.Gussakovskij” – 1♀ (ZISP); “Kammashi, 10.IX.1931, V.Gussakovskij” – 1♀ (ZISP). TADJIKISTAN: “Sarai-Lailyak, 30.V.1929, L.Zimin” – 1♂ (ZISP).

Female. Head 1.2 times as broad as long and 1.6 times wider than pronotum. Face as shown on Fig. 21. Temples 2.0 times shorter than eye (viewed from above). Ratio POL – OOL 1.12. Ocellar angle 90°. Anterior clypeal margin slightly arcuated. Ratio of 1–4 antennal segments: 2.6 - 1 - 4.5 - 3.2. Third antennal segment 5.4 times as long as broad apically. Postnotal junction 1.2 times shorter than metanotum. Propodeum with weakly developed medial groove. Ratio of 1–5 tarsal segments of fore leg: 4.3 - 2.0 - 1.5 - 1 - 2.1; first segment 5.8 times as long as broad apically, with 3 weak spines; apical spine 1.2 times shorter than maximal width of first tarsal segment and equal 0.3 length of second segment (Fig. 38). Distal tarsal segment of hind leg with 4 ventral spines. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 51. $MM = 0.68$. $MR = 1.29$. $RQ = 0.48$. Black except for dark reddish anterior clypeal margin and distal tips of mandibles. Fore wings noticeably darkened, brown with more dark broad apical fascia including radial cell completely and second radiomedial cell at least partially; other part of last cell and second discoidal cell occupied by light brown narrow transverse fascia; pterostigma and veins dark brown. Lower part of face, temples, clypeus, propodeum, mesopleurae, propodeum and coxae covered with thin appressed silver-greyish pubescence; other parts of body and legs with brownish pubescence. Length 6.5–11.0 mm.

Male. Head 1.1 times as broad as long and 1.6 times wider than pronotum. Face as shown on Fig. 22. Temples 3.9–4.0 times shorter than eye (viewed from above). Ratio POL – OOL 1.20–1.22. Ocellar angle 90°. Anterior clypeal margin as in female. Ratio of 1–4 antennal segments: 2.2 - 1 - 3.8 - 2.5. Third antennal segment 4.8–5.0 times as long as broad apically. Postnotal junction equal in length to metanotum. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 52. $MM = 0.58-0.62$. $MR = 1.10-1.15$. $RQ = 0.59$. Hypopygium broad drop-shaped (Figs. 73, 74). Genitalia as shown on Fig. 94. Color of body, legs and wings as in female, but silver-colored pubescence more developed and occupies also posterior part of scutum and lateral margins of metanotum. Length 6.5–7.2 mm.

Habitat and biology. The specimens listed above were occurred in foothills covered with different types of dry steppe vegetation at altitude 650–1300 m above sea level.

***Tachyagetes otus* Zonstein, sp. n.** (Figs. 23, 24, 39, 53, 54, 77, 78, 96)

Diagnosis. The new species belongs to the *T. grandis* species-group and differs from all other species of the genus by having strongly modified clypeus that is flattened and expanded down to form a narrow-trapezoidal digging structure resembling a spade.

Types: Holotype ♀ – “Assake, Ferghana, 2.VI.1930. Botcharnikov” (ZISP). Paratypes: 1♂, 2♀. UZBEKISTAN: “Uzbekistan, Kuramin Mt. R., S-slope, Kamtchik r. canyon, foothills, 1100 m. S. Zonstein, 17.05.1994” – 1♂. KYRGHYZSTAN: “11 km N Tashkumyr, S. Kirghizia, 650 m. Zonstein, 23 VI 1992” – 1♀; “Kirghizia, Ferghana Mts., foothills 2 km NE Suzak v., 40°56'N 72°54'E, 850 m, S. Zonstein, 22.06.1998” – 1♀.

Other material examined: UZBEKISTAN: “Dalverzin steppe, 19-V-1927, Umnov” – 1♀ (ZISP).

Female. Head 1.1 times as broad as long and 1.4 times wider than pronotum. Face with distinct grooves over antennal sockets (Fig. 23). Temples 2.2 times shorter than eye (viewed from above). Ratio POL – OOL 0.80. Ocellar angle 90°. Clypeus spade-shaped, flattened distally. Ratio of basal width, length and apical width of clypeus 1.8 - 1.3 - 1 respectively. Anterior clypeal margin nearly straight. Ratio of 1–4 antennal segments: 2.6 - 1 - 3.3 - 2.7. Third antennal segment 4.6 times as long as broad apically. Postnotal junction 1.7 times shorter than metanotum. Propodeum with weakly developed medial groove. Ratio of 1–5 tarsal segments of fore leg: 5.8 - 2.1 - 1.5 - 1 - 2.3; first segment 4.5 times as long as broad apically, with weak 3 spines; apical spine 1.5 times shorter than maximal width of first tarsal segment and equal 0.5 length of second segment (Fig. 39). Distal tarsal segment of hind leg with 3 ventral spines. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 53. MM = 1.21–1.26. MR = 1.62–1.65. RQ = 1.88. Posterior abdominal sclerites compressed laterally. Black except for reddish-brown fore tarsi and median parts of mandibles. Wings light brown with broad somewhat more dark preapical spot, pterostigma and veins dark brown. Whole body and legs covered with thin appressed bronze and greyish pubescence; coxae and abdominal sternites covered with short sparse black hairs. Length 10.0–12.2 mm.

Male. Head 1.1 times as broad as long and 1.2 times wider than pronotum. Face as shown on Fig. 24. Temples 2.9 times shorter than eye (viewed from above). Ratio POL – OOL 1.00. Ocellar angle 90°. Clypeus as in female. Ratio of 1–4 antennal segments: 1.7 - 1 - 2 - 2.5. Third antennal segment 1.9 times as long as broad apically. Postnotal junction 1.5 times shorter than metanotum. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 54. MM = 1.18. MR = 1.68. RQ = 2.23. Hypopygium lanceolate (Figs. 77, 78). Genitalia as shown on Fig. 96. Color of body and legs as in female, but wings less intensively colored; lower part of face and propodeum with dense silver toment fully hiding integument, other parts of body and legs covered with thin bronze-colored pubescence. Length 10.0 mm.

Habitat and biology. The species occurs mainly in semiarid foothills covered with steppes in combination with open woodlands of *Pistacea vera* L. Female specimen collected in surroundings of Suzak was emerged from a cocoon taken from a burrow of trap-door ctenizid spider *Sterrhochtrotus ferghanensis* (Croneberg, 1875). Therefore, the unusual shape of a clypeus in females of *T. otus* could be explained by appropriate adaptation, when female should open the slammed trap-door, using for this purpose a modified spade-shaped clypeus, to hit inside of a burrow for searching a prey.

