

## First record of louse fly *Pseudolynchia garzettae* Rondani, 1879 (Diptera: Hippoboscidae) in East Europe

### Первая находка мухи-кровососки *Pseudolynchia garzettae* Rondani, 1879 (Diptera: Hippoboscidae) в Восточной Европе

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KEYWORDS: Diptera, Hippoboscidae, *Pseudolynchia*, new records, Russia, Ukraine.

КЛЮЧЕВЫЕ СЛОВА: Diptera, Hippoboscidae, *Pseudolynchia*, новые находки, Россия, Украина.

ABSTRACT. A review of records of louse flies *Pseudolynchia garzettae* (Rondani, 1879) in the Palearctic Region is presented. The first records of this species in Eastern Europe: Russia (Rostov-on-Don) and Ukraine (Kirovograd Province) are given.

РЕЗЮМЕ. Дан обзор находок мухи-кровососки *Pseudolynchia garzettae* (Rondani, 1879) в Палеарктике. Впервые описаны две находки в Восточной Европе: Ростов на Дону (Россия) и Кировоградская обл. (Украине).

Louse flies (Diptera: Hippoboscidae) are obligate blood-sucking ectoparasites of birds and mammals. The family contains more 210 species in 22 genera, distributed all over the world except Antarctica. The most species inhabit in tropics of both Hemispheres. In the Palearctic Region occur 55 species and 3 subspecies in 12 genera [Soós, Hürka, 1986]. Hippoboscidae of fauna of former USSR were studied by Doshchanov [2003], but mainly on material from Kazakhstan, and distribution of louse flies on the territory of Russia has been pour known and need further studied in some detail. It is particularly important for species living on birds. Nearly all ornithophilous Hippoboscidae are polyxenous species and are parasites of birds from different families. Louse fly can lives on a bird during one-fourth months, and with migrant bird can move to any part of world and change their host on new places, move to other species including resident birds. Hippoboscidae

damage birds at once as bloodsuckers and as vectors of pathogenic organisms of different nature. Birds and their ectoparasitic Arthropoda including Hippoboscidae are important link in the complex of transmissive diseases caused by viruses, including West Nile virus, ricketts and bacteria [Pavlovsky, Tokarevich, 1966; Balashov, 1982]. DNA of *Bacillus burgdorferi* s.l. genospecies of *B. afzelii* and *Borrelia* sp. were found in louse-flies *Icosta ardea* (Macquart, 1835), *Pseudolynchia canariensis* (Macquart, 1840), and *Ornithomyia avicularia* (Linnaeus, 1758) [Zabashta *et al.*, 2017a, b]. Most ornithophilous species of Hippoboscidae are fully winged and good flyers, have many birds as host and may transfer pathogenic organism from one bird to another [Baker, 1956, 1967]. Some pathogenic organisms develop in the body of louse-flies and can attack birds [Farajollahi *et al.*, 2005; Zabashta *et al.*, 2017a, b].

#### *Pseudolynchia garzettae* (Rondani, 1879)

= *Olfersia rufipes* Macquart, 1847 (partim).

= *Pseudolynchia fradeorum* Tendeiro, 1951.

MATERIAL. 1♀ — Ukraine, fly was taken not on bird, by net in garden, 16.V.1899, leg. A.O. Graftio, det. Ya. D. Kirshenblat (collection of Zoological Museum, Moscow State University). A.O. Graftio made the map of locality, where he collected insects in 1899, and it permits us to determine exact coordinates 48°13.2133' N, 32°50.2403' E (selo Veselye Bokovenki, Dolinsky rayon Kirovogradskoi oblasti); 1 ♂, 3 ♀♀ — Russia, Rostov/Don (47°13.8812' N, 39°43.39682' E), 15.V.2017, on five specimens of *Caprimulgus europaeus* Linnaeus, 1758, leg. A.V. Zabashta (1 ♂ and 2 ♀♀ — in the collection of Zoological institute of Russian Academy of Sciences in St. Petersburg; 2 ♀♀ — in the collection of A.V. Zabashta.

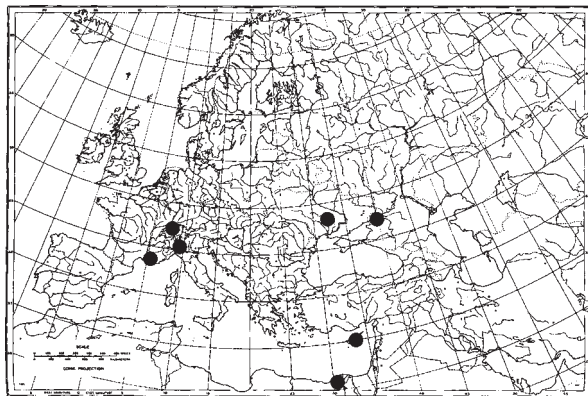
NOTE. *Pseudolynchia garzettae* (Rondani, 1879) was described from Italy, but the main range is in Africa south of Sahara (Sierra Leone, Cameroon, Sudan, Uganda, Tanzania, Mozambique, Democratic Republic of Congo, Nigeria, Zimbabwe) and in Asia (Thailand, China (Taiwan), Philippines). The species is repeatedly brought by migrant birds from Africa to southern Europe and from Asia to Kazakhstan and Kyrgyzstan. Rare records are known in Egypt, Cyprus, south-western Europe, Kazakhstan, Kyrgyzstan [McClure *et al.*, 1973; Doszhanov, 2003]. As host are normally known birds of families Strigidae and Caprimulgidae, especially *Caprimulgus affinis* Hornsfield, 1821 and *C. macrurus* Hornsfield, 1821 [McClure *et al.*, 1973]. Doszhanov [2003] found flies also on *Passer indicus* Jardine et Selby, 1831, *P. hispaniolensis* (Temmick, 1820), *Burhinus oedicephalus* (Linnaeus, 1758), *Oriolus oriolus* (Linnaeus, 1758), *Accipiter nisus* (Linnaeus, 1758), *Streptopelia orientalis* (Latham, 1790) and *Caprimulgus europaeus* in Kazakhstan.

The species is rare in Western Europe and was found as one-two specimens in a few localities [Theodor, Oldroyd, 1964]: Italy, Insubria (= Varese), bird host unknown (Rondani, 1879); France, Camargue: Bouches-du-Rhône on *Otus scopus* (Linnaeus, 1758), one specimen; Switzerland, Mt. Salève vic. Genève on *Caprimulgus europaeus*, one specimen; Cyprus — some specimens on *Athene noctua* (Scopoli, 1769). These records need special attention as birds are residents, not migrants.

In Kazakhstan and Kyrgyzstan *Pseudolynchia garzettae* is also rare and found only on migrant birds [Doszhanov, 2003].

In Eastern Europe the species was never recorded.

*P. garzettae* is polyxenous species, but *Caprimulgus europaeus* and other species of the genus *Caprimulgus* Linnaeus, 1758 are favorite bird-hosts. Flies can move to resident birds



Map. Records of *Pseudolynchia garzettae* in western Palearctic.  
Карта. находки *Pseudolynchia garzettae* в западной Палеарктике.

of different families in new localities. All known records of *P. garzettae* in western Palearctic are mapped (Map).

**Acknowledgements.** The study was performed in the frames of the state research project AAAA-A19-119020690082-8, and supported by the Presidium RAS program no.41 "Biodiversity of natural systems and biological sources of Russia". Authors wish to express their thanks A.L. Ozerov (Zoological Museum of Moscow State University) for possibility to work with Hippoboscidae collection and to V.M. Loskot (Zoological institute of RAS, St. Petersburg) for consultations on birds.

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