

To aphid fauna (Homoptera, Aphididae) of Xinjiang-Uygur Region of China

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The materials for this work have been collected by the authors in the desert zone of Xinjiang-Uygur region in May – June of the 1993 year. Besides the materials from the collection of Zoological Institute (Almaty, Kazakhstan) were used. The investigations were carried out on the scientific stations of the Chinese Academy of Sciences: Turpan Botanical Garden of the desert plants (environs of Turpan town); Fukang desert station (76 km NE Urumqi); Jungaric desert station in the Gurbantunggut sands (30 km W Cayjahu). In all 69 species from 36 genera of 5 subfamilies have been revealed.

The following abbreviations are used in the text: S. - southern, C. - central, N. - northern, W. - western, E. - eastern, Mt. - mounting, r. - river, ran. - mountain range, reg. – region, t. – town, a. s. l. - the height above the sea level, sur. – surroundings, ap. v. f. - apterous viviparous female, al. v. f. - alate viviparous female, b. - body, ant. - antennae, siph. - siphunculi, c. - cauda, a. r. s. - apical rostral segment, 2 s. h. t. - second segment of hind tarsus. All dimensions are given in millimeters.

Brachyunguis brevisiphon Kadyrbekov, Renxin, Shao, sp. n.

Apterous viviparous female (by 8 specimens). Body is elliptical, 1.13-1.51. Cuticle not reticulated. Frons is convex, without antennal tubercles (fig. 1a). Frontal setae are (0.017-0.022) 1.0-1.1 of basal diameter of 3rd antennal segment. Antennae are six-segmented, 0.41-0.55 of body length. Third segment is 1.55-2.0 of 4th, 2.3-3.6 of *processus terminalis* and 0.9-1.3 of 6th segment length. *Processus terminalis* is 0.55-0.75 of the base of 6th segment, with 3-4 apical setae (fig. 1b) Fourth segment 0.77-1.0 of 5th. Secondary rhinaria are absent. Hairs on 3rd segment are 0.4-0.6 of its basal diameter. Clypeus normal, rostrum reaches the hind coxae; its apical rostral segment (fig.1c) is 0.70-0.88 of second segment of hind tarsus, with 2 accessory hairs. Siphunculi are very short, straight, 0.038-0.050 of body length, 0.45-0.50 of cauda length, 0.83-1.1 of its maximal width (fig.1d). Cauda is triangular, 1.0-1.1 of its basal width, 0.9-1.1 of the second segment of hind tarsus, with 6-8 hairs (fig.1e). Marginal tubercles are developed on the prothorax, 1st and 7th tergites. Diameter of tubercle on 7th tergite is approximately equal to that on the 1st one (1.0-1.2). Diameter of tubercle on the 7th tergite is 1.7-2.0 of the basal diameter of 3rd antennal segment. Hairs on 3-5 tergites (0.014-0.020) are 0.8-1.0 of basal diameter of the 3rd antennal segment. Number of the hairs: 6-7 on the 3rd tergite; 4 between siphunculi on the 6th tergite and 3-4 on the 8th tergite. Genital plate is oval, with 2 hairs on disc and 4-8 ones along its posterior margin. Legs are normally developed, trochanter hair of the middle leg (0.022-0.028) is 0.50-0.65, and the longest hair on the external side of middle femur (0.017-0.020) is 0.35-0.45 of trochantro-femoral suture; first tarsal segments with 3:3:2 hairs.

Color on slide: frons, 1st and 6th antennal segments, clypeus, 3rd-4th segments of rostrum, apices of tibiae, tarsi, genital and anal plates are brownish. Natural coloration: body is greenish, with slight grey film; eyes are dark-reddish; head, darkened parts of body are brown.

Dimension of holotype. B. 1.22; ant. 0.56-0.60; III 0.14, IV 0.07-0.09, V 0.09, VI 0.16 (0.09-0.10+0.06-0.07); siph. 0.052/0.046, 0.046/0.052; c. 0.10/0.10; a. r. s. 0.091; 2 s. h. t. 0.104

Alate viviparous female (by 1 specimen). Body elliptical, 1.7. Siphunculi are straight, 1.4 of their basal width. Third antennal segment is 1.40-1.53 of 4th, with 6-7 secondary rhinaria. Other characters as in the apterous female.

Dimension of allotype: b. 1.70; ant. 0.93-0.94; III 0.25-0.26, IV 0.17-0.18; V 0.17-0.18; VI 0.21 (0.12-0.13+0.08+0.09); siph. 0.065/0.046; c. 0.13/0.13; a. r. s. 0.104; 2 s. h. t. 0.14.

Host plant. *Tamarix arcenthoides* Bgl., *T. ramosissima* Ledeb., *T. laxa* Willd.

Bionomy. Aphids suck on the shoots, visited by ants.

Material examined. Holotype: 1 ap. v. f., slide N 2268a, W. China, Xinjiang-Uygur reg., Gurbantunggut desert, 30 km N Cayjahu, 8.06.1993, R. Kh. Kadyrbekov; paratypes: 3 ap. v. f., 1 al. v. f. together with holotype; 4 ap. v. f., slide N 661: SE Kazakhstan, Charyn R., Sartogay, 25 km N Chunzha, 18.06.1987, R. Kh. Kadyrbekov; 2 ap. v. f., slide N 1835: SW Kazakhstan, Aral Karakum desert, 68 km NW Kazalinsk, 27.05.1990, R. Kh. Kadyrbekov.

Taxonomical notes. New species is related to the *B. bicolor* Iv., *B. harmalae* B. Das, *B. shaposhnikovi* Iv (Kadyrbekov, 1999). It differs from these taxa by the brown frons, less ratio of 3rd antennal segment to the 6th (0.87-1.29 versus 1.33-1.71) and other host plant. From first and second species *B. brevisiphon* can be distinguished by the index of siphunculi to cauda (0.45-0.50 versus 0.53-0.65), from *B. shaposhnikovi* it

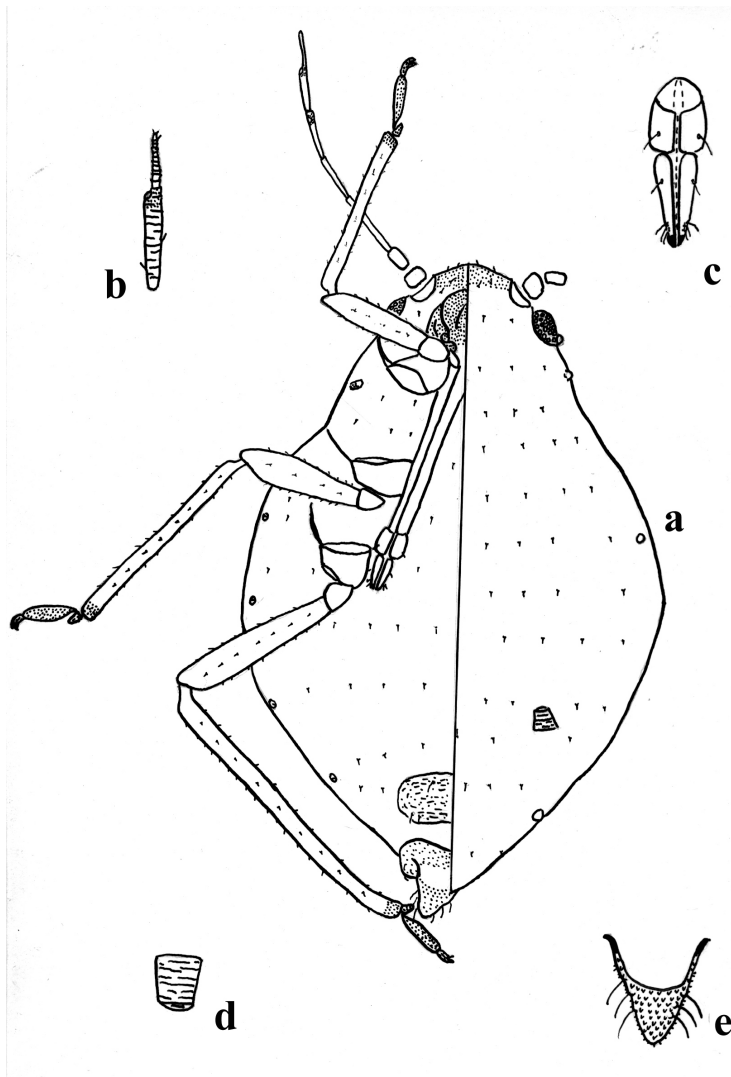


Fig. 1. Apterous viviparous female of *Brachyunguis brevisiphon* sp. n.: a – habitus, b – apical antennal segment, c – penultimate and ultimate rostral segments, d – siphunculus, e – cauda.

differs by the ratio of the siphunculi to the body length and to the cauda (0.038-0.050 and 0.45-0.50 versus 0.030 and 0.35-0.38) too.

***Protaphis kareliniae* Kadyrbekov, Renxin, Shao, sp. n.**

Apterous viviparous female (by 3 specimens). Body is broad oval, 2.08-2.18. Dorsal sclerotization is shown in fig. 2a. Cuticle reticulated. Frons is slightly convex, without antennal tubercles. Frontal hairs (0.017) are short, pointed, 0.75-0.85 of basal diameter of 3rd antennal segment. Antennae are six-segmented, 0.40-0.41 of body length. Third segment is 1.83-2.60 of 4th one, 1.83-2.20 of the *processus terminalis*, 0.85-1.05 of 6th segment length. *Processus terminalis* is 0.86-0.93 of the base of 6th segment, with 3 apical hairs. Fourth segment is 0.77-1.0 of the 5th one. Secondary rhinaria are absent. Hairs on the 3rd segment (0.008-0.010) are 0.35-0.45 of its basal diameter. Clypeus normal, rostrum exceeds the middle coxae; its apical rostral segment (fig. 2b) is 1.40-1.55 of the second segment of hind tarsus, with 2 accessory hairs. Siphunculi are slender, subcylindrical, with small rims, 0.067-0.073 of the body length, 1.10-1.23 of the cauda length, 0.80 – 0.95 of apical rostral segment, 2.4-2.7 of their maximal width (fig. 2c). Cauda is triangular, 0.83-0.93 of its basal width, 0.72-0.76 of the second segment of hind tarsus, with 16-20 hairs (fig. 2d). Marginal tubercles are developed on the prothorax, 1st, 6th and 7th tergites. Diameter of the 7th tergite tubercle (0.062-0.067) is 1.37-1.50 of the 1st (0.045) one. Diameter of the 1st tergite tubercle is 2.0 of basal diameter of the 3rd antennal segment. Hairs on 3-5 tergites (0.017-0.022) are 0.85-1.0 of basal diameter of the 3rd antennal segment. Number of the hairs: 7-9 on the 3rd tergite; 4 between siphunculi on the 6th tergite and 4-5 on the 8th

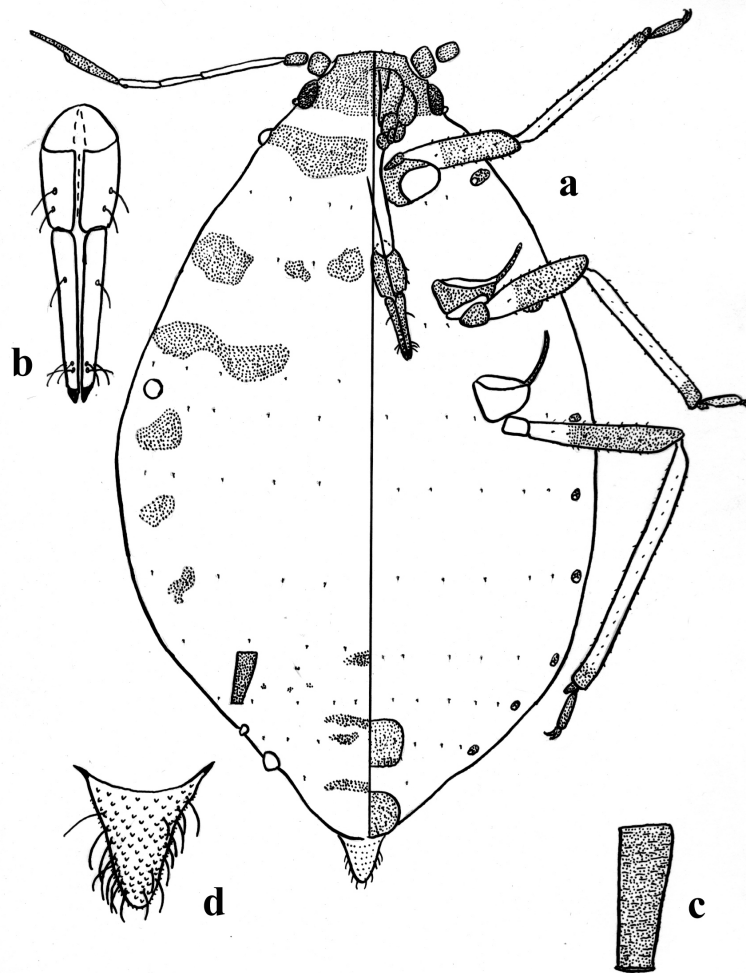


Fig. 2. Apterous viviparous female of *Protaphis kareliniae* sp. n.: a – habitus, b – penultimate and ultimate rostral segments, c – siphunculus, d – cauda.

tergite. Genital plate is oval, with 6-9 hairs on disc and 12-14 ones along its posterior margin. Legs are normally developed, trochanter hair of the middle leg and longest hair on the external side of middle femur (0.022-0.028) is 0.40-0.45 of trochantro-femoral suture; first tarsal segments with 3:3:2 hairs.

