

## New data on *Adoxomyia* Bezzi from the Caucasus and Eastern Europe (Diptera: Stratiomyidae)

E.P. Nartshuk

Nartshuk, E.P. 2004. New data on *Adoxomyia* Bezzi from the Caucasus and Eastern Europe (Diptera: Stratiomyidae). *Zoosystematica Rossica*, **12**(2), 2003: 263-266.

A new species, *Adoxomyia transcaucasica*, is described from Azerbaijan and Armenia. *A. portschinskii* Pleske is synonymized with *A. dahlii* Meigen. New data on the distribution of *A. dahlii*, *A. ruficornis* Loew and *A. obscuripennis* Loew are given. *A. obscuripennis* known from Middle Asia and the Caucasus is found in the southern part of Srednerusskaya Elevation on chalk hills in a landscape named "low alps".

E.P. Nartshuk, Zoological Institute, Russian Academy of Sciences, Universitetskaya nab. 1, St.Petersburg 199034, Russia. E-mail: chlorops@zin.ru

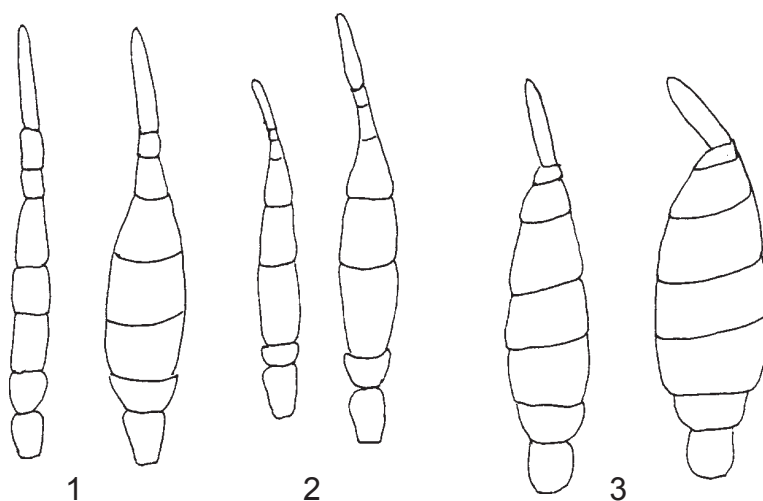
Most Palaearctic species of the genus *Adoxomyia* Bezzi occur in Middle and Central Asia; only four species are recorded from Europe. Except *A. dahlii* (Meigen), European species are represented by 1-2 specimens in the collections (Rozkošný, 1983). As a result of examination of the material of *Adoxomyia* from Eastern Europe and the Caucasus kept in the collections of Zoological Institute, St.Petersburg (ZIN), and Zoological Museum of the Moscow University (ZM), a new species is described, one species name is placed in synonymy after examination of type specimens and new data are obtained on the distribution of some species.

### *Adoxomyia dahlii* (Meigen, 1830) (Figs 1, 4, 9)

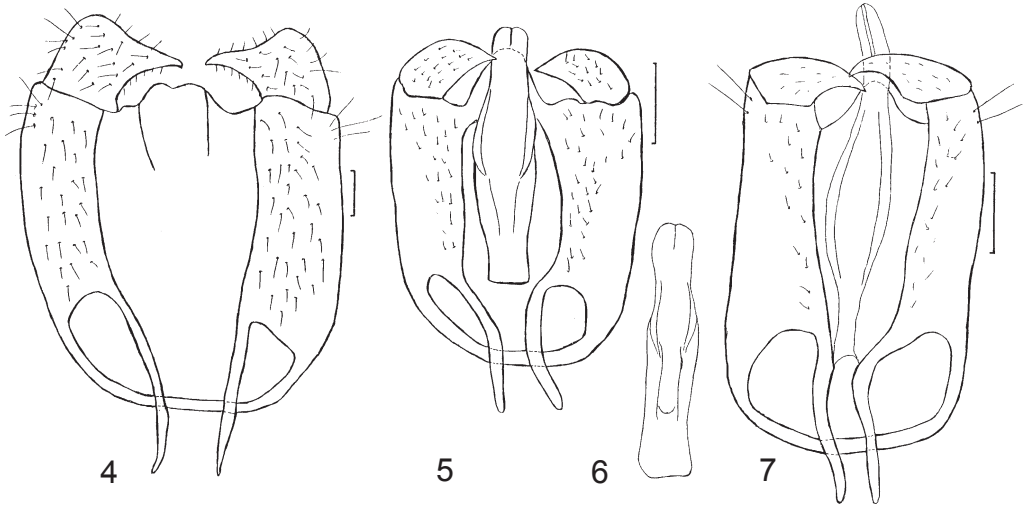
= *Clitellaria portschinskii* Pleske, 1903, **syn. n.**

