

**SIBERIAN ASCALAPH (*LIBELLOIDES SIBIRICUS*) – A NEW SPECIES  
OF LACEWINGS (NEUROPTERA: ASCALAPHIDAE) FOR THE FAUNA  
OF YAKUTIA (EASTERN SIBERIA)**

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**Summary.** *Libelloides sibiricus* (Eversmann, 1850) (Neuroptera: Ascalaphidae) recorded for the first time in the southern part of the Republic of Sakha (Yakutia), Russia. The only specimen was collected at the foot of the petrophyte slope of the eastern exposure in the valley of the Aldan River at 59° N. The discovery in the Aldan Highlands, significantly removed to the north from the main area, indicates the relict nature of the habitat of this southern species in the permafrost zone.

**Key words:** laceflies, fauna, new record, Russia.

**Н. Н. Винокуров, Л. В. Кузнецова. Аскалаф сибирский (*Libelloides sibiricus*) – новый вид сетчатокрылых (Neuroptera: Ascalaphidae) для фауны Якутии (Восточная Сибирь) // Дальневосточный энтомолог. 2026. N 540. С. 24-28.**

**Резюме.** Аскалаф сибирский *Libelloides sibiricus* (Eversmann, 1850) (Neuroptera: Ascalaphidae) впервые найден в южной части Республики Саха (Якутия), Россия. (Восточная Сибирь). Единственный экземпляр собран на подножье петрофитного склона восточной экспозиции в долине р. Алдан на 59° с. ш. Находка на Алданском нагорье, значительно удаленная на север от основного ареала, указывает на реликтовый характер обитания этого южного вида в зоне многолетней мерзлоты.

**INTRODUCTION**

The predatory order Neuroptera includes about 6000 species from 18 families in the world fauna (Makarkin, 1995); their greatest diversity is typical for the tropics and subtropics and is greatly depleted in the north. In the entomofauna of Yakutia, two families were known – Chrysopidae and Hemerobiidae, represented by 10 species of green and four species of brown lacewings (Makarkin, 1990, 1995, 1996; Makarkin *et al.*, 2016). Family Ascalaphidae includes about 500 species belonging to 80 genera of three subfamilies in the world fauna (Stange, 2008). In the territory of the former USSR, 10 species from four genera have been recorded (Luppova, 1987), and only two species found in Siberia (Makarkin, 1995; Krivokhatsky, 2007). Adults are moderate to large in size (forewing length 15–60 mm), are

distinguished by a fast flight, reminiscent of dragonflies, and catch victims in the air. The larvae live on the soil surface and under stones, feeding on insects and other invertebrates.

### NEW RECORD

#### *Libelloides sibiricus* (Eversmann, 1850)

Figs 1, 2

**MATERIAL EXAMINED.** Russia, South Yakutia, Aldan River valley, vicinity of Ugino village (58°40'56" N, 128°31'13" E), 264 m, 25.VI 2025, 1 ♀, leg. L.V. Kuznetsova.

**DISTRIBUTION.** East Siberian-Far Eastern species, in the south of Siberia it is known in the Altai Mountains, Khakassia, Krasnoyarsk Krai and Irkutsk Region (Danilov, 2014; Shilenkov, 2020). In the south of the Russian Far East this species is recorded from the Amur Region, Khabarovsk and Primorsky Krai, and outside of Russia it is recorded from China and the Korean Peninsula (Makarkin, 1995). In the south of East Siberia, this species is confined to steppe and forest-steppe landscapes. In the upper reaches of the Yenisei, it inhabits meadow steppe, open areas, clearings in dry forests, mainly in river valleys (Danilov, 2014; Dmitrienko & Borisova, 2022). In the Irkutsk Region this species is found in the Priangarian forest-steppe and in the steppe areas of the southwestern coast of Lake Baikal to Priolkhonye (Shilenkov, 2020).

**REMARKS.** In Southern Yakutia, the species was found on the right bank of the upper reaches of the Aldan River on a hill in the lower part of a steep carbonate petrophytic slope of eastern exposure with a slope of 20–25°, at an altitude of 264 m above sea level. The insect was collected from *Youngia tenuifolia* (Willd.) Bab. et Stebb. (Fig. 2), growing in a pine with Dahurian larch shrub-herbaceous forest (Fig. 3). The imago flies from late May to early July, and is active during the day.



Figs. 1–2. *Libelloides sibiricus* Ev., female. 1 – body, dorsal view; 2 – imago on stem of *Youngia tenuifolia*. (Photo by L.V. Kuznetsova).



Fig. 3. Biotope of *Libelloides sibiricus* Ev. in Aldan Highland, South Yakutia. (Photo by L.V. Kuznetsova).

### DISCUSSION

Our discovery of the Siberian ascalaphus is of great scientific interest because it is the first case of detection of a representative of the Ascalaphidae family in the permafrost zone at 59° N, whereas all known points in the South Siberia lie outside this zone – in the Yenisei basin up to 56° N, and in the Baikal region at 53° N (Fig. 4). In the Aldan Highlands, the ascalaf was caught on the sunny side of a petrophytic slope. A similar habitat in the Aldan Highlands was also noted for some thermo-xerophilic bugs – *Macrotylus mundulus* (Stål, 1858) (Miridae), *Gampsocoris culcinus* Seidenstücker, 1948 and *Neides propinquus* Horváth, 1906 (Berytidae), *Nysius helveticus* (Herrich-Schaeffer, 1850) (Lygaeidae), living on the cinquefoil *Potentilla iniquas* Turcz., growing on illuminated rocky ledges in the valley of the Akin Stream (Vinokurov *et al.*, 1998).



Fig. 4. Localities of *Libelloides sibiricus* Ev. in Eastern Siberia (data for the Yenisei basin and the Baikal region according to: Danilov, 2014; Dmitrienko & Borisova, 2022; Shilenkov, 2020; Berlov *et al.*, 2021).

This southern species could probably have spread north during the Holocene climatic optimum 6–7 thousand years ago, which was warmer than today, and now lives only in suitable habitats in the south of Yakutia in conditions of moderately warm and moderately humid climate with a sum of warm period temperatures above 10°C 1400–1500°C and mild winters with a snow depth of more than 50 cm (Mozolevskaya, 1973). According to the Ugino meteorological station, where our specimen was caught, the average annual July temperature is +17.4 °C, the average annual is -8.2 °C (Smirnova, 1989). The number of Siberian ascalaph in the south of Siberia is low everywhere, and as a rare species, it is listed in the Red Books of Khakassia, Krasnoyarsk Krai and Irkutsk Oblast (Danilov, 2014; Shilenkov, 2020; Dmitrienko & Borisova, 2022). In the boreal fauna of Yakutia, it can be considered as an unusual relict representative of the southern forest-steppe biota, requiring study of its distribution across the territory, the state of the population and its way of life.

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