Color on slide: head, 1st, 2nd and 6th antennal segments, clypeus, 3rd – 4th segments of rostrum, coxae, trochanters, femora (except of the base), bases and apices of tibiae, tarsi, genital plate, dorsal sclerites, siphunculi are dark-brown, cauda and anal plate are pale. Natural coloration: body is yellow-greenish, with slight grey film; eyes are dark-reddish; head, darkened parts of body, siphunculi are dark-brown.

Dimension of holotype. B. 2.08; ant. 0.85: III 0.22, IV 0.12, V 0.12, VI 0.26 (0.14+0.12); siph. 0.14 / 0.052-0.055; c. 0.13 / 0.14; a. r. s. 0.18; 2 s. h. t. 0.12

Alate viviparous female (by 1 specimen). Body is 1.57. Antennae are 0.55 of body length. There are 6-8 of secondary rhinaria on the 3rd antennal segment, 4th with 1 one. Siphunculi are 0.076 of body length, 0.75 of apical rostral segment, equal to the cauda. Cauda is equal to its basal width. Other characters are as in the apterous female.

Color on slide: head, antennae (except the base of 3rd antennal segment) coxae, trochanters, femora (except the base), apices of tibiae, tarsi, dorsal sclerites, genital plate, siphunculi are dark-brown, cauda and anal plate are pale.

Dimension of allotype: b. 1.70; ant. 0.93-0.94: III 0.25-0.26, IV 0.17-0.18; V 0.17-0.18; VI 0.21 (0.12-0.13+0.08+0.09); siph. 0.065/0.046; c. 0.13/0.13; a. r. s. 0.104; 2 s. h. t. 0.14.

Host plant. *Karelinia caspia* (Pall.) Less. (Asteraceae).

Bionomy. Aphids suck on the roots, visited by ants.

Material examined. Holotype: 1 ap. v. f., slide N2231a, W. China, Xinjiang-Uygur reg., 76 km NE Urumqi, sur. Fukang t., clay desert, 3.06.1993, R. Kh. Kadyrbekov; paratypes: 2 ap. v. f., 1 al. v. f. together with holotype.

Taxonomical notes. New species belongs to the species group with developed marginal tubercles on the 6th tergite (Kadyrbekov, 2001). It differs from *P. betpakdalensis* Kadyr., *P. ancathiae* Kadyr., *P. echinopsicola* Kadyr., *P. miranda* Kadyr. by the slender siphunculi are 2.4-2.7 of their maximal width, length of the frontal hairs and other host plant.

***Ephedraphis gobica xinjiangica* Kadyrbekov, Renxin, Shao, ssp. n.**

Apterous viviparous female (by 24 specimens). Body is broad oval, 1.85-2.16. Dorsal sclerotization is shown in fig. 3a. Cuticle reticulated. Frons is slightly grooved, with low antennal tubercles and hardly visible median tubercle. Frontal hairs (0.014-0.017) are short, pointed, 0.45-0.60 of basal diameter of 3rd antennal segment. Antennae are six-segmented, 0.60-0.77 of body length. Third segment is 1.24-1.52 of 4th one, 1.48-1.70 of the *processus terminalis* and 0.94-1.08 of 6th segment length. *Processus terminalis* is 1.6-1.9 of the base of 6th segment, with 3-4 apical hairs. Fourth segment is 1.0-1.17 of the 5th one. Secondary rhinaria are absent. Hairs on the 3rd segment (0.010-0.011) are 0.3-0.4 of its basal diameter. Clypeus normal, rostrum exceeds the middle coxae, rarely reaches the hind coxae; its apical rostral segment (fig. 3b) is beak-shaped, 0.8-0.9 of the second segment of hind tarsus, with 2 accessory hairs. The penultimate segment of rostrum has 2 hairs. Siphunculi are subcylindrical, curved, with small rims, (0.13) 0.14-0.17 of the body length, 1.1-1.3 of the cauda length, 2.1 – 2.4 of the second segment of hind tarsus, 2.5-3.8 of their maximal width (fig. 3c). Cauda is finger-shaped, 1.8-2.0 of the second segment of hind tarsus, with (9) 10-13 hairs (fig. 3d). Marginal tubercles are developed on the prothorax, 1st and 7th tergites. Diameter of the 7th tergite tubercle is 0.72-1.0 of the 1st (0.045) one. Diameter of the 1st tergite tubercle is 1.0-1.4 of basal diameter of the 3rd antennal segment. Hairs on 3-5 tergites (0.014-0.017) are 0.45-0.60 of basal diameter of the 3rd antennal segment. Ventral hairs are longer. Number of the hairs: 6-8 on the 3rd tergite; 2 between siphunculi on the 6th tergite and 2 on the 8th tergite. Genital plate is oval, with 3-6 hairs on disc and 8-11 ones along its posterior margin. Legs are normally developed, trochanter hair of the middle leg (0.022-0.028) is 0.35-0.45, and the longest hair on the external side of middle femur (0.017) is 0.25-0.27 of trochanter-femoral suture; first tarsal segments with 3:3:3 hairs.

Color on slide: head, 1st, 2nd and 6th antennal segments, clypeus, 3rd – 4th segments of rostrum, coxae, trochanters, femora (except of the base), apices of tibiae, tarsi, genital and anal plates, dorsal sclerites, siphunculi, cauda are dark-brown. Natural coloration: body is blackish, with slight grey film; eyes are dark-brown.

Dimension of holotype: b. 2.05; ant. 1.42-1.43: III 0.36, IV 0.29, V 0.25, VI 0.35 – 0.36 (0.2-0.134+0.23); siph. 0.29-0.30 / 0.09-0.10; c. 0.25; a. r. s. 0.11; 2 s. h. t. 0.14.

Host plant. *Ephedra* sp.

Bionomy. Aphids suck on the shoots, visited by ants.

Material examined. Holotype: 1 ap. v. f., slide N2205a, W. China, Xinjiang-Uygur reg., 100 km SE Urumqi, sur. Tabadzhin, stounish desert, 30.05.1993, R. Kh. Kadyrbekov; paratypes: 23 ap. v. f., together with holotype.

Taxonomical notes. New species differs from *Ephedraphis gobica gobica* Szel. (Szelegiewicz, 1963) by the ratio of 3rd antennal segment on *processus terminalis* (1.48-1.70 versus 1.23) and *processus terminalis* to the base of 6th antennal segment, more numerous caudal hairs (9-13 versus 6-8).

***Lepidaphis* Kadyrbekov, Renxin, Shao, gen. n.**

***Xerophilaphis deformans* Nevsky, 1929 type species**

Generic diagnosis. Body, siphunculi, cauda are pale. Body spindle-shaped, frons is slightly grooved, with hardly visible antennal tubercles and median tubercle, and with 12-16 hairs. Cuticle reticulated, with five, six-sided cells and with serrated facets. Antennae are short, six-segmented, 0.25-0.38 of the body length, without secondary rhinaria in the apterous viviparous females, and with secondary rhinaria on the 3rd antennal segment only in the alate viviparous females. *Processus terminalis* is short, 0.90-1.15 of the base of 6th antennal segment. Dorsal hairs are thickened, pointed or blunted. There are 12-20 hairs on the eighth tergite. Marginal tubercles are absent. Distance between spiracles of the 2nd and 3rd sternites is 2.5-3.0 of the distance between spiracles on the 1st and 2nd ones. Apical rostral segment is 1.0-1.3 of the second segment of hind tarsus, with 2 accessory hairs. Siphunculi are short, conic or keg-shaped with small, but distinct flanges, 0.55-0.75 of the cauda. Cauda is triangular, approximately equal to its basal width, with 6-10 long hairs. First segment of the tarsi with 3:3:2 hairs.

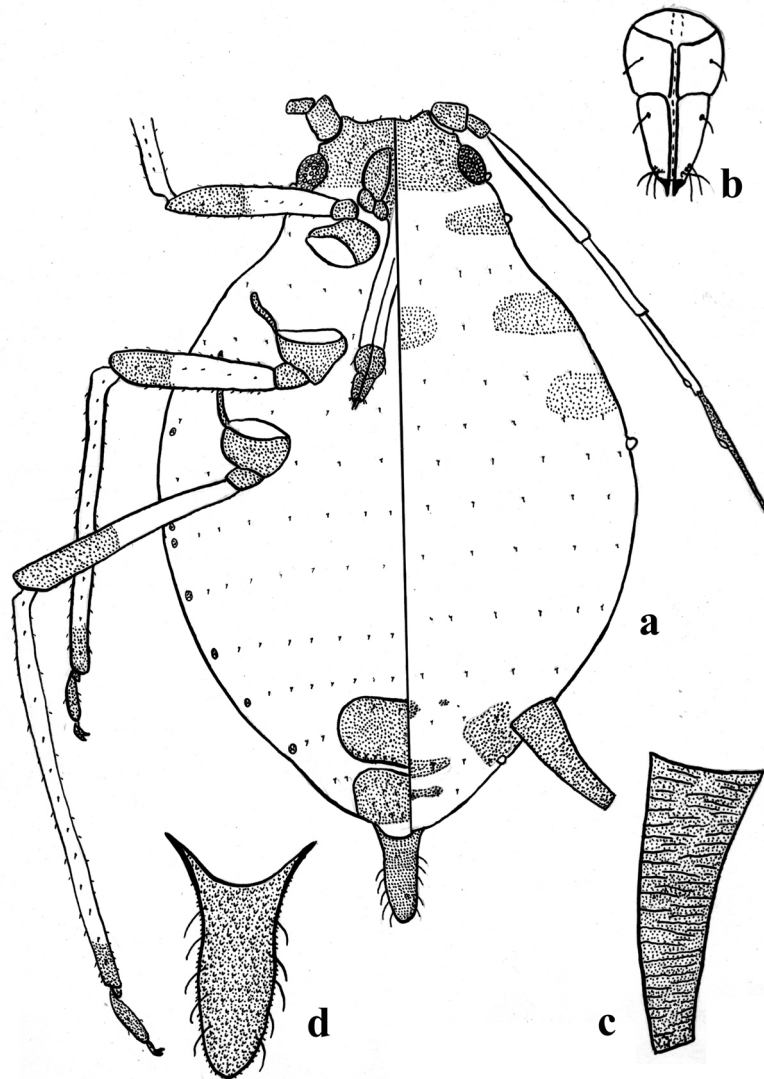


Fig. 3. Apterous viviparous female of *Ephedraphis gobica xinjiangica* ssp. n.:
a – habitus, b – penultimate and ultimate rostral segments, c – siphunculus, d – cauda.

Aphids live on the underground and aerial parts of *Lepidium* spp. (Brassicaceae).

Lepidaphis deformans (Nevs.) and *L. terricola* sp. n. from the turan and jungar deserts are regarded in this taxon only.

Differential analysis. New genus belongs to subtribe Liosomaphidina, where it is related with *Brevicoryne* v. d. Goot, 1915, *Brachycolus* Buck., 1879, *Brachycorynella* Aiz., 1956. These genera have not marginal tubercles on the prothorax, and have 3:3:2 hairs on the first segment of hind tarsus. *Lepidaphis* differs from these genera by the presence of the numerous hairs on the frons and 8th tergite, short processus terminalis. It can be distinguished from *Brachycolus* and *Brachycorynella* by the triangular cauda, and from *Brevicoryne* by the spindle-shaped body and short, bright siphunculi are 0.55-0.75 of the cauda length.

***Lepidaphis deformans* (Nevsky, 1929) comb. n.**

Apterous viviparous female (by the type series, materials from Kazakhstan and West China). Body is spindle-shaped, 1.68-2.17. Cuticle reticulated, cells are five, six-sided, with serrated facets. Frons is slightly grooved, with hardly visible antennal and median tubercles. Frontal hairs (0.022-0.028) are numerous, pointed, 14-16, 1.2-1.4 of basal diameter of 3rd antennal segment. Antennae are six-segmented, (0.29) 0.30-0.36 of body length. Third segment is (1.75) 2.3-3.0 of 4th one, 2.2-3.1 of the *processus terminalis* and

(1.1) 1.20-1.33 of 6th segment length. *Processus terminalis* is (0.9) 1.0-1.15 of the base of 6th segment, with 3-4 apical hairs (fig.2b). Fourth segment is 0.77-1.15 of the 5th one. Secondary rhinaria are absent. Hairs on the 3rd segment are 0.55-0.65 of its basal diameter. Clypeus normal, rostrum reaches the hind coxae; its apical rostral segment is slender, elongate, 1.0-1.1 of the second segment of hind tarsus, with 2 accessory hairs. There are 4 hairs on the penultimate segment. Keg-shaped siphunculi are narrow on the base, with small rims, 0.037-0.046 (0.054) of the body length, 0.57-0.65 (0.75) of the cauda length, 0.65-0.77 of the second segment of hind tarsus, (1.3) 1.5-1.9 of their maximal width. Cauda is triangular, 0.92-1.2 of its basal width, 1.03-1.2 of the second segment of hind tarsus, with 16-20 hairs (fig.2e). Marginal tubercles are not developed. Dorsal hairs are shorter of frontal ones, blunted, 1.0-1.3 of basal diameter of the 3rd antennal segment. Number of the hairs: 8-10 on the 3rd tergite; 5-6 between siphunculi on the 6th, 7-9 on the 7th, 12-15 (16) on the 8th ones. Genital plate is oval, with 2-3 hairs on disc and 13-17 ones along its posterior margin. Legs are short, hind tibiae are 0.31-0.37 of the body length, trochanter hair of the middle legs (0.022-0.028) is 0.45-0.55 and the longest hair on the external side of middle femora (0.017-0.022) is 0.30-0.45 of trochantro-femoral suture; first tarsal segments with 3:3:2 hairs.

