

РОССИЙСКАЯ АКАДЕМИЯ НАУК
Южный научный центр

RUSSIAN ACADEMY OF SCIENCES
Southern Scientific Centre



Кавказский Энтомологический Бюллетень

CAUCASIAN ENTOMOLOGICAL BULLETIN

Том 15. Вып. 1

Vol. 15. No. 1



Ростов-на-Дону
2019

***Ctenophora flaveolata* (Fabricius, 1794) (Diptera: Tipulidae) –
a crane-fly species new for Russia and the Caucasus**

***Ctenophora flaveolata* (Fabricius, 1794) (Diptera: Tipulidae) –
новый для России и Кавказа вид комара-долгоножки**

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Key words: Diptera, Tipulidae, *Ctenophora flaveolata*, first record, distribution, ecology, Caucasus, Russia.

Ключевые слова: Diptera, Tipulidae, *Ctenophora flaveolata*, первая находка, распространение, экология, Кавказ, Россия.

Abstract. So far, three species of crane-flies from the genus *Ctenophora* Meigen, 1803 are known in the Caucasus for certain: *C. (Ctenophora) guttata* Meigen, 1818, *C. (Cnemoncosis) ornata* Meigen, 1818 and *C. (Cnemoncosis) magnifica* Loew, 1869. One more species is added to the list – *C. (Ctenophora) flaveolata* (Fabricius, 1794), which was found in the North Caucasus (Adygea) and which is new for the Caucasus and for Russia. The registered female of *C. flaveolata* was identified by the photograph as it displays the distinctive character of the species, transverse yellow stripes on the abdominal tergites. Distribution of the species is considered as the West Palaearctic. Until now, the territory of the Central Ukraine was the eastern limit of the range of *C. flaveolata*. The species is recorded for the Caucasus and Russia for the first time. Data on its ecology are presented.

Резюме. До сих пор на Кавказе достоверно было известно 3 вида комаров-долгоножек из рода *Ctenophora* Meigen, 1803: *C. (Ctenophora) guttata* Meigen, 1818, *C. (Cnemoncosis) ornata* Meigen, 1818 и *C. (Cnemoncosis) magnifica* Loew, 1869. К этому списку добавлен еще один вид – *C. (Ctenophora) flaveolata* (Fabricius, 1794), который был найден на Северном Кавказе (Адыгея) и является новым для Кавказа и для России. Обнаруженная самка *C. flaveolata* определена по фотографии по характерному признаку – поперечные желтые полосы на тергитах брюшка. До настоящего времени восточная граница ареала *C. flaveolata* проходила по территории Центральной Украины. Этот вид впервые указан для Кавказа и России. Представлены данные о его экологии.

The genus *Ctenophora* Meigen, 1803 is one of the most impressive and beautiful taxa of crane-flies, and a brilliant representative of the family and of the Caucasian fauna. The genus contains 23 species and one subspecies world wide, with 21 species in the Palaearctic, two in the Nearctic, 12 species and one subspecies in Russia [Oosterbroek, 2019]. So far three species are known in the Caucasus for

