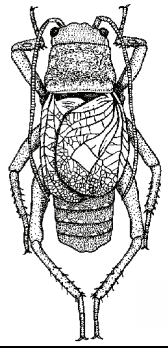

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NEW AND INTERESTING RECORDS OF LEPIDOPTERA FOR SEVERAL RUSSIAN REGIONS

I. A. Makhov*, V. A. Lukhtanov, A. Yu. Matov

*Zoological Institute of the Russian Academy of Sciences, St. Petersburg, 199034, Russia. *Corresponding author, E-mail: E-mail: Ilya.Makhov@zin.ru; maakhov@mail.ru*

Summary. The new findings of 14 species of Lepidoptera from 5 families are reported for 10 Russian regions: Volga-Don region, South Ural region, Krasnoyarsky Krai, Irkutskaya Oblast, Republic of Buryatia, Zabaikalsky Krai, South Yakut region, East Yakut region, Amurskaya Oblast, Primorsky Krai, and 3 rare species recently discovered in Russia. One species, *Maliattha signifera* (Walker, [1858]), is recorded in Russia for the first time. The records of *Crocota niveata* (Scopoli, 1793) for Volga-Don region and *Abraxas latifasciata* Warren, 1894 for Primorsky Krai are confirmed.

Key words: Lepidoptera, fauna, new records, Russia.

И. А. Махов, В. А. Лухтанов, А. Ю. Матов. Новые и интересные находки чешуекрылых (Lepidoptera) в некоторых регионах России // Дальневосточный энтомолог. 2024. N 493. С. 1-13.

Резюме. Приводятся 14 видов чешуекрылых из 5 семейств, ранее не отмеченных в 10 регионах России: Волго-Донском, Южно-Уральском регионах, Красноярском крае, Иркутской области, Республике Бурятия, Забайкальском крае, Южно-Якутском, Восточно-Якутском регионах, Амурской области и Приморском крае, а также 3 редких вида, недавно обнаруженных в России.

Один вид, *Maliattha signifera* (Walker, [1858]), впервые приводится для России; подтверждается обитание *Crocota niveata* (Scopoli, 1793) в Волго-Донском регионе и *Abraxas latifasciata* Warren, 1894 – в Приморском крае.

INTRODUCTION

Since the second edition of the Catalogue of the Lepidoptera of Russia was published (Sinev, 2019) the species composition and distribution of Lepidoptera on the Russian territory continues to be updated and clarified. Over the past period many publications with new records have been published. They concerned the European part of Russia (Bolshakov & Ismagilov, 2020a, 2020b; Bolshakov & Makarichev, 2020, 2021; Bolshakov & Okulov, 2020; Bolshakov *et al*., 2020b, 2022b; Gavrilov, 2022), Volga region (Anikin *et al*., 2021; Bolshakov & Ismagilov, 2020c, 2021; Bolshakov & Ruchin, 2022; Bolshakov *et al*., 2020a, 2021, 2022a, 2022c, 2023 *etc*.), North Caucasus (Dubatolov *et al*., 2021; Ustjuzhanin *et al*., 2022; Yakovlev *et al*., 2022; Poltavsky *et al*., 2022 *etc*.), the number of Siberian regions (Vasilenko & Ivonin, 2020; Knyazev & Galich, 2021, Maksimov *et al*., 2022; Makhov, 2021; Makhov & Lukhtanov, 2021; Knyazev & Ponomarev, 2020; Knyazev *et al*., 2021; Knyazev & Mironov, 2021; Ivonin *et al*., 2021 *etc*.), Russian Far East (Beljaev & Knyazev, 2021; Dubatolov, 2019; Koshkin *et al*., 2021a, 2021b; Koshkin, 2022; Kuzmin & Beljaev, 2021, 2022; Rybalkin *et al*., 2022 *etc*.). Several new species for the Russian fauna was also recorded (for example see Dubatolov, 2021a; Morgun & Ilyina, 2021; Rybalkin, 2020a, 2020b; Rybalkin e*t al*., 2019).