Color on slide: body is pale, without darkened parts, rarely the base of 6th antennal segment and tarsi are darkened. Natural coloration: body is greenish, with slight pale film; eyes are reddish.

Alate viviparous female (by 1 specimen from W. China). Body 1.69. Antennae are 0.45 of body length. On the 3rd antennal segment is 12-14 secondary rhinaria. Fourth segment is 1.2 of 5th one. *Processus terminalis* is 1.1-1.2 of the base of 6th segment. Siphunculi are 0.036-0.038 of body length, 0.51-0.55 of the second segment of hind tarsus. Cauda is 0.9 of the second segment of hind tarsus. Other characters are as in the apterous female.

Color on slide: head, 6th antennal segment, tarsi are pale-brown.

Host plant. *Lepidium latifolium* L., *L. obtusum* Basin. (Brassicaceae).

Bionomy. Aphids suck within leaf galls.

Distribution. Uzbekistan (Tashkent sur.), S. Kazakhstan (Almaty sur.), W. China (Xinjiang-Uygur reg., Turpan sur.).

***Lepidaphis terricola* Kadyrbekov, Renxin, Shao, sp. n.**

Apterous viviparous female (by 12 specimens). Body is spindle-shaped, 1.90-2.08 (fig. 4a). Cuticle is reticulated, cells are five, six-sided, without serrated facets. Frons is slightly grooved, with hardly visible median and antennal tubercles, with 12-14 pointed hairs (0.028-0.030), which are 1.6-1.7 of basal diameter of 3rd antennal segment. Antennae are short, six-segmented, 0.25-0.28 (0.29) of body length. Third segment is 2.1-2.7 of 4th one, 1.8-2.3 (2.6) of the *processus terminalis*, 0.9-1.15 (1.3) of the 6th segment (fig. 4b). *Processus terminalis* is 0.9-1.1 of the base of 6th segment, with 3-4 apical hairs. Fourth segment is 0.75-1.0 of the 5th one. Secondary rhinaria are absent. Hairs on the 3rd segment (0.011-0.014) are 0.6-0.8 of its basal diameter. Clypeus normal, rostrum reaches the hind coxae; its apical rostral segment (fig. 4c) is slender, elongated, 1.20-1.27 of the second segment of hind tarsus, with 2 accessory hairs. There are 4 hairs on the penultimate segment. Conic siphunculi are narrow to the small rims, 0.038-0.048 of the body length, 0.60-0.75 of the cauda length, 0.66-0.82 of the second segment of hind tarsus, (1.0) 1.2-1.5 (1.7) of their maximal width (fig. 4d). Cauda is triangular, 0.9-1.1 of its basal width, 0.9-1.1 of the second segment of hind tarsus, with 7-10 long hairs (fig. 4e). Marginal tubercles are absent. Dorsal hairs (0.022-0.025) are pointed or blunted, 1.3-1.6 of basal diameter of the 3rd antennal segment. Number of the hairs: 8 on the 3rd tergite; 5-6 between siphunculi on the 6th, 7-8 on the 7th, (15) 16-19 on the 8th ones (fig. 4f). Genital plate is oval, with 2-5 hairs on disc and 19-24 ones along its posterior margin (fig. 4g). Legs are short, hind tibiae are 0.27-0.30 of the body length, trochanter hair of the middle legs (0.022-0.028) is 0.45-0.55, and longest hair on the external side of middle femora (0.019-0.022) is 0.35-0.45 of trochantro-femoral suture; first tarsal segments with 3:3:2 hairs.

Color on slide: body is pale, only few specimens with darkened 6th antennal segments and tarsi. Natural coloration: body is greenish, with slight grey film; eyes are reddish.

Dimension of holotype. B. 2.06; ant. 0.57-0.58; III 0.17-0.18, IV 0.07-0.08, V 0.08, VI 0.13-0.14 (0.065-0.07+0.065-0.07); siph. 0.078/0.052; c. 0.12/0.12; a. r. s. 0.145; 2 s. h. t. 0.117

Host plant. *Lepidium latifolium* L. *L. obtusum* Basin. (Brassicaceae).

Bionomy. Aphids suck on the roots.

Material examined. Holotype: ap. v. f., slide N 2195a, W. China, Xinjiang-Uygur reg., Turpan sur., Desert Botanical Garden, 29. 05. 1993, R. Kadyrbekov; paratypes: 5 ap. v. f. together with holotype; 6 ap. v. f., slide N 2012, SE Kazakhstan, Ili valley, 15 km NE Masak, 12. 06. 1991, R. Kadyrbekov.

Taxonomical notes. New species differs from *L. deformans* by the length of frontal hairs (1.6-1.7 versus 1.2-1.4), number of hairs on the 8th tergite (16-19 versus 12-15) and along posterior margin of genital

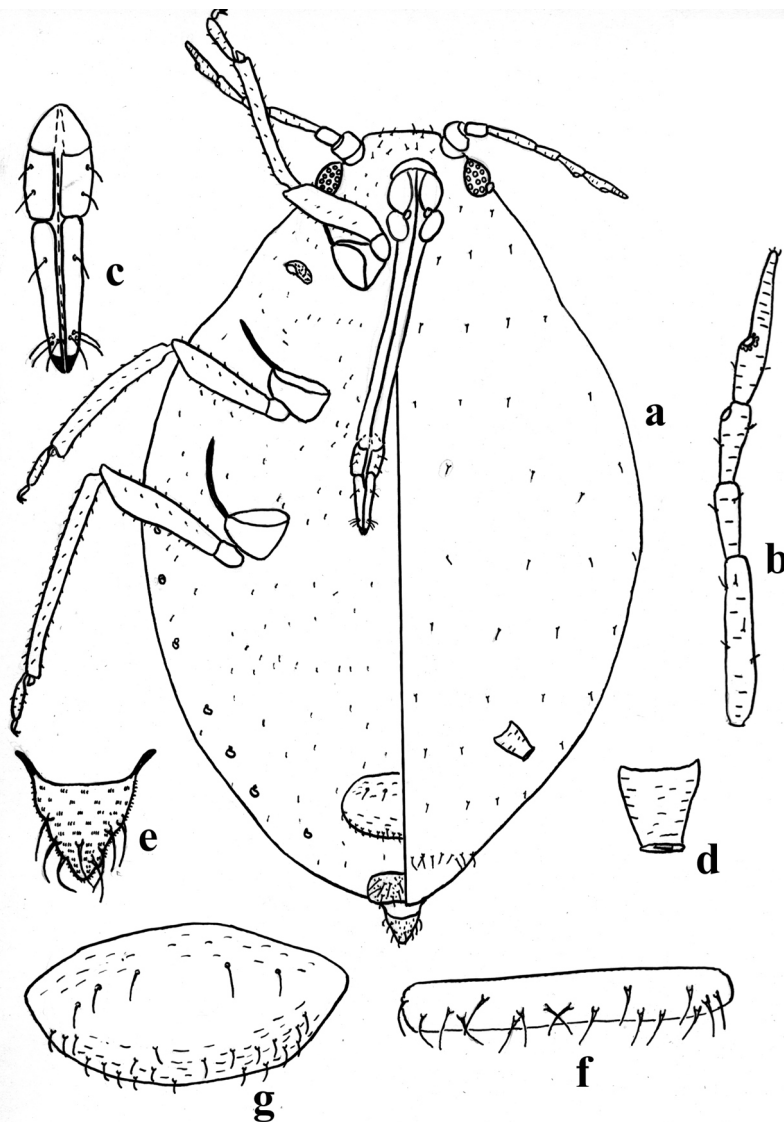


Fig. 4. Apterous viviparous female of *Lepidaphis terricola* sp. n.: a – habitus, b – 3rd–6th antennal segments, c – penultimate and ultimate rostral segments, d – siphunculus, e – cauda, f – 8th tergite, g – genital plate.

plate (19-24 versus 13-17), indices of antennae to the body (0.25-0.28 versus 0.30-0.36) and apical rostral segment to the second segment of hind tarsus (1.20-1.27 versus 1.0-1.1). Besides *L. terricola* sp. n. sucks on the roots and *L. deformans* lives to the leaf galls.

Lipaphis (Lipaphidiella) jungarica Kadyrbekov, Renxin, Shao, sp. n.

Apterous viviparous female (by 1 specimen). Body is elliptical, 1.7 (fig. 5a). Cuticle is not reticulated. Frons is slightly grooved, with visible median and antennal tubercles, with 4-6 short, blunted hairs (0.008), which are 0.45 of basal diameter of 3rd antennal segment. Antennae are short, six-segmented, 0.39 of body length. Third segment is 2.86-2.92 of 4th one, 1.27-1.33 of the *processus terminalis* and 0.90-0.95 of the 6th segment. *Processus terminalis* is 2.5 of the base of 6th segment, with 3 apical hairs. Fourth segment is 0.81-0.88 of the 5th one. Secondary rhinaria in number 3-5 are developed on the 3rd segment. Hairs on the 3rd segment (0.005) are blunted, 0.3 of its basal diameter. Clypeus is normal, rostrum almost reaches the middle coxae; its apical rostral segment (fig. 5b) is short, 0.75 of the second segment of hind tarsus, with 2 accessory hairs. There are 2 hairs on the penultimate segment. Cylindrical siphunculi are hardly narrow to the small rims, they are 0.17 of the body length, 1.53 of the cauda, 2.48 of the second segment of hind tarsus (fig. 5c). Cauda is conic, 1.62 of the second segment of hind tarsus, with 4 hairs (fig. 5d). Marginal tubercle is developed on the left side of 6th tergite. Dorsal hairs (0.006-0.008) are blunted, 0.35-0.45 of basal diameter of

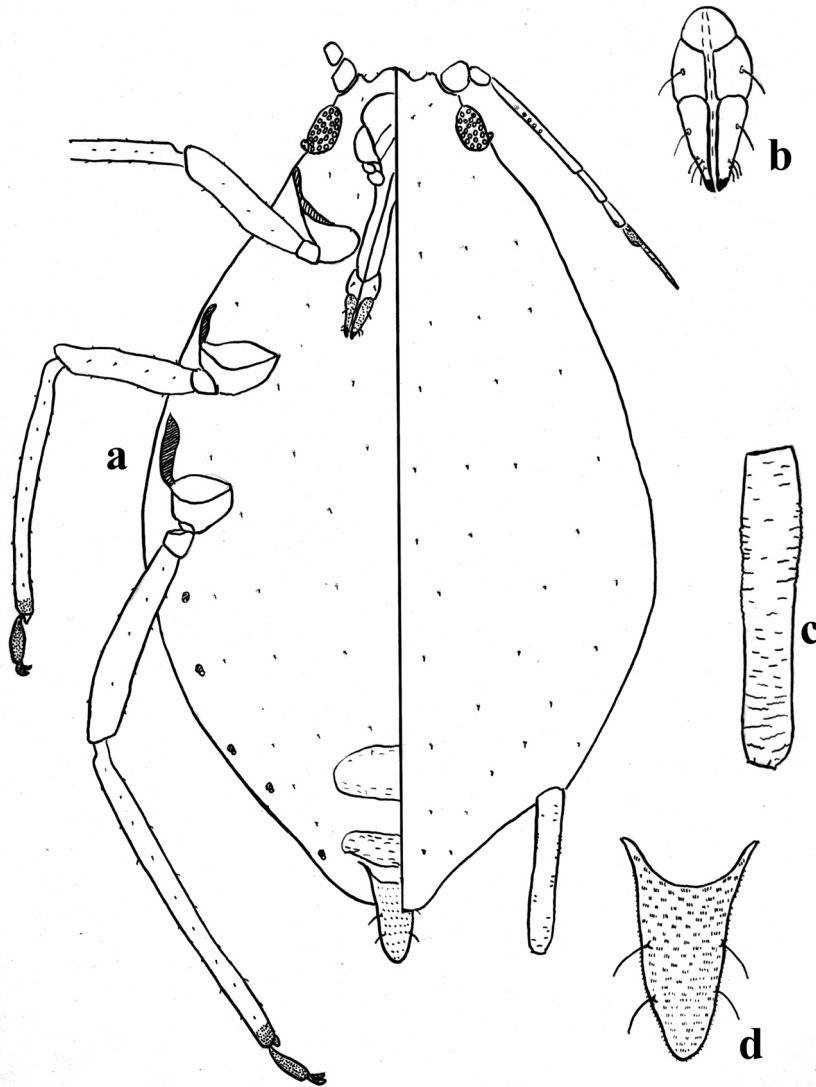


Fig. 5. Apterous viviparous female of *Lipaphis jungarica* sp. n.: a – habitus, b – penultimate and ultimate rostral segments, c – siphunculus, d – cauda.

the 3rd antennal segment. Ventral hairs are fine, pointed and equal to the basal diameter of 3rd antennal segment. Number of the hairs: 5-6 on the 3rd tergite; 2-3 between siphunculi on the 6th, 3-4 on the 8th ones. Single median process is developed on the 8th tergite. Genital plate is oval, with 2 hairs on disc and 2 ones along its posterior margin. Legs are normally developed, trochanter hair of the middle legs (0.022) is 0.44, and the longest hair on the external side of middle femora (0.011) is 0.22 of trochantro-femoral suture; first tarsal segments with 3:3:2 hairs.

