Contribution to the knowledge of *Agromyza* species (Diptera: Agromyzidae) feeding on Leguminosae. II. Two new Palaearctic species

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Nineteen *Agromyza* species of the World fauna are recorded as feeders on Leguminosae. Twenty seven Palaearctic species are placed into the *orobi*-group. The descriptions of further two new species, *A. latifrons* sp. n. (Mongolia) and *A. paucineura* sp. n. (Volgograd Prov. of Russia) are given. The illustrations of male genitalia of the new species are provided.

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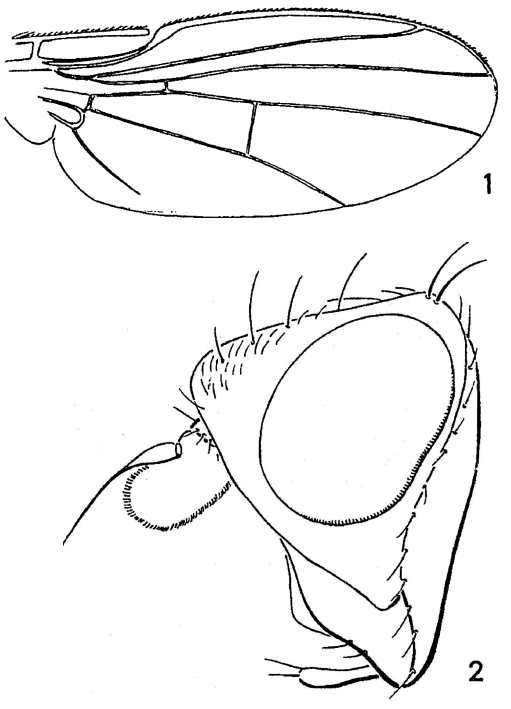
In this paper, I continue the review of *Agromyza* species feeding on Leguminosae started with my treatment of the *orobi*-group (Zlobin, 2000). Twenty six species included in the *orobi*-group have characteristically constructed aedeagi and strong pre-sutural dorsocentral bristles. *A. granadensis* Spencer (1972) should be also placed in this group despite its short third and fourth dorso-centrals. This deviation is probably caused by the tiny body size of this species, one of the smallest in *Agromyza*. Descriptions of two new species of this group are given below. The type specimens of new species are deposited in the Zoological Institute of the Russian Academy of Sciences (St.Petersburg).

Agromyza latifrons sp. n.
(Figs 1-7)

Holotype. ♂, **Mongolia**, *South Gobi Aimak*, Gurvan-Saykhan Range, 30 km ENE of Bayan-Dalay, 27-28.VIII.1969 (leg. V. Zaitzev).

Description. Frons slightly shorter than broad, conspicuously projecting above eye below *ors*, 3 times as wide as eye. Orbits very broad, increasingly so towards base of antennae. Frontal vitta about 2/3 width of frons. Ocellar triangle small, equilateral, apex just reaching level of *ors*; ocellar bristles short. 1 *ors* directed up- and slightly inwards, not significantly longer than upper *ori*; 3-4 moderately long incurved *ori*. Distances between bases of *or* subequal. Orbital hairs numerous, moderately long, anteriorly in 4-5 irregular rows. Lunule small, low. Antennal bases approximated. Third antennal segment enlarged, almost twice as long as broad, rounded anteriorly, covered uniformly with conspicuous white pubescence. Arista not longer than antenna, with bulbous thickening at base, appearing almost bare. Facial keel narrow, sharp. Facial grooves deep. Epistoma broad, its anterior margin forming blunt angle. Eye bare, oval, slanting. Cheeks broad, conspicuously projecting below eye. Jowls deepest at rear, as high as maximum height of eye. Peristomal margin straight, with a few short setulae. No vibrissal bristles. Palps normal, slender. 3+1 strong *dc*, 1st *dc* spaced more widely than anterior ones. *acr* sparse, in 4 irregular rows, extending to level of 2nd *dc*. *prsc* moderately long, about 1/3 length of 1st *dc*. 1 *opa*, 1 *ipa*, 1 *ia*. Middle tibiae with strong *pd*. Costa extending to vein R_{4+5}, with sections 2-4 in proportion 7 : 2 : 2. Wing tip between apices of R_{4+5} and M_{1+2}. *ta* at midpoint of discal cell. Last section of vein M_{3+4} 0.6 times as long as penultimate one. Wing length 3 mm.

