

# New and noteworthy records of Plants, Lichens and Insects in Altai Territory and Republic of Altai (Southern Siberia). II.

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## Abstract

This study reports new geographical occurrences for seven species of vascular plants (*Cyperus michelianus*, *Gymnocarpium continentale*, *Rhynchospora alba*, *Scheuchzeria palustris*, *Schoenoplectiella supina*, *Veronica* × *schmakovii*, and *V. × sessiliflora*), eight species of lichens (*Chaenotheca chlorella*, *Lathagarium dichotomum*, *Myrionora albidula*, *Scoliciosporum perpusillum*, *Physcia alnophila*, *P. tenella*, *Peltigera collina*, and *P. extenuata*), and nine species of Lepidoptera in the Altai Territory and the Republic of Altai. For each recorded species, localities and ecological preferences are detailed. Plants *Veronica* × *schmakovii*, *V. × sessiliflora*, and *Rhynchospora alba* are recorded for the first time in the Altai Territory; *Scheuchzeria palustris* and *Gymnocarpium continentale* for the second time. *Scheuchzeria palustris* and *Rhynchospora alba*, identified as rare fog-dependent plants, are recommended for inclusion in the Red Book of the Altai Territory. Lichen *Chaenotheca chlorella* is recorded as a new species for

Southern Siberia; *Lathagrium dichotomum* is recorded for the first time in the Altai Territory; *Myriophora albidula*, *Scoliciosporum perpusillum*, *Physcia alnophila*, and *P. extenuata* are reported as new lichen species for the Salair Ridge; *Physcia tenella* and *Peltigera collina* are new records for the Salair botanical-geographical province within the Altai Territory. New faunistic records for Lepidoptera include first reports for the Altai Territory of the tortricids *Cydia medicaginis*, *Cochylis pallidana*, and *Aethes criciana*; the chimabachid *Dasystoma salicella*; the erebids *Catocala helena*, *Catocala bella*, and *Hypena crassalis*; the noctuid *Conistra rubiginea*; and the lasiocampid *Dendrolimus pini*. Additionally, the cossid *Dyspessa salicicola* is reported as a new species for Western Siberia. The sphingids *Agrius convolvuli* and *Macroglossum stellatarum* are newly recorded for the Republic of Altai, with the latter's spring discovery suggesting the potential formation of a stable local population. The noctuid *Orthosia cerasi* is also reported for the first time in the Republic of Altai. Furthermore, this study contributes rare quantitative data on population dynamics, presenting an estimated population size for a newly documented locality of the lichen *Lathagrium dichotomum*. This information is crucial for conservation planning and assessing the status of this Red Data Book listed species.

### Keywords

Altai, Biodiversity, Lichenized fungus, Red Data Book, Salair National Park, Salair Ridge, Tigirek Strict Reserve

## Introduction

The present material continues the series of publications on the biodiversity of the Altai Territory and the Republic of Altai (Davydov et al. 2022, 2023; Kosachev and Albach 2022) and represents new records on the distribution of a number of species of vascular plants, lichens, and insects in the Altai Territory and the Republic of Altai, including species requiring special protection. While not all species documented in this study are currently designated for special protection, the identification of new or historically underrepresented populations of rare taxa underscores the critical need for up-to-date distributional data. Accurate and comprehensive information on the geographical spread and ecological preferences of species, particularly those with limited distributions or recognized conservation concern, is fundamental for their effective protection. This knowledge is essential for identifying priority areas for conservation, developing targeted protection strategies, and making informed decisions regarding their inclusion or status within regional and national Red Books. The present work aims to contribute to this vital effort by documenting new occurrences and ecological parameters for some vulnerable species, thereby providing essential evidence for conservation planning and enabling conservation efforts to be more precise and impactful.

## Materials and methods

The paper contains data obtained from the materials collected using traditional methods in various localities of the Altai Territory and the Republic of Altai.

The material is kept in the following collections:

ALTB – the herbarium of Altai State University (Barnaul) and its unit TIGZ – the herbarium of Tigirek Natural Reserve (Barnaul);

ESB – private collection of Egor Svirin (Barnaul);

OKB – private collection of Oleg Kudrov (Barnaul);

RYB – research collection of Roman Yakovlev (Barnaul);

TZB – private collection of Timofey Zalutsky (Barnaul).

## Results

### Plants

During 2023, significant floristic discoveries were made within the Altai Territory. In a challenging-to-access sector of the Tigirek Nature Reserve (Beloretsk Floristic District), situated in the Belaya River valley, two species belonging to the genus *Veronica* (*V. × sessiliflora* and *V. × schmakovii*) were documented for the first time for the region's flora. Concurrently, the northern part of Altai Territory yielded two additional new species for the regional flora from the family Cyperaceae (*Rhynchospora alba* and *Schoenoplectiella supina*). Moreover, analysis of collected specimens and corresponding data from [iNaturalist.org](https://www.inaturalist.org) revealed the presence of four plant species previously considered rare within the Altai Territory: *Gymnocarpium continentale*, *Scheuchzeria palustris*, *Cyperus michelianus*, and *Drosera rotundifolia*. Three more new records were discovered during a study of coastal aquatic habitats in the plain part of the Altai Territory.

### Family Cystopteridaceae

#### *Gymnocarpium continentale* (Petrov) Pojark.

Figure 1

**Material examined.** Russia, Altai Territory, Charyshskii District, upper reaches of the Kholodny Klyuch stream, a tributary of the Bolshoi Tigirek River, 51°04'47.48" N, 83°00'05.23" E, elev. 1264 m, cracks in granite rocks, 07.vii.2021, P. Kosachev ([www.inaturalist.org/observations/96068979](https://www.inaturalist.org/observations/96068979)) (Fig. 1a, b); in the same place. 16.vii.2020. P.V. Golyakov ([www.inaturalist.org/observations/53705977](https://www.inaturalist.org/observations/53705977)).

**Distribution.** Circumboreal species.

**Note.** The species is rare in the Altai Mountain Country; in the Altai Territory only one location is known on the Sinyukha Mt. (Kurinsky District) (Shmakov 2005).

## Family Plantaginaceae

### *Veronica* × *schmakovii* Kosachev

Figures 2–3

**Material examined.** Russia, Altai Territory, Zmeinogorsky District, the basin of the Belaya River, the valley of the Strizhanka River, 50°56'17.54" N, 82°54'53.03" E, elev. 630 m, bushy slope with southern exposure, rocks, 16.vii.2023, leg. P. Kosachev (TIGZ; [www.inaturalist.org/observations/175151992](http://www.inaturalist.org/observations/175151992); Fig. 2a–d) Russia, Altai Territory, Zmeinogorsky District, valley of the Belaya River near the mouth of the Krakhalikha River, 50°57'25.3" N, 82°51'51.0" E, elev. 576 m, floodplain meadow, bushy mountain slope, 19.vii.2023, leg. P. Kosachev (TIGZ; [www.inaturalist.org/observations/175487299](http://www.inaturalist.org/observations/175487299); Fig. 3a–c).