Color on slide: body is pale, only apical rostral segment, 6th antennal segment, apices of the tibiae and tarsi are darkened. Natural coloration: body greenish, eyes reddish.

Dimension of holotype. B. 1.7; ant. 0.66-0.67: III 0.19-0.20, IV 0.07, V 0.08, VI 0.21 (0.06+0.15); siph. 0.29; c. 0.19; a. r. s. 0.09; 2 s. h. t. 0.12

Alate viviparous female (by 6 specimens). Body is 1.44-1.65. Antennae are 0.50-0.62 of body length. Third antennal segment is 1.1-1.4 (1.6) of the processus terminalis, 2.55-3.70 of the 4th, 0.9-1.0 (1.2) of the 6th ones. Fourth segment is 0.6-0.9 of the 5th one. On the 3rd and 4th antennal segments there are 7-12 developed and (0) 1-3 secondary rhinaria. Siphunculi are shorter, hardly swollen to flanges, 0.09-0.12 of body length, 1.28-1.50 of the second segment of hind tarsus, 1.1-1.23 of the cauda. Cauda is 1.20-1.28 of the second segment of hind tarsus. Apical rostral segment is 0.75-0.88 of the second segment of hind tarsus. On the

genital plate 2 hairs on the disc and 2-7 hairs along posterior margin. Other characters are as in the apterous female.

Color on slide: head, antennae (except the base of 3rd antennal segment), thorax, 3-4th segments of rostrum, clypeus, coxae, trochanters, femora (except the base), tibiae, tarsi, marginal sclerites on the 1-6th tergites, transversal stripe on the 8th one, siphunculi, cauda, genital and anal plates are dark-brown.

Dimension of allotype: b. 1.51; ant. 0.77-0.83: III 0.23-0.25, IV 0.09; V 0.10; VI 0.23-0.27 (0.065-0.165+0.205); siph. 0.15; c. 0.14; a. r. s. 0.09; 2 s. h. t. 0.12.

Host plant. *Syrenia saliculosa* (M.B.) Andr., *Hypocoum erectum* L. (Brassicaceae).

Bionomy. Aphids suck on the upper side of leaves.

Material examined. Holotype: ap. v. f., slide N 2209a, W. China, Xinjiang-Uygur reg., 78 km NE Urumqi t., Gurbantunggut desert, 2. 06. 1993, R. Kadyrbekov; paratypes: 3 al. v. f. together with holotype; 3 al. v. f., slide N 2209 and 3 al. v. f. slide N 2211 same place with same data.

Taxonomical notes. *L. jungarica* sp. n. differs from related species by the presence of secondary rhinaria on the 3rd antennal segment of apterous viviparous females and other host plant.

***Uroleucon (Uromelan) acroptilidis* Kadyrbekov, Renxin, Shao, sp. n.**

Apterous viviparous female (by 16 specimens). Body is egg-formed, 2.86-3.42 (fig. 6a). Frons is grooved, without visible median tubercle, and high diverged antennal tubercles, with 12-14 pointed hairs (0.056-0.084), which are 1.5-1.9 of basal diameter of 3rd antennal segment. Depth of frontal groove is 0.21-0.25 of the distance between apices of antennal tubercles. Antennae are six-segmented, 0.88-0.99 of body length. Third segment is 1.20-1.42 (1.52) of 4th one, 1.03-1.27 (1.33) of the *processus terminalis*, 0.85-1.02 (1.05) of the 6th segment. *Processus terminalis* is (3.8) 4.0-4.7 of the base of 6th segment. Fourth segment is 1.0-1.22 of the 5th one. Secondary rhinaria in number 34-48 are developed on the 0.55-0.72 of the 3rd segment length (fig. 6b). Hairs on the 3rd segment (0.039-0.050) are pointed, 0.9-1.1 of its basal diameter. Clypeus normal, rostrum reaches the hind coxae; its apical rostral segment (fig. 6c) is 1.0-1.1 of the second segment of hind tarsus, with 7-9 accessory hairs. There are 16-18 hairs on the penultimate segment. Cylindrical siphunculi are long, wide in the base, with small rims, they are 0.25-0.28 of the body length, (1.76) 1.81-2.05 of the cauda, (4.5) 4.7-5.5 (5.9) of the second segment of hind tarsus (fig. 6d). Reticulated zone is developed on the 0.25-0.29 of their length. Cauda is sword-shaped, with constriction in the basal part and pointed apex, (2.2) 2.4-3.0 (3.2) of the second segment of hind tarsus, with 9-13 hairs (fig. 6e). Dorsal hairs are pointed, equal to the frontal ones. Number of the hairs: 18-19 on the 3rd tergite; 6-9 between siphunculi on the 6th, 3-4 on the 8th ones. Marginal tubercles are absent. Genital plate is broad oval, with 3-6 hairs on disc and 12-14 (24) ones along its posterior margin. Legs are long, with pointed hairs. First tarsal segment with 5:5:5 hairs.

Color on slide: head, clypeus, 3-4th segments of rostrum, antennae (except the base of 3rd segment), apices of the femora, bases and apices of the tibiae, tarsi, anal plate, siphunculi, cauda are dark brown. Coxae, genital plate, dorsal sclerites are pale. Dorsal sclerotization is faintly expressed. Small sclerites are developed in the base of few dorsal hairs on the thorax and tergites, besides there are weakly developed postsiphuncular sclerites in the base of the siphunculi. Natural coloration: body brownish, eyes dark-reddish.

Dimension of holotype. B. 2.89; ant. 2.86-2.87: III 0.73, IV 0.55-0.56, V 0.47-0.48, VI 0.83-0.86 (0.16+0.67-0.70); siph. 0.79-0.81; c. 0.40; a. r. s. 0.16; 2 s. h. t. 0.16.

Alate viviparous female (by 4 specimens). Body 2.70-2.89. Antennae are 1.03-1.07 of body length. Secondary rhinaria (50-66) are developed on the 90% of the 3rd antennal segment length, 1 secondary rhinaria is sometimes developed on the 4th one. Other characters are as in the apterous female.

Color on slide: head, antennae (except the base of 3rd antennal segment), thorax, 3-4th segments of rostrum, clypeus, coxae, trochanters, apical half of the femora, tibiae (except the middle part), tarsi, dorsal sclerites, siphunculi, cauda, genital and anal plates are dark-brown. Small dorsal sclerites are developed in the bases of the few hairs on the tergites, 3-7th ones with large marginal sclerites.

Dimension of allotype: b. 2.70; ant. 2.85-2.88: III 0.72-0.74, IV 0.56; V 0.47-0.49; VI 0.79-0.86 (0.16+0.63-0.70); siph. 0.74; c. 0.34; a. r. s. 0.16; 2 s. h. t. 0.16.

Host plant. *Acroptilon australe* Iljin (Asteraceae).

Bionomy. Aphids suck on the stem, not visited by ants.

Material examined. Holotype: ap. v. f., slide N 2196a, W. China, Xinjiang-Uygur reg., sur. Turpan t., desert botanical garden, 29. 05. 1993, R. Kadyrbekov; paratypes: 9 ap. v. f., 4 al. v. f. together with holotype; 6 ap. v. f., slide N 2034, SE Kazakhstan, 15 km SW Chundzha, clay desert, 19. 06. 1991, R. Kadyrbekov.

Taxonomical notes. New species is related to *U. aeneum* (H. R. L., 1939). It differs from last (Hille Ris

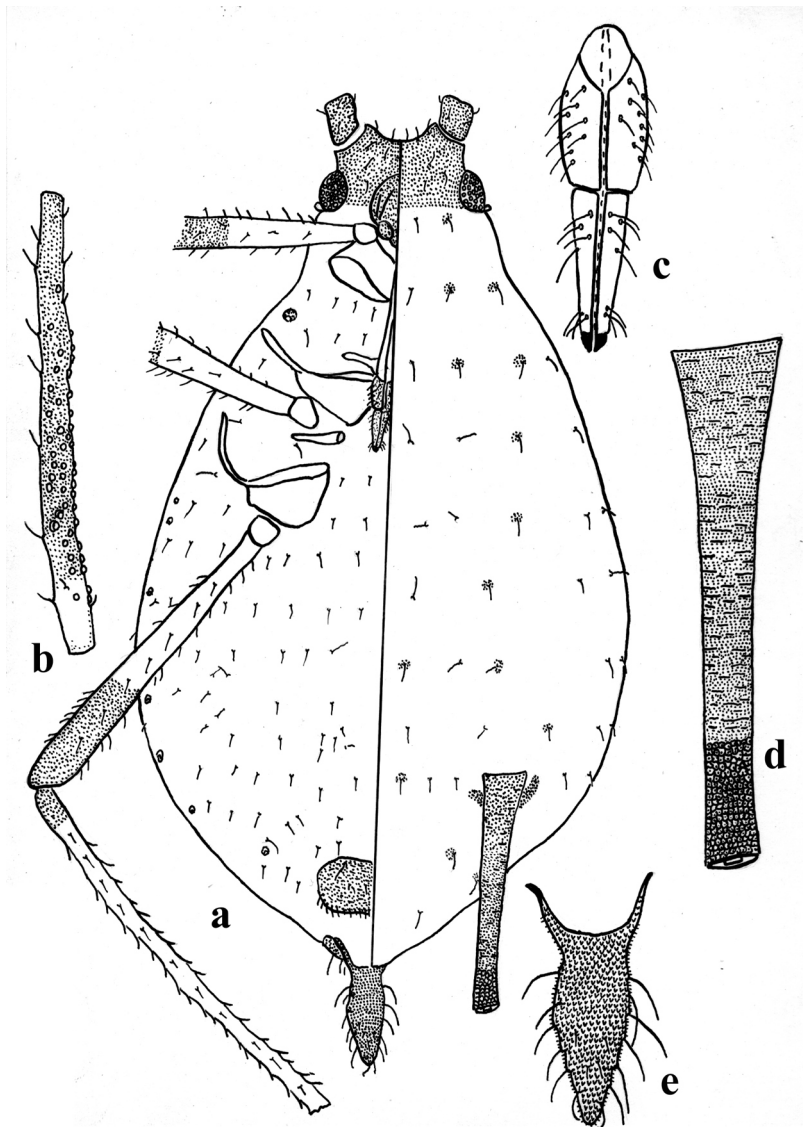


Fig. 6. Apterous viviparous female of *Uroleucon acroptilidis* sp. n.: a – habitus, b – 3rd antennal segment, c - penultimate and ultimate rostral segments, d – siphunculus, e – cauda.

Lambers, 1939) by the presence of dorsal sclerites in the base of only few abdominal hairs, less number of caudal hairs (9-13 versus 22-28), differing indices of the apical rostral segment to second segment of the hind tarsus (1.0-1.1 versus 1.2-1.3) and those of siphunculi to cauda (1.81-2.05 versus 1.55).