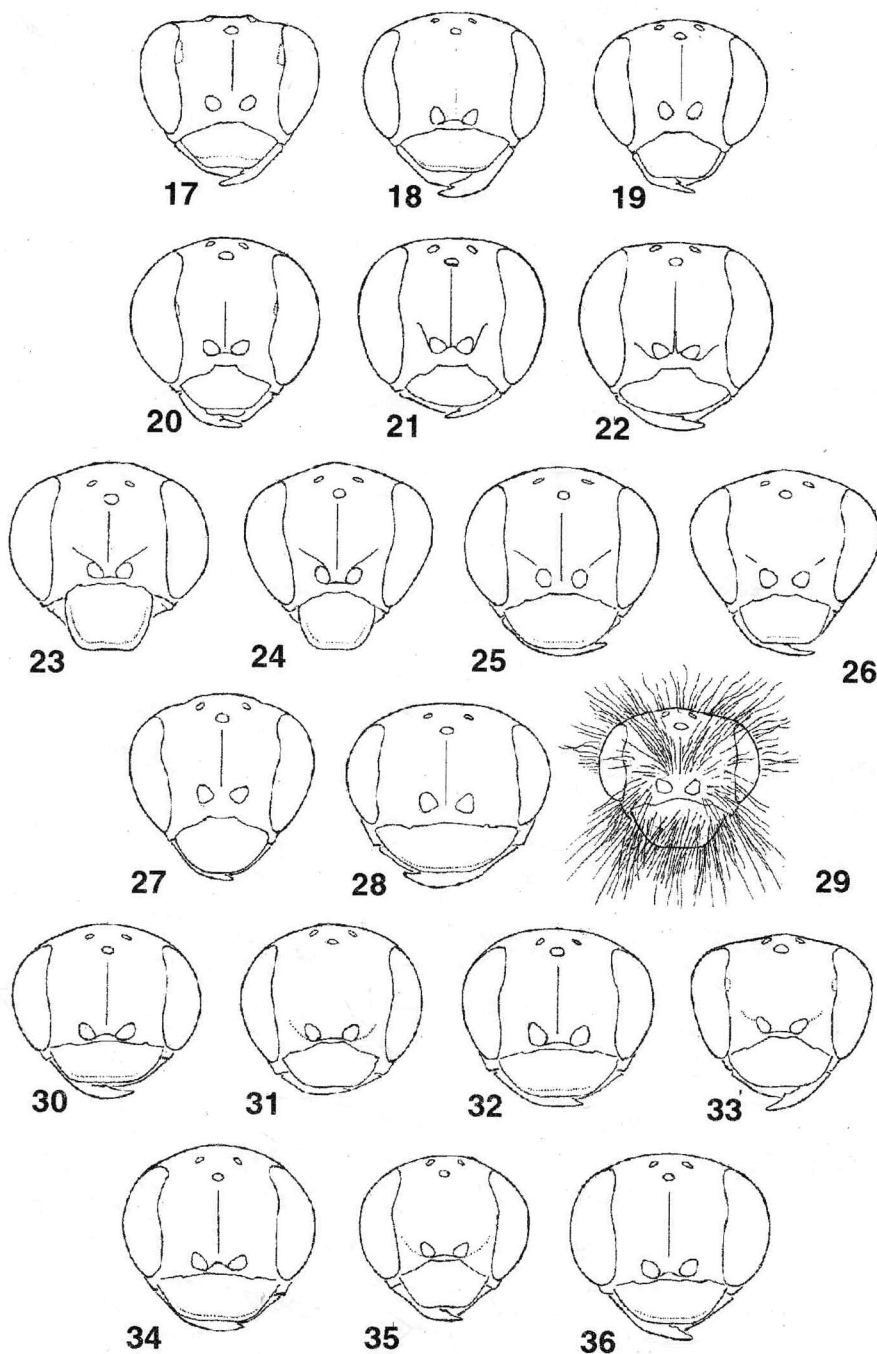
***Tachyagetes bactrianus* Zonstein, sp. n. (Figs. 25, 26, 40, 55, 56, 81, 82, 98)**

Diagnosis. By the character of the fore tarsi spination and hirsute femora in females and by configuration of second radiomedial cell and male hypopygium the new species appears to be most closely related to *T. grandis* (Tournier, 1889), *T. dudichi* Móczár, 1944 and *T. hirtipes* Zonstein, sp.n.; it differs distinctly from these species only by configuration of the very characteristic lanceolate hypopygium in males.

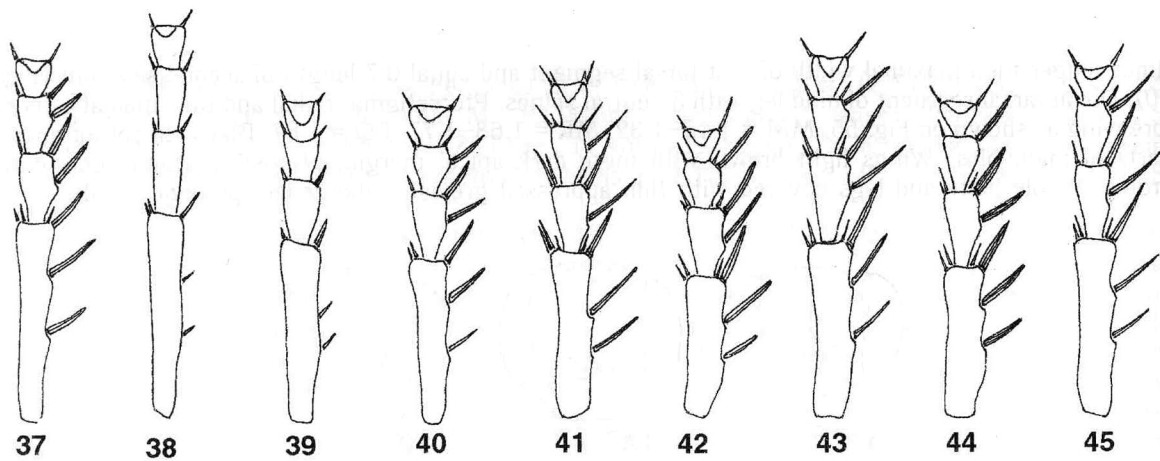
Types. Holotype ♀ – “Aman-Kutan pass, W-Zeravshan Mts. 1700 m, Uzb., 39°18'N 66°54'E, S.Zonstein, 8.06.1997” (TAU). Paratypes: 1♂, 1♀. UZBEKISTAN: 1♂ – ibidem; 1♀ – ibidem, 8.06.1995.

Female. Head 1.3 times as broad as long and 1.2 times wider than pronotum. Face as shown on Fig. 25. Temples 2.0 times shorter than eye (viewed from above). Ratio POL – OOL 0.88. Ocellar angle 100°. Clypeus broadly trapezoidal. Anterior clypeal margin slightly excavate with polished submarginal part occupying ca. 0.2 length of clypeus. Ratio of 1–4 antennal segments: 3.3 - 1 - 4.0 - 3.3. Third antennal segment 3.1 times as long as broad apically. Postnotal junction 2 times shorter than metanotum. Propodeum with almost indistinct medial groove. Ratio of 1–5 tarsal segments of fore leg: 5.7 - 2.1 - 1.5 - 1 - 2.2; first segment 4.4 times as long as broad apically, with 3 spines; apical spine 1.1

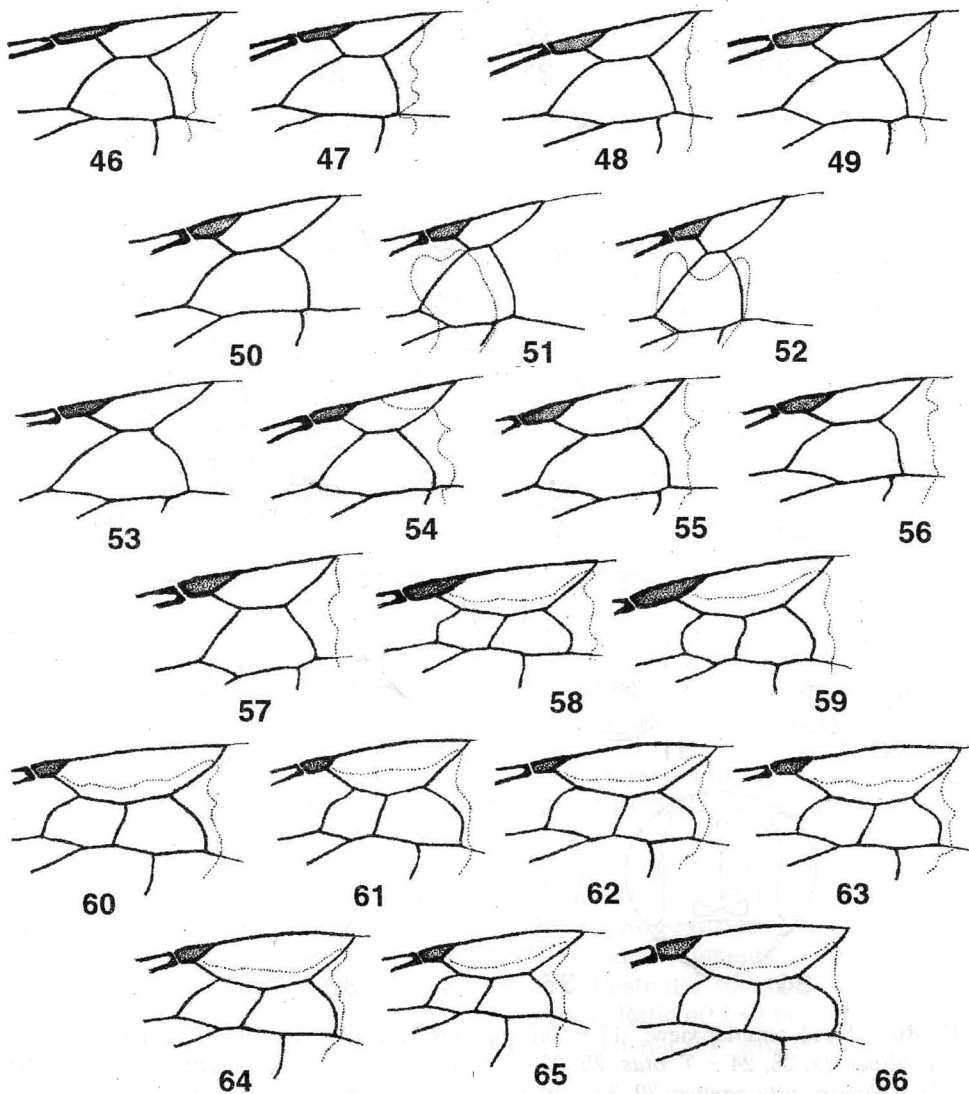
times longer than maximal width of first tarsal segment and equal 0.7 length of second segment (Fig. 40). Distal tarsal segment of hind leg with 3 ventral spines. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 55. $MM = 1.15-1.32$. $MR = 1.68-1.77$. $RQ = 1.67$. Black except for apical parts of mandibles. Wings light brown with more dark apical margin, pterostigma and veins dark brown. Whole body and legs covered with thin appressed greyish pubescence; propodeum also with