During the summer months of 2021–2022 the first two authors of this work made several trips across Russia: from St. Petersburg to Magadan and back in 2021, and from St. Petersburg to the Altai Republic (border with Mongolia) and back in 2022. In addition, the first author worked in the south of Primorsky Krai in August 2022. As a result, extensive material of different Lepidoptera groups was collected. The present communication is generally based on this material and provides the data on the species which have not been previously recorded in the several regions of Russia. Along with the samples collected by the first author, we are considering here materials and information received from S.V. Nedoshivina (Zoological Institute of RAS, St. Petersburg) and O.V. Korsun (Federal State Budgetary Institution of Science Institute of Natural Resources, Ecology and Cryology of the Siberian Branch of the Russian Academy of Sciences, Chita).

MATERIAL AND METHODS

The moths were collected using a light trap with a white cloth screen and a Sylvania HSL-BW E40 250W high pressure mercury lamp. The butterflies were caught with the standard entomological net. The genitalia were examined and documented using a Nikon SMZ25 stereo microscope, a Nikon DS-Ri2 digital camera, and NIS-Elements BR software at the Core Facilities Center “Taxon” of the Zoological Institute of RAS (St. Petersburg).

LIST OF SPECIES

Family Limacodidae

Parasa hilarula **(Staudinger, 1887)**

MATERIAL. Zabaikalsky Krai: Mogochinsky District, 20 km SEE of Mogocha, near Taptugary vill. (53.668471 N, 120.084649 E), at light, 20.VII 2021, 2 ♂, leg. I. Makhov; Mogochinsky District, Pokrovka vill. (53.343667 N, 121.538003 E), at light, 9.VII 2022, 1 ♂, leg. O. Korsun.

NOTE. New for Zabaikalsky Krai. The listed records are the westernmost known.

Family Sphingidae

Psilogramma increta (Walker, 1865)
Fig. 1

MATERIAL. Primorsky Krai: Khasansky District, 10 km NW of Barabash, Ovchinnikovo vill. (43.238508 N, 131.384001 E), at light, 16–18.VIII 2022, 1 ♂, leg. I. Makhov.

NOTE. *P. increta* was first found in Russia in Khasansky District in 2020 (Spitsyn & Spitsyna, 2021). Apparently, this hawk moth belongs to the migratory species.

Family Erebidae

Lymantria monacha **(Linnaeus, 1758)**

MATERIAL. Zabaikalsky Krai: Mogochinsky District, 20 km SEE of Mogocha, near Taptugary vill. (53.668471 N, 120.084649 E), at light, 20.VII 2021, 1 ♂, leg. I. Makhov.

NOTE. New for Zabaikalsky Krai.