***Uroleucon (Uromelan) uyguricum* Kadyrbekov, Renxin, Shao, sp. n.**

Apterous viviparous female (by 12 specimens). Body is egg-formed, 2.15-2.34 (fig. 7a). Frons is grooved, with hardly visible median tubercle, and low, diverged antennal tubercles, with 12-14 pointed hairs (0.078-0.095), which are 2.0-2.4 of basal diameter of 3rd antennal segment. Depth of frontal groove is 0.13-0.19 of the distance between apices of antennal tubercles. Antennae are six-segmented, 0.87-1.0 of body length. Third segment is 1.33-1.83 of 4th one, 1.3-1.6 of the *processus terminalis* and 0.95-1.16 of the 6th segment. *Processus terminalis* is 2.5-3.0 of the base of 6th segment. Fourth segment is 0.92-1.11 of the 5th one. Secondary rhinaria in number 15-21 are developed on the 0.70-0.75 of the 3rd segment length. On the 4th segment 0-2 secondary rhinaria can be developed and on the 1 specimen 1 secondary rhinaria is developed on the 5th one. Hairs on the 3rd segment (0.045-0.050) are pointed, 1.2-1.3 of its basal diameter. Rostrum reaches the hind coxae; its apical rostral segment (fig. 7b) is 0.81-0.89 of the second segment of hind tarsus, with 7-8 accessory hairs. There are 8 hairs on the penultimate segment. Cylindrical siphunculi are long, wide in the base, with small rims, they are 0.28-0.32 of the body length, 1.77-2.0 (2.05) of the cauda, 4.1-4.7 of the second

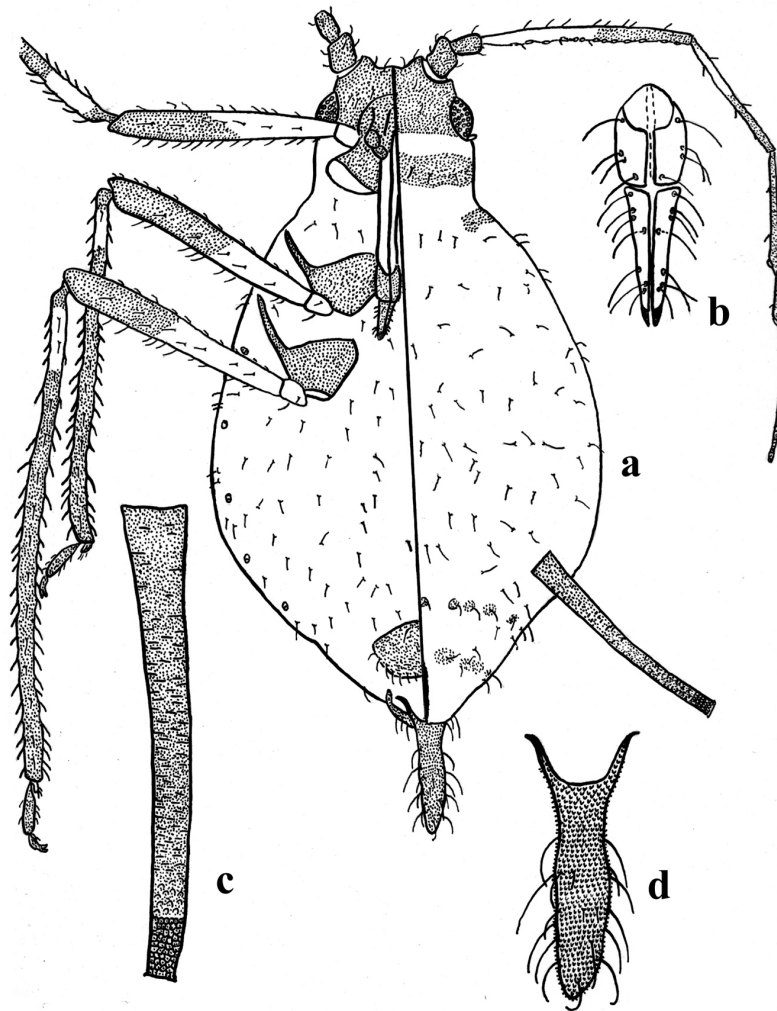


Fig. 7. Apterous viviparous female of *Uroleucon uyguricum* sp. n.: a – habitus, b – penultimate and ultimate rostral segments, c – siphunculus, d – cauda.

segment of hind tarsus (fig. 7c). Reticulated zone is developed on the 0.13-0.16 of their length. Cauda is finger-shaped, with slightly visible constriction in the basal part and blunted apex, 2.2-2.5 of the second segment of hind tarsus, with 15-20 hairs (fig. 7d). Dorsal hairs are pointed, equal to the frontal ones. Number of the hairs: 22-26 on the 3rd tergite; 9-12 between siphunculi on the 6th, 8-10 on the 8th ones. Marginal tubercles are absent. Genital plate is broad oval, with 4-6 hairs on disc and 10-14 ones along its posterior margin. Legs are long, with pointed hairs. First tarsal segment with 3:3:3 hairs.

Color on slide: head, clypeus, 3-4th segments of rostrum, antennae (except the bases of 3rd–4th segment), coxae, apical half of the femora, tibiae (except the middle part), tarsi, genital and anal plates, siphunculi, cauda, dorsal sclerites are dark brown. Dorsal sclerotization is faintly expressed. Small sclerites are developed in the base of dorsal hairs on the 7-8th tergites, prothorax with transversal stripe, 8th tergite sometimes with transversal stripe too, metathorax with patch, antesiphuncular and postsiphuncular sclerites are not developed. Natural coloration: body brownish, eyes dark-reddish.

Dimension of holotype. B. 2.31; ant. 2.16-2.17: III 0.64, IV 0.38, V 0.36-0.38, VI 0.56-0.59 (0.15+0.41-0.44); siph. 0.66-0.74; c. 0.36; a. r. s. 0.135; 2 s. h. t. 0.156.

Host plant. *Convolvulus pseudocantabrica* Schrenk (Convolvulaceae).

Bionomy. Aphids suck on the stem, not visited by ants.

Material examined. Holotype: ap. v. f., slide N 2165a, W. China, Xinjiang-Uygur reg., sur. Urumqi t., Bogdo-Ula ran., H - 600 m. a. s. l., 25. 05. 1993, R. Kadyrbekov; paratypes: 11 ap. v. f. together with holotype.

Taxonomical notes. New species is related to *U. taraxaci* (Kalt., 1843) by the absence of anter- and postsiphuncular sclerites, presence only 3 hairs on the 1st segment of tarsi (Hille Ris Lambers, 1939). It differs from the last by the presence of more numerous caudal hairs (15-20 versus 9-12) and the less number of

secondary rhinaria (15-21 against 20-35), differing ratios of the apical rostral segment to second segment of the hind tarsus (0.81-0.89 versus 1.05-1.10) and those of siphunculi to body (0.28-0.32 against 0.20), more shorter processus terminalis (2.5-3.0 versus 4.6-4.7), less length of reticulation on the siphunculi (0.13-0.16 against 0.20), other coloration of antennae.

***Macrosiphoniella (s. str.) kareliniae* Kadyrbekov, Renxin, Shao, sp. n.**

Apterous viviparous female (by 18 specimens). Body is egg-formed, 2.03-2.52 (fig. 8a). Frons is grooved, with 7-10 pointed hairs (0.056-0.062), which are 1.5-1.8 of basal diameter of 3rd antennal segment. Antennal tubercles are low diverged. Depth of frontal groove is 0.18-0.20 of the distance between apices of antennal tubercles. Antennae are six-segmented, 0.91-1.06 of body length. Third segment is 1.08-1.28 of 4th one, 1.45-1.80 of the *processus terminalis* and 0.98-1.17 of the 6th segment. *Processus terminalis* is 1.75-2.15 of the base of 6th segment. Secondary rhinaria in number (3) 4-9 (10) are developed on the middle part of the 3rd segment. Hairs on the 3rd segment (0.028-0.039) are slightly capitate, 0.8-1.1 of its basal diameter. Rostrum reaches the hind coxae; its apical rostral segment (fig. 8b) is stiletto-shaped, 0.88-1.0 (1.05) of the second segment of hind tarsus, with 6 accessory hairs. There are 6 hairs on the penultimate segment. Cylindrical siphunculi are long, with distinct flanges, they are 0.19-0.22 of the body length, 1.21-1.37 of the cauda, 2.2-3.0 of the second segment of hind tarsus (fig. 8c). Reticulated zone is developed on the 0.25-0.32 (0.34) of their length. Cauda is sword-shaped, with slightly visible constriction in the basal part, 1.72-2.30 (2.38) of the second segment of hind tarsus, with 14-20 hairs (fig. 8d). Dorsal hairs are blunted or slightly capitates (0.056-0.066), 1.5-2.0 of the basal diameter of 3rd antennal segment. Number of the hairs: 14-18 on the 3rd tergite; 6-8 between siphunculi on the 6th, 6-8 on the 8th ones. Marginal tubercles are absent. Genital plate is broad oval, with 2 (4) hairs on disc and 6-12 ones along its posterior margin. Legs are long, with pointed hairs. First tarsal segment with 3:3:3 hairs.

Color on slide: apical rostral segment, apex of the 3rd, apical half of 4th, 5-6th antennal segments, apex of the femora, apex and base of the fore tibiae, base and apical one third of the middle, base and distal half of hind ones, tarsi, genital plate, siphunculi (except one third in the base) are brown. Cauda and anal plate are paler. Natural coloration: body greenish with grey film, eyes reddish, darkened parts brownish.

Dimension of holotype. B. 2.17; ant. 2.22-2.29; III 0.56-0.59, IV 0.51-0.52, V 0.42-0.43, VI 0.52-0.54 (0.17-0.18+0.35-0.36); siph. 0.47-0.48; c. 0.38; a. r. s. 0.16; 2 s. h. t. 0.16.

Alate viviparous female (by 15 specimens). Body 2.18-2.59. Antennae are 0.97-1.12 of the body length. *Processus terminalis* is 1.8-2.3 of the base of 6th antennal segment. Secondary rhinaria in the number (19) 22-28 are developed on the two thirds of distal part of the 3rd antennal segment. Frontal and dorsal hairs are 1.4-1.7 of the basal diameter of 3rd antennal segment. Other characters are as in the apterous female.

Color on slide: thorax, apical rostral segment, 2nd, 3rd (except the basal one third), 4-6th antennal segments, distal one third of the femora, fore, middle and distal half of hind tibiae, tarsi, siphunculi (except the base), genital plate are brown, cauda and anal plate are paler.

Dimension of allotype: b. 2.18; ant. 2.36-2.37; III – 0.61, IV – 0.51, V – 0.44-0.46, VI – 0.57-0.60 (0.20+0.37-0.40); siph. 0.46-0.47; c. 0.33; a. r. s. 0.17; 2 s. h. t. 0.17.

Host plant. *Karelinia caspia* (Pall.) Less. (Asteraceae).

Bionomy. Aphids suck on the stem, not visited by ants.

Material examined. Holotype: ap. v. f., slide N 2202a, W. China, Xinjiang-Uygur reg., sur. Turpan t., desert botanical garden, 29. 05. 1993, R. Kadyrbekov; paratypes: 15 ap. v. f., 6 al. v. f. together with holotype; 2 ap. v. f., 1 al. v. f., slide N 1069, C. Kazakhstan, SW coast of Balkash lake, 8 km S Chaganak, 28. 07. 1988, R. Kadyrbekov; 8 al. v. f., slide N 1771, S Kazakhstan, Syr-darya r., 29 km NW Chiyli, 7. 05. 1990, R. Kadyrbekov.

Taxonomical notes. New species belongs to the species group with the absence of dorsal sclerites, where it closely relates to the *M. alata* (Nevs.), *M. kirgisisca* Umar., *M. leucanthemi* (Ferr.) by the length of reticulated zone on the siphunculi (not more 0.35 of their length). *M. kareliniae* sp. n. differs from the last taxa by the ratio of *processus terminalis* to the base of the 6th antennal segment (1.75-2.15 versus 2.5-5.5) and also other host plant. It still can be distinguished from *M. leucanthemi* by the less number of secondary rhinaria and shorter siphunculi. From the *M. kirgisisca* it differs by the less number of caudal hairs and other coloration of the head, antennae, tibiae. *M. kareliniae* can be differed from *M. alata* by the more number of caudal hairs (14-20 against 8-10) and ratio of the siphunculi to the cauda (1.21-1.37 versus 1.5-1.6).

***Macrosiphoniella (Phalangomyzus) xinjiangica* Kadyrbekov, Renxin, Shao, sp. n.**

Apterous viviparous female (by 3 specimens). Body is egg-formed, 2.55-2.95 (fig. 9a). Frons is deeply grooved, with 8-10 capitate hairs (0.062-0.067), which are 1.6-1.8 of basal diameter of 3rd antennal segment. Antennal tubercles are high diverged. The depth of frontal groove is 0.33-0.38 of the distance between apices

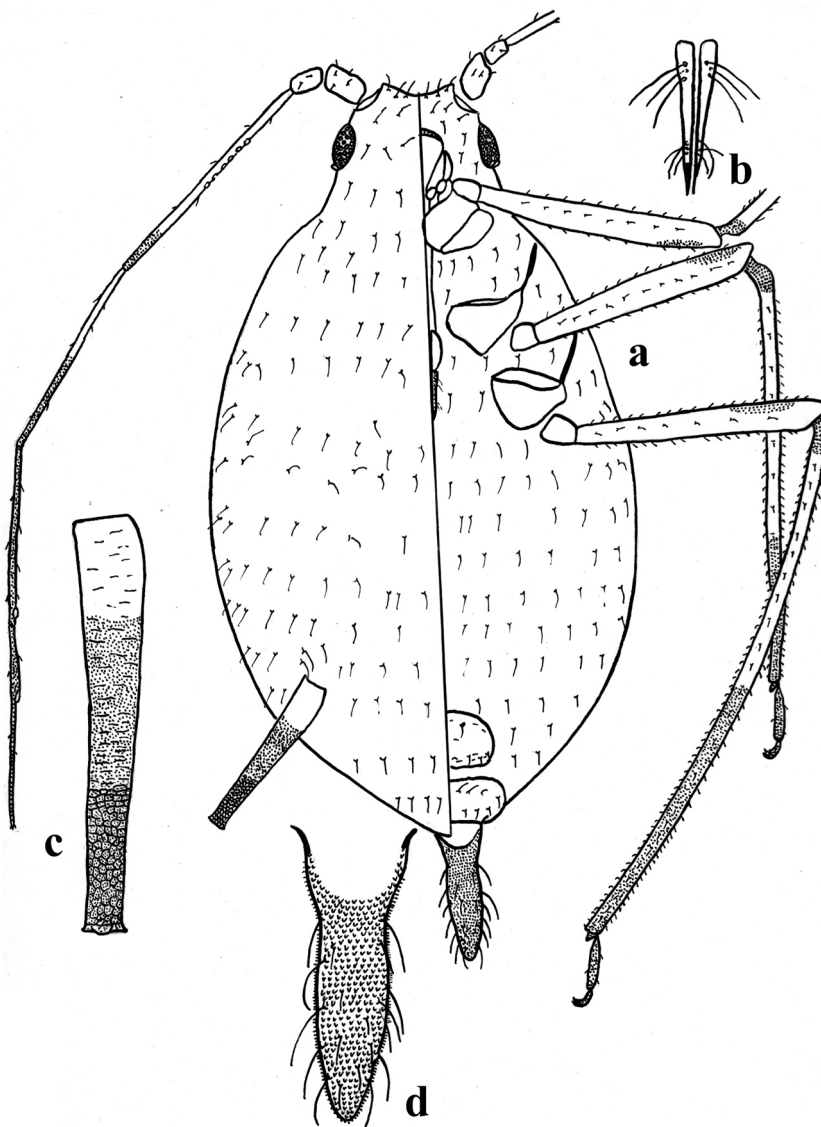


Fig. 8. Apterous viviparous female of *Macrosiphoniella kareliniae* sp. n.: a – habitus, b – ultimate rostral segments, c – siphunculus, d – cauda.