**Distribution.** This hybrid is endemic to the Altai Mountain Country.

**Note.** This is the first record of the species in the Altai Territory. *V.* × *schmakovii* previously known from 23 locations from the Republic of Altai, Republic of Tuva, Kazakhstan and Mongolia (Kosachev and Albach 2022).

### *Veronica* × *sessiliflora* Bunge

Figure 4

**Material examined.** Russia, Altai Territory, Zmeinogorsky District, valley of the Belaya River near the mouth of the Krakhalikha River, 50°57'25.3" N, 82°51'51.0" E, elev. 576 m, floodplain meadow, bushy mountain slope, 19.vii.2023, leg. P. Kosachev (TIGZ; [www.inaturalist.org/observations/175491652](http://www.inaturalist.org/observations/175491652); Fig. 4a, b).

**Distribution.** Endemic to the Altai Mountain Country.

**Note.** This is the first record of the species in the Altai Territory. In total, 21 locations were known within the Altai Mts. (Kosachev and Albach 2022).

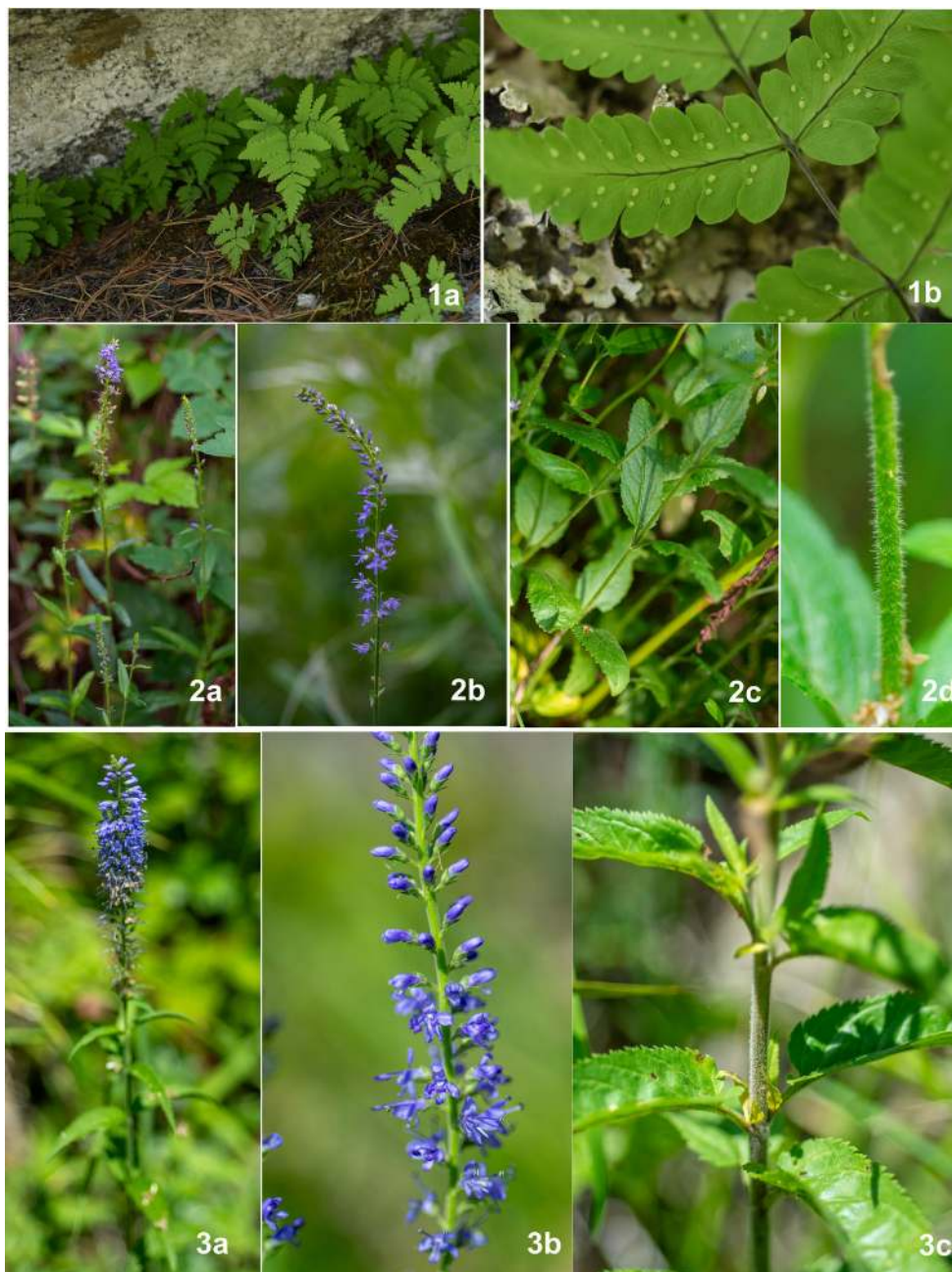
## Family Scheuchzeriaceae

### *Scheuchzeria palustris* L.

Figures 5–6

**Material examined.** Russia, Altai Territory, Talmensky District, 53°50'11.68" N, 83°46'47.06" E. Sphagnum bog with *Andromeda polifolia* L. and *Oxycoccus palustris* Pers., 29.x.2023, leg. P.V. Golyakov ([www.inaturalist.org/observations/189323785](http://www.inaturalist.org/observations/189323785)); Altai Territory, Talmensky District, near the community of Vypolzovo, Klyukvennoye Lake, 53°50'11.6" N, 83°46'46.1" E, cranberry-sphagnum bog, 01.vii.2025, leg. P.V. Golyakov (ALTB, TIGZ).

**Distribution.** Holarctic plant. The species grows in sphagnum bogs in the forest zone.



**Figures 1–3.** 1. *Gymnocarpium continentale* (upper reaches of the Kholodny Klyuch River): **a** – fern in natural habit, **b** – part of a frond with soruses on the underside. 2. *Veronica* × *schmakovii* (the valley of the Strizhanka River): **a** – flowering shoots, **b** – inflorescence, **c** – stems in the middle part, **d** – pubescence of the stem with glandular hairs. 3. *Veronica* × *schmakovii* (near the mouth of the Krakhalikha River): **a** – flowering shoots, **b** – inflorescence, **c** – stems in the middle part. 1, 2, 3 – field photo by P.A. Kosachev.



**Figure 4.** *Veronica*  $\times$  *sessiliflora* (near the mouth of the Krakhalikha River): **a** – inflorescence, **b** – stems in the middle part (glandular pubescence is visible). Field photo by P.A. Kosachev.

