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NEW SPECIES OF *LAUXANIIDAE* (*DIPTERA*) FROM THE FAR EAST

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Abstract. Three new species of the family *Lauxaniidae* from the Far East are described: *Lyciella leucophaeata* sp. n. (Kuril Islands: Etorofu), *Lauxania* (*Lauxania*) *zinovjevi* sp. n. (Primorsk Territory), *Sapromyza* (*Sapromyza*) takagii sp. n. (Kuril Islands: Etorofu). Head in lateral view, hypopygium of male, and terminalia of female of the new species are figured.

Key words: *Lauxaniidae*, new species, Far East.

The family *Lauxaniidae* is distributed almost all over the world, being represented more numerously in the moist tropics. These flies are mainly found in woodlands. Their saprophagous larvae breed in decaying vegetable matter, in particular, beds of fallen leaves. It is interesting that larvae of certain species mine in dead leaves of trees.

In the Palaearctic Region *Lauxaniidae* are not so rich in species as in the tropics. They have been studied thoroughly in the western part of the region, and also in Japan, but not so well in other eastern areas. Therefore, it is not surprising to find new undescribed species there. The descriptions of three new species are a preliminary result of my study of the Far East *Lauxaniidae*.

The material of *Lauxaniidae* together with other *Diptera* was collected by me during the ten collection trips I made to the Far East between 1964 and 1989. Some material was kindly loaned me for study by dipterologists of the Zoological Institute of the Russian Academy of Sciences, St. Petersburg. My best thanks are due to Dr. E. P. Nartshuk, Dr. K. B. Gorodkov and Dr. A. G. Zinovjev for the privilege of examining these flies.

All abbreviations of the special terms used in the descriptions (in italics) are traditional.

Lyciella leucophaeata sp. n.

A small species with mainly greyish thorax and two longitudinal dark stripes on frons.

Description

Male: Head in lateral view as in Fig. 1 *C*; length : height : width ratio about 5 : 6 : 9; head about twice as wide as frons; genal depth a little less than one-fifth height of eye. Head is patterned: ground colour of frons in its first third yellow to reddish-brown, in its two hind thirds frons covered with grey pruinosity; two slightly converging broad dark stripes on frons reach its anterior edge (Fig. 1 *D*), their anterior part reddish-brown, remainder velvety black; laterally from median dark stripes there are narrower dark lines linking up with broad stripes on

anterior edge of frons and fading behind near posterior *or*; face flat, dark brown with greyish pruinosity; parafacials yellow with whitish pruinosity; area between base of antenna and margin of eye pale, without dark spot; gena pale yellowish, its hind part as well as whole occiput covered with grey pruinosity. Clypeus slightly prominent, dull dark brown. Antennae short, reddish-brown with dark yellow area ventrally on basal part of 1st flagellomere; this segment oval with length : height ratio about 13 : 10. Arista brown, almost bare. Palpi black. Cephalic chaetotaxy: 2 pairs of reclinate *or* of equal size; *oc* long, diverging; *pvt* crossing; *vte* shorter than *vti* (3 : 5).

Thorax: scutum almost uniformly covered with thick grey dust; scutellum yellow or, at base, greyish, and only at posterior edge pale yellow; pleura bluish- or brownish-grey. Thoracic chaetotaxy: acrostichal setulae in 4 irregular rows; 1+3 *dc*, 1 *h*, 2 *np*, 1 *prs*, 1 *sa*, 2 *pa*, 1 *prsc*, 2 pairs of equally strong *sc*, of which apicals crossing; 1 strong *pp*, 1*mp*, 2 *st* of which anterior one is somewhat weaker (2 : 3).

Wings yellow, veins as well as membrane; *An* short; ratio of penultimate and ultimate sections of vein *M* 1.8. Squamae and halteres yellowish-white.