of antennal tubercles. Antennae are six-segmented, 0.92-1.04 of body length. Third segment is 1.92-2.20 of 4th one, 1.31-1.52 of the *processus terminalis* and 0.94-1.09 of the 6th segment. *Processus terminalis* is 2.55-2.57 of the base of 6th segment. Secondary rhinaria in number 2-3 are developed on the basal part of 3rd segment. Hairs on the 3rd segment (0.028-0.039) are slightly capitate, 0.8-1.0 of its basal diameter. Rostrum exceeds the middle coxae; its apical rostral segment (fig. 9b) is stiletto-shaped, 0.81-0.90 of the second segment of hind tarsus, with 6 accessory hairs. There are 6 hairs on the penultimate segment. Cylindrical siphunculi are long, narrow to the base, with not distinct flanges, they are 0.14-0.18 of the body length, 1.40-1.62 of the cauda, 2.8-3.7 of the second segment of hind tarsus (fig. 9c). Reticulated zone is developed on the 0.39-0.43 of their length. Cauda is triangular-conic, without constriction in the basal part, 2.0-2.4 of the second segment of hind tarsus, with 12-17 hairs (fig. 9d). Dorsal hairs are capitate, equal to the frontal ones. Number of the hairs: 12-14 on the 3rd tergite; 5-6 between siphunculi on the 6th, 5-6 on the 8th ones. Marginal tubercles are absent. Genital plate is oval, with 2-3 hairs on disc and 6-7 ones along its posterior margin. Legs are long (fig. 9f). First tarsal segment with 3:3:3 hairs.

Color on slide: apical rostral segment, apices of the 3rd-5th, base of 6th antennal segments, tarsi are pale-brown. Cauda and siphunculi are paler. Natural coloration: body bright greenish, eyes reddish, darkened parts brownish.

Dimension of holotype. B. 2.55; ant. 2.64; III 0.73-0.85, IV 0.38-0.40, V 0.31-0.38, VI 0.78

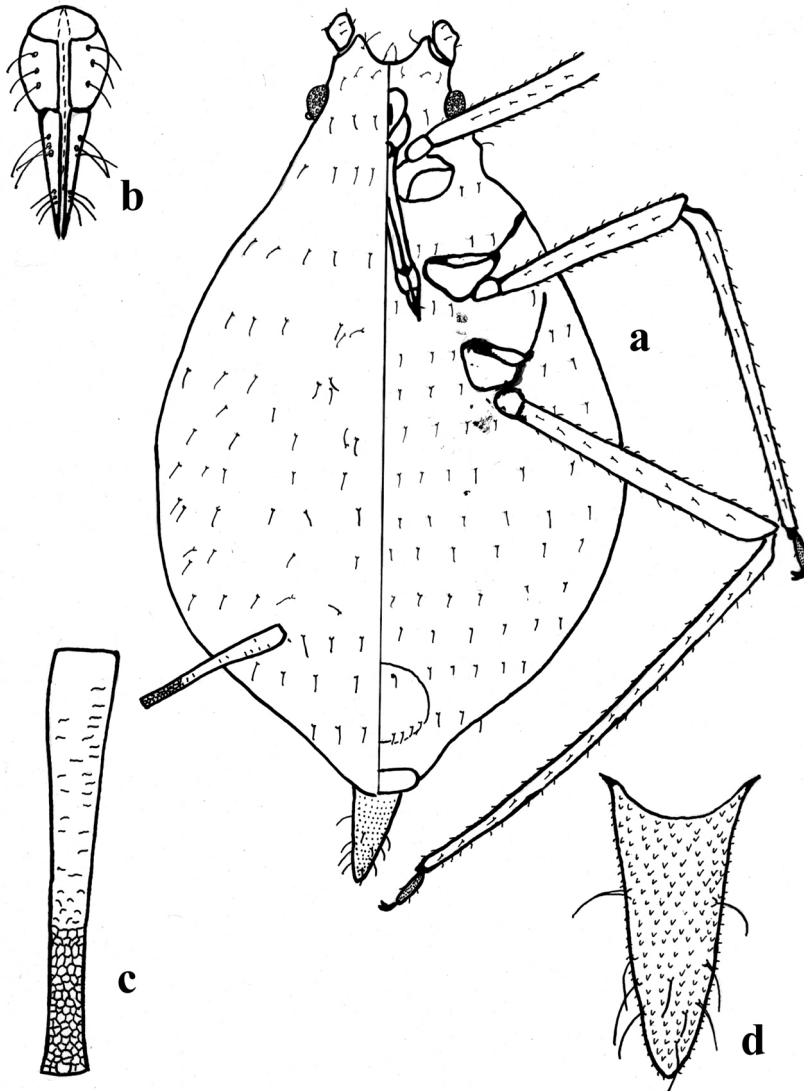


Fig. 9. Apterous viviparous female of *Macrosiphoniella xinjiangica* sp. n.: a – habitus, b – penultimate and ultimate rostral segments, c – siphunculus, d – cauda.

(0.22+0.56); siph. 0.36-0.38; c. 0.26; a. r. s. 0.117; 2 s. h. t. 0.13.

Host plant. *Artemisia dracunculus* L. (Asteraceae).

Bionomy. Aphids suck on the stem, not visited by ants.

Material examined. Holotype: ap. v. f., slide N 2155a, W. China, Xinjiang-Uygur reg., Urumqi t., garden of Xinjiang University, 24. 05. 1993, R. Kadyrbekov; paratypes: 2 ap. v. f. together with holotype.

Taxonomical notes. New species within subgenus *Phalangomyzus* relates to the *M. grandicauda* Takah. et Mor., *M. lopatini* Umar. by the coloration of body, antennae, legs and by the number of caudal hairs (not more than 17). It differs from these species by the ratios of 3rd antennal segment to 4th one (1.92-2.2 versus 1.0-1.2) and processus terminalis to 3rd antennal segment (0.67-0.77 against 0.82-1.2), by more long frontal and dorsal hairs (1.6-1.8 versus 1.1-1.4).

The annotated list of species of the family Aphididae of Xinjiang-Uygur Region

Pemphiginae

***Thecabius affinis* Kalt.** It lives on *Populus nigra* in the leaf galls and was collected in the environs of Fukang desert station (3. 06. 1993, 10 al. v. f., 8 fun.) and from Jungaric desert station (8. 06. 1993, 8 al. v. f., 12 fun.). It is Holarctic species.

***Pemphigus bursarius* (L.)**. It forms sphere-shaped galls on the stalk of leaves to the *Populus nigra* and was collected in the environs of Fukang desert station (3. 06. 1993, 10 al. v. f., 4 fun.) and in the Jungaric desert station (8. 06. 1993, 16 fun.). It is Holarctic species.

***P. immunis* Buck.** It forms sack-shaped or oval galls at the base of the leaf stalks or branches on the *Populus nigra* and was collected in the Jungaric desert station (8. 06. 1993, many of al. v. f., 4 fun.). It is Western Palaearctic species.

***Paracletus cimiciformis* Heyd.** It was found on the roots of *Aleurus littoralis* (Poaceae) and was collected in the environs of Fukang desert station (clay desert, 4. 06. 1993, 1 ap. v. f.). It is Mediterranean species.

***Smynthuroides betae* Westw.** It was found on the roots of *Alhagi pseudalhagii* (Fabaceae) and was collected in the environs of Fukang desert station (clay desert, 4. 06. 1993, 2 ap. v. f.). It is Holarctic species.

***Forda hirsuta* Mordv.** It was found on the roots of *Agropyrum* sp. (Poaceae) and collected in the environs of Fukang desert station (clay desert, 3. 06. 1993, 2 ap. v. f.). It is Mediterranean species.

***F. marginata* Koch.** It was found on the roots of *Festuca* sp. (Poaceae) and was collected in the steppe zone of Bogdo-Ula ran. (30 km E Urumqi, H-1000 m a. s. l., 27. 05. 1993, 7 ap. v. f.). It is Holarctic species.

***Eriosoma ulmi* (L.)** A species alternating from leaf pseudogalls on *Ulmus pumila* to the roots of *Ribes* spp. and was collected in the environs of Fukang desert station (3. 06. 1993, 12 al. v. f.). It is Cosmopolitan species.

***Tetraneura ulmi* (L.)**. It forms kidney-shaped green galls, which are joint to the upper surface of the leaves by narrow stalk from *Ulmus pumila*. It alternating from *Ulmus* to the roots of cereals and was collected in the environs of Fukang desert station (*Ulmus pumila*, 3. 06. 1993, many of al. v. f., 4 fun.), in the steppe zone of Bogdo-Ula ran. (*Elymus* sp., 50 km e Urumqi, H-1500 m a. s. l., 27. 05. 1993, 6 ap. v. f.). It is Cosmopolitan species.

Myzocallidinae

***Tinocallis saltans* (Nevs.)**. It lives on the lower surface of the leaves at *Ulmus pumila* and was collected in the environs of Fukang desert station (3. 06. 1993, 15 al. v. f.). It is Eastern Palaearctic species.

Chaitophorinae

***Atheroides karakumi* Mordv.** It lives on the lower surface of leaves at *Achnotherum splendens* (Poaceae) and was collected in the environs of Urumqi (Bogdo-Ula ran., H-500 m a. s. l., 25. 05. 1993, 2 ap. v. f.). It is Turano-Gobian species.

***Lambersaphis pruinosa* (Narz.)**. It lives on the branches of *Populus diversifolia* and was collected in the Gurbantunggut sands (60 km NW Cayjahu, 7. 06. 1993, 10 al. v. f., 5 ap. v. f.). It is Turano-Jungaric species.

***Chaitophorus diversifolii* Juch.** It lives on the leaves of *Populus diversifolia* and was collected in the Turpan Botanical garden (29. 05. 1993, 5 al. v. f., many of ap. v. f.), in the Gurbantunggut sands (60 km NW Cayjahu, 7. 06. 1993, 4 al. v. f., 15 ap. v. f.). It is North Turano-Jungaric species.

Taxonomical notes. A. Pintera (1987) proposed this species as a probable synonym of *C. populialbae* (B. d. Fons., 1841). However, the presence in *C. diversifolii* Juch., 1970 of shorter hairs on the 3rd antennal segment (1.0-1.2 of basal diameter of this segment, versus 1.9-2.4 by *C. populialbae*), distinction in the shape of dorsal hairs: pointed, bifurcated, trident-shaped, fan-shaped (in *C. populialbae* – pointed, bifurcated, blunted only), less numerous secondary rhinaria of the alate viviparous females (3-5 versus 7-27) and host plant from separate subgenus *Turanga* allows to acknowledge its validity.

***C. leucomelas* Koch** lives on the leaves of *Populus nigra*, *P. talassica* and was collected in the Urumqi (garden of Xinjiang University, 23. 05. 1993, 12 ap. v. f.), in the sur. of Fukang desert station (2. 06. 1993, 25 al. v. f., 14 ap. v. f.), in the sur. of Urumqi (Bogdo-Ula ran., h-500 m a. s. l., 25. 05. 1993, 3 al. v. f.). It is Holarctic species.

***C. populialbae* (B. d. Fons)** lives on the leaves of *Populus alba* and was collected in the Gulja t. (21. 05. 1993, 2 al. v. f., many ap. v. f.). It is Holarctic species.

Pterocommatinae

***Pterocomma pilosum konoii* Hori** lives on the branches of *Salix* sp. and was collected in the sur. Urumqi t. (Bogdo-Ula ran., H-500 m a. s. l., 25.05. 1993, 8 ap. v. f., in the Urumqi t. (Park of Xinjiang University, 23. 05. 1993, 1 al. v. f.). It is Palearctic species.

***P. sanpunum* Zhang et Zhong** lives on the branches or trunks of *Populus talassica* and was collected in the sur. of Urumqi t. (Bogdo-Ula ran., h-500 m a. s. l., 25. 05. 1993, many of al. v. f. and ap. v. f.). It is Eastern Tien-Shano-Central gobian species.

Aphidinae

***Hyalopterus pruni* Geoffr.** A cosmopolite species alternating from *Prunus* to *Phragmites*. It is very abundant every-where in the Xinjiang.