**Note.** This is the second record of the species in the region. The first report was made by Silantyeva (2013) for the Pervomaysky District near the village of Bayunovskie Klyuchi on the Klyukvennoye bog. This is a rare plant in Russia, listed in some regional Red Books in the European part (Red Books of Tambov, Lipetsk, Penza, Voronezh, Moscow regions, the Republic of Mordovia and some others) (Red Book... 2019). The limiting factor for the distribution of the species in the southern regions is the limited number of biotopes – sphagnum bogs. Such habitats are typical for more northern regions of Siberia, and in the Altai Territory they are known only in the northern regions. In the Republic of Altai, the plant has also been collected from a site on the Lebed' River (Krasnoborov and Korotkova 1988; Gerasimovich 2012).

Due to the insignificant area of sphagnum bogs and their degradation, the only location of the plant in the region, we recommend a species for inclusion in the Red Book of the Altai Territory.



**Figure 5.** *Scheuchzeria palustris*. P.V. Golyakov, herbarium specimen (ALTU). Photo by P.A. Kosachev.



**Figure 6.** *Scheuchzeria palustris*. P.V. Golyakov, infructescence (TIGZ). Photo by E.A. Davydov. Scale = 1 mm.

## Family Cyperaceae

### *Cyperus michelianus* (L.) Delile

Figure 7

**Material examined.** Russia, Altai Territory, Kalmanskii District, settlement Buranovo, bank of the Obi River, 53°2'33" N, 83°37'35" E, sandbank, 23.viii.2024, leg. P.V. Golyakov (ALTB; [www.inaturalist.org/observations/237493344](https://www.inaturalist.org/observations/237493344)).

**Distribution.** Eurasia.

**Note.** A rare species in Siberia, where it is known only from 6 regions: Omsk, Tomsk, Novosibirsk, Chuta, Republic of Buryatia, and Altai Territory. In Novosibirsk Region, the species is listed in the Red Book (Artemov 2018). In Altai Territory, the plant was collected very rarely: in the floodplain of the Chumysh River (Talmensky District), Lake Shirokoe (Zarinsky District), the floodplain of the Obi River (Pervomaysky District), the vicinity of the village of Stan-Bekhtemir (Biysky District) (Silantieva 2013). The present record supplements the distribution of this rare species in Altai Territory.



**Figure 7.** *Cyperus michelianus*. Field photo by P.V. Golyakov.

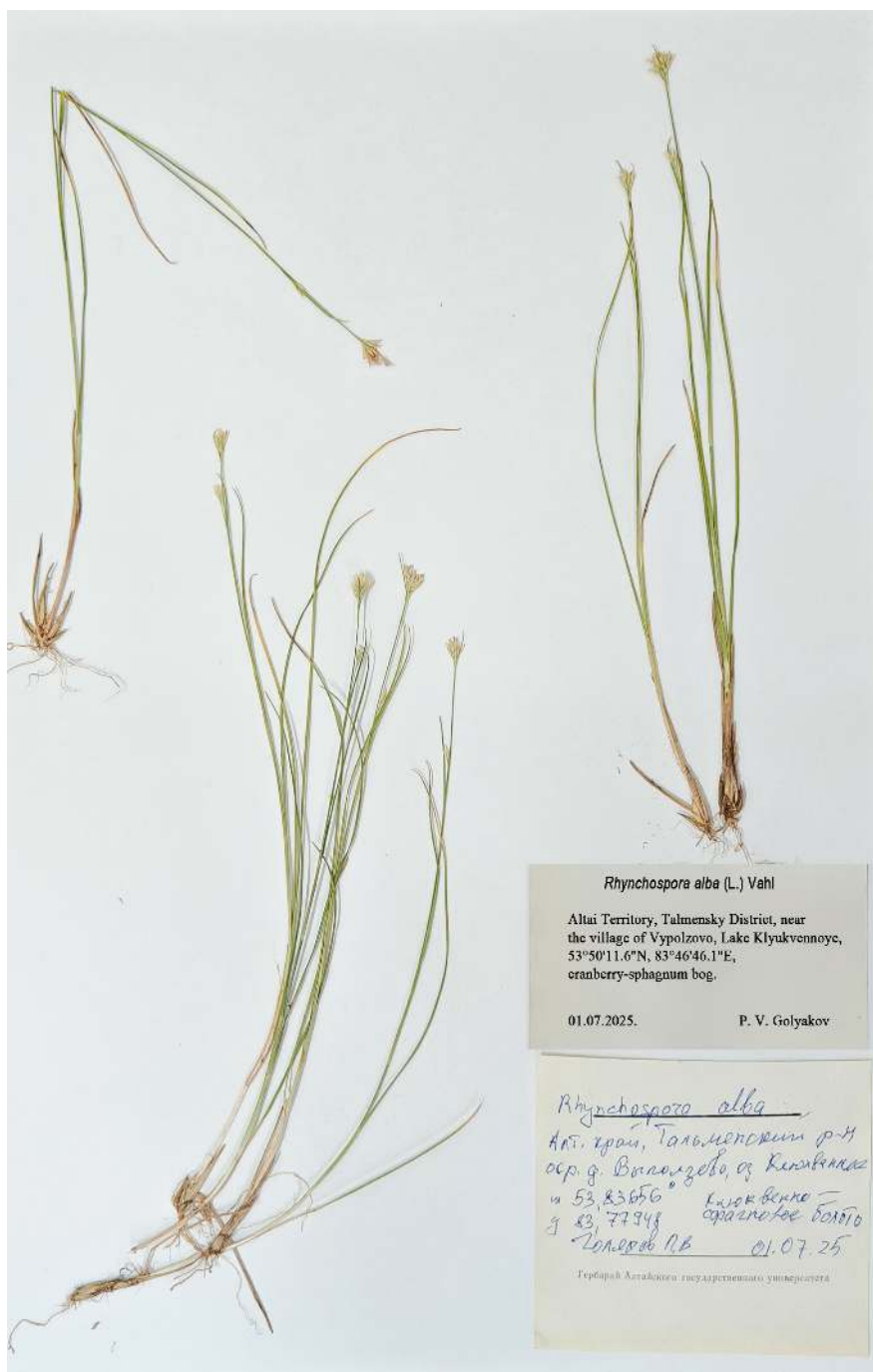
***Rhynchospora alba* (L.) Vahl**

Figure 8

**Material examined.** Russia, Altai Territory, Talmensky District, near the village of Vypolzovo, Klyukvennoye Lake, 53°50'11.6" N, 83°46'46.1" E, cranberry-sphagnum bog, 01.vii.2025, leg. P.V. Golyakov (ALTB).

**Distribution.** This species is widely distributed across the temperate zone of the Northern Hemisphere, with a preference for its southern regions, and is considered a circumpolar bog inhabitant.

