

## First record of *Uroleucon murale* (Buckton, 1876) from Byelorussia with description of oviparous female (Homoptera: Aphididae)

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*Uroleucon murale* (Buckton, 1876) is found in Byelorussia for the first time. The first description of its apterous females is given.

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*Uroleucon murale* was described by Buckton (1876) as *Siphonophora muralis*. His work contains descriptions of apterous and alate viviparous females, nymph, alate male and oviparous female. According to Doncaster (1973) "...those of the 'male' appear to be based on one of five alate females of *Myzus persicae* (Sulzer), which are included among Buckton's material of *muralis*, while the sketch of the 'ovipara' resembles a young larva of *muralis*...". Olesicki & Szelegiewicz (1974) collected on 19.IX.1966 oviparous females of *U. murale* near Chrzanyw (Poland), but did not describe them in their article.

*U. murale* is widely distributed in Europe (Szelegiewicz, 1974) and recorded from North America (Heie, 1995). As for Eastern Europe, the species has been registered in the Crimea (Bozhko, 1957a; Holman, 1961) and the Republic of Moldova (Bozhko, 1957b). *U. murale* was recorded from the Kurile Islands (Krivolutskaya & Ivanovskaya, 1966), but Pashtshenko (1988) did not include it in the "Keys to the insects of the Far East of the USSR". The species is monocious (Heie, 1995) and oligophagous (Holman, 1995). The host plants are *Mycelis muralis* (L.) Dumort (Buckton, 1876; Heie, 1995), *Lactuca quercina* L. (Krivolutskaya & Ivanovskaya, 1966; Holman, 1996), *Crepis capillaris* (L.) Wallr. and *Cichorium endivia* L. (Nieto et al., 1999).

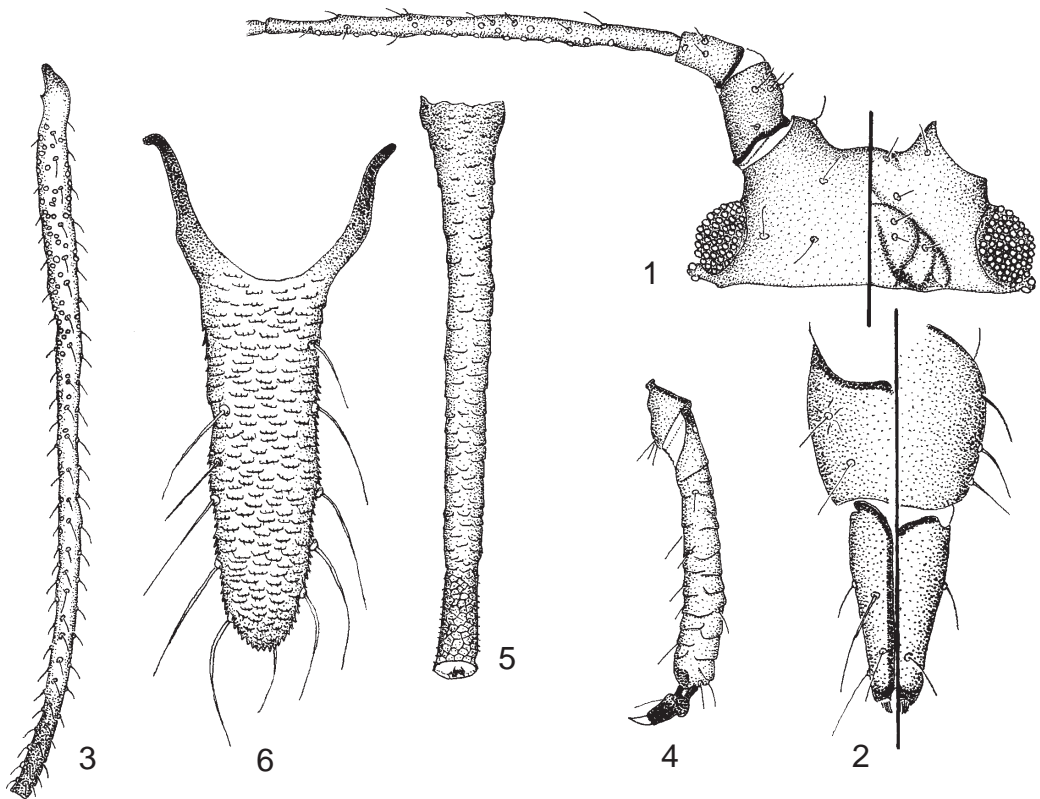
In 2005, several specimens of *U. murale* have been collected by S.V. Buga in different regions of Byelorussia: Mogilev Prov. (Kostyukovich Distr., 1.5 km W of vill. Ruchey, 25.VIII.2005, 3 apterous viviparous females, upper parts of stems and between inflorescences of *M. muralis*,