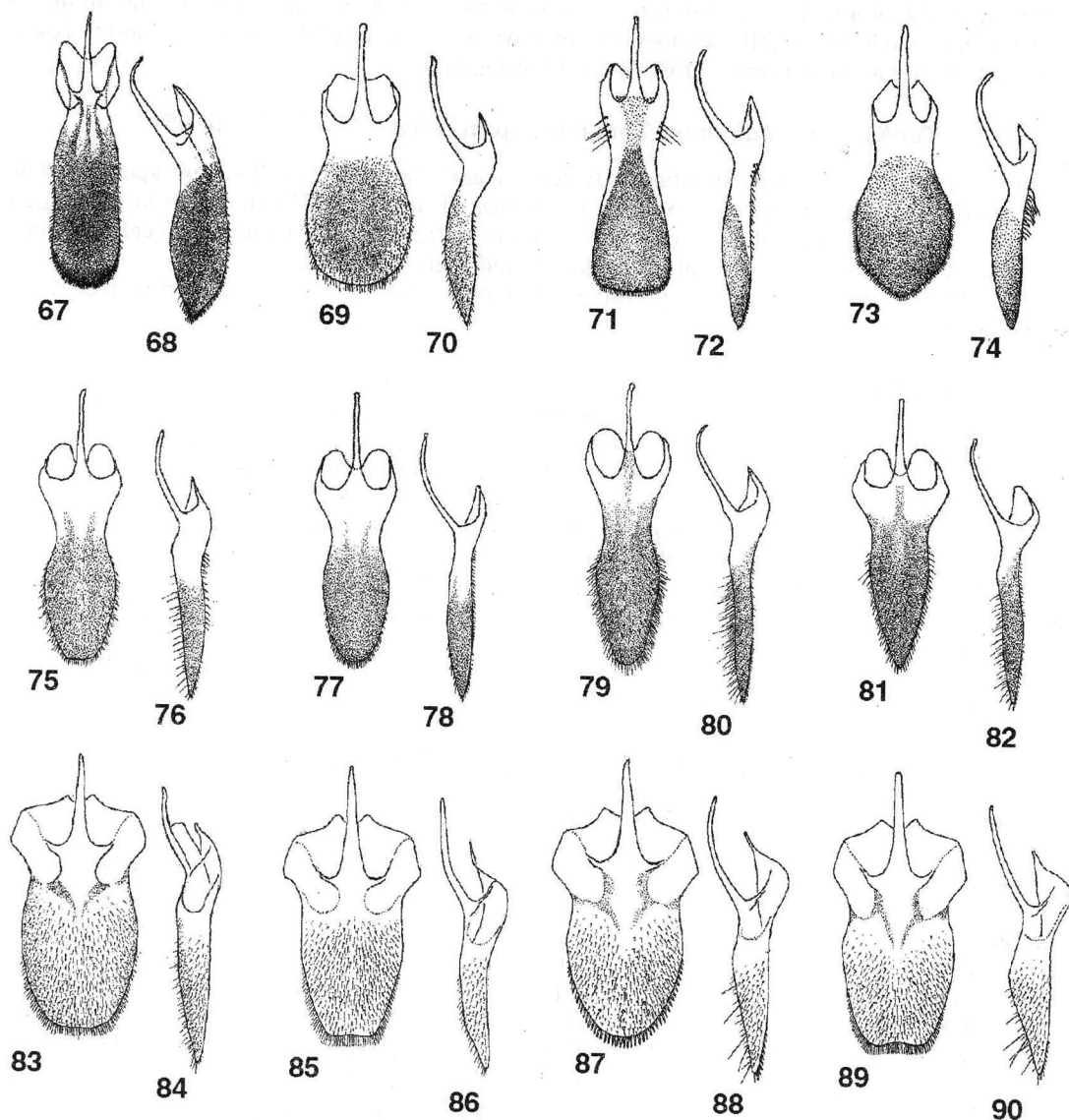
Figs. 17-36. Head, anterior view: 17 - *Tachyagetes testaceus*; 18, 19 - *T. hirtipes*; 20 - *T. huszar*; 21, 22 - *T. maculipennis*; 23, 24 - *T. otus*; 25, 26 - *T. bactrianus*; 27 - *T. kazenasi*; 28, 29 - *Pareicurgus nomada*; 30, 31 - *Pamirospila pamira*; 32, 33 - *P. hetaera*; 34, 35 - *P. baghira*; 36 - *P. magiana*; 17, 19, 20, 22, 24, 26, 27, 29, 31, 33, 35 - σ ; 18, 21, 23, 25, 28, 30, 32, 34, 36 - ϕ .



Figs. 37-45. Tarsal segments I-IV of female fore leg: 37 - *T. hirtipes*; 38 - *T. maculipennis*; 39 - *T. otus*; 40 - *T. bactrianus*; 41 - *Pareiocurgus nomada*; 42 - *Pamirospila pamira*; 43 - *P. hetaera*; 44 - *P. baghira*; 45 - *P. magiana*.



Figs. 46-66. Details of the fore wing venation: 46, 47 - *Tachyagetes testaceus*; 48, 49 - *T. hirtipes*; 50 - *T. huszar*; 51, 52 - *T. maculipennis*; 53, 54 - *T. otus*; 55, 56 - *T. bactrianus*; 57 - *T. kazenasi*; 58, 59 - *Pareiocurgus nomada*; 60, 61 - *Pamirospila pamira*; 62, 63 - *P. hetaera*; 64, 65 - *P. baghira*; 66 - *P. magiana*; 46, 47, 49, 50, 52, 54, 56, 57, 59, 61, 63, 65 - ♂; 48, 51, 53, 55, 57, 60, 62, 64, 66 - ♀.



Figs. 67–90. Male hypopygium: 67, 68 – *Tachyagetes testaceus*; 69, 70 – *T. graciosus*; 71, 72 – *T. huszar*; 73, 74 – *T. maculipennis*; 75, 76 – *T. kazenasi*; 77, 78 – *T. otus*; 79, 80 – *T. hirtipes*; 81, 82 – *T. bactrianus*; 83, 84 – *Pareiocurgus nomada*; 85, 86 – *Pamirospila pamira*; 87, 88 – *P. hetaera*; 89, 90 – *P. baghira*; 67, 69, 71, 73, 75, 77, 79, 81, 83, 85, 87, 89 – ventral view; 68, 70, 72, 74, 76, 78, 80, 82, 84, 88, 90 – ditto, lateral view.

more dense bronze toment; frons, temples and propodeum covered with short dark hairs; all femora with dense erect hairs. Length 5.3–9.0 mm.

Male. Head 1.1 times as broad as long and 1.4 times wider than pronotum. Face as shown on Fig. 26. Temples 3.7 times shorter than eye (viewed from above). Ratio POL – OOL 0.90. Ocellar angle 90°. Clypeus as in female. Ratio of 1–4 antennal segments: 2.3 – 1 – 2.1 – 2.9. Third antennal segment 2.4 times as long as broad apically. Postnotal junction 1.8 times shorter than metanotum. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 56. MM = 1.30. MR = 1.79. RQ = 1.88. Hypopygium narrow lanceolate (Figs. 81, 82). Genitalia as shown on Fig. 98. Color of body and legs as in female, but wings less intensively colored; body and legs covered with thin greyish pubescence, propodeum also with more dense bronze toment. Length 10.5 mm.

Etymology. The specific name is derived from Bactria – the antic name of territory lying between Amu-Dariya and Syr-Dariya rivers.

Habitat and biology. The species was found in upper part of the relatively low mountain chain, where it prefers to inhabit slightly inclined slopes covered by open park *Juniperus* forest. The male specimen was collected on flowers of *Ferula* sp. (Apiaceae).