*Type material of A. portschinskii examined* (ZIN). Lectotype (designated by Nartshuk & Kandybina, 1983): ♂, labelled "Erivan and Elenovka". Paralectotype: ♂, labelled "Coll. Portschinskii".

*Other material examined. Ukraine, Crimea:* 1 ♀, Karadag, 13-26.V.1920 (Wutetich), ZM (published as *A. schineri*, synonym of *A. dahlii*, by Zimina, 1985). **Azerbaijan** (new record): 1 ♂, Nakhichevan, Nasupvas, near Mt. Karndzhik, 24.VI.1967 (Richter), ZIN; 1 ♂, Nakhichevan, Ordubad, valley of Araks, 17.VII.1933 (Znoiko),



**Figs 1-3.** *Adoxomyia*, antenna (male on the right, female on the left). 1, *A. dahlii* (Meigen); 2, *A. obscuripennis* (Loew); 3, *A. transcaucasica* sp. n.



**Figs 4-7.** *Adoxomyia*, male genitalia. **4.** *A. dahlii* (Meigen), synsternum; **5, 6.** *A. transcaucasica* sp. n. (**5**, synsternum; **6**, aedeagus); **7.** *A. obscuripennis* (Loew), synsternum. Scale line 0.1 mm.

ZIN; 1 ♂, canyon of Aksychai, 11.VIII.1955 (Trofimov), ZIN; 1 ♂, 1 ♀, Talysh, Kosmolyan, Diabar Depression, 15.VII.1970 (Richter), ZIN.

*A. portschinskii* Pleske was described from Erevan and Helenendorf (= Elenovka, now Sevan), Armenia. Two characters were mentioned in the original description (Pleske, 1903) as specific ones: more intensely darkened costal margin of wing and absence of silver-white pile on frons. Both type specimens are rather dirty, but some white hairs on frons can be seen in the paralectotype. Wings of the lectotype are uniformly darkened, but in the paralectotype they are really darker on costal margin. Lindner (1937) mentioned that *A. portschinskii* is very similar to *A. dahlii*, and comparison of the male genitalia of a specimen from the Caucasus (Azerbaijan, Talysh) (Fig. 4) with those of a specimen of *A. dahlii* determined by H. Loew confirmed the synonymy. All males have yellow tarsi of middle and hind legs and yellow knees, and one male has all tarsi yellow. In females, the tarsi are dark. The female from the Crimea has a peculiar thickened last segment of flagellum.

*A. dahlii* was recorded from Southern Europe (from France to Rumania) and Israel (Rozkošný, 1983).

***Adoxomyia obscuripennis* (Loew, 1873)**  
(Figs 2, 7, 10)

*Material examined. Russia:* Voronezh Prov.: 1 ♀, Divnogorye near Liski, 7.VII.1994 (Zlobin), ZIN; Krasnodar Prov.: 2 ♀, Ubinskoe forestry, 10, 21.VI.1956 (Viktorov), ZM (recorded by Zimina, 1985). **Azerbaijan:** 1 ♀, Nakhichevan, 10 km below Pass Bichenak, 20.VI.1967 (Richter), ZIN.