Paragabara curvicornuta **Kononenko et Matov, 2010**
Figs 5, 14

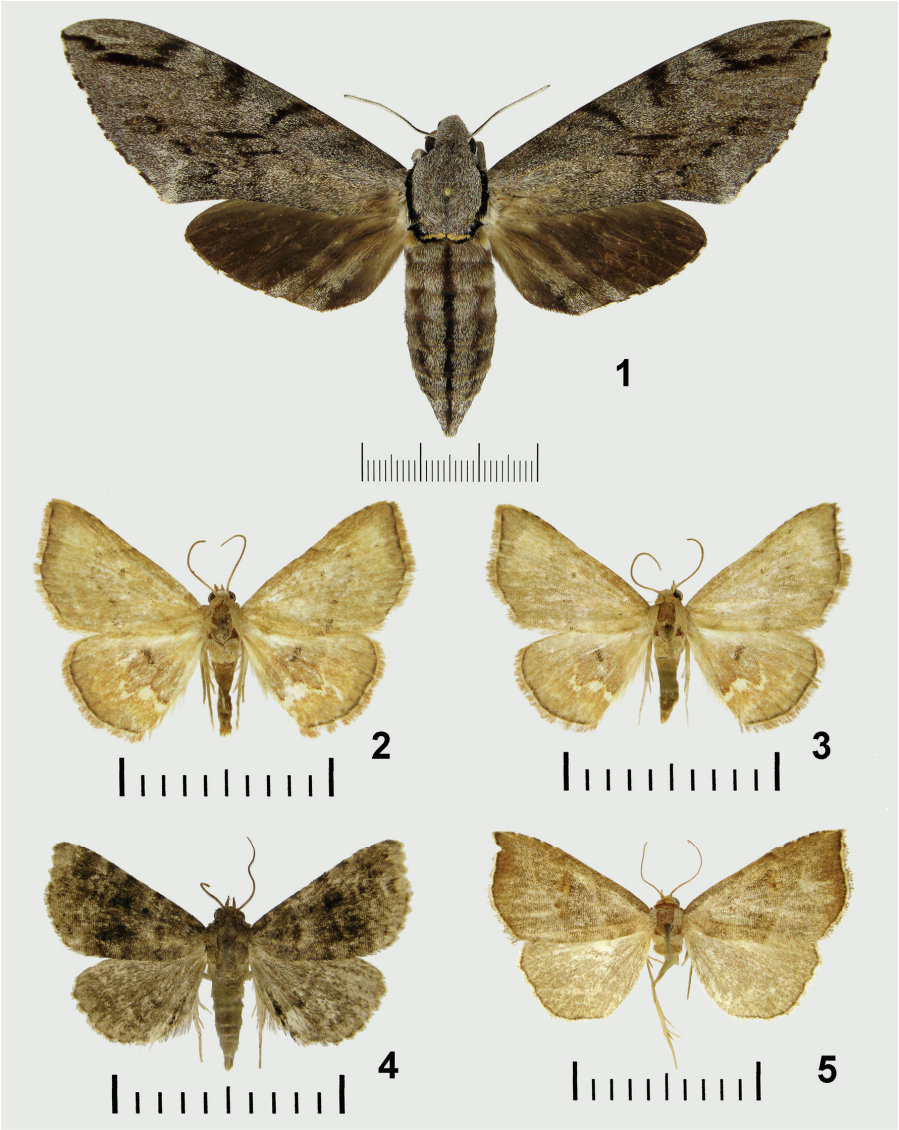
MATERIAL. Amurskaya Oblast: Skovorodinsky District, 15 km NE of Skovorodino, mixed forest (54.049661 N, 124.228859 E), at light, 19.VII 2021, 1 ♀, leg. I. Makhov.

NOTE. New for Amurskaya Oblast. The species was described from Primorsky Krai and until now known only from there.

Enispa lutefascialis **(Leech, 1889)**
Figs 2, 3

MATERIAL. Republic of Buryatia: Tarbagataysky District, Selenga river valley, 6 km N of Tarbagatay (51.543333 N, 107.361111 E), at light, 23.VII 2021, 2 ♂, leg. I. Makhov.

NOTE. New for Republic of Buryatia. The locality in Buryatia is the westernmost known.



Figs 1–5. Moths, dorsal view. 1 – *Psilogramma increta* (Walker, 1865), ♂, Primorsky Krai; 2, 3 – *Enispa lutefascialis* (Leech, 1889), ♂, Buryatia; 4 – *Metachrostis sinevi* Kononenko et Matov, 2009, ♂, Primorsky Krai; 5 – *Paragabara curvicornuta* Kononenko et Matov, 2010, ♀, Amurskaya Oblast. Scale bar = 1 cm.

***Metachrostis sinevi* Kononenko et Matov, 2009**
Fig. 4

MATERIAL. Primorsky Krai: Khasansky District, Krabbe peninsula, recreation centre (42.599230 N, 130.903876 E), at light, 20.VIII 2022, 1 ♂, leg. I. Makhov; Golubiny Utes (42.411771 N, 130.754059 E), at light, 9.VIII 2022, 1 ♂, leg. I. Makhov.

NOTE. The second finding of this species in Primorsky Krai after the species description (Kononenko & Matov, 2009).

Family Nolidae

***Siglophora sanguinolenta* (Moore, 1888)**
Figs 6, 7

MATERIAL. Primorsky Krai: Khasansky District, Barabash vill. (43.183673 N, 131.495206 E), at light, 6–7.VIII 2022, 1 ♀, leg. I. Makhov; same location, 19.VIII 2022, 1 ♂, leg. I. Makhov; 10 km NW of Barabash, Ovchinnikovo vill. (43.238508 N, 131.384001 E), at light, 16–18.VIII 2022, 2 ♂, leg. I. Makhov.

NOTE. The species was first recorded in the Russian Federation by for Khabarovsky Krai (Dubatolov, 2021b; Koshkin, 2021; Koshkin *et al*., 2021) and more recently for Primorsky Krai (Koshkin & Golovizin, 2022). These findings are indicative of successful naturalization of *S. sanguinolenta* in Primorsky Krai too.