***Tachyagetes kazenasi* Zonstein, sp. n. (Figs. 27, 57, 75, 76, 95)**

Diagnosis. Due to the considerable body length and stout habitus the new species could be included into the same subgroup together with *T. grandis* (Tournier, 1889) and other large congeners; it differs from other members of this subgroup by more narrow second radiomedial cell and another configuration of hypopygium that is rather spoon-shaped then lanceolate.

Types: Holotype ♂ – “Kyzylzhar canyon, E-Badkhyz plateau. Southern Turkmenia. Kazenas, 15 V 1990” (TAU).

Female. Unknown.

Male. Head 1.1 times as broad as long and 1.1 times wider then pronotum. Face as shown on Fig. 27. Temples 2.6 times shorter then eye (viewed from above). Ratio POL – OOL 1.55. Ocellar angle 100°. Ratio of 1–4 antennal segments: 2.7 - 1 - 2,5 - 2.7. Third antennal segment 2.0 times as long as broad apically. Postnotal junction equal in length to metanotum. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 57. MM = 1.41. MR = 1.71. Hypopygium narrow spoon-shaped (Figs. 75, 76). Genitalia as shown on Fig. 95. Black; wings light-brown; body and legs covered with black and greyish pubescence. Length 10.5 mm.

Etymology. The specific name is given after Dr. Vladimir Kazenas, the well-known research entomologist from Kazakhstan working upon systematics of Middle Asian sand wasps (Sphecidae) and collector of the holotype.

Habitat and biology. Judging by the collecting data, the species was occurred in open woodless semi-desert locality at 600–750 m above sea level.

***Tachyagetes gratiosus* (Radoszkowski, 1893) (Fig. 69, 70, 92)**

Aporus gratiosus Radoszkowski, 1893: 58 (♀ holotype from Serakhs, Turkmenistan; dep. ?)

Tachyagetes gratiosus: Haupt, 1930b: 699; Gussakovskij, 1952: 209.

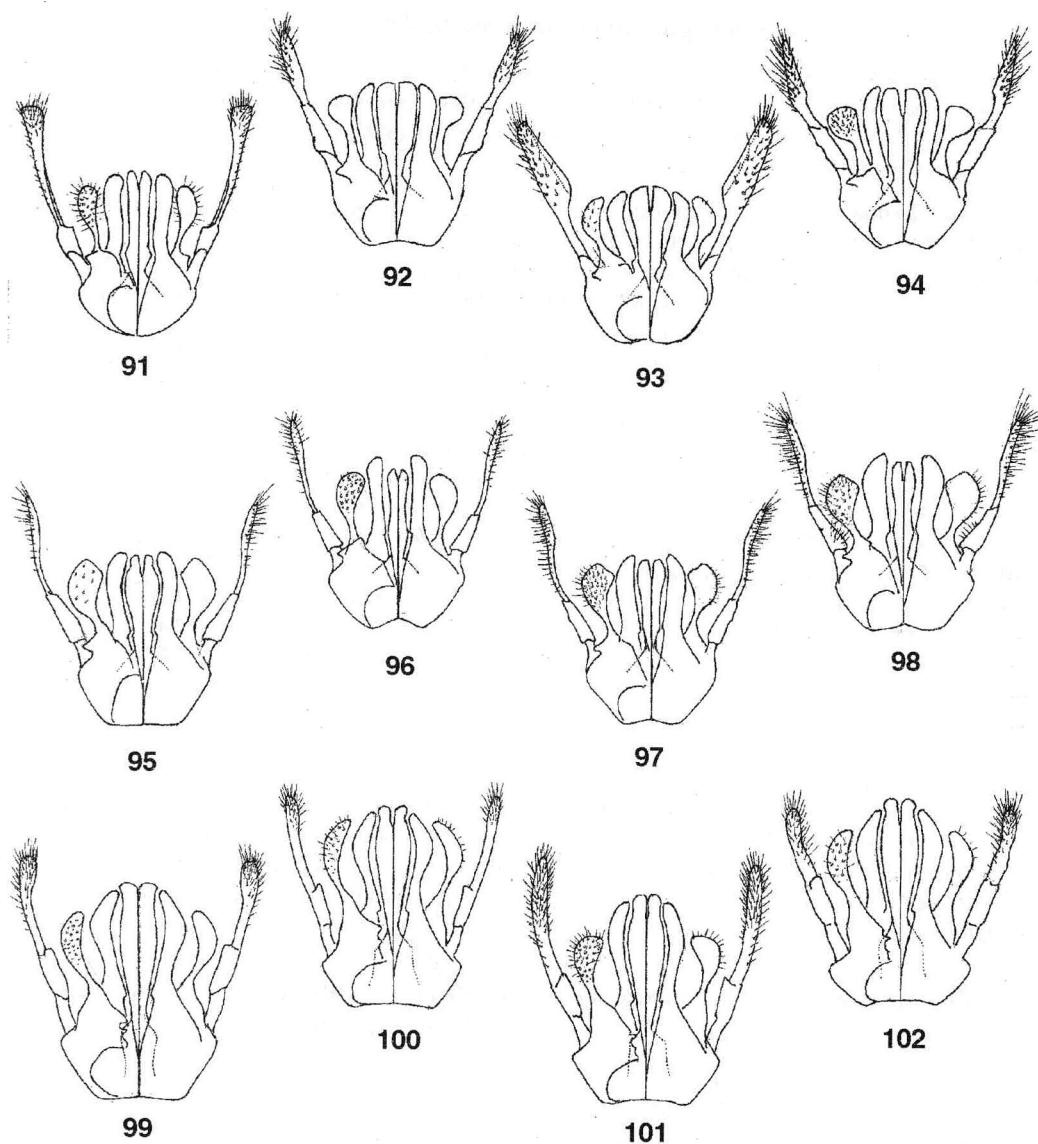
Tachyagetes kasakstanus Wolf, 1987: 433 (♀ holotype from Kaphtchagai, S.-E. Kazakhstan, dep. BMNH); 1994: 915; syn.n.

Material. KAZAKHSTAN: “S.Kazakhstan, Zhanatas, 25.05.1988. Coll. V.L.Kazenas” – 1♀; “S.-E. Kazakhstan, Masaka vill. near Tchilik, Almaty Reg., 8.08.1999. Coll. V.L.Kazenas” – 1♀; “S.-E. Kazakhstan, 3 km ENE Borandysu, 30 km E Tchilik, Almaty R., V.L.Kazenas, 7.07.1999” – 2♀. KYRGHYZSTAN: “Kirghizia, Kirghizskij Mts., foothills 2 km S Bishkek, 42°47'N 74°34'E, 1050 m, S. Zonstein, 7.09.1992” – 1♀; ibidem, 22.08.1997 – 3♀ (D.A.Milko); ibidem, 10.09.1998 – 2♂, 22♀ (S.Zonstein); ibidem, 17.09.1999 – 1♀ (S.Zonstein); “Kirghizia, Tchatkal Mt. R., Khodzha-Ata riv. canyon, 41°49'N 71°54'E, 1400 m, S. Zonstein, 23.08.1998” – 1♂, 3♀. UZBEKISTAN: “Uzbekistan, Tashkent. 41°22'N 69°19'E, 470 m. S. Zonstein, 30.07.1999” – 1♂. TADJIKISTAN: “Hissar, Tadjikistan, 1.07.935, Gussakovskij” – 1♀ (ZISP); “Kondara, Hissar Mts., Tadjikistan. 38°49'N 68°49'E, 1400 m. S. Zonstein, 9 VII 1988” – 1♀; “Kondara, 1100 m, d. Varzoba, Tadjh., Gussakovskij, 11/VIII.937” – 1♀ (ZISP); ibidem, 11.07.1938 – 1♂ (ZISP); ibidem, 29.08.1939 – 1♀ (ZISP); “Stalinabad (Dushambe), Gussakovskij, 15.VIII.935” – 1♀ (ZISP); “Kabadian, Tadjhikist., Dzhili-Kul, Gussakovskij, 11.VI.934” – 1♀ (ZISP); “Aral na r. Vakhsh Tadjhik., 10.IX.935 Gussakovskij” – 1♀ (ZISP). TURKMENISTAN: “near Kara-Kala town, SW-Kopetdag Mt.R. Turkmenia. Kazenas, 18.V.1992” – 2♂, 1♀.

Distribution. Kazakhstan, Turkmenistan, Uzbekistan, Tadjikistan (Wolf, 1987, 1994). The species belonging to the *T. grandis* species-group is registered in Kyrgyzstan for the first time.

