Far Eastern Entomologist

Number 451: 16-18 ISSN 1026-051X (print edition) ISSN 2713-2196 (online edition) March 2022

https://doi.org/10.25221/fee.451.3
http://zoobank.org/References/7ED2C535-7240-4EAF-B669-623A09352954

ON DISTRIBUTION OF THE SHORE FLY *LAMPROSCATELLA AKLAVIK* MATHIS, 1979 (DIPTERA: EPHYDRIDAE) IN THE PALAEARCTIC REGION

M. G. Krivosheina

A.N. Severtsov Institute of Ecology and Evolution, Russian Academy of Sciences, Moscow 119071, Russia. E-mail: kriv2260@rambler.ru

Summary. The species *Lamproscatella aklavik* Mathis, 1979 is recorded from Southern Siberia, Republic of Tuva for the first time. Previously this rare species was known from few specimens from the Northwest Territories of Canada (type-locality) and from a single specimen from Central Yakutia.

Key words: Diptera, Ephydridae, fauna, new record, Tuva, Russia.

М. Г. Кривошеина. О распространении мухи-береговушки *Lamproscatella aklavik* Mathis, 1979 (Diptera: Ephydridae) в Палеарктике // Дальневосточный энтомолог. 2022. N 451. С. 16-18.

Резюме. Вид мух-береговушек *Lamproscatella aklavik* Mathis, 1979 впервые регистрируется на территории Южной Сибири в Республике Тыва. Ранее этот редкий вид был известен по небольшой серии экземпляров только с Северо-Западных территорий Канады (типовое местообитание) и по единичному экземпляру из Центральной Якутии.

INTRODUCTION

Lamproscatella Hendel, 1917 is a small genus of the shore flies comprising 14 species worldwide (Mathis & Zatwarnicki, 1995). Seven species are known from Palaearctic, four species are of Holarctic distribution, one species, *L. mirabilis* (Canzoneri et Meneghini, 1969), is reported from the Afrotropical Region. Two species have composed distribution: one of them, *L. occidentalis* Mathis, 1979 is registered in Nearctic and Neotropical Regions and one – *L. sinica* Mathis et Zuyin, 1988 – in Palaearctic and Oriental Regions.

Two species of the genus *Lamproscatella* are confined to the northern territories. One of them, *L. brunnipennis* (Malloch, 1923), described from Alaska, Bering Sea, St. Paul Island, has a transboreal Holarctic distribution in North Canada, Greenland (Malloch, 1923; Mathis, 1979), Norway (Olafsson, 1991) and northern Kuril islands (Krivosheina, 2004).

The second species, *L. aklavik* Mathis, 1979, is considered to be rear. It was described from the Northwest Territories of Canada. Mathis (1979) mentioned that the distribution of the species was the most restricted of the genus, being known from only two sites within the delta of the Mackenzie River. Both localities were north of the Arctic Circle. The type locality was considered to be the only territory of the species' distribution for a long time (Mathis &

Zatwarnicki, 1995) until one specimen from Central Yakutia was discovered (Krivosheina, 2004). The study of materials collected by N. Vikhrev in the Republic of Tuva in 2018 made it possible to register this species on the territory of Southern Siberia. These data expanded significantly our knowledge of the distribution of this species.

Terminology follows McAlpine (1981), except that "postpedicel" is used for antennal flagellomere 1 (third antennal segment) (Stuckenberg, 1999).

RESULTS

Genus *Lamproscatella* Hendel, 1917

The specimens of *Lamproscatella* are easily distinguished by the following combination of characters: face protrudent, oral cavity broad, with a row of downwardly directed setae on the lower facial margin; arista bare or pubescent, not pectinate; genal seta lacking or reduced, posterior fronto-orbital seta inserted closer to anterior fronto orbital seta, than to inner vertical seta; acrostichal setae in 2 rows, short, equal in size, prescutellar pair sometimes longer; 3 pairs of strong dorsocentral setae (1+2); wings immaculate; costal vein extending to apex of vein M_{1+2}. Body length 1.6–2.6 mm.

***Lamproscatella aklavik* Mathis, 1979**
Figs 1–3

Lamproscatella aklavik Mathis, 1979: 27 (type locality: Aklavik, the Northwest Territories, Canada).