***Brachyunguis* (s. str.) *brevisiphon* Kadyr., Renxin, Shao** lives on the green sprouts of *Tamarix laxa*, *T. ramosissima* (Tamaricaceae) and was collected in the sur. of Jungaric desert station (clay desert, 8. 06. 1993, 2 al. v. f., 8 ap. v. f.). It is Northern Turano-Jungaric species.

***B.* (s. str.) *harmalae* B. Das** lives on the sprout of *Calligonum caput-medusea*, *C. leuocladum* (Polygonaceae) and on the leaves of *Peganum harmala* (Peganaceae) was collected in the Turpan botanical garden (29. 05. 1993, many al. v. f., 12 ap. v. f.), in the sur. Fukang desert station (clay desert, 4. 06. 1993, 2 al. v. f., 1 ap. v. f.), in the Gurbantunggut sands (78 km NE Urumqi, 2. 06. 1993, 5 al. v. f.), in the 30 km N Cayjahu, 8. 06. 1993, 2 al. v. f., 5 ap. v. f.). It is Saharo-Gobian species.

***B.* (s. str.) *monstratus* Kadyr.** It lives on the leaves of *Atraphaxis frutescens* (Polygonaceae) and was collected in the Turpan Botanical garden (29. 05. 1993, 2 al. v. f., 1 ap. v. f.). It is Northern Turano-Jungaric species.

***B.* (s. str.) *zygophylli* (Nevs.)** lives on the stem, under flowers of *Zygophyllum fabago* and was collected in the Turpan Botanical garden (29. 05. 1993, numerous al. and ap. v. f.). It is Irano-Turano-Jungaric species.

***B.* (*Xerophilaphis*) *saxaulica* (Nevs.)** lives at the galls of Psillidae on *Haloxylon aphyllum* (Chenopodiaceae) and was collected in the Gurbantunggut sands (78 km NE of Urumqi t., 2. 06. 1993, 4 al. v. f., 6 ap. v. f.). It is Irano-Turano-Jungaric species.

***Ephedraphis ephedrae* (Nevs.)** lives on the green sprouts of *Ephedra dystachia* (Ephedraceae) and was collected in the Gurbantunggut sands (30 km NW Cayjahu, 7. 06. 1993, 3 al. v. f., 3 ap. v. f.). It is Eastern Mediterranean species.

***E. gobica xinjiangica* Kadyr., Renxin, Shao.** It lives on the green sprouts of *Ephedra* sp. (Ephedraceae) and was collected in the stone desert (Tabadzhin sur., China Gobi, 30. 05. 1993, numerous ap. v. f.). It is Jungaric subspecies of Jungaro-Gobian species.

***Xerobion alakuli* (Juch.)** lives on the leaves of *Artemisia santolina*, *A. terraealba* (Asteraceae) and was collected in the Bogdo-Ula ran. (80 km NE Urumqi t., H-500 m a. s. l., 4. 06. 1993, 1 al. v. f., 7 ap. v. f.), in the Gurbantunggut sands (30 km NW Cayjahu, 8. 06. 1993, 11 ap. v. f.). It is Northern Turano-Jungaric species.

***X. camphorosmae* (Tash.)** lives on the green sprouts of *Camphorosma lessingii* (Chenopodiaceae) and was collected in the sur. of Fukang desert station (saline land, 3. 06. 1993, numerous ap. v. f.). It is Eastern Mediterranean species.

***X. terraealbae* (Iv.)** lives of *Artemisia schrenkiana* (Asteraceae) and was collected in the sur. of Fukang desert station (saline land, 3. 06. 1993, 1 ap. v. f.). It is Northern Turano-Kazakhstan-Jungaric species.

***Protaphis anuraphoides* (Nevs.)** lives on the leaves of *Karelinia caspia* (Asteraceae) and was collected in the Turpan Botanical garden (29. 05. 1993, 1 ap. v. f.), in the sur. of Fukang desert station (saline land, 3. 06. 1993, 1 al. v. f.). It is Eastern Mediterranean species.

***P. elatior* (Nevs.)** lives on the roots *Artemisia halophila* (Asteraceae) and was collected in the sur. of Fukang desert station (saline land, 4. 06. 1993, 4 al. v. f., 3 ap. v. f.). It is Turano-Jungaric species.

***P. kareliniae* Kadyr., Renxin, Shao.** It lives on the roots of *Karelinia caspia* (Asteraceae) and was collected in the sur. of Fukang desert station (saline land, 3. 06. 1993, 1 al. v. f., 2 ap. v. f.). It is Jungaric species.

***P. miranda* Kadyr.** It lives on the roots of *Artemisia halophila* (Asteraceae) and was collected in the sur. of Fukang desert station (saline land, 3. 06. 1993, 2 al. v. f., 1 ap. v. f.). It is Northern Turano-Kazakhstan-Jungaric species.

***Aphis craccivora* Koch** is a cosmopolite polyphagous species living on the stems and leaves of *Alhagi sparsifolia*, *Astragalus* sp., *Glycyrrhiza aspera*, *Caragana aurantiaca*, *Halimodendron halodendron*, *Robinia pseudacacia* (Fabaceae), *Capsella bursa-pastoris*, *Descurainia sophia*, *Lepidium ruderales* (Brassicaceae), *Agriophyllum pungens*, *Climacoptera* sp. (Chenopodiaceae), *Zygophyllum fabago*

(Zygophyllaceae), *Zizifora* sp. (Lamiaceae), *Lithospermum arvensis* (Boraginaceae), *Cousinia* sp. (Asteraceae), *Salix* sp. (Salicaceae). It is very abundant everywhere in Xinjiang.

***A. davletshinae* H. R. L.** It lives on the leaves of *Althaea officinalis* (Malvaceae) and was collected on the Jungaric desert station (8. 06. 1993, 3 al. v. f., 8 ap. v. f.). It is Mediterranean species.

***A. farinosa* Gmel.** It lives on the green sprouts of *Salix* spp. (Salicaceae) and was collected in the Urumqi t. (Park of Xinjiang University, 23. 05. 1993, 2 al. v. f., numerous ap. v. f.), in the Bogdo-Ula ran. (Urumqi t. sur., h-500 m a. s. l., 25. 05. 1993, 7 ap. v. f.). It is Holarctic species.

***A. gossypii* Glov.** This cosmopolite polyphagous species was found on the leaves of *Zizifora* sp. (Lamiaceae) in the Gurbantunggut sands (78 km NE of Urumqi t., 2. 06. 1993, 12 al. v. f., numerous ap. v. f.).

***A. taraxacicola* (Born.)** lives on the roots of *Taraxacum* sp. (Asteraceae) and was collected in the sur. of Fukang desert station (saline land, 3. 06. 1993, 8 al. v. f., numerous ap. v. f.). It is Western Palaearctic species.

***A. turkestanica* Kadyr.** It lives on the green sprouts of *Spiraea hypericifolia* (Rosaceae) and was collected in the steppe zone of Bogdo-Ula ran. (30 km E Urumqi t., h-1000 m a. s. l., 27. 05. 1993, numerous ap. v. f.). It is Alatau-Eastern Tien-Shan species.

***Scythaphis eurotiae* (Mam.)** lives in the leaf galls on *Cerathoides papposa* (Chenopodiaceae) and was collected in the sur. of Jungaric desert station (8. 06. 1993, 3 al. v. f., numerous ap. v. f.). It is Eastern Mediterranean species.

***Brachycaudus spiraeae* Born.** It lives in the leaf galls on *Spiraea hypericifolia* (Rosaceae) and was collected in the steppe zone of Bogdo-Ula ran. (30 km E Urumqi t., H-1000 m a. s. l., 27. 05. 1993, 6 ap. v. f.). It is Holarctic species.

***Hayhurstia atriplicis* (L.)** lives in the leaf galls on *Atriplex tatarica* (Chenopodiaceae) and was collected in the sur. of Fukang desert station (saline land, 3. 06. 1993, numerous ap. v. f.). It is Holarctic species.

***Lipaphis* (*Lipaphidiella*) *jungarica* Kadyr., Renxin, Shao.** It lives on the leaves of *Syrenia saliculosa*, *Hypocoum erectum* (Brassicaceae) and was collected in the Gurbantunggut sands (78 km NE Urumqi t., 2. 06. 1993, 9 al. v. f., 1 ap. v. f.). It is Jungaric species.

***L. (L.) lepidii* (Nevs.)** lives in the leaf galls on *Lepidium latifolium* (Brassicaceae) and was collected in the Jungaric desert station (8. 06. 1993, 4 ap. v. f.). It is Eastern Mediterranean species.

***Lepidaphis deformans* (Nevs.)** lives in the leaf galls on *Lepidium obtusum* (Brassicaceae) and was collected in the Turpan Botanical garden (29. 05. 1993, 1 al. v. f., 8 ap. v. f.). It is Turano-Jungaric species.

***L. terricola* Kadyr., Renxin, Shao.** It lives on the roots of *Lepidium obtusum* (Brassicaceae) and was collected in the Turpan Botanical garden (29. 05. 1993, 11 ap. v. f.). It is Northern Turano-Jungaric species.

***Myzaphis rosarum* (Kalt.)** lives on the leaves of *Rosa nanothamnus* (Rosaceae) and was collected in the steppe zone of Bogdo-Ula ran. (30 km E Urumqi t., H-1000 m a. s. l., 27. 05. 1993, 15 ap. v. f.). It is Palaearctic species.

***M. turanica* Nevs.** It lives on the leaves of *Rosa fedtschenkoana* (Rosaceae) and was collected in the sur. of Urumqi t. (Bogdo-Ula ran., H-500 m a. s. l., 25. 05. 1993, 6 ap. v. f.). It is Eastern Mediterranean species.

***Clypeaphis suaedae* (Mim.)** lives on the leaves of *Suaeda* sp. (Chenopodiaceae) and was collected in the Jungaric desert station (8. 06. 1993, 3 al. v. f., 10 ap. v. f.). It is Mediterranean species.

***Chaitaphis tenuicauda* Nevs.** It lives on the leaves of *Kochia prostrata* (Chenopodiaceae) and was collected in the foothills of the Bogdo-Ula ran. (80 km NE of Urumqi t., clay desert, H-500 m a. s. l., 4. 06. 1993, 1 al. v. f., numerous ap. v. f.). It is Irano-Turano-Jungaric species.

***Coloradoa heinzei* Born.** It lives on the leaves of *Artemisia terraealba* (Asteraceae) and was collected in the Urumqi t. (Park of Xinjiang University, 24. 05. 1993, 3 ap. v. f.), in the foothills of Bogdo-Ula ran. (Urumqi t. sur., H-500 m a. s. l., 25. 05. 1993, 5 ap. v. f.). It is Palaearctic species.

C. sp. It lives on the leaves of *Artemisia santolina* (Asteraceae) and was collected in the Gurbantunggut sands (78 km NE Urumqi t., 2. 06. 1993, 2 ap. v. f.).

***Eichinaphis pamirica* Narz.** It lives in the galls of Psillidae on *Cerathoides papposa* (Chenopodiaceae) and was collected in the foothills of Bogdo-Ula ran., Urumqi t. sur., 25. 05. 1993, 8 ap. v. f.; 80 km NE Urumqi, 4. 06. 1993, 1 al. v. f., 10 ap. v. f.), in the sur. of Jungaric desert station (8. 06. 1993, 2 al. v. f., numerous ap. v. f.). It is Eastern Mediterranean species.

***Acyrtosiphon* (*s. str.*) *gossypii* Mordv.** It is polyphagous lives on the stems and leaves of *Glycyrrhiza aspera*, *Gobelia alopecuroides*, *Alhagi sparsifolia* (Fabaceae), *Zygophyllum fabago* (Zygophyllaceae), *Lepidium obtusum* (Brassicaceae). It was collected in the Turpan Botanical garden (29. 05. 1993, numerous al. and ap. v. f.), in the Gurbantunggut sands (60 km NW of Cayjahu, 8. 06. 1993, 4 ap. v. f.). It is Mediterranean species.

A. (s. str.) ignotum Mordv. It lives on the leaves of *Spiraea hypericifolia* (Rosaceae) and was collected in the steppe zone of Bogdo-Ula ran. (30 km E of Urumqi t., H-1000 m a. s. l., 27. 05. 1993, 3 ap. v. f.). It is Palaearctic species.

A. (Xanthomyzus) glaucii (Narz.) lives on the leaves of *Glaucium elegans* (Papaveraceae) and was collected in the foothills of Bogdo-Ula ran. (Urumqi t. sur., 25. 05. 1993, 15 al. v. f., 30 ap. v. f.). It is Turkestan-Alatavsko-Eastern Tianshanic species.

Plectrichophorus glandulosus (Kalt.) lives on the stems of *Artemisia vulgaris* (Asteraceae) and was collected in the Urumqi t. (Park of Xinjiang University, 24. 05. 1993, 1 ap. v. f.). It is Holarctic species.

Titanosiphon bellicosum bellicosum Nevs. It lives on the stems of *Artemisia scoparia* (Asteraceae) and was collected in the Jungaric desert station (8. 06. 1993, 15 ap. v. f.). It is Eastern Mediterranean species.

Metopolophium dirhodum (Walk.) lives on the *Rosa nanothamnus*, *R. sp.* (Rosaceae) and was collected in the Urumqi t. (Park of Xinjiang University, 23. 05. 1993, 1 al. v. f.), in the steppe zone of Bogdo-Ula ran. (30 km E Urumqi t., h-1000 m a. s. l., 27. 05. 1993, 1 fund.). It is Holarctic species.