Notes. According to the original description, *T. gratiosus* was shown to possess the body and legs fully black-colored (Radoszkowski mentioned only a light pubescence on the thorax) and subhyaline fore wings with darkened apical margin. Haupt (1930), as it could be received from his detail redescription of *T. gratiosus*, had possibility to examine the holotype. So, his interpretation of this species seems to be quite correct. When describing *T. nigripennis*, Gussakovskij (1952) specially noted that unlike the last species *T. gratiosus* possesses inner orbitae lacking light-colored spots and the second radiomedial cell considerably narrowed above. Both these authors have not mentioned a characteristic ventral teeth row on the last tarsal segment of the hind leg. Nevertheless, all the conspecific specimens deposited in ZISP and labeled by V.Gussakovskij as “*Tachyagetes gratiosus*

Rad." possess the character mentioned. Wolf (1986) misidentified this species when he prepared a review of the *T. argentatus* species-group. In this study a female of *T. nigripennis* having whitish spots on inner orbitae combined with noticeably darkened fore wings was erroneously confused with *T. graciosus*. Since Wolf supposed that the last species must be placed into the *T. argentatus* species-group, soon after (1987) he described *T. kasakstanus*, one of new species from the *T. grandis* species-group, whose characters repeat those of *T. graciosus*. Thus, *T. kasakstanus* Wolf, 1987 is considered here to be a synonym of *T. graciosus* (Radoszkowski, 1893).



Figs. 91–102. Male genitalia (left – ventral view, right – dorsal view): 91 – *Tachyagetes testaceus*; 92 – *T. graciosus*; 93 – *T. huszar*; 94 – *T. maculipennis*; 95 – *T. kazenasi*; 96 – *T. otus*; 97 – *T. Hirtipes*; 98 – *T. bactrianus*; 99 – *Pareiocurgus nomada*; 100 – *Pamirospila pamira*; 101 – *P. hetaera*; 102 – *P. baghira*.

Genus *Pareiocurgus* Haupt, 1962

Notes: According to Wolf (1990) *Pareiocurgus* Haupt, 1962 includes 3 species confined to the Mediterranean and Central Asia. The last region is inhabited by the only species, *P. nomada* (Kohl, 1889). It should be noted especially that all the congeners share the nervulus steeply inclined (Haupt, 1962).

***Pareiocurgus nomada* (Kohl, 1889)**

Notes: Although Wolf (1988a) placed *Pompilus latigena* F. Morawitz, 1893 in the list of synonyms of *P. nomada* Kohl, 1889 (however, without establishing a new synonymy), it seems, in my judgement, completely unjustifiable. Some of features characterized *P. latigena* differs although a little but certainly from their analogs known for *P. nomada* (see below). For this reason until the male characters of both taxa could be compared I prefer rather to consider the first taxon as a distinct subspecies then to include it into the second one.

***Pareiocurgus nomada nomada* (Kohl, 1889)**

Pompilus nomada Kohl, 1889: 284 (♀ holotype from Murgab, Turkmenistan; dep. NMW).

Pareiocurgus bactriacus Wolf, 1968: 242 (♀ holotype from Bala-Murgab, NW-Afghanistan; dep. MMB). Synonymised by Wolf, 1988a: 232.

Pareiocurgus nomada: Wolf, 1988a: 232.

Diagnosis. Females differ from females of *P. n. latigena* by completely melanistic coloration, noticeably shorter temples and larger ratio POL–OOL.

Material. TURKMENISTAN: "Turkmenia, Badkhyz, Kyzyl-dzhar canyon, V. L. Kazenas, 15 V 1991" – 1♀; "canyon Kyzyl-Dzhar, Badkhyz plateau, 700 m, S. Turkmenia. Zonstein, 10.04.1993" – 2♀; "5 km N Kalaimor, 450 m. Kushka r., S. Turkmenia. 35°42'N 62°37'E. S. Zonstein, 19 IV 1993" – 5♀; "Turkmenia, Zul'fagar Mt. R. (Badkhyz), Nardenvaly canyon, 35°47'N 62°21'E, S. Zonstein, 17 IV 1993" – 3♀.

Female. Head 1.2 times as broad as long and 1.2 times wider than pronotum. Face as shown in: Wolf, 1988a, Abb. 19. Temples 2.1–2.3 times shorter than eye (viewed from above). Ratio POL – OOL 0.66–0.73. Ocellar angle 90–100°. Ratio of 1–4 antennal segments: 3.3 - 1 - 4.0÷4.3 - 3.5. Third antennal segment 4.0–4.2 times as long as broad apically. Postnotal junction 3 times shorter than metanotum. Ratio of 1–5 tarsal segments of fore leg 5.8÷6.2 - 2.8÷2.9 - 2.0 - 1 - 3.2÷3.4. First tarsal segment 3.7–4.0 times as long as broad apically, with 3 spines; apical spine 1.3–1.5 times longer than maximal width of first tarsal segment and equal 0.7–0.8 length of second segment. Pterostigma, radial and radiomedial cells of fore wing – see: Wolf, 1988a, Abb. 46. Black except for dark red-brown distal parts of mandibles. Wings brown with more dark apical margin, pterostigma and veins dark-brown. Body and legs covered with dense appressed black pubescence; head, thorax and tergite I covered with long hairs. Length 11.5–19.0 mm.

Male. Unknown.

Distribution. Southern Turkmenistan, North-Western Afghanistan (see: Wolf, 1988a).

Habitat and biology. All the females listed above were found inside areas occupied by colonies of nemesiid *Anemesia tubifex* (Pocock, 1889) or its congeners. Located at altitude 400–800 m above sea level, these biotopes represent different variants of foothills, low plateau or low mountains covered generally with semi-desert ephemeral grasslands, sometimes in combination with low open forests of *Pistacea vera* L.

***Pareiocurgus nomada latigena* (F. Morawitz, 1893) comb. et stat. n.**

(Figs. 28, 29, 41, 58, 59, 83, 84, 99)

Pompilus latigena F. Morawitz, 1893: 402 (♀ lectotype from "Pandzhikent" = Pendzhikent, NW-Tadzhikistan; dep. ZISP).

Pareiocurgus nomada: Wolf, 1988a: 232 (part); Zonstein, 1996: 378.

Diagnosis. Females differ from nominative subspecies by partially red abdominal segments, more developed temples and lesser ratio POL–OOL. Other characters show no significant difference.

Material. UZBEKISTAN: "Mt Zarkassa, 2100 m, Babatag Mt.R., SSE-Uzbekistan. S. Zonstein, 5 V 1992" – 1♀; "Ishkent nr. Yakkabagh, Uzbekistan, 750 m. Hissar Mt. R., NW-part. S. Zonstein, 7 IV 1990" – 1♀; "Koksu nr. Zafarabad, hills 20 km W Nuratau Mts., 350 m. Uzbekistan. Zonstein, 3 IV 1990" – 1♀; "Dzhyndydarya riv., 1300 m. Kitab Res., Zeravshan Mt.R., Uzbekistan. Zonstein, 12 IV 1989" – 1♀; "Uzbekistan, Karzhantau Mt. R., foothills nr. Tchirtchik, 800 m. 21 IV 1987. S. Zonstein & A. Zorkin leg." – 3♀; "Khayatsai, 950 m. Nuratau Mts., Uzbekistan, 40°32'N 66°46'E S. Zonstein, 21.05.1997" – 1♀; "nr. Shurob, Uzbekistan 1450 m, Djubere-Olend Mts., 38°12'N 66°52'E Zonstein, 27.05.1997" – 2♀; "12 km NNE Kukbulok, 2100 m, Hissar Mt. R., Uzb., 38°39'N 66°56'E. S. Zonstein, 6.06.1997" – 1♀. TADJIKISTAN: "Gandzhina, Aruktau Mts., SW-Tadzhikistan, 750 m. 37°58'N

68°32'E. S. Zonstein, 14 IV 1986" - 1♀; 3♀ - ibidem, 20.04.1986; 1♀ - ibidem, 20.04.1989; 5♀ - ibidem, 19.04.1990; 4♀ - ibidem, 15-16.04.1991; 1♀ - ibidem, 15.04.1992; 1♀ - ibidem, 14.04.1992 (D. A. Milko); "Sharshar, Sanglok Mts., Tadzhikistan, 1900 m. 38°15'N 69°13'E. S. Zonstein, 5 V 1990" - 1♀; "Mt Astana, Tadzhikistan. Pyandzh Karatau Mt. R., 37°23'N 69°15'E, 1650 m. S. Zonstein, 23 IV 1992" - 3♀; KYRGHYZSTAN: "S. Kirghizia, Toskaul, h 1200 m, 16.05. 1964. Coll. K. E. Romanenko" - 1♀; "2 km N Dzhalal-Abad, foothills, 800 m, S. Kirghizia, Zonstein, 22 X 1992" - 1♂; "10 km N Dzhalal-Abad, 12.03.1992, foothills. S.V.Ovtchinnikov" - 2♂, 2♀. AFGHANISTAN: "Sary-Pul, IV 1945. Kostylev" - 1♀ (ZISP).

