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RECORDS OF THE GRASSFLIES (DIPTERA, CHLOROPIDAE) OF THE PALAEARCTIC GEOELEMENT ON THE ALTAI MOUNTAINS

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Records of the grassflies (Diptera, Chloropidae) of the Palaearctic Geoelement on the Altai Mountains. Nartshuk E. P. — Four species of grassflies (Diptera, Chloropidae), *Lasiambia shatalkini* Nartshuk, 1986, *Siphunculina stackelbergi* Duda, 1933, *Centorisoma flavum* Nartshuk, 1965, and *Cetema bispinosa* Duda, 1933 are found on the Altai Mountains. These species were hitherto known from the Far East of Russia and the latter also from North Mongolia. The new records clarify the western border of ranges of these species. Distribution of the genera *Centorisoma* Becker, 1910 and *Cetema* Hendel, 1907, each including in the Palaearctic two groups of species with centres of distribution in Europe and the Far East, permits to consider the origin of these genera from Tertiary Turgai forests.

Key words: Diptera, Chloropidae, Altai Mountains, new records.

Находки злаковых мух (Diptera, Chloropidae) палеарктического геоэлемента на Алтае. Нарчук Э. П. — Четыре вида злаковых мух: *Lasiambia shatalkini* Nartshuk, 1986, *Siphunculina stackelbergi* Duda, 1933, *Centorisoma flavum* Nartshuk, 1965 и *Cetema bispinosa* Duda, 1933 обнаружены в Алтайских горах в поясе «черновой тайги», сохраняющей элементы неморальной флоры. Ранее эти виды были известны из Приморского края России, а последний также из северной Монголии и Забайкалья. Новые находки уточняют западные границы ареалов перечисленных видов и западные пределы сохранения элементов маньчжурской фауны. В двух палеарктических родах *Centorisoma* Becker, 1910 и *Cetema* Hendel, 1907 имеется две группы видов с центрами в Европе и на юге Дальнего Востока, что позволяет отнести их происхождение к третичным тургайским лесам.

Ключевые слова: Diptera, Chloropidae, Алтайские горы, новые находки.

While studying the grass flies (Diptera, Chloropidae) of the Altai Mountains, four species hitherto known from the Far East of Russia were found. Two of them belong to the subfamily Oscinellinae and two in the Chloropinae. A few specimens of each four species were found; they are rare on the Altai Mountains, suggesting that these species occur here on the border of their ranges. Distributions of the species are mapped.

Material is deposited in the collection of the Zoological Institute of Russian Academy of Sciences, St. Petersburg.

Lasiambia shatalkini Nartshuk, 1986 (fig. 1)

Material. 1 ♂, South-East Altai Mountains, Kurai Ridge, NO of Kosh-Agach, 02.07.1964 (Nartshuk).

Remarks. Originally, this species was described from Far East Russia: Amur Region and Primorsky Kray (Nartshuk, 1986).

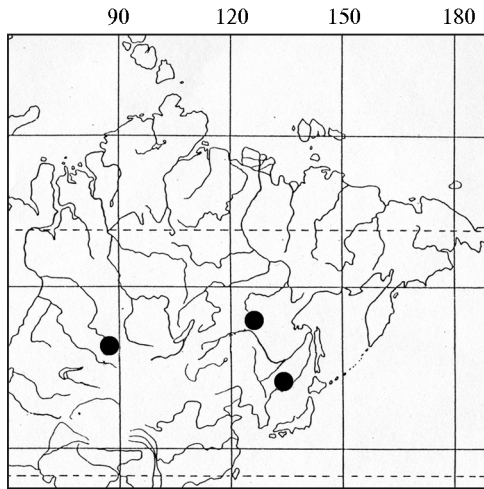


Fig. 1. Distribution of *Lasiambia shatalkini*.

Рис. 1. Распространение *Lasiambia shatalkini*.

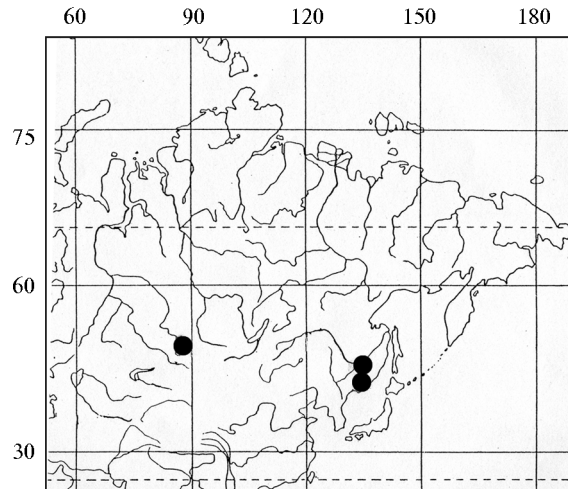


Fig. 2. Distribution of *Siphunculina stackelbergi*.

Рис. 2. Распространение *Siphunculina stackelbergi*.

Siphunculina stackelbergi Duda, 1933 (fig. 2)

Material. 1 ♂, Central Altai Mountains, 15 km NW Inya, valley of Bolshoi Yalaman River, valley forest, 21–23.07.2006 (Nartshuk).

Remarks. This species was described based on 1 ♂ and 1 ♀ collected by A. A. Stackelberg in 1927 in Far East Russia: Primorsky Krai, Vladivostok and never recorded since its description.