MATERIAL EXAMINED. **Russia**: Tuva, Kyzyl, poplar-birch forest, 51.7º N, 94.7º E, 15–25.V 2018, 1♂, leg. N. Vikhrev (deposited in the Zoological Museum of Moscow University).

DESCRIPTION. The species has general black coloration. Head, antenna, palpus black. Face golden-brown pollen with a small silvery pollen part just below antenna (Fig. 1). Ocellar triangle brown pollen. Black coloration of fronto-orbital plates reaching inner vertical setae posteriorly, not ending at the level of fronto-orbital setae. The height of gena significantly less than the width of postpedicel. Thorax black in brown pollen. Halteres yellow. Wings hyaline, with brownish tinge, without distinct darkening along veins. Legs completely black. Abdomen black. Epandrium from dorsal view widest closer to surstyli; surstyli broadly rounded apically and bearing 4–5 stout spine-like bristles (Fig. 2); aedeagus convex; gonites like rounded blade from lateral view (Fig. 3). Body length 1.9 mm.

NOTES. The species of the genus *Lamproscatella* can be finally determined from male terminalia only. Mathis (1979) distinguished two groups with different shape of fifth tergum in dorsal view – subtriangular and subtrapezoid. *L. aklavik* according to such division was placed in the same group with *L. bimaculata* Hendel, 1933. Some additional external characters may help to divide these two species: face coloration of *L. aklavik* is golden-brownish and in *L. bimaculata* mainly whitish grey; stripes of black coloration on fronto-orbital plates in *L. aklavik* longer; wings of *L. aklavik* not distinctly darkened along radial veins in comparison with *L. bimaculata*. *L. aklavik* has unique structure of male terminalia, due to 4–5 stout spine-like bristles at apex of surstyli; such bristles are unknown for other species of *Lamproscatella*.

The species is confined to areas with arctic, subarctic and sharply continental temperate climate.

DISTRIBUTION. Russia (Yakutia, Tuva), Canada (the Northwest Territories).

Figs 1–3. *Lamproscatella aklavik* Mathis, ♂: 1 – head, dorsolateral view; 2 – epandrium and surstyli, dorsal view; 3 – epandrium, surslyli and internal genital structures, lateral view.

ACKNOWLEDGEMENTS

The author is very grateful to Dr. Andrey Ozerov (Moscow) for making photos. The investigation was fulfilled within the State project of the Institute of Ecology and Evolution, Russian Academy of Sciences.

REFERENCES

Krivosheina, M.G. 2004. A review of the shore-flies of the genus *Lamproscatella* (Diptera, Ephydridae) from Russia and adjacent territories. *Zoologicheskii Zhurnal*, 83(3): 321–329. [In Russian]

Malloch, J.R. 1923. Diptera. *In*: A Biological Survey of the pribilof Islands, Alaska, Part II: Insects, Arachnids, and Chilopoda of the Pribilof Islands, Alaska. *North American Fauna*, 46: 170–227.

Mathis, W.N. 1979. Studies of Ephydrinae (Diptera: Ephydridae), II: Phylogeny, Classification and Zoogeography on Neartcic *Lamproscatella* Hendel. *Smithsonian Contributions to Zoology*, 295: 1–41.

Mathis, W.N. & Zatwarnicki, T. 1995. World Catalog of Shore Flies (Diptera: Ephydridae). *Memoirs on Entomology, International*, 4: 1–423.

McAlpine, J.F. 1981. Morphology and terminology – Adults. P. 9–63. *In*: McAlpine *et al.* (Eds.). *Manual of Nearctic Diptera. Vol. 1.* Research Branch, Agriculture Canada. Monograph 27, Ottawa. 674 pp.

Olafsson, E. 1991. Taxonomic revision of western Palaearctic species of the genera *Scatella* R.-D. and *Lamproscatella* Hendel, and studies on their phylogenetic positions within the subfamily Ephydrinae (Diptera, Ephydridae). *Entomologica Scandinavica*. Supplement 37: 1–100.

Stuckenberg, B.R. 1999. Antennal evolution in the Brachycera (Diptera), with a reassessment of terminology relating to the flagellum. *Studia Dipterologica*, 6: 33–48.