Female. Head 1,2 times as broad as long and 1,2 times wider than pronotum. Face as shown on Fig. 28. Temples 1.6-1.8 times shorter than eye (viewed from above). Ratio POL - OOL 0.58-0.62. Ocellar angle 90°. Ratio of 1-4 antennal segments: 3.2 - 1 - 4.5÷4.8 - 3.2. Third antennal segment 3.9-4.0 times as long as broad apically. Postnotal junction 3 times shorter than metanotum. Ratio of 1-5 tarsal segments of fore leg 5.7÷6.1 - 2.5÷2.7 - 1.9÷2.0 - 1 - 3.0÷3.2. First tarsal segment 3.9-4.4 times as long as broad apically, with 3 spines; apical spine 1.2-1.4 times longer than maximal width of first tarsal segment and equal 0.7-0.8 length of second segment (Fig. 41). Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 58. Black; mandibles with dark red distal parts, tergites I-III red to reddish-orange with broad brownish-black apical fascia. Wings light brown with more dark apical margin, pterostigma and veins brown. Body and legs covered with dense appressed black pubescence, tergites 1-3 also with light-greyish pubescence; head, thorax and tergite 1 covered with long hairs. Length 9.5-21.0 mm.

Male (unknown hitherto). Head 1.1 times as broad as long and 1.3 times wider than pronotum. Face as shown on Fig. 29. Temples 1.8 times shorter than eye (viewed from above). Ratio POL - OOL 0.50-0.52. Ocellar angle 90°. Ratio of 1-4 antennal segments: 2.6 - 1 - 2.7 - 2.9. First antennal segment with 40-60 hairs achieving in length 0.7-1.0 of segment width. Third antennal segment 2.7 times as long as broad apically. Postnotal junction 2.0 times shorter than metanotum. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 59. Ratio of 1-4 segments of radial vein: 1 - 1.1 - 1.6 - 2.1. Hypopygium as shown on Figs. 83, 84. Genitalia as shown on Fig. 99. Black; wings subhyaline with light brown apical margin, pterostigma and veins brownish-black. Body and legs covered with dense appressed black and slightly iridescent pubescence. Dark hairs covering head, thorax, first and second abdominal segments, coxae and femora very long and dense (4-5 times longer than width of hind femur). Length 7.5-12.0 mm.

Distribution. Uzbekistan, Southern Kyrgyzstan, Tadzhikistan, North-Eastern Afghanistan.

Habitat and biology. Like the nominative subspecies, *P. nomada latigena* is presently noted to be specialized hunter on burrowing mygalomorph spiders. Nemesiids *Anemesia* spp. in Uzbekistan and Tadzhikistan, *Raveniola ferghanensis* (Zonstein) in Southern Kyrgyzstan are mentioned here as the prey objects of these wasps. Part of females was collected on flowers of *Ferula* spp.

Genus *Pamirospila* Wolf, 1970 stat. n.

Pamirospila Wolf, 1970: 72 (as subgenus of *Arachnospila* Kincaid, 1900).

Type species: *Psammochares pamirus* Haupt, 1930, by the monotypy.

Notes. *Pamirospila* seems to be closely related to the genus *Pareiocurgus* Haupt, 1962 since they share more or less developed posterolateral mounds of propodeum, characteristic configuration of flat male hypopygium and enshortened fore tarsi in females. Among the genera which possess a similar appearance *Pamirospila* differs from the genus *Dicyrtomellus* Gussakovskij, 1935 by less developed temples, corrugated propodeum, short thick antennae and more or less enshortened fore tarsi in females. Two last features also distinguish the genus from *Anospilus* Haupt, 1927. *Pamirospila* differs from *Pareiocurgus* by noticeably lesser pterostigma and less developed pubescence on the body, males differ also by much lesser hirsute head. Finally, it can be easily distinguished from the subgenus *Melanospila* Wolf, 1960 (ex *Arachnospila* s. l.) also possessing a postfurcate position of the nervulus by another configuration of male hypopygium as well as by slightly modified propodeum (see above) in females.

Key for the species of the genus *Pamirospila* Wolf, 1970

1. Males (unknown for *P. magiana*) 2
- Females 4
2. Posterior margin of hypopygium straight or slightly concave 3
- Posterior margin of hypopygium rounded *P. hetaera* sp. n.
3. Hypopygium with keel and few long erect bristles *P. baghira* sp. n.
- Hypopygium uniformly hirsute and nearly flat *P. pamira* (Haupt, 1930)
4. Third antennal segment 3.8 times or less as long as wider apically. Digging spine row of fore tarsus consists of distinctly flattened spines 5
- Third antennal segment more than 4.5 times as long as wider apically. Digging spine row of fore tarsus consists of long unmodified spines *P. magiana* sp. n.
5. Tergite-I black, tergites-II and -III dark reddish-brown to almost black. Third antennal segment about 3.0 times as long as broad apically. Tarsi-I noticeably enshortened 6
- Tergites I-III red with dark apical margins. Third antennal segment 3.6 – 3.8 times as long as broad apically. Tarsi-I moderately long and slender *P. hetaera* sp. n.
6. Pulvillae rounded distally *P. pamira* (Haupt, 1930)
- Pulvillae truncated distally *P. baghira* sp. n.

Pamirospila pamira (Haupt, 1930) (Figs. 30, 31, 42, 60, 61, 85, 86, 100)

Psammochares pamirospila Haupt, 1930a: 226 (1♂, 1♀ syntypes from Dzhalgailan,

N.-E. Tadzhikistan, dep. ZMHU; ♀ lectotype designated by Wolf, 1970).

Arachnospila (Pamirospila) pamira: Wolf, 1970: 72 (♀, not ♂); Zonstein, 1996: 378.

Arachnospila (s.str.) binaeva: Zonstein, 1989: 42 (♂, not ♀),

not *Psammochares binaevus* Haupt, 1930 (known only from ♀).

Diagnosis. Females differ from other congeners by more wider temples, from *P. magiana* – by considerably shorter antennae, from *P. hetaera* – by noticeably more enshortened fore tarsi, from *P. baghira* – by lesser flattened digging spines of fore tarsi. Apart from males of two last species, males of *P. pamira* possess hypopygium uniformly hirsute and lacking few long erect bristles.

Material. TADZHIKISTAN: "Alai Mt. R., S-slope, Karamyk pass, 3100 m [39°28'N 71°45'E], 13.08.1985. E. Budris leg." – 5♂ (ZISP). KYRGHYZSTAN: "Kirghizia, Alai Mt. Ridge, S-slope, Tekelik r. canyon, 39°35'N 71°57'E, 2700 m. S. Zonstein, 17.08.1985" – 6♂; "Kirghizia, Alai Mt. Valley, 3 km SSW Daraut-Kurgan. 39°35'N 71°57'E, 2700 m. S. Zonstein, 17.08.1985" – 1♂; "Kirghizia, Alai Mt. R., S-slope, Oksu r., 2800 m, 16.07.1998. Coll. S.V.Ovtchinnikov" – 1♀; "Kirghizia, Transalai Mt.R., W-part. Berksu river gorge, 2600 m. 39°28'N 72°01'E. S. Zonstein, 10.07.1995" – 11♀; 1♀ ibidem, 3300 m, 11.07.1995 (S.L.Zonstein); 2♂, 2♀ – ibidem, 19.07.1998 (S.L.Zonstein); 2♀ – ibidem, 11.07.1995 (S.V. Ovtchinnikov); 1♀ – ibidem, 11.07.1995 (D.A.Milko).