Family Noctuidae

***Maliattha signifera* (Walker, [1858])**
Fig. 8

MATERIAL. Primorsky Krai: Khasansky District, Barabash vill. (43.183673 N, 131.495206 E), at light, 13.VIII 2022, 1 ♀ leg. I. Makhov.

NOTE. The species has a wide distribution in South and East Asia (including China, Korea and Japan), Australia and Oceania (Kononenko & Pinratana, 2013) but in Russia was found for the first time.

***Moma alpium* (Osbeck, 1778)**

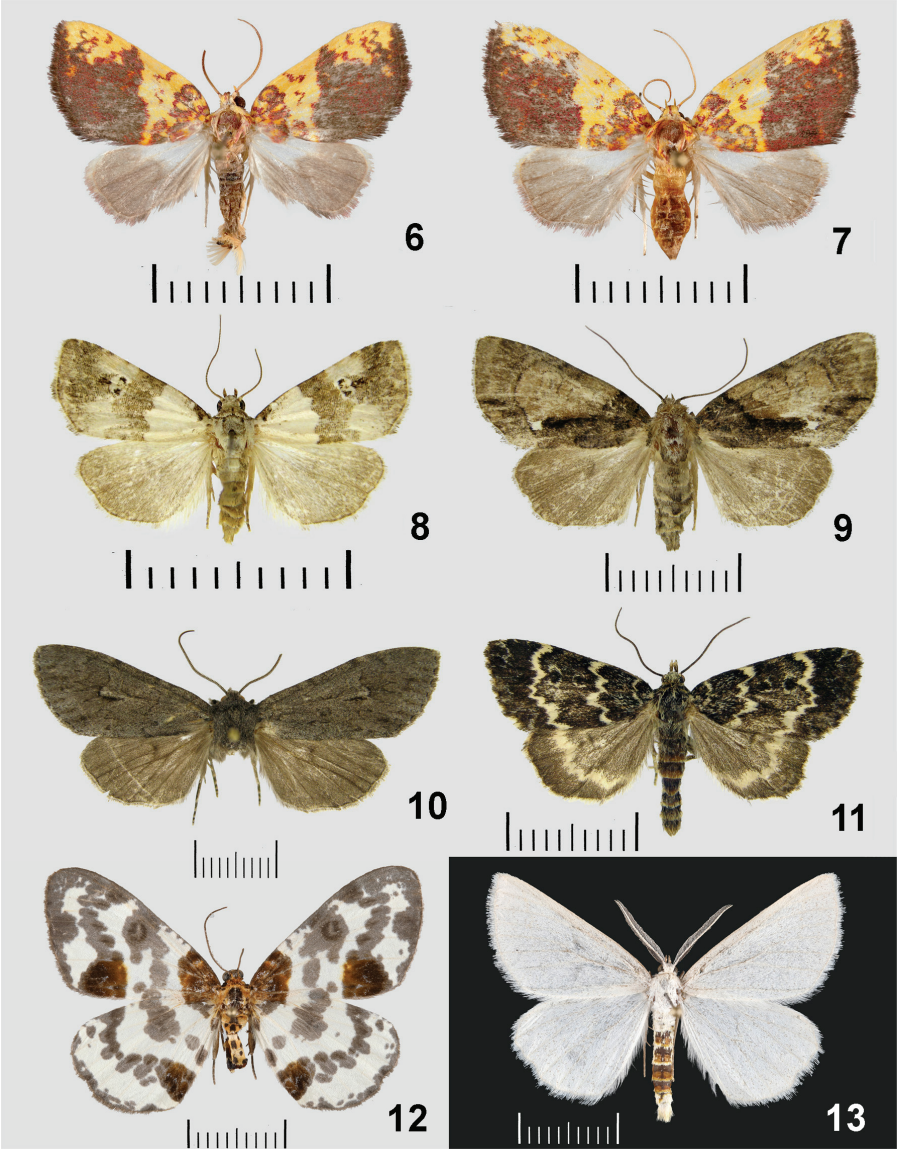
MATERIAL. Zabaikalsky Krai: Mogochinsky District, 20 km SEE of Mogocha, near Taptugary vill. (53.668471 N, 120.084649 E), at light, 20.VII 2021, 4 ♂, leg. I. Makhov.

NOTE. New for Zabaikalsky Krai.