Legs: fore legs blackish-brown, only tibia basally paler, yellowish; middle and hind femora dark brown, only at base a little paler; middle and hind tibiae yellow, with slightly darker diffuse ring in their basal half, and dark brown one-fourth to one-third before apical end; middle and hind tarsi yellow to dark brown. A preapical dorsal seta present on each tibia. End of hind tibia without mat of dense setulae or other special characteristics; apical spine of middle tibia short.

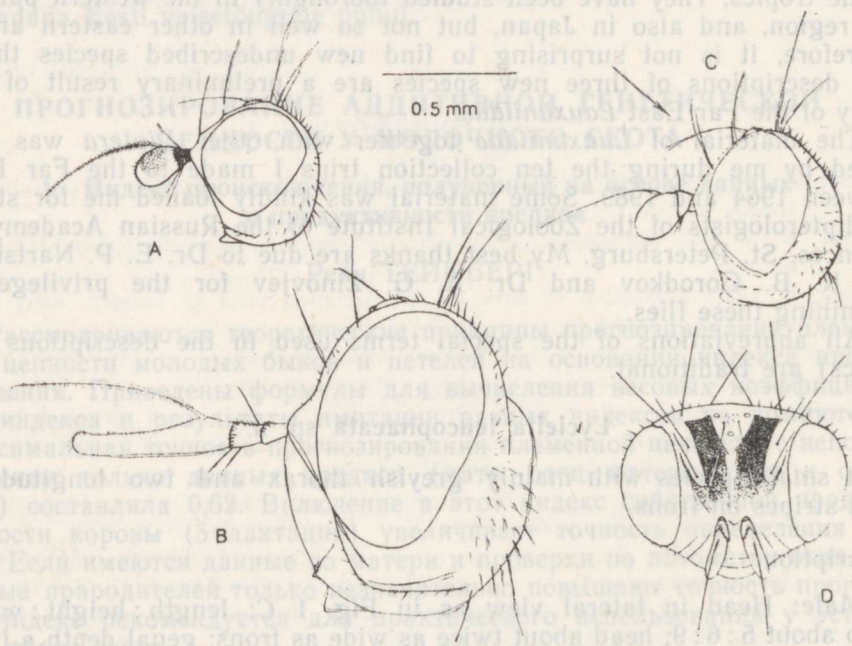

Fig. 1. Heads of *Lauxaniidae*: *A* — *Sapromyza* (*Sapromyza*) *takagii* sp. n., in lateral view; *B* — *Lauxania* (*Lauxania*) *zinovjevi* sp. n., in lateral view; *C* — *Lyciella leucophaeata* sp. n., in lateral view; *D* — same species, view perpendicular to frons as shown with arrow in *C*.

Abdomen greyish-brown, shining; two first tergites pale yellow; hind margin of the rest of abdominal tergites whitish-yellow; marginal bristles of tergites short. Hypopygium as in Fig. 2 *A*, *B*.

Female: similar to male except for yellow abdomen and some parts of thorax (humeral calli, propleura, pteropleura, and posterior upper corner of sternopleura). Middle and hind legs a little paler than in male. Clypeus yellow to brown. Ratio of penultimate and ultimate sections of vein *M* is 1.7—2.0. 3 globular spermathecae. End of abdomen as in Fig. 2 *C*, *D*.

Body length about 2.5—3.0 mm; wing length of male 3.5 mm, of female 3.5—3.7 mm.

Holotype ♂ and paratypes 3 ♀♀, Kuril Islands, Etorofu, Volcano Tebenkov, 11. viii. 1979, leg. K. Elberg; paratype 1 ♂, Kuril Islands, Kunasiri, Mendeleyevo, 20. viii. 1964, leg. K. Elberg.

Types in the collection of the Institute of Zoology and Botany, Tartu.

Lauxania (*Lauxania*) zinovjevi sp. n.