The species was described from Middle Asia; the two syntypes, from "Yagnob" and "Asien", respectively, were collected by A.P. Fedchenko. *A. obscuripennis* is widely distributed in Middle Asia. Rozkošný (1983) listed only two females from Europe: Mt. Mashuk near Pyatigorsk (type specimen of *A. maschouk* Pleske, 1925 in ZIN; the name synonymized by Rozkošný, 1983) and Novorossiysk (at Zoological Museum of the Helsinki University).

The record from Divnogorye in Central European Russia is of particular interest. This locality is situated on the elevation Donskoe Belogorye, south-eastern part of the Srednerusskaya Elevation, about 800 km to the north from other known localities of the species in Eastern Europe. Previous records of *A. obscuripennis* were from highlands up to 2300 m a. s. l. Donskoe Belogorye is composed of chalky hills not more than 200-250 m a. s. l. Areas of chalky soils on the Srednerusskaya Elevation, named "low alps" by botanists (term by D.I. Litvinov), are a habitat of many relict species of plants. The vegetation of low alps is formed by specific steppized forbs meadow associations with *Carex humilis* and obligatory presence of some mountainous species of plants (oreophytes); the main part of the distribution ranges of these plant species is situated in the mountains of South Siberia and Tien Shan (Vinogradov et al., 1960; Vinogradov & Golitsyn, 1963). According to recent opinion of botanists, mountainous plants of low alps are plants of mountainous steppes rather than genuine alpine plants. The record of the mountainous species *A. obscuripennis* in Donskoe Belogorye is a new evidence of specific landscape of these chalky hills.

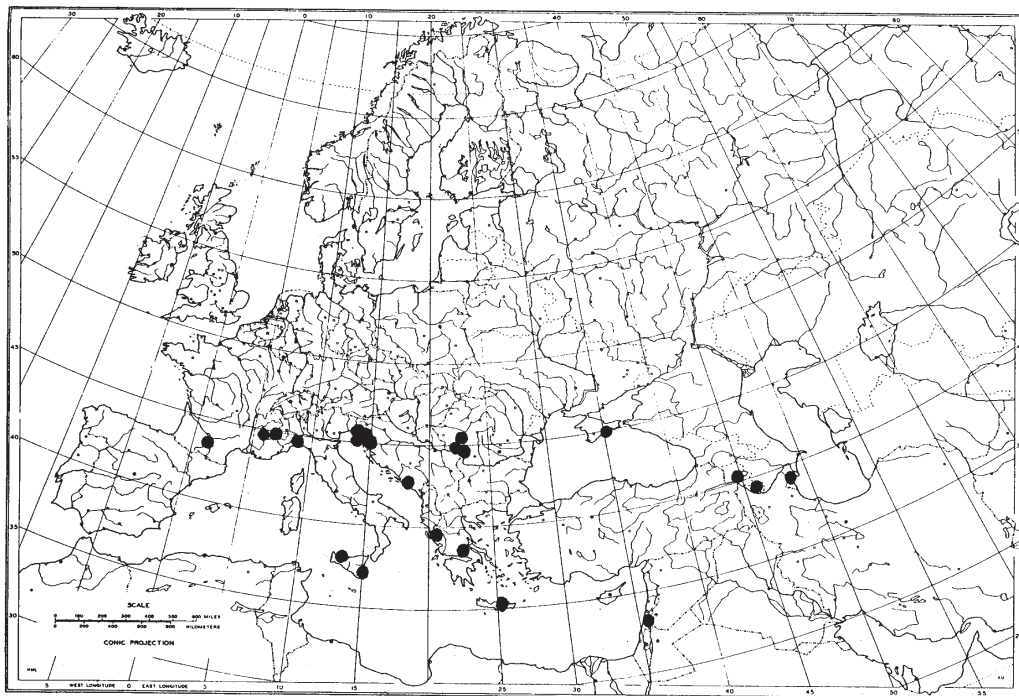


Fig. 9. Distribution of *Adoxomyia dahlii* (Meigen) (after Rozkošný, 1983, with additions).

### *Adoxomyia ruficornis* (Loew, 1873)

*Material examined. Azerbaijan* (new record): 1 ♀, Talysh, Kosmolyan, Diabar Depression, 15.VII.1970 (Richter), ZIN.

