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**NEW RECORDS OF TROPICAL AND SUBTROPICAL NOCTUOID  
MOTHS (LEPIDOPTERA: EREBIDAE, NOLIDAE) FROM  
PRIMORSKY KRAI, RUSSIA**

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**Summary.** Two new Erebidae genera (*Hyospila* Guenée, 1852 and *Lacera* Guenée, 1852) and two species, *Hyospila bolinoides* Guenée, 1852 and *Lacera procellosa* Butler, 1879, are recorded from Russia for the first time. *Siglophora sanguinolenta* (Moore, 1888) (Nolidae) is new for the fauna of Primorsky krai. Invasions of tropical and subtropical moths in the southern part of the Russian Far East are briefly discussed.

**Key words:** Noctuoidea, Erebidae, Nolidae, fauna, new records, Russian Far East.

**Е. С. Кошкин, В. А. Головизин. Новые находки тропических и субтропических видов совкообразных чешуекрылых (Lepidoptera: Erebidae, Nolidae) из Приморского края, Россия // Дальневосточный энтомолог. 2022. N 456. С. 12-16.**

**Резюме.** Впервые для фауны России приводятся два рода (*Hyospila* Guenée, 1852 и *Lacera* Guenée, 1852) и два вида (*Hyospila bolinoides* Guenée, 1852 и *Lacera procellosa* Butler, 1879) семейства Erebidae. Вид *Siglophora sanguinolenta* (Moore, 1888) (Nolidae) впервые указан для Приморского края. Кратко обсуждаются инвазии тропических и субтропических чешуекрылых в южные районы Дальнего Востока России.

**INTRODUCTION**

During expeditionary studies of the Lepidoptera fauna in Primorsky krai in 2020–2021, the second author collected three species from the families Erebidae and Noctuidae, which had not been recorded in this region before that time. Two tropical Erebid species (*Hyospila bolinoides* Guenée, 1852 and *Lacera procellosa* Butler, 1879) were found for the first time in Russia. Undoubtedly, both species are migrants in Primorsky krai. Their nearest resident populations are known from Eastern China and/or South Japan. In addition, host plants for these moth species, woody lianas from the genus *Derris* and trees from the genera *Caesalpinia*

and *Gleditsia* (Fabaceae), do not grow in the Russian Far East. *Siglophora sanguinolenta* (Moore, 1888) (Noctuidae), another species Noctuoidea inhabiting mainly the subtropics and tropics of East and Southeast Asia, was first discovered in Primorsky krai. Taking into account the process of naturalization of this species in more northern territories (south of Khabarovskiy krai), new finds in Primorsky krai fit into this trend.

New finds of tropical and subtropical Lepidoptera species in the south of the Russian Far East may be caused by general warming in the region. This trend is especially pronounced in the last 10 years, when about ten species of Lepidoptera from the superfamily Noctuoidea and the family Sphingidae were found for the first time in Russia (Dubatolov & Yakovlev, 2013; Koshkin *et al.*, 2015, 2021a, 2021b; Beljaev & Velyaev, 2016; Koshkin & Kostyunin, 2017; Spitsyn & Spitsyna, 2021; Dubatolov, 2021). Many other species during this time significantly expanded their ranges to the north (Dubatolov, 2021; Koshkin, 2021; Koshkin *et al.*, 2021b).

The specimens were collected on light traps. Studied material is deposited in the collections of E.S. Koshkin [EK] and V.A. Golovizin [VG]. Photographs of adults were taken with a Sony SLT-A65 digital camera with a Sony 2.8/50 macro lens. The genitalia were photographed using Zeiss Stemi 2000-C Stereo Microscope with Zeiss AxioCam ERc5s Microscope Camera.

## NEW RECORDS

### Family Erebidae

#### Subfamily Erebinae Leach, [1815]

#### Tribe Acantholipini Fibiger et Lafontaine, 2005

#### *Hyospila bolinoides* Guenée, 1852

Figs 1–3

**MATERIAL EXAMINED.** **Russia:** Primorsky krai, Khasan District, 5 km NW Zanadrovovka village, near bridge over Gryaznaya River, 43°20'48" N, 131°35'10" E, 90 m, 10.IX 2021, 1 ♀, leg. V. Golovizin [EK].