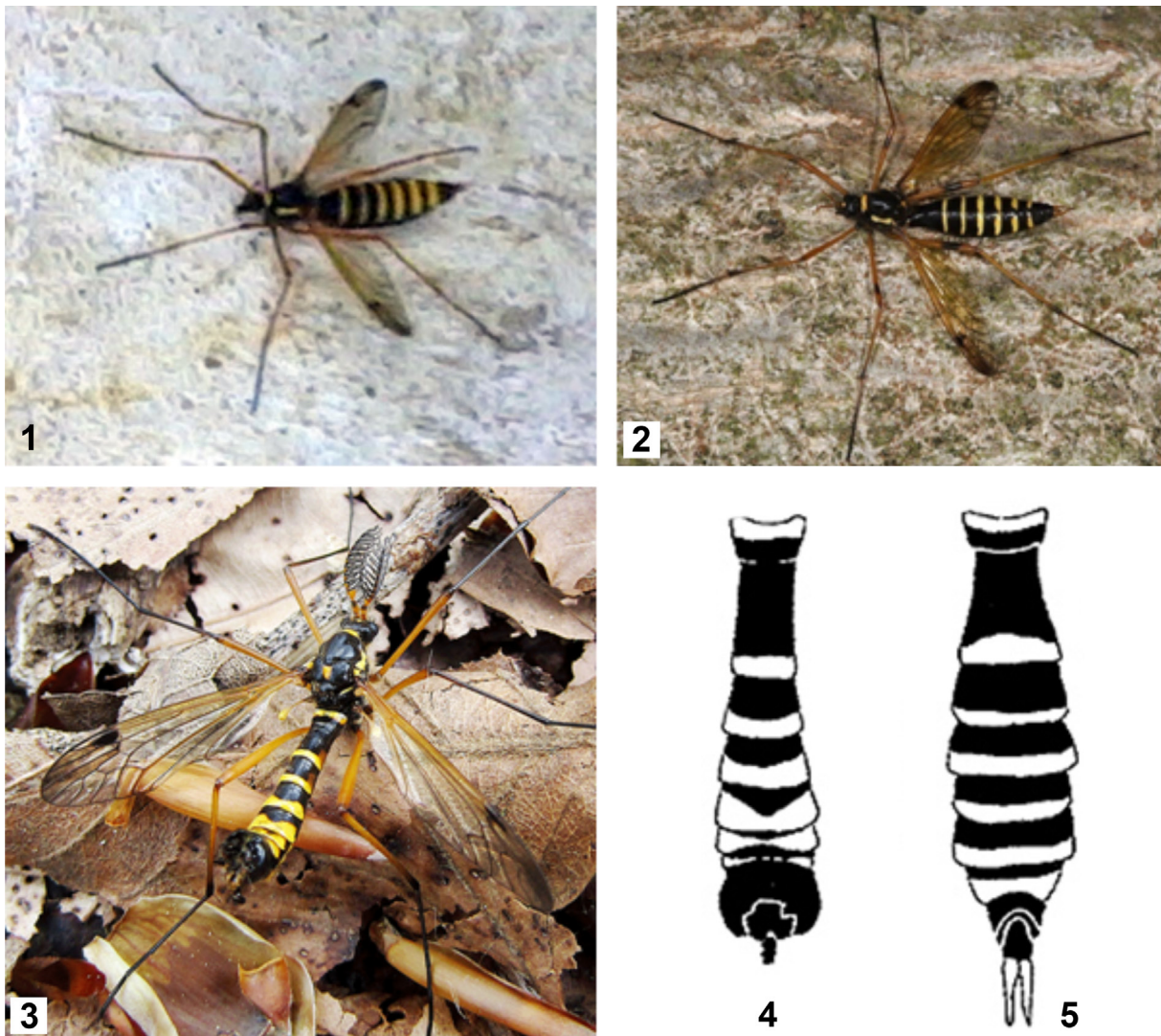
certain: *Ctenophora (Ctenophora) guttata* Meigen, 1818 for Rostov and Krasnodar regions of Russia, Azerbaijan [Savchenko, 1973], Karachay-Cherkessia (Russia) [Lukasheva, 1987], Georgia, Armenia [Oosterbroek, 2019] (the presence of *C. guttata* in Georgia and Armenia needs confirmation), *Ctenophora (Cnemoncosis) ornata* Meigen, 1818 for Krasnodar Region of Russia [Pilipenko, 2016; Pilipenko, Lantsov, 2017], and *Ctenophora (Cnemoncosis) magnifica* Loew, 1869 for Azerbaijan and North Iran [Savchenko, 1973]. One more species can be added to the list now, *Ctenophora (Ctenophora) flaveolata* (Fabricius, 1794), which was found recently in the North Caucasus (Adygea) and which is new for the Caucasus and for Russia.

Ctenophora (Ctenophora) flaveolata (Fabricius, 1794)
(Fig. 1)

Material. 1♀, Russia, North Caucasus, Adygea, Maikop District, 7 km to S from Maykop, right bank of Belaya River, Tul'skiy vill. env., 44°31'13.23"N / 40°10'15.28" E, ~270 m a.s.l., on the wall of building, about 5 o'clock p.m. The photo is made by Alexander Slavgorodsky on April 23, 2018 and presented by Aleksey Bibin in July 2018.

Note. The specimen was not collected but we have a photographic record (Fig. 1). This species can be reliably identified by the photo because it displays the distinctive character of the species, transverse yellow stripes on the abdominal tergites. This is the key character for this species [Oosterbroek et al., 2006] (Figs 2–5). At the same time the authors admit that it would be desirable to collect specimens from nature to provide a more substantial record of the presence of this species in our regional fauna.

Distribution. The species was described from Germany [Fabricius, 1794]. According to Oosterbroek et al. [2006: 146] distribution of *C. flaveolata* is “limited to the West Palaearctic and recorded from many countries, in the West from Norway and Great Britain to Spain and Italy, in the East from Finland, Latvia and northwestern Russia to northern Greece, Ukraine and adjacent Russia”, based on 28 references. A detailed distribution of this species is found in the “Catalogue of the Crane-flies of the World”



Figs 1–5. *Ctenophora (Ctenophora) flaveolata* (Fabricius, 1794).
 1 – female, Russia, the North Caucasus, Adygea, 7 km to S from Maykop, Tul'skiy village vicinity, (photo by A. Slavgorodsky); 2 – female; 3 – male;
 4–5 – pattern of colouration of male (4) and female (5) abdomen, dorsal view. Figs 2–5 after Oosterbroek [2019].
 Рис. 1–5. *Ctenophora (Ctenophora) flaveolata* (Fabricius, 1794).
 1 – самка, Россия, Северный Кавказ, Адыгея, 7 км южнее Майкопа, окр. пос. Тульский (фото А. Славгородского); 2 – самка; 3 – самец; 4–5 – окраска сегментов брюшка самца (4) и самки (5), дорсально. Рисунки 2–5 по [Oosterbroek, 2019].