The species was known from Middle Asia and Iran. It is recorded from the Caucasus for the first time. In the Azerbaijan specimen, tarsi of all legs are yellow, not black. Colour of tarsi is a variable character: some males and females from Middle Asia have yellow tarsi of middle and hind legs.

### *Adoxomyia transcaucasica* sp. n.

(Figs 3, 6, 7)

*Holotype*: ♂, *Azerbaijan*, Talysh, 8 km from Lerik to Kosmolyan, 6.VI.1969 (Richter), ZIN.

*Paratypes. Azerbaijan*: 1 ♂, Talysh, Lerik District, Kosmolyan, 1600-1800 m, 22-25.V.1969 (Tanasijtshuk), ZIN; 2 ♀, same locality, 24, 28.VI.1969 (L. Zimina), ZM; 2 ♀, Nakhichevan, Akulas near Ordubad, 11, 14.V. 1974 (Richter), ZIN. *Armenia*: 1 ♂, Sevan, Pambak, 8.VII.1955 (L. Zimina), ZM. The specimens collected by L. Zimina were misidentified in her paper (Zimina, 1985) as *A. maschouk*.

*Description. Male*. Head transverse, hemispherical; eyes touching on frons, covered with dense dark hairs. Frontal triangle black-haired, with very small, silvery pollinose spots divided by shining stripe. Face slightly produced in lat-

eral view, with long black hairs. Postocular band narrow and covered with whitish, adpressed, short hairs. Antennae entirely black; basal segments subequal, with black hairs; basal half of flagellum thickened; last flagellomere shorter than three preceding ones combined (Fig. 3). Proboscis and palpi black.

Thorax, including scutellum and scutellar spines, black. Scutum and scutellum covered with short, semi-adpressed, greyish yellow hairs and longer, erect, black pile. Spines of scutellum small, narrow, bare and shining. Pleura mainly black-haired. Legs entirely black; all tarsi with golden pilosity on ventral side. Wing slightly infuscated, with dark brown veins. Squame small, brownish with black marginal fringe. Halteres white, with a darkened style.

Abdomen shining black dorsally and ventrally. Pile dense white, adpressed and semi-adpressed. Longer white hairs present in anterolateral corners. Male genitalia with moderately elongate synsternum, distinctly short; median process truncate. Aedeagal complex parallel-sided (Figs 5, 6).

*Female*. Frons less than one-third of head width; frontal index about 1/3. Frons widened anteriorly, its surface punctate, pile of frons white, erect. Eyes with white hairs; eye pile shorter than pedicel. Pile of face whitish, long; pile on postocular band silvery-white, adpressed.