A large shining black species with long yellow antennae and yellow wings. The genus *Lauxania* Latreille, 1804, contains only Nearctic and Palaearctic species (Stuckenberg, 1971). Similarly to *L. kerzhneri*

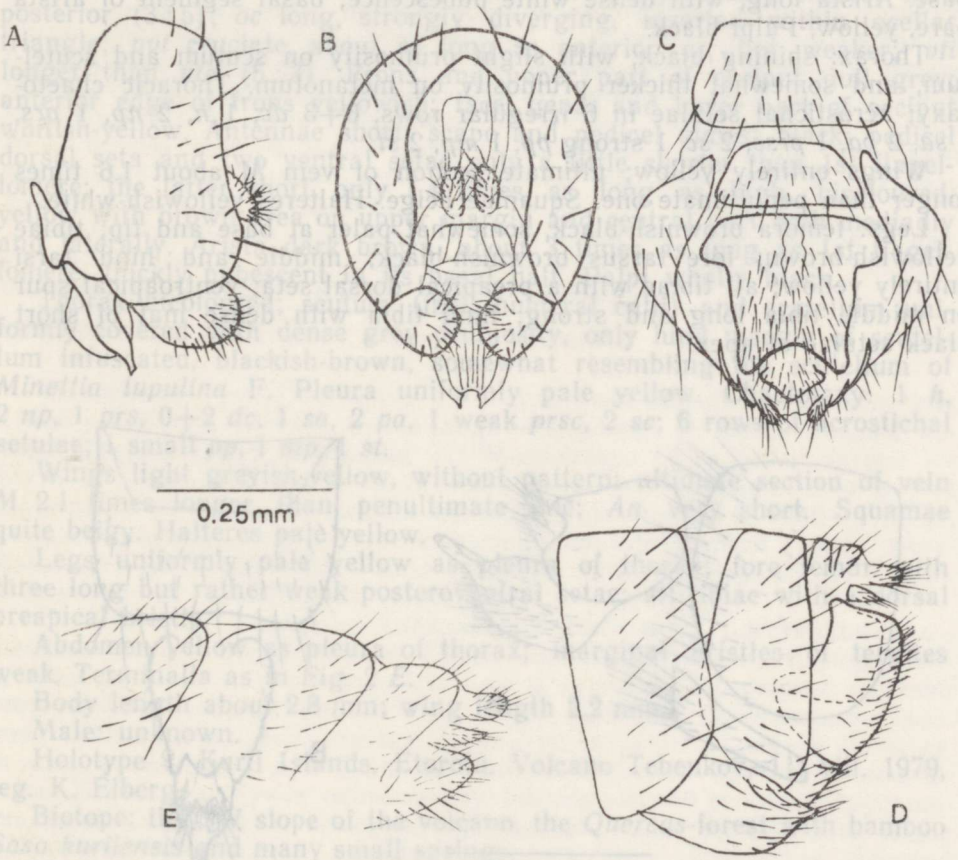

Fig. 2. *Lyciella leucophaeata* sp. n.: *A* — hypopygium, lateral view; *B* — ditto, dorsal view; *C* — terminalia of female, ventral view; *D* — ditto, lateral view. *E* — *Sapromyza* (*Sapromyza*) *takagii* sp. n., terminalia of female, lateral view.

E. Remm et Elberg, 1980, from Mongolia this new species is conspicuously larger than the other two Palaearctic species *L. cylindricornis* (Fabricius, 1794) and *L.* (*Callixania*) *minor* Martinek, 1974. By the structure of terminalia as well as by the form of face and two reclinate orbital setae the new species evidently belongs to the subgenus *Lauxania* s. str. Only one female specimen from the Far East in known.