[Oosterbroek, 2019] which lists the following countries: Austria, Belarus, Belgium, Bosnia-Herzegovina, Bulgaria, Croatia, Czech Republic, Denmark, Estonia, Finland (south), France, Germany, Great Britain, Greece (north), Hungary, Italy, Latvia, Lithuania, Luxembourg, Macedonia, Netherlands, Norway, Poland, Romania, Serbia, Slovakia, Slovenia, Spain, Sweden (south), Switzerland, Ukraine. In Finland the species has a red-list status [Penttinen et al., 2010].

In the Catalogue of Palaearctic Diptera [Oosterbroek, Theowald, 1992: 60] the distribution of *C. flaveolata* was given as “Europe and USSR between 66°N, 35°E, and 40°N (excl. AL [Albania] and BG [Bulgaria]), in SET¹ to 40°E” bearing in mind USSR as a whole. This data was

¹SET – “South European territory [of the former USSR] south of 50°N (RS: Russian RSFR, Uk: Ukrainian SSR, Mo: Moldavian SSR) up to the watershed of the main ridge of the Caucasus and bordered by the Kazakh SSR” [Soós, Papp, 1992: 14].

included in “The Catalogue of the Craneflies of the World” [Oosterbroek, 2019]. However, until now there was no firm evidence of the presence of this species in Russia.

In the monograph of Savchenko [1973: 238] on the crane fly fauna of the USSR, this species was indicated for the Ukraine only: “Transcarpathian Region (Velikaya Bakta, Beregovo District) – 26 IV 1952, 1♂; near Kiev – 7 V 1950, 1♀ (leg. Savchenko); Cherkassy Region, in vicinity of Kanev – 1-2 V 1952, 2♂♂, 1♀ (leg. Ermolenko)”. In the collection of the Zoological Museum of National Museum of Natural History at the National Academy of Sciences of Ukraine (Kiev), a single specimen of *C. flaveolata* occurs: Transcarpathian Region, Kvasy (Ukraine), end of May 1963, 1♀ (leg. N. Krivosheina). In the centre of the European part of Russia, as well as in other regions of Russia, this species was not recorded [Lantsov, Saaya, 2006; Pilipenko, 2009; Paramonov, 2015]. We can, therefore, consider that

this is the first registration of this species in the Caucasus (Adygea) and in Russia.

Bionomics. As one can guess, this species is not common. The species has been recorded from a variety of deciduous trees [Oosterbroek, 2019]. According to Savchenko [1973: 238], larvae hibernate in decaying wood of deciduous trees. In the Ukraine *C. flaveolata* inhabits mainly hornbeam forests [Savchenko, 1973: 238]. According to Alexander [2002: 88] *C. flaveolata* is “probably associated with large overmature trees, especially beech... larvae in decaying wood”. Stubbs [2003: 41–42] pointed out that “larvae seem to prefer large beech... this species occupies a particular condition of wood decay that is not used by other large saproxylic crane flies”. Salmela [2012: 13] regards the species as a saproxylic and/or fungivorous. In the foothills within the basin of the Belaya River where *C. flaveolata* was found in humid broad-leaved forests composed of oaks (*Quercus hartwissiana* Steven, *Quercus robur* L.) and hornbeam (*Carpinus betulus* L.), with occasional beech trees (*Fagus orientalis* Lipsky) are widespread [Grudzinskaya, 1953]. This community is common in Maykop District of Adygea.

Acknowledgements

The authors sincerely thank Fenja Brodo (Canadian Museum of Nature, Ottawa, Canada) for suggestions regarding the English text. Authors express gratitude to Pjotr Oosterbroek (Naturalis Biodiversity Center, Leiden, the Netherlands,) for his constant support and for valuable remarks concerning the content of the article. We are very grateful for Alexander Martynov (Zoological Museum of National Museum of Natural History at the National Academy of Sciences of Ukraine, Kiev) who helped us with information concerning specimen of *Ctenophora flaveolata* from Kiev collections. The authors sincerely thank reviewer for valuable remarks.

This study has been partly supported by the Russian Science Foundation (project no. 18-04-00961).

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Received / Поступила: 28.01.2019

Accepted / Принята: 22.06.2019