Head largely dark brown; ocellar triangle, face,



Figs 1, 2. *Agromyza latifrons* sp. n. **1**, wing; **2**, head.

antennae and palps deep black; epistoma yellowish. Thorax entirely black; mesonotum distinctly greyish black, largely mat but with some subshine. Legs entirely black. Abdomen black. Wings hyaline; veins dark. Squamae whitish; margin and fringe brown.

Epandrium covered with numerous short setulae. Surstyli each with a group of 12-14 short spines. Hypandrium distinctly tapering apically. Mesophallus short, ventrally with a pair of short triangular projections. Distiphallus short, slightly narrowing distally, with a pair of rounded membranous lobes at apex. Cerci moderately long, slightly curved, with 3 long bristles apically. Ejaculatory apodeme very small.

Female and larva unknown.

Host plant unknown, but certainly Leguminosae.

Distribution. Mongolia.

Comparison. The distinctive male genitalia give immediate indication of the relationships of this species with the *A. orobi*-group. As far as is known, all members of this group are feeders on Leguminosae. Among *Agromyza* species, *A. latifrons* sp.n. is readily distinguishable by the very broad frons, orbits unusually strongly projecting above eye in profile, and enlarged, pubescent third antennal segment.

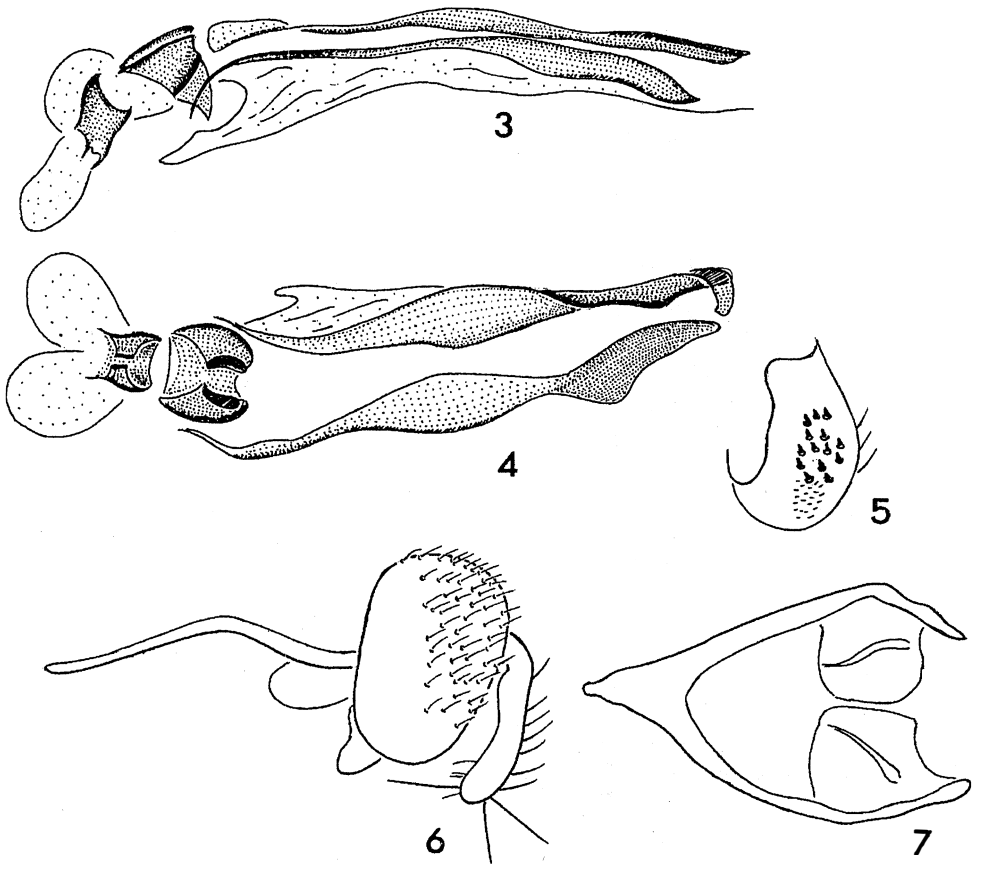
Agromyza paucineura sp. n.
(Figs 8-15)