**DISTRIBUTION.** Russia (new record): Primorsky krai; Japan: Kyushu Island; South Korea (migrant); China: Shandong, Hunan, Taiwan, Hong Kong, Guangdong, Hainan, Yunnan; India; Sri Lanka; Nepal; Thailand; Cambodia; Vietnam; Malaysia; Indonesia; Caroline Islands; New Guinea; Australia: Queensland; Solomon Islands; New Caledonia (Holloway, 1979, 2005; Inoue *et al.*, 1982; Kononenko *et al.*, 1998; Kendrick *et al.*, 2004; Kononenko & Pinratana, 2005; GBIF..., 2022).

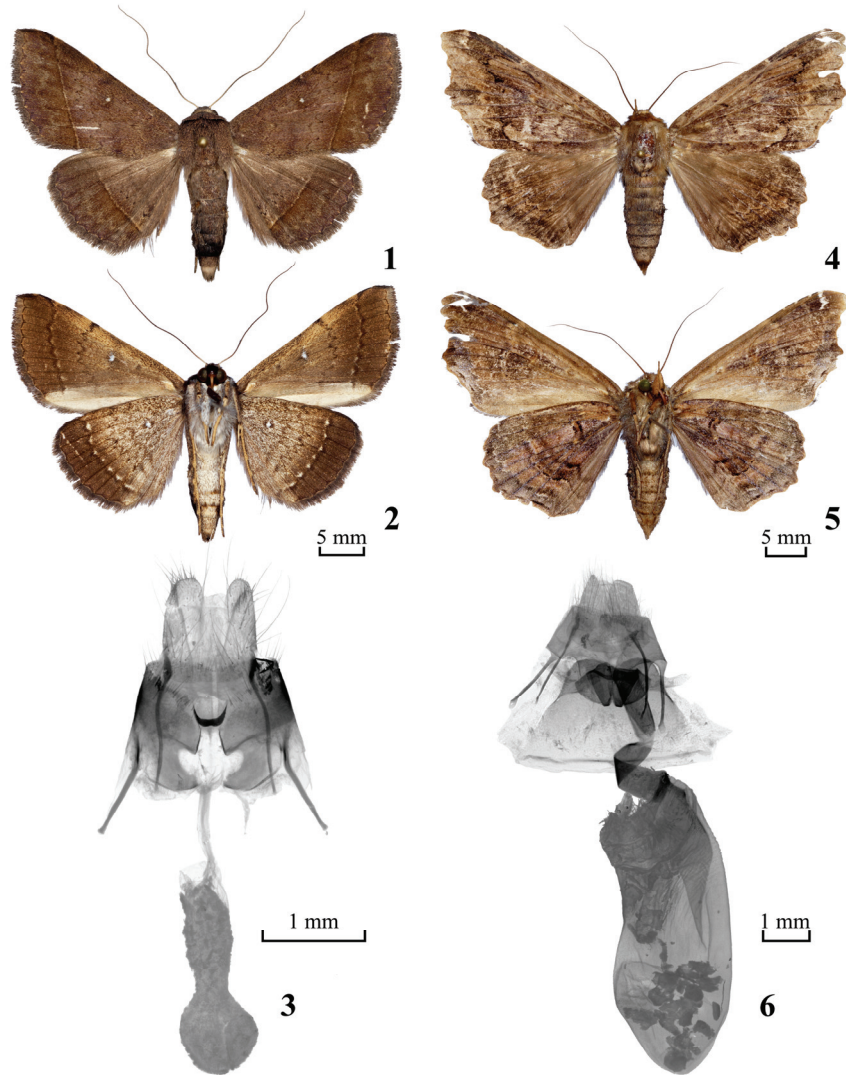
**REMARKS.** Both the genus *Hyospila* Guenée, 1852 and the species *H. bolinoides* are reported from Russia for the first time. This species is widely distributed in the tropics of South and Southeast Asia, as well as in Australasia. In the north it reaches South Korea and Japan, where it is considered a vagrant species. Without a doubt, a specimen collected in the south of Primorsky krai is also migrating from the more southern regions of Asia. The host plants are *Derris* species (Fabaceae) (Holloway, 2005). Species of this genus grow in tropical and subtropical regions of Africa, South and Southeast Asia, and Australasia. The northernmost species in Asia is *D. fordii* Oliver, which reaches to the north the Zhejiang Province in Eastern China (Dezhao & Pedley, 2010). The northernmost records of *H. bolinoides* in China are located a little further north, in Shandong Province (Kendrick *et al.*, 2004). Thus, Eastern China is the location of the nearest native populations of *H. bolinoides*, which may produce migratory specimens to Russian Far East and Korea.

