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NEW DATA ON THE DISTRIBUTION OF THE SHORE FLIES OF THE GENUS *ALLOTRICHOMA* BECKER, 1896 (DIPTERA: EPHYDRIDAE) IN RUSSIA

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Summary. New data on the distribution of the shore flies from the genus *Allotrichoma* Becker, 1896 (Diptera: Ephydridae) are presented. The species *A. bifidum* Papp, 1974, previously known in Russia from the Republic of Buryatia only, is found in Volgograd Oblast. The species *A. leotoni* Vitte, 1992 is registered in Saratov Oblast and recorded from Russia for the first time.

Key words: Diptera, Ephydridae, fauna, new records, European Russia.

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Резюме. Представлены новые данные о распространении мух-береговушек рода *Allotrichoma* Becker, 1896 (Diptera: Ephydridae) на территории России. Вид *A. bifidum* Пэпп, 1974, ранее известный в России только из Бурятии, найден в Волгоградской области, а вид *A. leotoni* Витте, 1992 впервые приводится из Саратовской области и является новым для фауны России.

INTRODUCTION

The genus *Allotrichoma* Becker, 1896 belongs to the tribe Hecamedini Mathis, 1991 the representatives of which (89 species) are widely distributed over the world. The tribe consists of five genera: *Allotrichoma* s. str. (62 species), *Diphuia* Cresson, 1944 (6 species), *Elephantinosoma* Becker, 1903 (2 species), *Eremotrichoma* Soika, 1956 (7 species), and *Hecamede* Haliday, 1837 (12 species) (Mathis & Zatwarnicki, 1995). The genus *Allotrichima* is divided into three subgenera, two of them, *Neotrichoma* Mathis et Zatwarnicki, 2012 (3 species) and *Pseudohecamede* Hendel, 1936 (9 species) are distributed in Nearctic and Neotropical Regions only. The largest subgenus, *Allotrichoma*, contains 51 species registered all over the world besides Neotropics (24 species in Palaearctic Region, 14 species in Afrotropical, 11 species in Nearctic, 6 species in Oriental, 4 species in Australasian-Oceanian Region) (Mathis & Zatwarnicki, 1995; Mathis & Zatwarnicki, 2012; Stuke, 2022).

The review of the Old World *Allotrichoma* (Krivosheina & Zatwarnicki, 1997) informed about two species distributed in Russia: *Allotrichoma bezzii* Becker, 1896 (European part of Russia, Siberia, Far East) and *Allotrichoma filiforme* Becker, 1896 (European part of Russia, Siberia). *Allotrichoma laterale* Loew, 1860 was registered in European part of Russia (Krivosheina, 2014; Krivosheina & Ozerova, 2015). Further investigation of the Palaearctic *Allotrichoma* added one more species, *A. bifidum* Papp, 1974, to the fauna of Russia (Siberia) (Stuke, 2022).

The flies from the genus *Allotrichoma* are very small, about 1–2 mm. Adults are very quick and usually common on stones on open places of river banks where they jump from one stone to another at minimal height so that it is not easy to catch them. The larval biology of *Allotrichoma* is not studied perfectly (Mathis & Zatwarnicki, 2012). Bohart & Gressitt (1951) found larvae at excrements of pigs. Runyan & Deonier (1979) reared Nearctic *A. simplex* (Loew, 1861) from racoon faeces and crayfish carcass. Thier & Foote (1980) found repeatedly *Allotrichoma* larvae in muskrat feces and decaying snails that were scattered over the mud surface.

Studying the collection of the Zoological Museum of the Lomonosov Moscow State University we discovered two rare species of *Allotrichoma*, one of which proved to be new to the fauna of Russia.

***Allotrichoma bifidum* Papp, 1974**

Fig. 1

MATERIAL. Russia: Volgograd Oblast, Serafimovich env., 49.57°N, 42.60°E, 28–29.IV 2013, 1 ♂, coll. N.Vikhrev.

DIAGNOSIS. The species can be differentiated from the other species of the genus *Allotrichoma* by the structure of male genitalia only. The most important character is the shape of cerci, which are pincer-like and apically narrow from dorsal (posterior) view. The shape from the dorsal view is similar to that of several species, among them *A. filiforme* Becker, 1896, *A. strandi* Duda, 1942, *A. trispinum* Becker, 1896 (Stuke, 2022, Fig. 3 p. 300, Figs 10, 11 p. 303) but in lateral view cerci of *A. bifidum* distinctly broadened dorsally and ventrally and are triangular (Fig. 1).

DISTRIBUTION. *Allotrichoma bifidum* was described from Hungary and Romania (Papp, 1974), found in Serbia (Cansoneri & Rampini, 1990), Slovakia (Zatwarnicki, 1996) and Bulgaria (Beschovski & Zatwarnicki, 2002). Stuke (2022) reported about the distribution of this species in Croatia and Russia (South Siberia: Buryatia). Here *A. bifidum* is recorded from European Russia for the first time.



Figs 1–2. *Allotrichoma* spp. 1 – *A. bifidum*, male, lateral view; 2 – *A. leotoni*, male, cerci, dorsal view.

***Allotrichoma leotoni* Vitte, 1992**

Fig. 2

MATERIAL. **Russia:** Saratov Oblast, Khvalynsky district, env. village Demkino, sandy quarry 52.267003°N, 47.796580°E, from the nests of the shore swallow *Riparia riparia*, 4.XI 2021, 3 ♂ (No 46, 47, 48), coll. E.N. Kondratyev.

DIAGNOSIS. The species like the previous species can be differentiated from the other species of the genus *Allotrichoma* by the structure of male genitalia only. The most important character is the shape of cerci, which are clasper-like, long, narrow, and a little wider at apex than in the middle part from dorsal (posterior) view. This shape from the dorsal view is similar to that of several species, among them *A. picenum* Canzoneri et Rampini, 1990 and *A. laterale* (Loew, 1860) (Stuke, 2022, Fig. 6, p. 301 and Fig. 4, p. 300) but in lateral view cerci of *A. leotoni* elongated-oval not truncate as in *A. picenum* and not so broad as in *A. laterale*. Besides cerci of *A. leotoni* bear 2 strong long apical setae (4 setae in *A. picenum* and no strong setae in *A. laterale*) (Fig. 2).

DISTRIBUTION. The species was described from Morocco (Vitte, 1992) and for a long time was known only from the territory of the type locality. The investigation of the European species of the genus *Allotrichoma* (Stuke, 2022) showed that the species is also distributed in Cyprus and France. We herein register *A. leotoni* in Russia for the first time.

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