Holotype. ♂, **Russia,** *Volgograd Prov*., Sarepta (= Krasnoarmeisk, nr. Volgograd), 10.V.1917 (leg. Kuznetsov).

Paratypes. 2 ♂, 7 ♀, same locality, 10-21.V.1917 (all leg. Kuznetsov).

Description. Frons with sides slightly convergent ventrally, 1-1.2 times as long as broad, 1.5-1.9 times as wide as eye. Orbits narrowly projecting above eye in profile. Ocellar triangle elongated, equilateral, apex extending to or below level of upper *ors*. Ocellar bristles long, extending to lower *ors*. Frontal vitta about half as wide as frons. 2 long, equal, reclinate *ors*; distance between *ors* twice that between lower *ors* and *ori*, which are equidistant; 2 (sometimes 3) strong incurved *ori*. Orbital hairs sparse, short, in a single row. Lunule small, semicircular, sunken. Facial keel usually low, sharp up to mouth margin, sometimes dilated and flattened below. Epistoma present, 0.5-0.8 times as long as third antennal segment, its upper margin slightly convex or bluntly angulate centrally. Third antennal segment small in both sexes, as long as broad, flattened above, rounded below (Fig. 8) or anteriorly, with a short fringe at upper corner or appearing almost bare. Arista normal, about twice as long as third antennal segment, distinctly pubescent. Eye oval, vertical or slightly slanting, bare. Cheeks forming a narrow ring below eye. Jowls deepest at rear, 0.4-0.5 as high as eye. Peristomal margin straight, with bristles as long as *vi*. Thorax chaetotaxy:1 *pp*,1 *h*, 2 *n*, 1 *prs*, 1*sa*, 1 *ia*,1 *ipa*, 1 *opa*. *acr* in 4-5 irregular rows. *prsc* long, about 2/3 length of 1st *dc*. 3+1 strong *dc*, 1 *m*, 1 *s*. Costa extending to vein R_{4+5}, second costal section 2.4-3 times as long as third; third section 1-1.2 times as long as fourth. *tp* always lacking. M_{1+2} distinctly thinner than R_{4+5}. Wing length 1.7-2mm.

Frons, lunule, and jowls dull reddish or yellowish. Orbits largely dull reddish to entirely black. Face dark brown. All antennal segments yellowish brown, sometimes first and second paler. Palps brownish to blackish. Peristomal margin black, shining. Ocellar triangle black. Thorax and abdomen blackish grey, weakly shin-



Figs 3-7. *Agromyza latifrons* sp. n. **3-4**, aedeagus (3, side view; 4, ventral view); **5**, surstylus; **6**, hypandrium, epandrium and cerci, side view; **7**, hypandrium, dorsal view.

ing; all bristles black. Legs largely black, fore knees yellowish; middle and hind femora at most indistinctly pale at knees. Wings hyaline; veins brownish. Squamae yellowish; margin and fringe brownish.

5th tergite as long as 6th. Remnant of 8th segment forming a narrow band.