Tribe Hulodini Guenée, 1852

*Lacera procellosa* Butler, 1879

Figs 4–6

MATERIAL EXAMINED. **Russia:** Primorsky krai, Khasan District, 5 km NW Zanad-  
vorovka village, near bridge over Gryznaya River, 43°20'48" N, 131°35'10" E, 90 m, 9.IX  
2021, 1 ♀, leg. V. Golovizin [EK].



Figs 1–6. Habitus (1, 2, 4, 5) and genitalia (3, 6) of Erebid moths from Primorsky krai (5 km NW Zanadvorovka). 1–3 – *Hypospila bolinoides* Guenée, 1852, female; 4–6 – *Lacera procellosa* Butler, 1879, female. 1, 4 – upperside; 2, 5 – underside.

DISTRIBUTION. Russia (new record): Primorsky krai; Japan: Honshu, Shikoku, Kyushu, Tsushima, Okinawa; South Korea (Cheju); China: Hunan, Taiwan, Hong Kong, Jiangxi, Hainan, Xizang; Nepal; India; Sri Lanka; Thailand; Cambodia; Vietnam; Malaysia; Indonesia; the Philippines; New Guinea (Inoue *et al.*, 1982; Kononenko *et al.*, 1998; Kononenko & Pinratana, 2005; Kendrick *et al.*, 2004).

REMARKS. The genus *Lacera* Guenée, 1852 and the species *L. procellosa* are reported from Russia for the first time. *L. procellosa* is similar with *L. noctilio* (Fabricius, 1794), differing from it by a weakly expressed reniform spot and a light falcate area along the outer margin of the forewing, crossed by a dark transverse spot at the end of the M3 vein. *L. noctilio* is another tropical migrant reaching in the north to South Japan. The host plants of *L. procellosa* are *Caesalpinia* and *Gleditsia* species (Fabaceae) (Holloway, 2005). The northernmost resident populations of *L. procellosa* probably inhabit Southern Japan and Eastern China. It is a migrant species in the Primorsky krai of Russia and in the Korean Peninsula.

#### Family Nolidae

#### Subfamily Chloephorinae

#### *Siglophora sanguinolenta* (Moore, 1888)

MATERIAL EXAMINED. **Russia:** Primorsky krai: Khasan District, Zarubino village, 42°39' N, 131°04' E, 5.VIII 2020, 2♂, 2♀, leg. V. Golovizin [VG]; Spassk District, near Kalinovka village, 44°28'56" N, 132°56'24" E, 200 m, 12.VIII 2020, 2♂, leg. V. Golovizin [VG]; Oktyabrsk District, near Sinelnikovo-1, 43°57' N, 131°34' E, 12.VIII 2021, 1♂, leg. V. Golovizin [VG].

DISTRIBUTION. Russia: Primorsky krai (new records), south of the Khabarovsk krai; North India; Nepal; China (including Taiwan); North and South Korea; the Philippines (Kononenko *et al.*, 1998; Dubatolov, 2021; Koshkin, 2021; Koshkin *et al.*, 2021).

REMARKS. This species was first recorded on the territory of Russia from the southern part of the Khabarovsk krai (Bikin District and southern vicinities of the Khabarovsk city) (Dubatolov, 2021; Koshkin, 2021). As it has now become clear, the species was simultaneously found in the Khabarovsk krai and the Primorsky krai in early August 2020. Finds in 2021, especially numerous in the south of the Khabarovsk krai, indicate the naturalization of *S. sanguinolenta* in the south of the Russian Far East (Koshkin *et al.*, 2021). The host plant is *Quercus mongolica* Fisch. ex Ledeb. (Fagaceae), widespread in the south of the Russian Far East (Sohn *et al.*, 2017).

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