**Note.** This represents the first record of the species in Altai Territory. In Siberia, it grows on *Sphagnum* or occasionally *Hypnum* bogs, at the edges of overgrowing lakes, and in waterlogged forests. It is found in eight Siberian regions: Tyumen, Omsk, Tomsk, and Irkutsk regions, Republic of Buryatia, Krasnoyarsk and Trans-Baikal Territories, and Yakutia (Timokhina and Bondareva 1990).



**Figure 8.** *Rhynchospora alba* (L.) Vahl. P.V. Golyakov, herbarium specimen (ALTB). Photo by P.A. Kosachev.

### *Schoenoplectiella supina* (L.) Lye

**Material examined.** Russia, Altai Territory, near the city of Barnaul, Obi River floodplain, 53°15'53" N, 83°52'13" E, swampy meadow, 06.viii.2024, leg. P.V. Golyakov (ALTB; [www.inaturalist.org/observations/234189067](https://www.inaturalist.org/observations/234189067)).

**Distribution.** The native range of this species is Europe to Central Siberia and Himalaya, Africa, Brazil to north-east Argentina.

**Note.** This is the first record of the species in the Altai Territory. It is an annual and grows primarily in the temperate biome. In Siberia, the species is very rare, noted only in two habitats in two provinces: Western Siberia Hemiboreal and Altai-Yenisei Mountain-Hemiboreal (Krasnoyarsk Territory). In addition, as an alien species, the plant is noted in Manchurian Continental province (Shekhovtsova 2024).

## Family Droseraceae

### *Drosera rotundifolia* L.

Figure 9

**Material examined.** Russia, Altai Territory, Talmensky District, near the village of Vypolzovo, Lake Klyukvennoye, 53°50'11.6" N, 83°46'46.1" E, cranberry-sphagnum bog, 01.vii.2025, leg. P.V. Golyakov (ALTB).

**Distribution.** Occurs in most regions of the Holarctic.

**Note.** This species is rare in the Altai Territory, with only 11 occurrences previously known in the region (Terekhina and Kopytina 2016). The main habitats of *Drosera rotundifolia* are acidic bogs and poor fens, although it has also been recorded in intermediate-rich and extreme-rich fens. It predominantly grows in *Sphagnum*-dominated communities (Baranyai and Joosten 2016). Due to the ongoing degradation of sphagnum bogs in the Altai region, *D. rotundifolia* faces a threat of extinction within the Altai Territory.

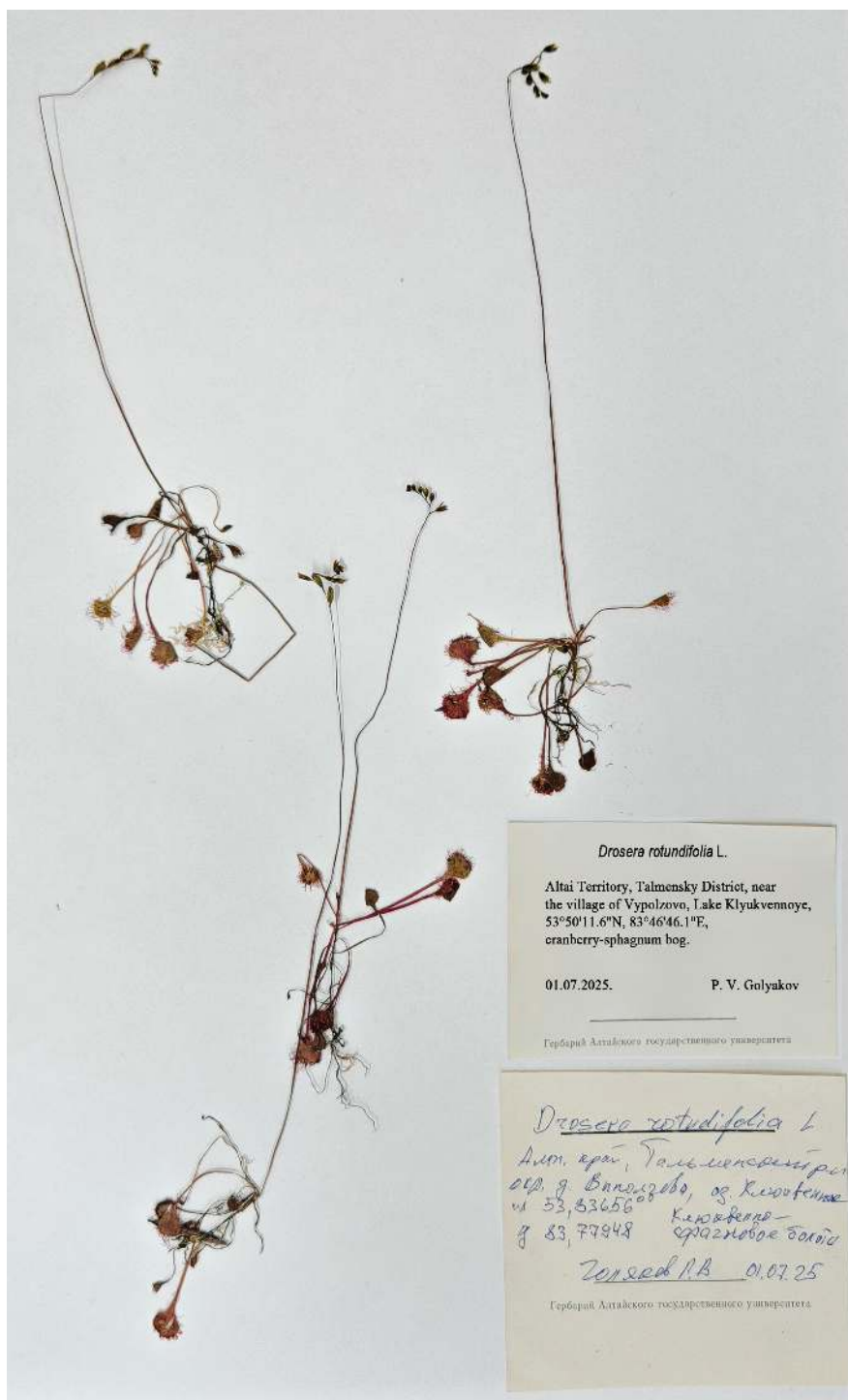
## Lichens

## Family Collemataceae

### *Lathagrium dichotomum* (With.) Otálora, P.M. Jørg. & Wedin

Figure 10

**Material examined.** Russia, Altai Territory, Zmeinogorsky District, Tigirek Strict Reserve, Tigirek Range, Belaya River, near Krokhalikha River mouth, on boulder in the water, leg. E.A. Davydov (19442) and Y.V. Storozhenko (TIGZ).