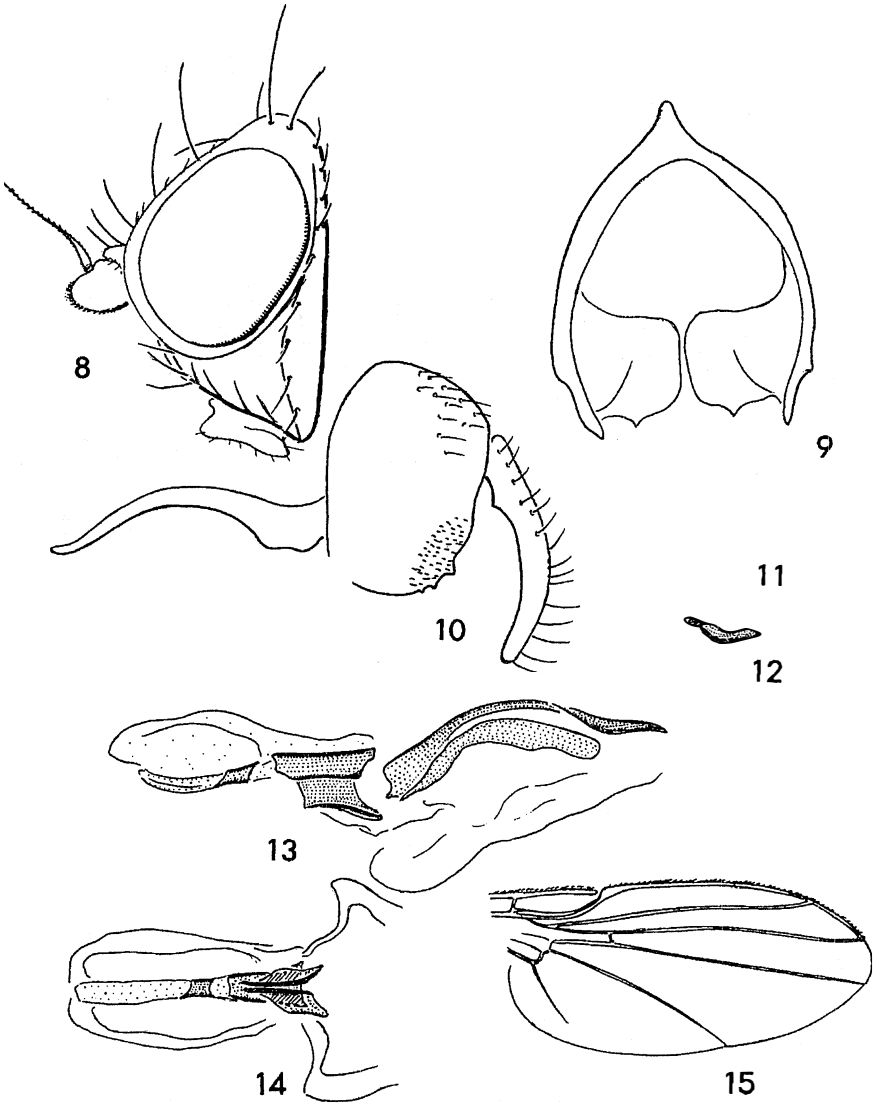
Surstyli each bearing a group of 8-9 short spines on ventral margin. Hypandrium rounded, apically with a distinct apodeme. Pregonites broad. Cerci projecting below ventral margin of epandrium, slightly curved, with moderately long setulae along upper margin. Mesophallus moderately long, ventrally with a pair of long plate-like projections. Distiphallus short. Ejaculatory apodeme very small. Ovipositor short, normal, pubescent in apical half.

Host plant unknown, but certainly Leguminosae.

Distribution. South-east of European Russia.

Diagnosis. The distinctive male genitalia give immediate indication of its relationships with *A. orobi*-group. Among *Agromyza* species with 3+1 strong *dc* and costal vein extending to vein R_{4+5}, *A. paucineura* sp. n. is readily distinguishable by the absence of second cross vein. The male genitalia resemble those of other species in the group, especially *A. vicifoliae* Hering, but clearly differ in details.

Note. In the collection of the Zoological Institute (St.Petersburg), there is one female from southern Crimea resembling *A. paucineura* sp. n., but differing in the dark squamal margin and fringe, darker coloration of head and antennae. It was not included in the type series.



Figs 8-15. *Agromyza paucineura* sp. n. **8**, head; **9**, hypandrium, dorsal view; **10**, hypandrium, epandrium and cerci, side view; **11**, surstylus; **12**, ejaculatory apodeme, side view; **13-14**, aedeagus (13, side view; 14, ventral view); **15**, wing.

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