Description

Female: Head in lateral view as in Fig. 1 *B*; length : height : width ratio about 6 : 8 : 11; frons 1.1 times as long as wide, with parallel sides, in profile slightly swollen but with shallow transverse impression behind anterior margin; face markedly bulging with transversal, somewhat oblique and sideways ascending impression. Head black, shining, except for narrow brownish parafacials covered with whitish dust, and brown tone on small area behind eye on lower part of occiput; middle part of black frons subshining, contrasting to strongly shining broad orbital plates. Chaetotaxy of head: 2 pairs of *or* curved upward; *oc* moderate, equal to *pvt* setae; *vti* only moderately longer than *vte*; posterolateral part of epistome on both sides of head with 2 strong setae arising posteroventrally. Antennae exceedingly long, yellow; upper side of 1st flagellomere narrowly infuscated; scape and pedicel of almost equal length; 1st flagellomere elongated, about 5 times as long as high at base. Arista long, with dense white pubescence; basal segment of arista bare, yellow, Palpi black.

Thorax: shining black, with slight pruinosity on scutum and scutellum, and somewhat thicker pruinosity on metanotum. Thoracic chaetotaxy; acrostichal setulae in 6 irregular rows, 0+3 *dc*, 1 *h*, 2 *np*, 1 *prs*, 1 *sa*, 2 *pa*, 1 *prsc*, 2 *sc*, 1 strong *pp*, 1 *mp*, 2 *st*.

Wings entirely yellow; ultimate section of vein *M* about 1.6 times longer than penultimate one. Squamae beige. Halteres yellowish-white.

Legs: femora brownish-black, somewhat paler at base and tip; tibiae yellowish-brown; fore tarsus brownish-black; middle and hind tarsi entirely yellow; all tibiae with a preapical dorsal seta; ventroapical spur on middle tibia long and strong; hind tibia with dense mat of short black setulae at apex.

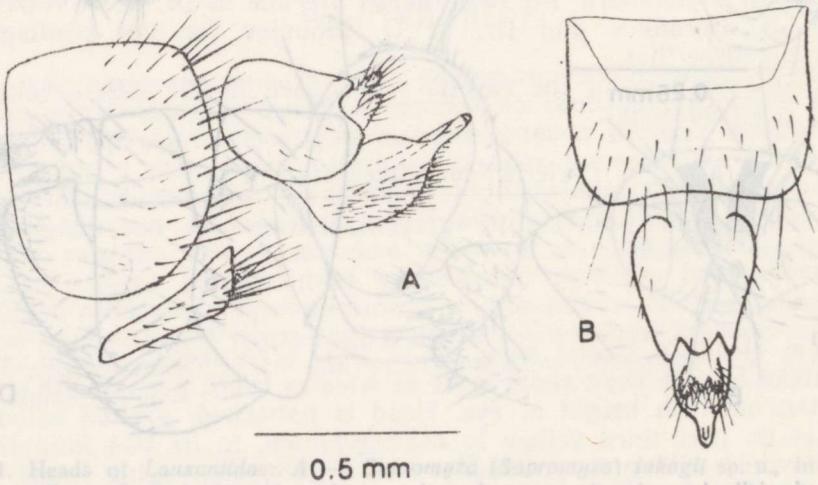

Fig. 3. *Lauxania* (*Lauxania*) *zinovjevi* sp. n.: *A* — terminalia of female, lateral view; *B* — ditto, dorsal view.

Abdomen shining black; marginal setae of tergites short; 3 globular spermathecae; terminalia as in Fig. 3 *A*, *B*.

Body length about 5.5 mm; wing length 5.4 mm.

Male: unknown.

Holotype ♀, Far East, Primorsk Territory, Kedrovaya Pad Nature Reserve, River Kedrovka, 22. ix. 1978, leg. A. G. Zinovjev.

The type deposited in the Zoological Institute, St. Petersburg.

I named the new species in honour of the dipterologist and hymenopterologist Dr. A. G. Zinovjev who collected this fine lauxaniid.

Sapromyza (*Sapromyza*) **takagii** sp. n.

