

New records of the bat fly *Basilia mongolensis* in the mountains of Asia (Diptera)

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Abstract. The paper describes the first records of the bat fly *Basilia mongolensis mongolensis* Theodor, 1966 in Russia and Tajikistan. In total, 12 specimens were collected from five individuals of the David's Myotis *Myotis davidii* (Peters, 1869). These findings specify the range of this poorly known bat ectoparasite species in Central Asia and southern Siberia (the northern margin of its distribution).

Nycteribiidae, bat ectoparasite, Asia

Basilia mongolensis mongolensis Theodor, 1966 – the species was described in Mongolia and is widespread in Central Asia: southern Kazakhstan, Kyrgyzstan (Hürka 1969, 1984, Polkanov & Medvedev 1997). The whiskered bat *Myotis mystacinus* s.l. – most probably, *Myotis davidii* (Peters, 1869) – was previously indicated as its host.

Records

Russia, Western Sayan Mts., several sites of the Saâno-Šušenskaâ (Sayano-Shushenskaya) State Biosphere Reserve (53° 19' N, 91° 56' E), the Urbun' (7 July 2012), Šuhur (10 July 2012) and Hem-Terektik rivers (18 July 2012); the first records in Russia: 7 ♀♀, 3 ♂♂ were collected from four individuals of *Myotis davidii* (3 ♀♀, 1 ♂). The bats were captured by stationary mist nets installed over the water.

Tajikistan, Pamiro-Alai Mts., Iskandarkul lake (39° 04' N, 69° 22' E); the first record in Tajikistan: 1 ♀, 1 ♂ were collected from an individual of *M. davidii* (♂), caught by the Borisenko mobile trap (Borisenko, 1999) on 15 May 2013.

The parasite specimens are stored in 70% alcohol in the Zoological Museum of the Institute of Plant and Animal Ecology of the Russian Academy of Sciences, Moscow (No. IERG 350124-350133, 267014-267015). The bats were released soon after their examination at the site of capture.

Our records of *Basilia m. mongolensis* are valuable especially due to the fact that they come from colder parts of the temperate forest in the boreal zone of western Siberia. Three species of the bat flies from the family Nycteribiide are known for this area: *Nycteribia quasiocellata* (Theodor, 1966), *Basilia rybini* (Hürka, 1969) and *B. truncata* Theodor, 1966 (Polkanov & Medvedev 1997, Ler 1999, Orlova et al. 2013). All of these species parasitising bats, belonging to the Siberian-Far Eastern (boreal) chiropteran fauna complex, mostly *Myotis petax* Hollister, 1912 and *M. sibiricus* (Kašenko, 1905). Apparently, southern Siberia is a zone of contact of the Siberian-Far Eastern and Central Asian chiropteran fauna complexes (Orlova 2014). The findings of *B. m. mongolensis*

here associated with the penetration of its principal host *Myotis davidii*, belonging to the Central Asian complex, to the southern slopes of the Western Sayan Mts.

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References

- BORISENKO A. V., 1999: Mobilnaâ lovuška dlâ otlova rukokrylyh [Mobile trap for catching bats]. *Plecotus et al.*, **2**: 10–19 (in Russian, with a summary in English).
- HŮRKA K., 1969: *Basilia (Basilia) rybini* sp. n. and notes on the Nycteribiidae of the Caucasus and Central Asia (Diptera, Pupipara). *Acta Entomologica Bohemoslovaca*, **66**: 387–398.
- HŮRKA K., 1984: New taxa and new records of Palearctic Nycteribiidae and Streblidae (Diptera, Pupipara). *Věstník Československé Společnosti Zoologické*, **48**: 90–101.
- LER P. A. (ed), 1999: *Opredelitel' nasekomyh Dal'nego Vostoka Rossii. Tom 6. Vypusk 1. Dvukrylye i blohi* [Identification Key to the Insects of the Far East of Russia. Volume 6. Part 1. Dipterans and Fleas]. Dal'nauka, Vladivostok, 665 pp (in Russian).
- ORLOVA M. V., 2014: Invasion of specific ectoparasites of Siberian-Far Eastern bat species to the Urals. *Russian Journal of Biological Invasions*, **5**(1): 29–31.
- ORLOVA M. V., ORLOV O. L., KRUSKOP S. V. & BERNIKOV K. A., 2013: Possibilities for identification of cryptic species of Chiroptera using host-specific ectoparasites. *Biology Bulletin*, **40**: 111–113.
- POLKANOV A. Ů. & MEDVEDEV S. G., 1997: K faune nykteribiid (Diptera: Nycteribiidae) Srednej Azii i Kazakhstana [On the fauna of flies of the family Nycteribiidae (Diptera) from the Middle Asia and Kazakhstan]. *Parazitologiya*, **31**: 116–124 (in Russian, with a summary in English).

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