Centorisoma flavum Nartshuk, 1965 (fig. 3)

Material. 2 ♀, Central Altai Mountains, near Chike-Taman Pass in River Bolshoi Ilgumen valley, 20 km OS Ongudai, 16.07.1964, 27.07.2006 (Nartshuk).

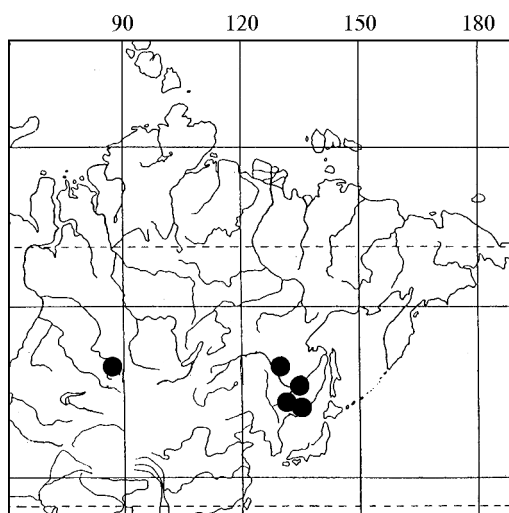
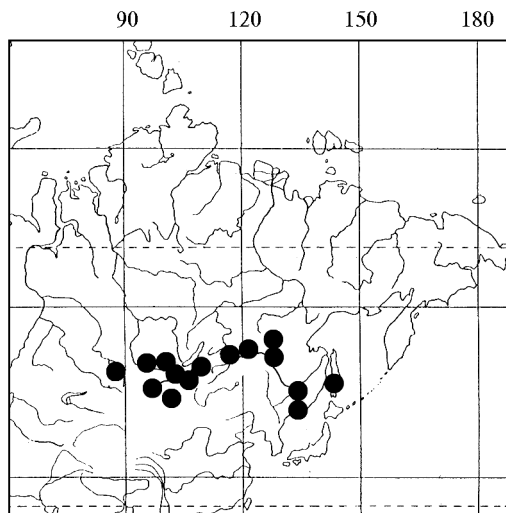
Remarks. Most of *Centorisoma* species have black colour of the body, and only two species have brownish-yellow body: *C. nishijimai* Kanmiya, 1983 occurring in Hokkaido, Japan (Kanmiya, 1983) and *C. flavum* described from Primorsky Krai of Russia.

In 1964 I collected two other species of the genus *Centorisoma*: *C. obscuripenne* Nartshuk, 1965 and *C. kozlovi* Nartshuk, 1965 virtually in the same locality (valley of Bolshoi Ilgumen River, near of Chike-Taman Pass) and at the same month as *C. flavum* in 2006. Both species were numerous, nearly hundred specimens each (Nartshuk, 1965). In 2006 I collected a single male of *C. kozlovi* only. Both species inhabit edges of valley forest. Natural environment along Chuiski Tract, where above-mentioned locality is situated, has radically changed in comparison with 1964 as a result of strongly enlarged recreation loads. Forest area in the river valley is greatly reduced, grass cover on meadows strongly trampled down.

Cetema bispinosa Duda, 1933 (fig. 4)

Material. 1 ♂, 1 ♀, North-East Altai Mountains, vicinity of Artybash on Teletzki Lake [small marsh, 600 m a. s. l., Upper Yurtok River, tributary of River Biya near source of Biya River from Teletskoe Lake] 13.07.2006 (Nartshuk).

Remarks. Distribution of the genus *Cetema* Hendel, 1907 was discussed earlier by Nartshuk (1976) and Savage and Wheeler (1999). Three groups of species are distinguished: two of them, the European and Far Eastern in the Palearctic Region and

Fig. 3. Distribution of *Centorisoma flavum*.Рис. 3. Распространение *Centorisoma flavum*.Fig. 4. Distribution of *Cetema bispinosa*.Рис. 4. Распространение *Cetema bispinosa*.

the third in the Nearctic. Western limit of Far Eastern species was recorded in East Siberia near Enisei River. *Cetema bispinosa* was described from Primorsky Krai of Russia (Duda, 1933). Later, its distribution range was clarified in detail, species were found in Southern Sakhalin and East Siberia in Russia and in Northern Mongolia (Nartshuk, 1972, 1973, 1976). Larvae of the species develop in shoots of grass *Glyceria triflora* (Korsch.) and probably also some *Carex* spp.

Discussion

Western ranges of *Lasiambia shatalkini*, *Siphunculina stackelbergi*, *C. flavum* and *Cetema bispinosa* are clarified based on these new records. Three species, except *Lasiambia shatalkini*, were found on the North-Eastern and Central Altai Mountains, occupied by the so-called "chernevaya taiga". This type of coniferous forest is characterized by presence of many nemoral elements. Chloropidae species found here represent the element of the Far Eastern nemoral fauna, which named by various authors as the Palaearctic, Manchurian or Chinese type fauna according Stegman (1938). The Altai Mountains are the westernmost locality of such type faunas of in the Palaearctic Region.

Previously (Nartshuk, 1976, 2005) attention was focused on similarity in distribution of the genera *Cetema* and *Centorisoma*. Both genera include two groups of species in the Palaearctic Region with 2 centres: one in Europe and the other in the Far East. Therefore I consider these genera as nemoral in origin and associate their origin with the so-called Tertiary Turgai forests.

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