**Figure 9.** *Drosera rotundifolia* L. P.V. Golyakov, herbarium specimen (ALTB). Photo by P.A. Kosachev.

**Distribution.** This species exhibits a circumboreal distribution, occurring across Europe, Asia, and North America. Within Russia, it is documented in the Urals (Paukov and Teptina 2012), Eastern and Southern Siberia (Zhurbenko 2000; Makryi 2008; Vershinina et al. 2012; Urbanavicius and Stepanov 2022), and the northern European part, including Karelia (Thüs and Schultz 2009).

**Notes.** During a survey of approximately 22 km of the Belaya River channel between the tributaries Kazach'ya Slesarka and Strizhanka, only one population of *L. dichotomum* was observed near the mouth of the Krokhalikha River. The area occupied by this population was approximately 25 dm<sup>2</sup>, estimated to comprise around 250 individuals.

*Lathagrium dichotomum* has been recently included in the Red Data Book of the Russian Federation (2024); the report for the Altai Territory was based on unpublished data by Yakovchenko and lacked adequate scientific documentation. Here we amend this inaccuracy by providing detailed evidence of *L. dichotomum* as a new and confirmed record for the Altai Territory.

This is a widespread but infrequently recorded freshwater species. It thrives on permanently inundated siliceous boulders in clear, cold mountain streams, rivers, large creeks, and lakes with relatively slow-moving water (Nimis et al. 2018). It can also rarely occur in the splash zone of watercourses that experience very infrequent drying (Thüs and Schultz 2009).

## Family Coniocybaceae

### *Chaenotheca chlorella* (Ach.) Müll. Arg.

Figure 11

**Material examined.** Russia, Altai Territory, Eltsovsky District, Salair Ridge, at 6.5 km N from the Kaltyk settlement, at the vicinity of Ivanovka former settlement, 53°17'04" N, 86°27'44.2" E, elev. 341 m, 17.vi.2019, swampy spruce (*Picea obovata* Ledeb.) forest with *Carex* sp., on wood, leg. E.A. Davydov (22210) and L.S. Yakovchenko (TIGZ).

**Distribution.** Widely distributed in cool temperate and temperate areas of both the Northern and Southern Hemispheres. Within Russia, this species has been recorded from the Northern and Central European parts, the Northern Urals, and Western Siberia (Urbanavichus 2010; Urbanavichene and Urbanavichus 2019).

**Notes.** New record for the South Siberia.



**Figures 10–11.** 10. *Lathagrium dichotomum*. Underwater field photo by E. A. Davydov. 11. *Chaenotheca chlorella*. E.A. Davydov 22210 and L. S. Yakovchenko (TIGZ). Photo by Yu.V. Storozhenko. Scale = 1 mm, scale in the box = 0.5 mm.

## Family Lecanoraceae

### *Myrionora albidula* (Willey) R.C. Harris

Figure 12

**Material examined.** Russia, Altai Territory, Zarinsky District, Salair Ridge, at 13 km to NE from the Novoiushino, Togul River bassin, 53°41'50.6" N, 85°59'29.3" E, elev. 317 m, linden (*Tilia sibirica* Bayer) forest, on bark the fallen *Tilia sibirica* tree, 21.viii.2020, leg. E.A. Davydov (21413) and Yu.V. Storozhenko (TIGZ).

**Distribution.** This species inhabits the deciduous and coniferous forest belts of the northern temperate zone. In Russia, it was previously known from the European part (Kostroma, Leningrad, and Tver Regions), the Urals, Siberia (Altai and Trans-Baikal Territories), and the southern Russian Far East (Palice et al. 2013; Urbanavichene and Urbanavichus 2019; Kotkova et al. 2023). It has been published under the name *Biatora albidula* Willey for the Caucasus (Urbanavichus et al. 2021). Within the Altai Territory, it was found in Soloneshensky District (Palice et al. 2013).

**Notes.** New record for the Salair Ridge.



**Figure 12.** *Myrionora albidula*. Davydov 21413 and Y.V. Storozhenko (TIGZ). Scale = 2 mm. Photo by Y.V. Storozhenko.

***Scoliosporum perpusillum* L.Lahm ex Körb.**

**Material examined.** Russia, Altai Territory, Eltsovsky District, Salair Ridge, at 6.5 km N from the Kaltyk settlement, at the vicinity of former Ivanovka settlement, 53°17'04" N, 86°27'44.2" E, elev. 341 m, swampy spruce (*Picea obovata*) forest with *Carex* sp., on bark *Padus avium* Mill., 17.vi.2019, leg. E.A. Davydov (21529) and L.S. Yakovchenko (TIGZ).

**Distribution.** Within Russia, it is known from several regions in the southern, northern, and central European parts. In Siberia, it has been recorded from the Republic of Altai and Buryatia (Kharpukhaeva and Urbanavichus 2015, Urbanavichus and Urbanavichene 2022). In the Altai Territory, it has been reported for the North-Western Altai (Davydov and Printzen 2012). Outside of Russia, this species is recorded from Central and Northern Europe (Dymytrova 2011).

**Notes.** New record for the Salair Ridge.

**Family Peltigeraceae*****Peltigera collina* (Ach.) Schrad.**

Figure 13

**Material examined.** Russia, Altai Territory, Eltsovsky District, Salair Ridge, 4.2 km N of Benzherep II settlement, left bank of the Chumysh River, 53°18'6" N, 86°47'52" E, elev. 235 m, alone *Salix* sp. near the road, on soil, 15.vi.2019, leg. E.A. Davydov (17998) and L.S. Yakovchenko (TIGZ).

**Distribution.** This species is mainly distributed in the temperate zone of the northern hemisphere. In Russia: Arctic, European part, Caucasus, Urals, Siberia and Far East. (Urbanavichus 2010). In the Altai Territory the species has been reported for North-Western and Northern Altai (Davydov 2001; Davydov and Konoreva 2015). On the Salair Ridge the species was known from the Novosibirsk Region (Sedelnikova 2007).

**Notes.** New record for the Salair botanical-geographical province of the Altai Territory.

***Peltigera extenuata* (Nyl. ex Vain.) Lojka**

**Material examined.** Russia, Altai Territory, Zarinsky District, Salair Ridge, ca. 1 km SE of Alambai Settlement, 54°01'38" N, 85°54'06" E, elev. 235 m, *Abies sibirica* – *Pinus sibirica* forest with *Populus tremula* and *Betula pendula*, on rocks, 13.ix.2019, leg. E.A. Davydov (22321) and L.S. Yakovchenko (TIGZ).

**Distribution.** Cosmopolitan species widely distributed in Russia, where it was recorded in the Caucasus, Central Russia, Siberia, Kamchatka (Urbanavichus 2010; Ismailov 2021; Muchnik and Kazakova 2020). In the Altai Territory was found in North-West Altai (Davydov 2001).