no. 05-950); Minsk Prov. (Minsk Distr., near vill. Shchemyslitsa, Roshcha, 9.IX.2005, 2 apterous viviparous females, inflorescences of *M. muralis*, no. 05-984); Grodno Prov. (Smorgon' Distr., 2 km SW of vill. Rachuny, 4.X.2005, 19 oviparous females, inflorescences of *M. muralis*, no. 9672). Oviparous females were present in one sample. It made possible to give their detailed description.

All measurements (always in  $\mu\text{m}$ ), number of hairs, rhinaria, etc., and indexes are presented by extreme variants and in brackets by arithmetical mean, for example 356-448 (421). Measurements are given in the Table.

### **Uroleucon murale** (Buckton, 1876) (Table, Figs 1-6)

*Oviparous female*. Elongate-elliptic. Dark brown, shining; 1st and 2nd antennal segments dark, greenish, 3rd-6th antennal segments black; femora pale with black apices; tibiae yellow-brown with black bases and apices; siphunculi black; cauda pale, greenish. Cleared specimens with dark brown head, antennae, 3rd and 4th rostral segments, sclerites at base of coxae, apices of femora, bases and apices of tibiae, tarsi, bands on pro- and mesonotum, peritremes, postsiphuncular sclerites, siphunculi and subgenital plate, with light brown legs, spinal, pleural, marginal sclerites and marginal maculae on abdominal segments and anal plate. Abdominal dorsum almost not sclerotized, except rows of not large spinal, pleural, marginal sclerites, marginal maculae and peritremes on abdominal segments and postsiphuncular sclerites.



**Figs 1-6.** *Uroleucon murale*, oviparous female. 1, head and 1st-3rd antennal segments; 2, ultimate segment of rostrum; 3, hind tibia; 4, hind tarsus; 5, siphunculi; 6, cauda.

phuncular sclerites. Surface of head, thorax and abdominal tergites I-VI wrinkled, of abdominal tergites VII and VIII with rows of small, pointed, partially fused spinules sometimes forming scales; surface of ventral side of abdomen with long rows of small spinules sometimes forming strongly stretched cells. Hairs on dorsal surface of thorax and abdomen long, weakly capitate, blunt or pointed; most hairs on dorsal side of abdomen situated on sclerites; hairs on ventral surface of thorax and abdomen long, finely pointed; longest dorsal, marginal and ventral hairs on abdominal tergite III 40-62 (53), 46-61 (52) and 61-84 (74) long, 1.10-1.91 (1.54), 1.29-1.78 (1.46) and 1.71-2.58 (2.12) times as long as articular diameter of 3rd antennal segment, respectively; abdominal tergite III with 4-5 (4.2) dorsal hairs; tergite VI with 4-7 (5.5) hairs between siphunculi; tergite VIII with 5-8 (6.2) hairs, longest hairs 59-86 (75) long, 1.83-2.50 (2.20) times as long as articular diameter of 3rd antennal segment. Large, pale marginal tubercles present on prothorax in 71% of specimens (2 tubercles in 18% of specimens), on abdominal segment II in