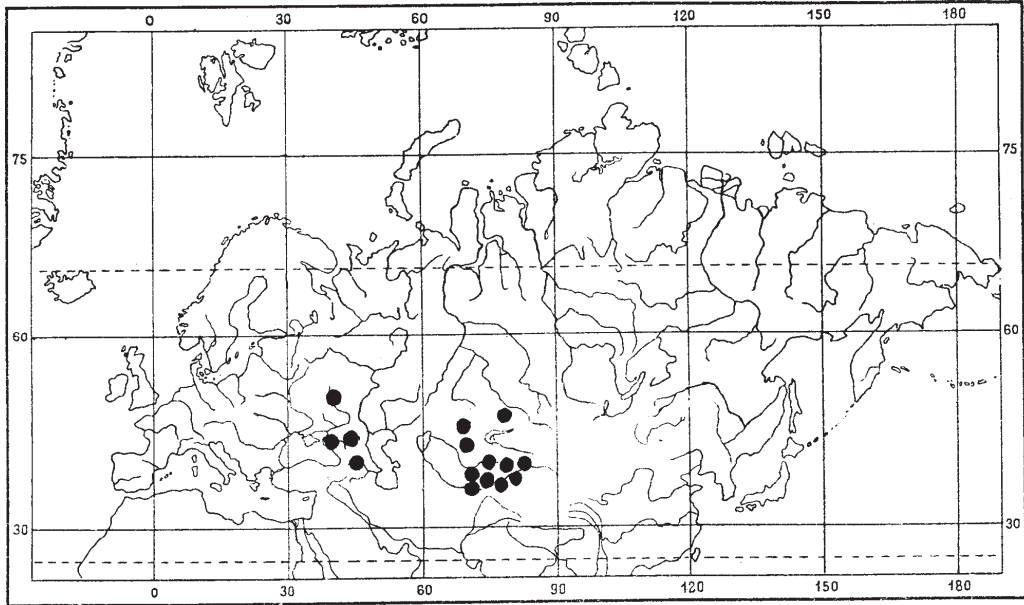


Fig. 10. Distribution of *Adoxomyia obscuripennis* (Loew).

Postocular band as wide as length of scape. Antennae distinctly thicker in basal half of flagellum, as compared to those of male. Thoracic pile very short, adpressed, whitish and yellowish. Scutellar spines, wings and legs as in male.

Length of both sexes 6.0-8.0 mm.

**Differential diagnosis.** A dark species, with only heads of halteres white. Antennae in both sexes black, with short last flagellomere thickened in female stronger than in male. Spines on scutellum very short, bare. Wings uniformly infuscated. Legs black. Male synsternum slightly elongated, with a truncate median process. The species is similar to *A. obscuripennis* Loew, but differs in the very short, bare scutellar spines in both sexes, shorter and thicker antennae, white colour of pile of eyes in female, and structure of male genitalia with shorter synsternum and parallel-sided aedeagal complex. From *A. dahlii* Meigen, also occurring in the Transcaucasus, the new species is distinguished by its smaller size, short last flagellomere, black tarsi and black, short scutellar spines.

**Distribution.** Armenia, Azerbaijan.

#### Acknowledgements

The author thanks V.V. Zlobin, V.A. Richter and V.N. Tanasijtshuk for the interesting material deposited in ZIN and A.L. Ozerov for material from ZM. The work was carried out with financial support from the Russian Foun-

datation for Basic Research (grant 02-04-48588), St. Petersburg dipterological school (grant NSH-1667 2003.4), and Federal Programme "Biodiversity".

#### References

- Lindner, E. 1947. Stratiomyidae. In: Lindner, E. (Ed.). *Die Fliegen der Palaearktischen Region*, 4(1): 145-176.
- Nartshuk, E.P. & Kandybina, M.N. 1984. Fam. Stratiomyidae. *Katalog tipovykh ekzempliarov Zoologicheskogo instituta AN SSSR, Insecta, Diptera* [A catalogue of type-specimens in the collection of the Zoological Institute AS USSR, Insecta, Diptera], 2: 9-34. (In Russian).
- Pleske, Th. 1903. Uebersicht der europäisch-asiatischen Arten der Dipteren-Gattung *Clitellaria* Meig. *Sitzungsber. Naturforsch.-Ges. Univ. Jurjew*, 13(1), 1901: 149-155.
- Rozkošný, R. 1983. *A biosystematic study of the European Stratiomyidae*. Vol. 2, 431 p. (*Ser. Entomol.*, 23).
- Vinogradov, N.P., Golitsyn, S.V. & Doronin, Yu.A. 1960. Donskoe Belogorye, a new region of "low alps" of Srednerusskaya Elevation. *Botan. Zh.*, 45(4): 524-532. (In Russian).
- Vinogradov, N.P. & Golitsyn, S.V. 1963. To the history of the flora of low alps on Srednerusskaya Elevation. *Materialy po istorii flory i rastitelnosti SSSR* [Materials on the history of the flora and vegetation of the USSR], 4: 426-437. (In Russian).
- Zimina, L.V. 1985. To the dipterofauna of the Soviet Union. Families Stratiomyidae, Nemestrinidae, Mydidae, Pyrgotidae, Platystomatidae. *Sb. Tr. Zool. Mus. Moskov. gos. Univ.*, 23: 137-154. (In Russian).

Received 18 September 2003