Female. Head 1.1 times as broad as long and 1.2 times wider than pronotum. Face as shown on Fig. 30. Temples 1.7 times shorter than eye (viewed from above). Ratio POL – OOL 0.72–0.74. Ocellar angle 100°. Ratio of 1–4 antennal segments: 2.8 - 1 - 3.4 - 2.9. Third antennal segment 3.1 times as long as broad apically. Postnotal junction 3 times shorter than metanotum. Ratio of 1–5 tarsal segments of fore leg 7.3 - 3.5 - 2.2 - 1 - 4.2. First tarsal segment 3.6 times as long as broad apically, with 3 spines; apical spine 1.5 times longer than maximal width of first tarsal segment and equal 0.9 length of second segment (Fig. 42). Pulvillae distally rounded, with 8–10 hairs. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 60. Ratio of 1–4 segments of radial vein: 1 - 1.1 - 1.6 - 2.1. Black; mandibles with dark red distal parts, tergites I–III dark reddish brown with broad brownish-black apical fascia. Wings light brown with more dark apical margin, pterostigma and veins brown. Body and legs covered with appressed black pubescence, tergites 1–3 with light-greyish pubescence; head, thorax and tergite 1 covered with long hairs. Length 12.5–15.0 mm.

Male. Head as broad as long (ratio 1.0) and 1.1 times wider than pronotum. Face as shown on Fig. 31, with mound over antennal sockets occupying 0.7 of face width. Temples 2.3 times shorter than eye (viewed from above). Ratio POL – OOL 0.65. Ocellar angle 110°. Ratio of 1–4 antennal segments: 3.0 - 1 - 2.4 - 2.5. First antennal segment with 40–60 hairs achieving in length 0.7–1.0 of segment width. Third antennal segment 2.2 times as long as broad apically. Postnotal junction 2.5 times shorter than metanotum. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 61. Ratio of 1–4 segments of radial vein: 1 - 1.1 - 1.6 - 2.1. Hypopygium with broad and straight posterior margin covered with dense short hairs (Figs. 85, 86). Genitalia as shown on Fig. 100. Black, tergites I–III with

more or less developed dark reddish-brown transverse bands reduced often to almost indistinct paired lateral spots on tergites I–II. Color of wings as in female. Pubescence brownish-black. Head, pronotum, propodeum covered with long and dense dark hairs. Length 9.5–12.0 mm.

Habitat and biology. Judging by field observations, immature specimens of *Raveniola* spp. (Mygalomorphae, Nemesiidae) are the usual prey of this species. Since in all the cases spiders are attacked inside their burrows; no any details of the capture are known. Soon after a spider is captured female digs a short (2–5 cm) diverticulum which goes away from the bottom of spider burrow, then it places the prey into a diverticulum, poses an egg on the spider abdomen and makes a soil plug at the entrance of a diverticulum. A noticeable part of material was collected on the flowers of *Prangos pabularia* Lindl. (Apiaceae), few males were taken on the flowers of *Arthemisia* sp.

***Pamirosbila hetaera* Zonstein, sp. n.** (Figs. 32, 33, 43, 62, 63, 97, 88, 101)

Diagnosis. Females differ from females of *P. pamira* and *P. baghira* by certainly bicolored abdomen and more long antennae and fore tarsi, from *P. magiana* – by slightly flattened digging spines and lesser developed propodeal ridges. Males differ from males of two first species by broadly rounded hypopygium.

Types. Holotype ♀ – “Arkit, S. Kirghizia. Tchatkal Mt. R., 1400 m [41°50'N 71°56'E], Zonstein, 17 VI 1992” (TAU). Paratypes: 5♂, 11♀. KYRGHYZSTAN: ibidem, 18.06.1992 – 1♀ (D.A.Milko); “Kitchkol, Tchatkal Mt. R. nr. Arkit, S-Kirghizia. 13 VIII 1987. Coll. N.M. Sirota” – 1♂; “Irikol L., S. Kirghizia, Tchatkal Mt. R., 1800 m. Zonstein, 19 VI 1992” – 1♀; “Kirghizia, Tchatkal Mt. R., N-slope, Ters ravine, 2300 m, D. A. Milko, 3.07.1996” – 1♀; “Yarodar 4 km E Arslanbob, Ferghana Mt. R., Kirghizia, H=1800 m., S. Zonstein, 15 X 1992” – 1♀; “Mt Zindan, H = 1950 m, nr. Arslanbob, Kirghizia, Ferghana Mt. R. 13 VII 1991 S.V.Ovtchinnikov” – 1♀; “Akterek-Gava, Kirgh. Ferghana Mt. Ridge, Zonstein, 7 VII 1993” – 1♀; 2♀ – ibidem, 30.07.1993; “Kirghizia, foothills of Ferghana Mt. R., nr. Toskaul, 10.07.1997. Coll. S. V. Ovtchinnikov” – 1♂; “Kirghizia, Ferghana Mts., foothills 2 km NE Suzak v., 40°56'N 72°54'E, 850 m, S. Zonstein, 22. 06. 1998” – 2♂; “S. Kirghizia, Toskaul, 1200 m, 4.08.1964. Coll. K.E. Romanenko” – 2♂; “Nitchke, Kirg., 1600 m. 41°42'N 73°29'E, Ketmen-Tyube deprs., Zonstein, 8.07.1990” – 1♂. UZBEKISTAN: “Uzbekistan, W.Tien-Shan, Karzhantau Mt. R., Khumsan. 11.07.1979. Coll. F. Khassanov” – 2♀; “Uzbekistan, Ugam Mt. R., Kainarsai, 1200 m, 41°42'N 67°02'E, S.Zonstein, 14 V 1995” – 1♀.

Female. Head 1.1 times as broad as long and 1.1 times wider than pronotum. Face as shown on Fig. 32. Temples 2.7 times shorter than eye (viewed from above). Ratio POL – OOL 0.83. Ocellar angle 90°. Ratio of 1–4 antennal segments: 3.0 - 1 - 4.1 - 3.5. Third antennal segment 3.7 times as long as broad apically. Postnotal junction 4–4.5 times shorter than metanotum. Ratio of 1–5 tarsal segments of fore leg 4.7 - 2.1 - 1.5 - 1 - 2.1. First tarsal segment 4.0 times as long as broad apically, with 3 spines; apical spine 1.4 times longer than maximal width of first tarsal segment and equal 0.8 length of second segment (Fig. 43). Pulvillae distally rounded, with 9–12 hairs. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 62. Ratio of 1–4 segments of radial vein: 1 - 1.8 - 1.3 - 2.1. Black; mandibles with dark red distal parts, tergites I–III red with broad brown or reddish-brown apical fascia. Wings light brown with more dark apical margin, pterostigma and veins brown. Body and legs covered with appressed black pubescence, tergites 1–3 with light-greyish pubescence; head, thorax and tergite 1 covered with long hairs. Length 11.5–16.0 mm.

Male. Head 1.1 times as broad as long and 1.2 times wider than maximal width of pronotum. Face as shown on Fig. 33, with mound over antennal sockets occupying 0.5 of face width. Temples 3.6 times shorter than eye (viewed from above). Ratio POL – OOL 0.80. Ocellar angle 100°. Ratio of 1–4 antennal segments: 2.2 - 1 - 2.6 - 2.8. First antennal segment with 10–15 hairs achieving in length 0.4–0.6 of segment width. Third antennal segment 2.2 times as long as broad apically. Postnotal junction 4.0 times shorter than metanotum. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 63. Ratio of 1–4 segments of radial vein: 1 - 1.1 - 1 - 2.5. Hypopygium with narrow and slightly excavate posterior margin covered with dense setae (Figs. 87, 88). Genitalia as shown on Fig. 101. Black, except for tiny paired yellowish spots at inner orbitae and almost indistinctly reddish paired lateral spots on tergite-II. Color of wings as in female. Whole body covered with dark brownish-black pubescence; head, pronotum, propodeum with long dark hairs. Length 11.0–12.2 mm.

Habitat and biology. One of females collected from Arkit was taken in a spider burrow with prey – a subadult specimen of *Raveniola* sp.; one male (collected in surroundings of Dzhahal-Abad) was emerged from a cocoon taken from a burrow of *Raveniola ferghanensis* (Zonstein, 1987) two weeks earlier. Few females were observed visiting flowers of *Prangos pabularia* Lindl. and *Ferula* spp. (Apiaceae).

***Pamirospila baghira* Zonstein, sp. n.** (Figs. 34, 35, 44, 64, 65, 89, 90, 102)

Diagnosis. Differs from other congeners by rectangle pulvillae and dark colored body combined with enshortened antennae and short but wide flattened digging spines in females, and slightly domed and concave distally hypopygium in males.

