

**New data on distribution of *Praephilotes anthracias* (Christoph, 1877)  
(Lepidoptera, Lycaenidae) in the South-East regions of European part of Russia**

**Новые данные о распространении *Praephilotes anthracias* (Christoph, 1877)  
(Lepidoptera, Lycaenidae) на Юго-востоке Европейской части России**

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**Ключевые слова:** Lycaenidae, *Praephilotes anthracias*, новая находка, Республика Калмыкия.

**Abstract.** The Lycaenidae butterfly species *Praephilotes anthracias* (Christoph, 1877) was firstly registered from Russia in 1998 in a sandy dune desert near the village of Dosang in Astrakhanskaya Oblast, where it was found on *Calligonum aphyllum* (Pall.) Gürke, which serves as a food plant for the caterpillars of this species. Over the next 18 years, all recorded occurrences of *P. anthracias* occurred exclusively at the site of its initial discovery. In April 2016, the authors collected *P. anthracias* 100 km north of Dosang, near the village of Sasykoli in the Kharabalinskii district of the Astrakhanskaya Oblast. This is the northernmost record of the species to date. In April 2022, the authors examined an artificial planting of *C. aphyllum* in the Yashkul' district of Kalmykia, where a specimen of *P. anthracias* was collected for the first time on the right bank of the Volga river, near the village of Khulkhuta. This newly discovered population is more than 130 km west of the previously known locations of the species and has been established less than 10 years ago, as planting of *C. aphyllum* began in the area in 2010–2012. Probably, new local populations of *P. anthracias* may be found in Kalmykia and possibly Dagestan, particularly where *C. aphyllum* has been planted to stabilise the sands.

**Резюме.** Приводятся новые данные по распространению *Praephilotes anthracias* (Christoph, 1877) на Юго-востоке Европейской России. Этот вид впервые указывается для территории Республики Калмыкия и правобережья Волги в целом. Обсуждается его потенциальный ареал в России.

The butterfly *Praephilotes anthracias* (Christoph, 1877) has been described from Krasnovodsk, Turkmenistan. The main areal of this species is in the deserts of Turkmenistan and Kazakhstan. In Russia it was firstly registered in 1998 on *Calligonum aphyllum* (Pall.) in a sandy dune desert near the village of Dosang in the Astrakhanskaya Oblast [Eitschberger, Zolotuhin, 1999; Morgun, 2003].

For the next 18 years, all specimens of *P. anthracias* were collected at the sands of Batpayisaghyr, east and north-east of Dosang. In April 2016, the species was collected by the authors 100 km north of Dosang on isolated shrubs of *C. aphyllum* along the Volgograd-Astrakhan highway in the Kharabalinskii district of the Astrakhanskaya Oblast. This

locality is currently the northernmost within the known European range of the species.

In April 2022, the authors examined artificial plantings of *C. aphyllum* in the Yashkul' district of the Republic of Kalmykia, near the villages of Khulkhuta and Utta, which are approximately 10 years old. As a result, a specimen of *P. anthracias* was collected for the first time in Kalmykia and, in general, for the right bank of the Volga river in the hilly sands near the village of Khulkhuta (Figs 1–2).

The present work is registered in ZooBank (www.zoobank.org) under LSID urn:lsid:zoobank.org:pub:F3959A48-8F24-43A2-9855-CEC4379595FF

*Praephilotes anthracias* (Christoph, 1877)

Figs 1–4.

**Material. Russia, Astrakhanskaya Oblast:** Krasnoyarskii raion, vicinity of Dosang settlement, on *Calligonum aphyllum* (Pall.) Gürke, 24.IV–3.V.2008–2017, A. Samus leg. — 24♂♂, 6♀♀; Kharabalinskii raion, 3 km W of Sasykoli settlement, on *Calligonum aphyllum*, 47°33'35.70" N, 46°56'25.18" E, 24.IV.2016, A. Samus leg. — 1♂.

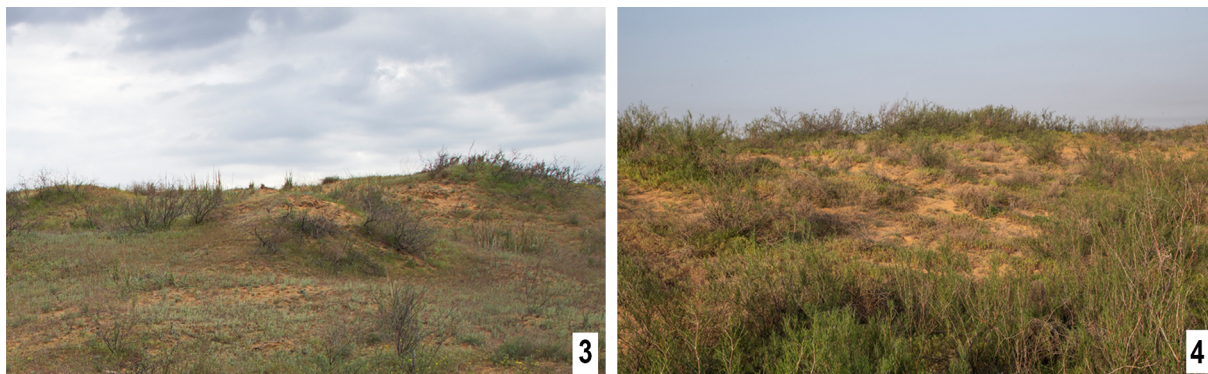
**Republic of Kalmykia:** Yashkulsii raion, Khulkhuta settlement vicinity, on *Calligonum aphyllum*, 46°19'27.07" N, 46°22'2.54" E, 27.IV.2022, A. Samus leg. — 1♂.

As *P. anthracias* is trophically related to *Calligonum* spp. [Lvovskij, Morgun, 2007], all known populations of this species in European Russia are biotopi-



Figs 1–2. *Praephilotes anthracias* (Christoph, 1877), external appearance of male butterfly. 1 — dorsal view, 2 — ventral view.

Рис. 1–2. *Praephilotes anthracias* (Christoph, 1877), самец, внешний вид бабочки. 1 — сверху, 2 — снизу.



Figs 3–4. Habitats of *Praephilotes anthracias* (Christoph, 1877). 3 — Astrakhanskaya Oblast, near Dosang vill.; 4 — Republic of Kalmykia, near Khulkhuta vill.

Рис. 3–4. Местобитания *Praephilotes anthracias* (Christoph, 1877). 3 — Астраханская область, окр. п. Досанг; 4 — Республика Калмыкия, окр. п. Хулухта.

cally localised in areas of lightly grassy hilly sand where *C. aphyllum* has been planted as a phytomeliorant for soil stabilisation. The collection site of the species in Kalmykia is identical in landscape to its habitats around the village of Dosang (Figs 3, 4); however, it is important to note that the first plantings of *C. aphyllum* took place around the village of Khulkhuta between 2010 and 2012 [Dedova et al., 2020]. Thus, in less than a decade, a new local population of *P. anthracias* has been established here, more than 130 km away from the previously known populations near Dosang. The authors believe that new records of the species can be expected in the planting areas of *C. aphyllum* across the sandy massifs on the right bank of the Volga river within the Astrakhanskaya Oblas, extending north to the village of Zamyany in the Republic of Kalmykia and possibly into the Republic of Dagestan.

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