**Notes.** New record for the Salair Ridge.



**Figure 13.** *Peltigera collina*. E.A. Davydov 17998 and L. S. Yakovchenko (TIGZ). Scale = 5 cm. Photo by Y.V. Storozhenko.

### Family Physciaceae

#### *Physcia alnophila* (Vain.) Loht.et al.

Figure 14

**Material examined.** Russia, Altai Territory, Eltsovsky District, Salair Ridge, at 6.5 km N from the Kaltyk settlement, at the vicinity of former Ivanovka settlement, 53°16'50.6" N, 86°27'53.7" E, elev. 341 m, riparian willow thickets, on branches of *Salix* sp., 17.vi.2019, leg. E.A. Davydov (21434) and L.S. Yakovchenko; Zarinsky District, at 13 km to NE from the Novoiushino, Togul River bassin, 53°41'50.9" N, 85°59'48.5" E, elev. 310 m, linden (*Tilia sibirica*) forest, on the bark of *Tilia sibirica*, 21.viii.2020, leg. E.A. Davydov (21495, 21534) and Yu.V. Storozhenko (TIGZ).

**Distribution.** The species is widespread, occurring in Europe, Asia, and North America. In Russia, *Physcia alnophila* is common in the northern European part, the Urals, Siberia, and throughout the Russian Far East (Urbanavichene 2008; Stepanchikova et al. 2010, Galanina et al. 2017). Within the Altai Territory, it has been found in the northwestern part of the region, including Tigirek Strict Reserve (Davydov 2012).

**Notes.** New record for the Salair Ridge. Specimens of this species are often kept in herbarium under different species names, mainly *Physcia aipolia* (Galanina et al. 2017).



**Figure 14.** *Physcia alnophila*. E.A. Davydov 21495 and Y.V. Storozhenko (TIGZ). Scale = 5 mm. Photo by Y.V. Storozhenko.

### *Physcia tenella* (Scop.) DC.

Figure 15

**Material examined.** Russia, Altai Territory, Zarinsky District, at 13 km to NE from the Novoiushino, Togul River basin, 53°41'58" N, 85°59'50" E, elev. 330 m, 11.v.2022, linden (*Tilia sibirica*) forest, on the bark of of *Tilia sibirica*, leg. E.A. Davydov and Yu.V. Storozhenko; Togulsky District 3.5 km to NE from the Shumikha, Togul River basin, right bank of the river Togul, between the river Togul and the river Mochishche, 53°38'32.4" N, 86°01'37.9" E, elev. 221 m, 18.vi.2019, aspen (*Populus tremula* L.) forest leg. E.A. Davydov (22183, 21533) and L.S. Yakovchenko (TIGZ).

**Distribution.** This species is primarily distributed within the temperate zone of the Northern Hemisphere. In Russia, it is found across the Arctic, European part, Caucasus, Urals, Siberia, and the Far East. The species is widespread throughout Russia (Urbanavichus 2010). Within the Altai Territory, the species is reported for the North-Western and Northern Altai regions (Davydov 2001; Davydov and

Konoreva 2015). On the Salair Ridge, it is known from the Novosibirsk Region (Sedelnikova 2007).

**Notes.** New record for the Salair botanical-geographical province of the Altai Territory.

Cosmopolitan, with wide distribution throughout Russia. The species is recorded in the Caucasus, Central Russia, Siberia, and Kamchatka (Urbanavichus 2010). In the Altai Territory, it was found both in the plain and mountainous part (Davydov 2014).



**Figure 15.** *Physcia tenella*. E.A. Davydov 22183 and Y.V. Storozhenko (TIGZ). Scale = 2 mm. Photo by Y.V. Storozhenko.

## Insects, Lepidoptera

### Family Tortricidae

#### *Cydia medicaginis* (Kuznetsov, 1962)

Figures 16, 30

**Material examined.** 1 male, Russia, Altai Territory, Krasnoshchekovo District, Chinetskiy Reserve, 14 km SE of village Chineta, Forest-steppe, 775 m, 24.vii.2023, 51.23720° N, 83.17714° E, leg. P. Pavlova (RYB).

**Distribution.** Euro-Siberian species (Anikin et al. 2019).

**Notes.** New to Altai Territory.

***Cochylis pallidana* Zeller, 1847**

Figures 17, 31

**Material examined.** 1 male, Russia, Altai Territory, Charysh District, 8 km S of village Pokrovka, lake Ozernoe, 1500 m, 17–18.vii.2025, 51.045834° N, 83.645250° E, leg. P. Pavlova (RYB).

**Distribution.** Trans-Palearctic species (Anikin et al. 2019).

**Notes.** New to Altai Territory.

***Aethes cnicana* (Westwood, 1854)**

Figures 18, 32

**Material examined.** 1 male, Russia, Altai Territory, Salair Mts., Togul District, 31 km NE of village Togul, linden (*Tilia sibirica*) forest, 370 m, 17.ix.2023, 53.69726° N, 85.99494° E, leg. P. Pavlova (RYB).

**Distribution.** Trans-Palearctic species (Anikin et al. 2019).

**Notes.** New to Altai Territory.

**Family Chimabachidae**

***Dasystoma salicella* (Hübner, 1796)**

Figure 19

**Material examined.** 2 males, Altai Territory, Tal'menka district, Tal'menka village vicinity, Chumysh river valley, 53.795159 N, 83.544224 S, 15.iv.2025, S.A. Knyazev (CSKO).

**Distribution.** From Europe to Far East (Anikin et al. 2019). In Siberia known from Omsk Province, Republic of Altai (Knyazev 2022; Knyazev and Ivonin 2025) and Altai Territory.