Types. Holotype ♀ – "Tchildara, Tadzhikistan. Peter I Mt. R., 2000 m, 38°51'N 70°20'E, Zonstein, 12.VII.1988" (TAU). Paratypes: 2♂, 3♀. TADJIKISTAN: 1♂ – ibidem; "Kondara, Hissar Mt.R., Tadzhikistan, 1400 m. 38°49'N 68°49'E, S. Zonstein, 9 VII 1988" – 1♀; "Khaburabot p., 3200 m, Darvaz Mt.R., E.Tadzh., 38°38'N 70°43'E, Zonstein, 13 VII 1988" – 1♀; "Viskharvi ps., 3800 m, Darvaz Mt. Ridge, E.-Tadzh., 38°35'N 71°04'E, Zonstein, 14 VII 1988" – 1♂; "Viskharvi, Darvaz Mt. R., E.-Tadzhikistan, 2200 m. 38°35'N 71°04'E, Zonstein, 14 VII 1988" – 1♀.

Female. Head 1,1 times as broad as long and 1,2 times wider than pronotum. Face as shown on Fig. 22. Temples 2,7 times shorter than eye (viewed from above). Ratio POL – OOL 0.87–0.90. Ocellar angle 90°. Ratio of 1–4 antennal segments: 3.3 - 1 - 4.5 - 3.9. Third antennal segment 3.0 times as long as broad apically. Postnotal junction 2.3 times shorter than metanotum. Ratio of 1–5 tarsal segments of fore leg 5.3 - 2.7 - 1.9 - 1 - 3.0. First tarsal segment 3.6 times as long as broad apically, with 3 spines; apical spine 1.2 times longer than maximal width of first tarsal segment and equal 0.65 length of second segment (Fig. 44). Pulvillae distally truncated, with 10–12 hairs. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 64. Ratio of 1–4 segments of radial vein: 1 - 1.3 - 1.4 - 1.7. Black; tergites 1–3 dark reddish brown to dark brown with brownish-black apical fascia. Wings light brown with more dark apical margin, pterostigma and veins brown. Body and legs covered with appressed black pubescence, tergites 1–3 with light-greyish pubescence; head, thorax and tergite 1 covered with long hairs. Length 9.0–15.5 mm.

Male. Head 1.03 times as broad as long and 1.1 times wider than pronotum. Face as shown on Fig. 35, with mound over antennal sockets occupying 0.7 of face width. Temples 2.6 times shorter than eye (viewed from above). Ratio POL – OOL 0.73. Ocellar angle 80°. Ratio of 1–4 antennal segments: 3.0 - 1 - 3.4 - 4.0. First antennal segment with 25–35 hairs achieving in length 0.8–1.2 of segment width. Third antennal segment 2.1 times as long as broad apically. Postnotal junction 2.0 times shorter than metanotum. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 65. Ratio of 1–4 segments of radial vein: 1 - 1.1 - 1.2 - 2.3. Hypopygium with narrow slightly excavate posterior margin (Figs. 89, 90). Genitalia as shown on Fig. 102. Black, 1–3 abdominal tergites with more or less developed dark reddish-brown transverse bands. Color of wings as in female. Pubescence brownish-black. Head, pronotum, propodeum covered with long and dense dark hairs. Length 11.5 mm.

Habitat and biology. The female from Khaburabot was collected at the entrance of a burrow of *Raveniola* sp., where subadult spider specimen was then taken being just paralyzed. Like other congeners, some of specimens were found on flowers of *Prangos pabularia* Lindl.

***Pamirospila magiana* Zonstein, sp. n.** (Figs. 20, 29, 50)

Diagnosis. Differs from other congeners by longer antennae combined with more coarsely sculptured propodeum.

Types. Holotype ♀ – "Turkmenia, Zulfagar Mt. R. (Badkhyz), Nardenvaly canyon, 35°47'N 62°21'E, D.A.Milko, 15.04.1993" (TAU).

Female. Head 1,1 times as broad as long and 1,2 times wider than pronotum. Face as shown on Fig. 23. Temples 2.9 times shorter than eye (viewed from above). Ratio POL – OOL 0.70. Ocellar angle 90°. Ratio of 1–4 antennal segments: 3.6 - 1 - 4.7 - 3.7. Third antennal segment 4.3 times as long as broad apically. Postnotal junction 3 times shorter than metanotum. Propodeum with well developed short transverse ridges. Ratio of 1–5 tarsal segments of fore leg 6.8 - 2.8 - 2.4 - 1 - 3.2. First tarsal segment 4.5 times as long as broad apically, with 3 spines; apical spine 1.8 times longer than maximal width of first tarsal segment and equal 0.9 length of second segment (Fig. 35). Pulvillae distally rounded, with 10–12 hairs. Pterostigma, radial and radiomedial cells of fore wing as shown on Fig. 42. Black; fore tarsi dark brown, tergites 2 and 3 red with broad black apical fascia. Wings light brown with more dark apical margin, pterostigma and veins brown. Body and legs covered with appressed black pubescence, tergites 2 and 3 with light-greyish pubescence; head and thorax covered with short hairs. Length 16.0 mm.

Male. Unknown.

Etymology. The specific name is derived from Magiana – the antic name of territory that included southern part of Central Asia.

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Резюме

С. Л. Зонштейн. Новые данные по центральноазиатским представителям дорожных ос родов *Hemipepsis* Dahlbom, 1843, *Dipogon* Fox, 1897, *Tachyagetes* Haupt, 1930, *Pareiocurgus* Haupt, 1962 и *Pamirospila* Wolf, 1970 stat. n. (Hymenoptera, Pompilidae)

В Центральной Азии рода *Hemipepsis* Dahlbom, 1843 и *Dipogon* Fox, 1897 представлены соответственно 1 и 4 видами. Приведено описание эндемичного для Зап. Тянь-Шаня *H. sogdiana* sp. n. — первого центральноазиатского представителя рода, близкого к восточноазиатскому *H. sinensis* (Smith, 1855). *D. variegatum* (L., 1758) и *D. vehti* Day, 1979 впервые отмечаются в составе энтомофауны региона, последний вид и *D. bifasciatum* (Geoffroy, 1785) — в Казахстане. *D. ridesticolor* sp. n. (Ю. Кыргызстан) описывается в качестве единственного эндемичного представителя этого рода в фауне Средней Азии.

Впервые описываются 6 видов р. *Tachyagetes*: *T. huszar* sp.n. (Кыргызстан) из группы *T. argentatus* и 5 видов из группы *T. grandis*: *T. maculipennis* sp. n. (Узбекистан, Кыргызстан, Казахстан), *T. otus* sp.n. (Узбекистан, Кыргызстан), *T. bactrianus* sp.n. (Узбекистан), *T. hirtipes* sp.n. (Кыргызстан), *T. kazenasi* sp.n. (Туркменистан); приведено переописание самца *T. testaceus* (Radoszkowski, 1877) = *T. turcmenicus* Wolf, 1987, syn. n., из группы *T. sericans*; уточнено распространение ряда ранее описанных видов этого рода. *T. graciosus* (Radoszkowski, 1893) признан старшим синонимом *T. kasakstanus* Wolf, 1987, syn.n.

Приведены новые данные по распространению и впервые — данные по биологии единственного центральноазиатского представителя р. *Pareiocurgus* Haupt, 1962, *P. nomada* (Kohl, 1889); описывается ранее неизвестный самец этого вида, рассматриваемого в составе двух подвидов — номинативного (Туркменистан, Северо-Восточный Афганистан) и *P. nomada latigena* (F.Morawitz, 1893), comb. et stat. n.

Ранг *Pamirospila* Wolf, 1970, первоначально установленного в качестве монотипичного подрода широко распространенного рода *Arachnospila* Kincaid, 1900 пересмотрен и повышен до родового уровня. Судя по форме головы, проподеума и гипопигия, а также структуре гениталий самцов, этот горно-центральноазиатский род скорее может быть сближен с видами pp. *Dicyrtomellus* Gussakovskij, 1935 и *Pareiocurgus* Haupt, 1962, чем с упомянутым выше родом. Типовой вид, *P. pamira* (Haupt, 1930), переописывается по конспецифичному материалу из Алая (Кыргызстан, Таджикистан), самцы описываются впервые. Описываются еще 3 вида: *P. baghira* sp. n. (Таджикистан), *P. hetaera* sp. n. (Узбекистан, Кыргызстан) и *P. magiana* sp. n. (Юго-Восточный Туркменистан). Выявлено, что представители pp. *Pareiocurgus* и *Pamirospila*, а также *Tachyagetes otus* специализируются на провиантировании в качестве добычи для выкармливания потомства мигаломорфных пауков сем. Ctenizidae и Nemesiidae, парализуемых непосредственно в запечатываемой затем норе жертвы.