***Chytonix albonotata* (Staudinger, 1892)**
Figs 9, 15, 16

MATERIAL. Amurskaya Oblast: Skovorodinsky District, 15 km NE of Skovorodino, mixed forest (54.049661 N, 124.228859 E), at light, 19.VII 2021, 2 ♂, leg. I. Makhov.

NOTE. New for Amurskaya Oblast.



Figs 6–13. Moths, dorsal view. 6 – *Siglophora sanguinolenta* (Moore, 1888), ♂, Primorsky Krai; 7 – ditto, ♀; 8 – *Maliattha signifera* (Walker, [1858]), ♀, Primorsky Krai; 9 – *Chytonix albonotata* (Staudinger, 1892), ♂, Amurskaya Oblast; 10 – *Polia vespertilio* (Draudt, 1934), ♂, Amurskaya Oblast; 11 – *Xestia penthima* (Erschoff, 1870), ♂, Yakutia; 12 – *Abraxas latifasciata* Warren, 1894, ♂, Primorsky Krai; 13 – *Crocota niveata* (Scopoli, 1763), ♂, Saratovskaya Oblast. Scale bar = 1 cm.

***Lithophane consocia* (Borkhausen, 1792)**

MATERIAL. Irkutskaya Oblast: Irkutsky District, 8 km S of Irkutsk, "Lavrentyevo" gardening partnership (52.144722 N, 104.301389 E), at light, 8.V 2021, 1 ♂, leg. I. Makhov.

NOTE. New for Irkutskaya Oblast.

***Polia vespertilio* (Draudt, 1934)**
Fig. 10

MATERIAL. Amurskaya Oblast: Skovorodinsky District, 15 km NE of Skovorodino, mixed forest (54.049661 N, 124.228859 E), at light, 19.VII.2021, 2 ♂, leg. I. Makhov.

NOTE. New for Amurskaya Oblast.

***Xestia penthima* (Erschoff, 1870)**
Fig. 11

MATERIAL. Republic of Sakha (Yakutia): Aldansky District, 21 km S of Aldan, Bely bald peak (58.426605 N, 125.442985 E), daytime, 18.VII 2021, 1 ♂, leg. I. Makhov.

NOTE. New for South Yakutia.

Family Geometridae

***Crocota niveata* (Scopoli, 1763)**
Fig. 13

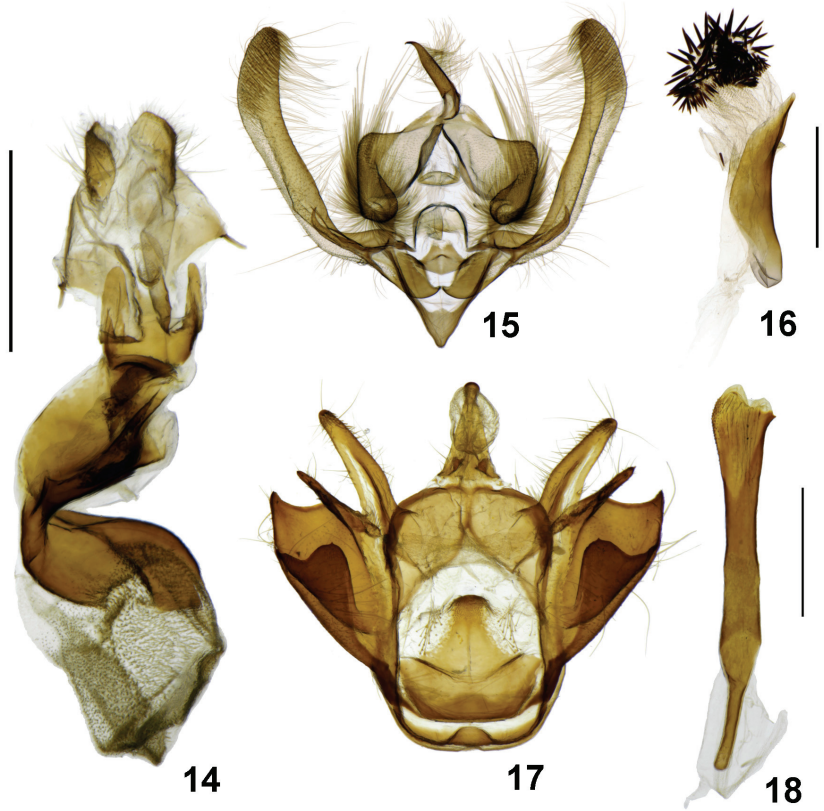
MATERIAL. Saratovskaya Oblast: Krasnopartizansky District, 165 km E of Saratov, Gorny vill. (51.7874077 N, 48.5423485 E), at light, 22.V 2022, 1 ♂, leg. I. Makhov.