This new species resembles a West-Palaearctic species, *S.* (*S.*) *basalis* Zett. on account of shape of antenna, dark, almost black scape and pedicel, 1 *st*, 6 rows of acrostichal setulae, and the small size of body. The best differentiating feature is the intensely grey coloration of frons, scutum and scutellum. The hind margin of scutellum is infuscated. The arista is quite thickly pubescent in its basal half.

Description

Female: Head in lateral view as in Fig. 1 *A*; length : height : width ratio 11 : 9 : 16; twice as wide as frons; genal depth about 1/5 height of eye. 2 pairs of reclinate *or*; anterior *or* conspicuously shorter than posterior (3 : 5); *oc* long, strongly diverging, inserted within ocellar triangle; *pvt* cruciate, about as long as anterior *or*, but weaker; *vti* longer than *vte* (5 : 3). Frons and upper part of occiput dull grey; anterior edge of frons yellowish; face, gena, and lower part of occiput whitish-yellow. Antennae short; scape and pedicel almost black; pedicel dorsal seta and two ventral setae only a little shorter than 1st flagellomere; the latter short, only 1.4 times as long as high, bicoloured, yellow with brown area on upper margin and central part both mediadly and laterally. Arista dark brown, about 3 times as long as 1st flagellomere, thickly pubescent in its basal half. Palpi wholly black.

Thorax bicoloured; scutum (incl. humeral calli) and scutellum uniformly covered with dense grey pruinosity, only hind margin of scutellum infuscated, blackish-brown, somewhat resembling the scutellum of *Minettia lupulina* F. Pleura uniformly pale yellow. Chaetotaxy: 1 *h*, 2 *np*, 1 *prs*, 0+2 *dc*, 1 *sa*, 2 *pa*, 1 weak *prsc*, 2 *sc*; 6 rows of acrostichal setulae; 1 small *pp*, 1 *mp*, 1 *st*.

Wings light greyish-yellow, without pattern; ultimate section of vein *M* 2.1 times longer than penultimate one; *An* very short. Squamae quite beigy. Halteres pale yellow.

Legs uniformly pale yellow as pleura of thorax; fore femur with three long but rather weak posteroventral setae; all tibiae with a dorsal preapical bristle.

Abdomen yellow as pleura of thorax; marginal bristles of tergites weak. Terminalia as in Fig. 2 *E*.

Body length about 2.8 mm; wing length 2.2 mm.

Male: unknown.

Holotype ♀, Kuril Islands, Etorofu, Volcano Tebenkov, 11. viii. 1979, leg. K. Elberg.

Biotope: the SW slope of the volcano, the *Quercus*-forest with bamboo *Sasa kurilensis* and many small springs.

The type is in the collection of the Institute of Zoology and Botany, Tartu.

I named this species in honour of the well-known Japanese entomologist Dr. S. Takagi.

REFERENCE

Stuckenberg, B. R. 1971. A review of the Old World genera of *Lauxaniidae* (*Diptera*). — Ann. Natal Mus., 20, 3, 499—610.

SALUKÄRBLASTE (*DIPTERA*, *LAUXANIIDAE*) UUED LIIGID KAUG-IDAST

Kaupo ELBERG

Salukärblased on üks sugukond peamiselt metsades elutsevaid kärbseid. Nad on levinud peaaegu kogu maakeral. Palearktilise regiooni piires on sugukond paremini uuritud Euroopas ning halvemini idapoolsetel aladel. Käesolevas artiklis on kirjeldatud kolm uut liiki Kaug-Idast.

НОВЫЕ ВИДЫ СЕМЕЙСТВА *LAUXANIIDAE (DIPTERA)* С ДАЛЬНЕГО ВОСТОКА

Каупо ЭЛЬБЕРГ

Двукрылые семейства *Lauxaniidae* обитают преимущественно в лесах. Они распространены почти по всему миру. В пределах Палеарктической области семейство лучше изучено в Европе, хуже в восточных районах. Описываются три новых вида с Дальнего Востока.