**Notes.** New to Altai Territory. Males were attracted at pheromones.

**Family Cossidae**

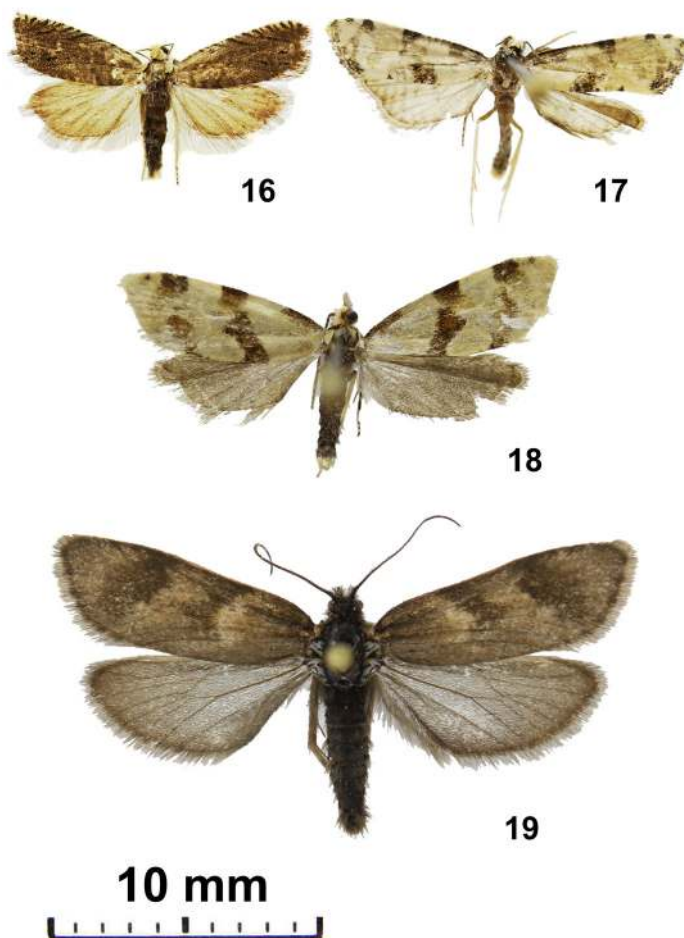
***Dyspessa salicicola* (Eversmann, 1848)**

Figure 20

**Material examined.** 2 males, Russia, Altai Territory, near Barnaul, South-Siberian Botanical Garden, 53.263832° N, 83.671093° E, 18.vi.2025, leg. A. Slepchenko (RYB).

**Distribution.** Nominative subspecies distributed in Bulgaria, Macedonia, Albania, Greece, Ukraine, SW Russia, Transcaucasia, Turkey, Central Kazakhstan (Romanoff 1885; Spuler 1910; Silbernagel 1944; Daniel 1962; Didmanidze 1978; Didmanidze and Zurashvili, 1981; de Freina 1983, 1996; Efetov and Budashkin 1990; de Freina and Witt, 1990; Yakovlev 2004, 2005, 2009, 2011; Didmanidze and Yakovlev, 2007; Kazenas and Baizanov 2009; Bayanov et al. 2015; Yakovlev et al. 2015, 2020, 2022; Yakovlev and Witt, 2016; Streltsov et al. 2022).

**Notes.** New species for Western Siberia. Possibly introduced accidentally.



**Figures 16–19.** Lepidoptera, adult specimens: **16.** *Cydia medicaginis* (RYB); **17.** *Cochylis pallidana* (RYB); **18.** *Aethes cnicana* (RYB); **19.** *Dasystoma salicella* (CSKO).

## Family Erebidae

### *Catocala helena* Eversmann, 1856

Figure 21

**Material examined.** 15 specimens, Russia, Altai Territory, near Novoaltaisk, 53.444054° N, 83.939779° E, 2–13.viii.2024, 27.vii–27.viii.2025, leg. A. Slepchenko (RYB).

**Distribution.** Manchurian nemoral-subboreal species historically distributed in East Palaearctic (China, Korea, Mongolia, south of the Russian Far East and Transbaikalia) (Kononenko 2010). The species was recently found in West Siberia, South Ural and the south of the European part of Russia and Kazakhstan (Karaganda and Pavlodar Provinces) (Knyazev 2011; Ismagilov and Krivosheev 2020; Knyazev et al. 2021; Titov et al. 2022).

**Notes.** New species for Altai Territory.

### *Catocala bella* Butler, 1877

Figure 22

**Material examined.** 1 male, Russia, Altai Territory, near Novoaltaisk, 53.444054° N, 83.939779° E, 12.viii.2025, leg. A. Slepchenko (RYB).

**Distribution.** Manchurian nemoral-subboreal species historically distributed in East Palaearctic (China, Korea, Mongolia, south of the Russian Far East and Transbaikalia) (Kononenko 2010). The species was recently found in West Siberian Plain (Knyazev 2020; Knyazev et al. 2022).

**Notes.** New species for Altai Territory.

### *Hypena crassalis* (Fabricius, 1787)

Figure 23

**Material examined.** 1 male, Russia, Altai Territory, near Novoaltaisk, 53.444054° N, 83.939779° E, 13.vi.2025, leg. A. Slepchenko (RYB).

**Distribution.** European species. In Siberia known from Baikal Region and Altai Territory (Matov and Belova 2016; Gordeev et al. 2022)

**Notes.** New species for Altai Territory.

## Family Noctuidae

### *Conistra rubiginea* (Denis & Schiffermüller, 1775)

Figure 24

**Material examined.** 19 specimens, Russia, Altai Territory, Barnaul, 53°15'07.0" N, 83°44'22.5" E, 6–7.v.2022, 28.iv–5.v.2024, 26.iv.2025, leg. T. Zalutsky (TZB); 1 specimen, Altai Territory, Barnaul, 53°12'09.4" N, 83°41'32.0" E, 2.v.2022, leg. O. Kudrov (OKB); 22 specimens, Russia, Altai Territory, Rebrikha village, 28–30.iv.2024, 53°05'14.9" N 82°22'37.4" E, leg. E. Svirin (ESB).

**Distribution.** European species. From Asia was previously known from Kurgan (Zolotarenko and Dubatolov 2000) and Omsk (Knyazev 2020) regions of West Siberia, also in Pavlodar Region in Kazakhstan (Titov et al. 2017).

**Notes.** New species for Altai Territory.

### *Acronicta major* (Bremer 1861)

Figure 25

**Material examined.** 2 specimens, Russia, Altai Territory, near Novoaltaisk, 53.444054° N, 83.939779° E, 7.vi.2025, 4.vii.2025, leg. A. Slepchenko (RYB); 1 male, Altai Territory, near Barnaul, South-Siberian Botanical Garden, 53.263832°N, 83.671093°E, 18.vi.2025, leg. A. Slepchenko (RYB)

**Notes.** New localities for protected species.

### *Orthosia cerasi* (Fabricius, 1775)

Figure 26

**Material examined.** 2 male, Russia, Republic of Altai, Elekmonar village, 51°27'10.8" N, 86°02'39.4" E, 30.v.2025, leg. T. Zalutsky (TZB).

**Distribution.** Euro-Siberia species (Anikin et al. 2019).

**Notes.** New species for Republic of Altai.

## Family Lasiocampidae

### *Dendrolimus pini* (Linnaeus, 1758)

Figure 27

**Material examined.** 2 females, Russia, Altai Territory, Tal'menka district, Ozerki village, 53°38'52.6" N, 83°37'15.6" E, 17–18.vi.2025, leg. O. Kudrov (OKB).

**Distribution.** Euro-Siberian species. From Siberia was previously known from Krasnoyarsk and Baikal Regions (Zolotuhin 2015; Anikin et al. 2019).