NOTE. This taxon is listed as questionable for the Mid-Volga and Volga-Don regions (Beljaev & Mironov, 2023). Bolshakov and Ismagilov (2020a) note that *C. niveata* was wrongly included in the Catalogue. They suppose this error is based on "an old indication for Kazanskaya Province, Orenburgskaya Province and Lower Volga region [Eversmann, 1844 (Minoa Niveata)]", and also associate subsequent indication for Volgogradskaya Oblast и Saratovskaya Oblast with citing this erroneous identification of Eversman. In any case, our data confirm that this species inhabits Volga-Don region in Russia.

***Autotrichia pellucida* (Staudinger, 1890)**

MATERIAL. Krasnoyarsky Krai: "Sayano-Shushensky, NR Shugur, 540 m, 51.820000 N, 92.131000 E", 2 ♂, leg. S. Nedoshivina.

NOTE. New for Krasnoyarsk Region. The moth was collected on the border with the Republic of Tyva, where it apparently also lives inhabiting high mountain areas.



Figs 14–18. Genitalia structures of Lepidoptera. 14 – *Paragabara curvicornuta* Kononenko & Matov, 2010, ♀, bursa copulatrix; 15, 16 – male genitalia of *Chytonix albonotata* (Staudinger, 1892) (15 – genital segment, 16 – phallos); 17, 18 – male genitalia of *Abraxas latifasciata* Warren, 1894 (17 – genital segment, 18 – phallos). Scale bar = 1 mm.

***Abraxas latifasciata* Warren, 1894**
Figs 12, 17, 18

MATERIAL. Primorsky Krai: Khasansky District, Barabash vill. vicinity (43.183673 N, 131.495206 E), at light, 6–7.VIII 2022, 3 ♂, leg. I. Makhov; Khasansky District, Krabbe peninsula, recreation centre (42.599230 N, 130.903876 E), at light, 20.VIII 2022, 1 ♂, leg. I. Makhov.

NOTE. Confirmation for Primorsky Krai. *Abraxas latifasciata* was previously indicated for Southern Primorye (Wehrli, 1939) as *Abraxas suspecta japanibia* and *Abraxas suspecta latifasciata*, however, the material was unavailable and this indication required confirmation (Beljaev, 2016). Reliable identification of a number of East Asian *Abraxas* species is possible only with using genitalia features. It is likely that specimens of *A. latifasciata* in earlier collections may have been incorrectly identified.

***Eupithecia tenuiata* (Hübner, 1813)**

MATERIAL. Chelyabinskaya Oblast: Ashinsky District, 30 km E of Asha, Sim village vicinity (54.995135N, 57.742488E), at light, 29.VII.2021, 3 ♂, 1 ♀, leg. I. Makhov.

NOTE. New for South Ural.

***Scopula cajanderi* (Herz, 1904)**

MATERIAL. Republic of Sakha (Yakutia): Aldansky District, 118 km S of Aldan, Evota pass (57.538039 N, 125.188787 E), daytime, 18.VII 2021, 3 ♂, 8 ♀, leg. I. Makhov.

NOTE. New for South Yakutia.

Family Nymphalidae

***Melitaea arcesia* Bremer, 1861**

MATERIAL. Republic of Sakha (Yakutia): Oymyakonsky District, Nera River (64.470273 N 144.401976 E), 4.VII 2021, 3 ♂, 1 ♀, leg. V. Lukhtanov.

NOTE. New for North-Eastern Yakutia.

***Erebia cyclopius* (Eversmann, 1844)**

MATERIAL. Republic of Sakha (Yakutia): Tomponsky District, 16 km of Tepliy Klyuch (62.755228 N, 136.498114 E), 12.VI 2021, 1 ♂, leg. V. Lukhtanov.

NOTE. New for North-Eastern Yakutia.

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