Amphorophora catharinae (Nevs.) was collected on the lower side of the leaf of *Elaeagnus oxycarpa* (Elaeagnaceae) in the Urumqi t. (Park of Xinjiang University, 23. 05. 1993, 1 al. v. f.). I think this is the accident. It lives on the *Rosa* spp. This is Irano-Turano-Jungaric species.

Staticobium otolepidis Nevs. It lives on the stems of *Limonium otolepis* (Limoniaceae) and was collected in the sur. of Fukang desert station (saline land, 4. 06. 1993, 1 al. v. f.), in the sur of Jungaric desert station (saline land, 8. 06. 1993, 9 al. v. f., 42 ap. v. f.).

Uroleucon acroptilidis Kadyr., Renxin, Shao. It lives on the stems of *Acroptilon australe* (Asteraceae) and was collected in the Turpan Botanical garden (29. 05. 1993, 12 al. v. f., 10 ap. v. f.). It is Northern Turano-Jungaric species.

U. uyguricum Kadyr., Renxin, Shao. It lives on the stems of *Convolvulus pseudocantabrica* (Convolvulaceae) and was collected in the sur of Urumqi t. (Foothills of Bogdo-Ula ran., H-500 m a. s. l., 25. 05. 1993, 12 ap. v. f.). It is Eastern Tianshanic species.

Obtusicauda moldavica (Bozh.) lives on the stems of *Artemisia* sp. (Asteraceae) and was collected in the Urumqi t. (Park of Xinjiang University, 24. 05. 1993, 1993, 10 ap. v. f.), in the sur. of Urumqi t. (Foothills of Bogdo-Ula ran., H-500 m a. s. l., 25. 05. 1993, 1 al. v. f., 1 ap. v. f.). It is Eastern Mediterranean species.

Macrosiphoniella (s. str.) kareliniae Kadyr., Renxin, Shao. It lives on the stems of *Karelinia caspia* (Asteraceae) and was collected in the Turpan Botanical garden (29. 05. 1993, 12 al. v. f., 25 ap. v. f.). It is Northern Turano-Jungaric species.

M. (s. str.) kirgisica Umar. It lives on the stems of *Artemisia terraealba* (Asteraceae) and was collected in the sur. of Urumqi t. (Foothills of Bogdo-Ula ran., H-500 m a. s. l., 25. 05. 1993, 4 ap. v. f.), in the Gurbantunggut sands (78 km NE of Urumqi t., 2. 06. 1993., 2 ap. v. f.). It is Turano-Jungaric species.

M. (s. str.) pulvera (Walk.) lives on the stems of *Artemisia absinthium* (Asteraceae) and was collected in the Urumqi t. (Park of Xinjiang University, 24. 05. 1993, 2 al. v. f.). It is Palaearctic species.

M. (s. str.) seriphidii Kadyr. It lives on the stems of *Artemisia halophila*, *A. santolina*, *A. schrenkiana*, *A. terraealba* (Asteraceae) and was collected in the Urumqi t. (Park of Xinjiang University, 23. 05. 1993, 15 ap. v. f.), in the sur. of Urumqi t. (Foothills of Bogdo-Ula ran., h-500 m a. s. l., 25. 05. 1993, 12 ap. v. f.), in the 80 km NE of Urumqi t. (Foothills of Bogdo-Ula ran., H-800 m a. s. l., 4. 06. 1993, 6 al. v. f., 6 ap. v. f.), in the sur. of Fukang desert station (4. 06. 1993, 3 ap. v. f.), in the Gurbantunggut sands (78 km NE Urumqi t., 2. 06. 1993, 1 al. v. f., 1 ap. v. f.), in the Jungaric desert station (8. 06. 1993, 4 al. v. f.). It is Northern Turano-Jungaric species.

M. (s. str.) terraealbae Kadyr. It lives on the stems of *A. terraealba* (Asteraceae) and was collected in the sur. of Fukang desert station (3. 06. 1993, 2 al. v. f., 2 ap. v. f.), in the Gurbantunggut sands (78 km NE of Urumqi t., 2. 06. 1993, 7 ap. v. f.). It is Northern Turano-Jungaric species.

M. (Phalangomyzus) xinjiangica Kadyr., Renxin, Shao. It lives on the stems of *Artemisia dracunculula* (Asteraceae) and was collected in the Urumqi t. (Park of Xinjiang University, 24. 05. 1993, 3 ap. v. f.). It is Jungaric species.

The revealed species belong to the subfamilies Pemphiginae (7 genera, 7 species), Myzocallidinae (1, 1), Chaitophorinae (3, 5), Pterocommatinae (1, 2), Aphidinae (24, 50). Genera *Aphis* (6 species), *Macrosiphoniella* (6), *Brachyunguis* (5), *Protaphis* (4) are more diverse by the species.

System of the Palaearctic classification of areas compiled by A. F. Emeljanov (1974) was used in this work. The revealed species have the following types of areas: Cosmopolite (4 species), Holarctic (10), Palaearctic (4), Western Palaearctic (2), Eastern Palaearctic (1), Mediterranean (5), Eastern Mediterranean (8), Saharo-Gobian (1), Irano-Turano-Jungaric (3), Turano-Gobian (1), Turano-Jungaric (6), Northern Turano-Jungaric (10), Alatavsko-Eastern Tianshanic (2), Turkestan-Eastern Tianshanic (1), Eastern Tianshanic-Gobian (1), Jungaro-Gobian (1), Jungaric (3), Eastern Tianshanic (1), Non-definite species (1).

Widespread species are found in the ornamental plantations, arable lands and mountain ecosystems. Narrow-spread species are marked in the Jungaric deserts.

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Резюме

Кадырбеков Р. Х., Ренксин Х., Шао Х. К фауне тлей (Homoptera, Aphididae) Синцзянь-Уйгурского автономного района Китая.

Материалом для написания статьи послужили сборы, произведенные авторами во время совместной китайско-казахстанской экспедиции в мае-июне 1993 года в пустынной зоне Синцзянь-Уйгурского автономного района Китайской Народной Республики. Исследования проводились, главным образом, на базе пустынных стационаров Китайской Академии Наук (Турфанский ботанический сад пустынных растений, Фукангский стационар, Джунгарский стационар у кромки песков Курбантунгут), а также в окрестностях г. Урумчи. Всего были выявлены 69 видов из 38 родов, относящихся к 5 подсемействам тлей.

В предложенной статье описаны 1 новый подвид, 8 видов и новый род тлей из пустынной зоны Западного Китая и сопредельных районов Казахстана. *Brachyunguis brevisiphon* sp. n. наиболее близок к *B. bicolor* Iv., *B. harmalae* В. Das, *B. shaposhnikovi* Iv. (Кадырбеков, 1999), от которых отличается бурым лбом, меньшей пропорцией 3-го членика усиков к 6-му (0.87-1.29 против 1.33-1.71) и кормовым растением. Кроме того, от двух первых видов, его можно отличить по более коротким трубочкам, составляющим 0.45-0.50 длины хвостика (0.53-0.65 у сравниваемых видов). От *B. shaposhnikovi* новый вид хорошо отличается более высокой пропорцией трубочек к телу и хвосту (0.038-0.050 и 0.45-0.50 против 0.030 и 0.35-0.38). *Protaphis kareliniae* sp. n. наиболее близок к *P. betpakdalensis* Kadyr. и *P. echinopsicola* Kadyr., от которых отличается более короткими лобными волосками, очень стройными трубочками, в 2.4-2.7 раза превосходящими максимальную ширину (1.7-1.9 у *P. betpakdalensis*) и кормовым растением (Kadyrbekov, 2001). *Ephedraphis gobica xinjiangica* ssp. n. отличается от номинативного подвида более высокой пропорцией 3-го членика усиков к шпичу (1.48-1.70 против 1.23), меньшей пропорцией шпича к основанию 6-го членика усиков (1.6-1.9 против 2.5) и большим числом волосков на хвостике (9-13 против 6-8) (Szelegiewicz, 1963). *Lipaphis (Lipaphidiella) jungarica* sp. n. Новый вид отличается от всех видов подрода *Lipaphidiella* большим тупым выростом на 8-м тергите, наличием вторичных ринарий на 3-м членике усиков бескрылых живородящих самок и иным кормовым растением. *Lepidaphis* gen. n. (*Xerophilaphis deformans* Nevsky, 1929 type species). Новый род принадлежит к подтрибе Liosomaphidina трибы Macrosiphini, где, по наличию 3, 3, 2 волосков на 1-м членике лапок и отсутствию краевого бугорка на переднегруди, близок к *Brevicoryne*, *Brachycolus*, *Brachycorynella*. Его можно легко отличить от этих таксонов по многочисленным волоскам на лбу и 8-м тергите, а также короткому шпичу, который примерно равен основанию 6-го членика усиков. *Lepidaphis terricola* sp. n. отличается от *L. deformans* более короткими по отношению к телу усиками, большей пропорцией последнего членика хоботка ко второму членику задней лапки (1.20-1.27 против 1.0-1.1), более длинными лобными волосками, большим числом волосков по заднему краю генитальной

пластинки (19-24 против 13-17) и обитанием на подземных частях кормового растения. *Uroleucon acroptilidis* sp. n. близок к *U. aeneum* (H. R. L.), но отличается от него наличием мелких склеритов в основании лишь немногих дорсальных волосков, отсутствием краевых бугорков, более высокой пропорцией трубочек к хвостику (1.81-2.05 против 1.55), меньшей пропорцией последнего членика хоботка ко второму членику задней лапки (1.0-1.1 против 1.2-1.3), гораздо меньшим числом волосков хвостика (9-13 в сравнении с 22-28) и иным кормовым растением. *U. uyguricum* sp. n. близок к *U. taraxaci* (Kalt.), но отличается от него иной окраской усиков, более коротким шпигцем, меньшей ячеистой площадью трубочек (0.13-0.16 против 0.20), более высокой пропорцией трубочек к телу (0.28-0.32 в сравнении с 0.20), меньшей пропорцией последнего членика хоботка ко второму членику задней лапки (0.81-0.89 против 1.05-1.10), меньшим числом вторичных ринарий у бескрылых живородящих самок (15-21 в сравнении с 20-35), большим числом волосков хвостика (15-20 против 9-12) и иным кормовым растением. *Macrosiphoniella* (s. str.) *kareliniae* sp. n. близок к *M. alatavica* (Nevs.), *M. kirgistica* Umar., *M. leucantheri* (Ferr.) по небольшой ячеистой площади трубочек (не более 0.35), однако легко отличается от этих видов по очень короткому шпигцу, в 1.75-2.15 раза превосходящему основание 6-го членика усиков (в сравнении с 2.5-5.5) и иным кормовым растением. Кроме того, *M. kareliniae* можно отличить от *M. leucantheri* по гораздо меньшему числу вторичных ринарий у бескрылых живородящих самок и заметно более коротким трубочкам. От *M. kirgistica* его можно отличить по светлым голове, усикам и голеням, а также по меньшему числу волосков хвостика (14-20 в сравнении с более чем 20-ю). От *M. alatavica* новый вид отличается меньшей пропорцией трубочек к хвостику (1.21-1.37 против 1.5-1.6) и большим числом волосков хвостика (14-20 против 8-10). *M. (Phalangomyzus) xinjiangica* sp. n., внутри подрода по окраске конечностей и числу волосков на хвостике (не более 17), сходен с *M. grandicauda* Takah. et Mor. и *M. lopatini* Umar. Он отличается от выше перечисленных видов более высокой пропорцией 3-го членика усиков к 4-му (1.92-2.2 против 1.0-1.2), меньшей пропорцией шпигца к 3-му членику усиков (0.67-0.77 в сравнении с 0.82-1.2), а также более длинными лобными и дорсальными волосками (1.6-1.8 против 1.1-1.4).

Выявленные виды принадлежат к подсемействам Pemphiginae (7 родов, 7 видов), Myzocallidinae (1, 1), Chaitophorinae (3, 5), Pterocommatinae (1, 2), Aphidinae (24, 50). Наиболее богато представлены роды *Aphis* и *Macrosiphoniella* (6 видов), *Brachyunguis* (5), *Protaphis* (4).

Для хорологической характеристики видов использована система классификации Палеарктических ареалов, составленная А. Ф. Емельяновым (1974). Выявленные виды имеют следующие типы ареалов: космополиты (4), голарктические (10), транспалеарктические (4), западно-палеарктические (2), восточно-палеарктические (1), широко-тетийские (5), восточно-тетийские (6), сахаро-гобийские (1), причерноморско-турано-джунгарские (3), ирано-турано-джунгарские (3), турано-гобийские (2), турано-джунгарские (6), северо-турано-джунгарские (9), алатавско-восточно-тяншанские (2), туркестано-восточно-тяншанские (1), восточно-тяншанско-центрально-гобийские (1), джунгаро-гобийские (1), джунгарские (3), восточно-тяншанские (1).

Виды с очень широкими ареалами характерны для городских декоративных насаждений, агроценозов и мезофильных горных биотопов. Для пустынной зоны отмечен высокий процент видов, общих с туранскими пустынями 17 видов, или 23.8 % от всех выявленных видов, высок также процент центрально-азиатских видов 7 (10.4 %).