**Notes.** New species for Altai Territory.



**Figures 20–27.** Lepidoptera, adult specimens: 20. *Dyspessa salicicola* (RYB); 21. *Catocala helena* (RYB); 22. *Catocala bella* (RYB); 23. *Hypena crassalis* (RYB); 24. *Conistra rubiginea* (TZB); 25. *Acronicta major* (RYB); 26. *Orthosia cerasi* (TZB); 27. *Dendrolimus pini* (OKB); 28. *Agrius convolvuli* (TZB); 29. *Macroglossum stellatarum* (TZB).

## Family Sphingidae

### *Agrius convolvuli* (Linnaeus, 1758)

Figure 28

**Material examined.** 2 male, Russia, Altai Territory, Belokurikha, 52°00'00.6"N, 85°01'13.6" E, 13.viii.2024, leg. T. Zalutsky (TZB).

**Distribution.** Cosmopolitan species. Eurasia, Africa, Australia and Oceania (Pittaway 2020; Pittaway and Kitching 2020). Though in Siberia and the adjacent countries it was recorded only locally. Thus, for Mongolia, the species is known on the unique specimen collected in the Trans-Altai Gobi (Yakovlev et al. 2015). It is regularly found in Omsk region (Knyazev 2020). The first find in Altai Territory was published in Yakovlev and Volgin 2020.

**Notes.** Second record for Altai Territory.

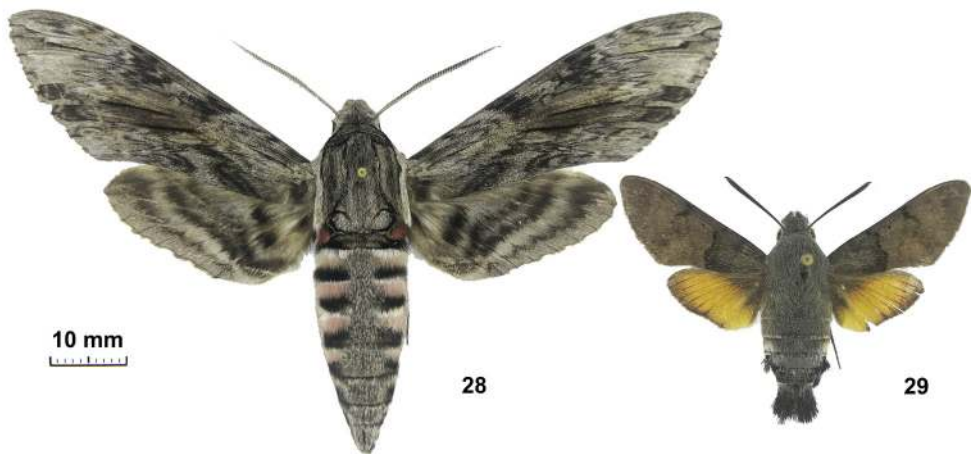
### *Macroglossum stellatarum* (Linnaeus, 1758)

Figure 29

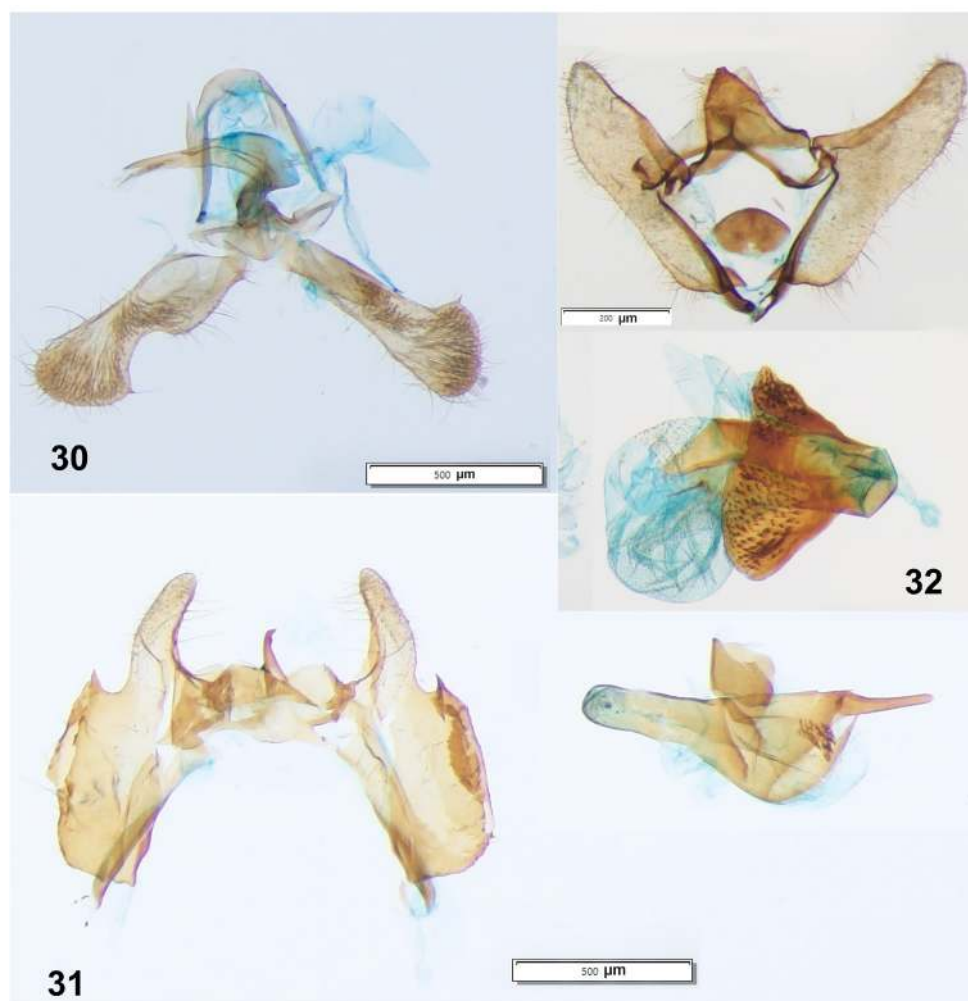
**Material examined.** 2 male, Russia, Republic of Altai, Uznenya village, 51°31'50.7" N, 85°56'01.6" E, 31.v.2025, leg. T. Zalutsky (TZB).

**Distribution.** Transpalearctic species, a noted summer migrant to the north (Yakovlev et al. 2015; Anikin et al. 2019; Pittaway and Kitching 2023).

**Notes.** The spring discovery may indicate the formation of stable populations in the Republic of Altai.



**Figures 28–29.** Lepidoptera, adult specimens: **28.** *Agrius convolvuli* (TZB); **29.** *Macroglossum stellatarum* (TZB).



**Figures 30–32.** Genitalia of Tortricidae: **30.** *Cydia medicaginis* (RYB); **31.** *Cochylis palidana* (RYB); **32.** *Aethes cnicana* (RYB).

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