82% (2 tubercles in 24%), on segment III in 88% (2 tubercles in 47%) and on segment IV in 59% of specimens (2 tubercles in 29%). Spinal tubercles absent. Head without epicranial coronal suture. Antennal tubercles high, diverging, their surface smooth or weakly wrinkled; median tubercle weakly developed; frons strongly concave; ratio of depth of sinus to distance between bases of antennae 0.20-0.27 (0.22). Occipital hairs long, blunt or weakly capitate; frontal hairs finely pointed or pointed; longest occipital and frontal hairs 51-67 (60) and 57-76 (64) long, 1.50-2.09 (1.77) and 1.57-2.15 (1.87) times as long as articular diameter of 3rd antennal segment, respectively. Antennae 6-segmented; surface of 1st and 2nd segments weakly wrinkled, of 3rd segment smooth, of 4-5th segments smooth with rare scales, of 6th segment imbricated; hairs on antennae pointed, blunt or finely pointed; longest hair on 3rd segment 33-46 (39) long, 0.96-1.31 (1.14) times as long as articular diameter of the segment; longest hair on basal part of 6th antennal segment 0.75-1.29 (1.02) times as long as articular diameter of basal part of the segment.

**Table.** Biometric data for oviparous females of *Uroleucon murale* (Buckton, 1876)

Number of samples / specimens	Length of body	Length of antennae	Length of antennae / length of body	Hind femora		Head width across the compound eyes	Number of marginal tubercles	Last antennal segment		
				length	length / head width across the compound eyes			length of base	length of processus terminalis	length of processus terminalis/ length of base
1/17	2681-2835 (2760)	2996-3449 (3245)	1.09-1.26 (1.18)	912-1135 (1031)	1.71-1.95 (1.83)	518-612 (565)	2-6 (4.2)	147-200 (183)	852-1044 (947)	4.65-5.51 (5.11)

length	Ultimate rostral segment			2nd segment of hind tarsus			Siphunculi		Length of siphunculi/ length of cauda	
	head width across the compound eyes	length of 2nd segment of hind tarsus	length/ length of base of last antennal segment	length	head width across the compound eyes	length/ length of base of last antennal segment	length	length/ width of siphunculi at half length		
129-159 (142)	0.23-0.30 (0.26)	0.76-0.97 (0.82)	0.70-1.08 (0.78)	162-189 (175)	0.30-0.33 (0.31)	0.85-1.12 (0.96)	680-906 (797)	9.40-15.00 (13.22)	356-448 (421)	1.78-2.05 (1.92)

Secondary rhinaria elliptical or almost rounded, situated along whole length of segment, weakly projecting, with sclerotized rim and more or less convex membrane, 20-32 (26.0) on 3rd antennal segment, 0 on 4-5th segments. Rostrum reaching metathorax or abdominal segment I. Ultimate rostral segment with 6-9 (8.0) long accessory hairs. Legs long, hind femora and hind tibiae 0.33-0.39 (0.37) and 0.59-0.69 (0.65) times as long as body length, respectively; surface of coxae and trochanters wrinkled, of femora and tibiae smooth, 2nd tarsal segments weakly imbricated. Hairs on legs finely pointed or pointed, rarely blunt or weakly capitate; ventral hair on hind trochanter 0.80-1.07 (0.92) times as long as basal diameter of hind femur; longest dorsal, ventral and dorso-apical hairs on hind femur 38-51 (43), 38-56 (45) and 24-38 (31) long, respectively; longest dorsal hair on hind tibia 0.95-1.35 (1.09) times as long as the mid-diameter of the latter. Hind tibia with 68-135 (98.2) rounded pheromone plates. First tarsal segments with 5,5,5 hairs, sometimes with 4 on one segment of hind tarsus. 2nd segment of hind tarsus long, 6.10-7.47 (6.58) times as long as its maximum width. Siphunculi almost cylindrical, expanded at base and slightly expanded near apex, with weakly developed flanges, slightly imbricated, with reticulate sculpture; reticulate part of siphunculi occupies 0.17-0.25 (0.21) of their length. Subgenital plate broad oval with weak constriction along median line, with 2-12 (8.9) finely pointed hairs on anterior half and 14-21 (16.6) hairs along hind margin. Hairs on anal plate finely pointed. Cauda tongue- or finger-shaped, with 16-27 (20.6) finely pointed hairs.

Measurements. Body – 2736 ♀ 1390, antennae – 2996: III – 666, IV – 496, V – 502, VI – 191+901; hind trochanter+femur – 923, hind tibia – 1602, siphunculus – 680 ♀ 57; cauda – 356 ♀ 191(at base) ♀ 167 (before base).

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