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**FIRST RECORD OF THE HAWK MOTHS GENUS *PSILOGRAMMA*
ROTHSCHILD ET JORDAN, 1903 (LEPIDOPTERA: SPHINGIDAE)
FOR THE FAUNA OF RUSSIA**

V. M. Spitsyn^{*}, E. A. Spitsyna

N. Laverov Federal Center for Integrated Arctic Research of the Ural Branch of the Russian Academy of Sciences, Northern Dvina Emb. 23, 163000, Arkhangelsk, Russia.
**Corresponding author, E-mail: spitsyn.v.m.91993@yandex.ru*

Summary. The widely distributed hawk moth *Psilogramma increta* (Walker, 1865) is found in the south part of Primorskiy krai in 2020. The genus *Psilogramma* Rothschild et Jordan, 1903 is recorded from Russia for the first time.

Key words: Sphinginae, Sphingini, fauna, new record, invasions, climate changes, Russian Far East.

В. М. Спицын, Е. А. Спицына. Первое указание бражников рода *Psilogramma* Rothschild et Jordan, 1903 (Lepidoptera: Sphingidae) для фауны России // Дальневосточный энтомолог. 2021. N 426. С. 19-21.

Резюме. Широко распространенный бражник *Psilogramma increta* (Walker, 1865) найден в 2020 г. на юге Приморского края. Род *Psilogramma* Rothschild et Jordan, 1903 впервые приводится для фауны России.

INTRODUCTION

The Sphingidae (hawk moths) is one of the most popular and comprehensively examined Lepidoptera families due to the large size, bright coloration, and peculiar hummingbird-like feeding behavior of many species belonging to this group. There are only 68 species and 33 genera of hawk moths in Russia, of them five genera and eight species belongs to the sub-family Sphinginae (Zolotuhin, 2019; Zolotuhin & Evdoshenko, 2019). New for the fauna of Russia species of Sphinginae was found in 2020.

The specimen was collected using an ultraviolet lamp Medium 250 WSB/E24–E23 250 Watt Self Ballast Mercury Vapor-Clear (USA). The genitalia were dissected, mounted on temporary glass slides with 70% ethanol, and photographed using a research stereomicroscope (AXIO Zoom.V16, Carl Zeiss, Germany). The genitalia are kept in a micro-tube with glycerin pinned to the specimen. The images of the specimen were taken with a Canon EOS 80D camera (Canon Inc., Tokyo, Japan). The specimen is deposited in the Russian Museum of Biodiversity Hotspots (RMBH), N. Laverov Federal Center for Integrated Arctic Research of the Ural Branch of the Russian Academy of Sciences, Arkhangelsk, Russia.

NEW RECORD

Subfamily Sphinginae Latreille, 1802

Tribe Sphingini Latreille, 1802

Genus *Psilogramma* Rothschild et Jordan, 1903

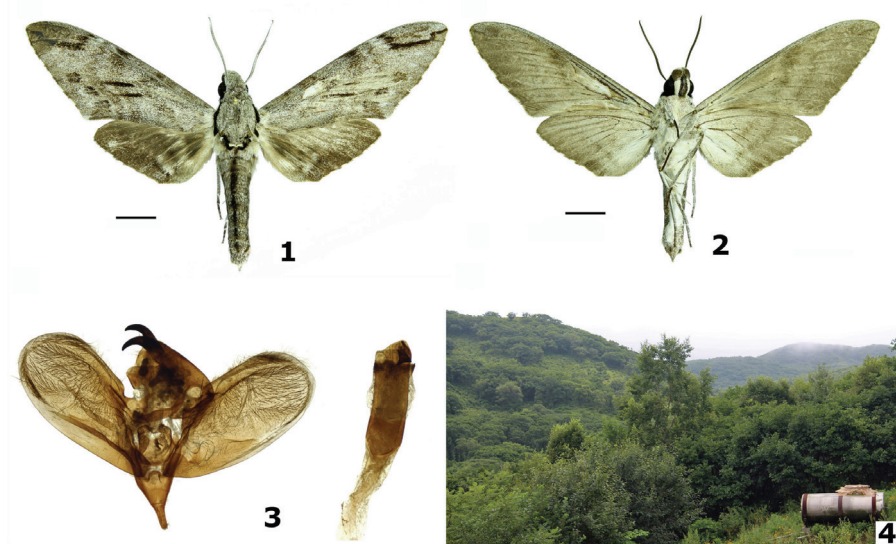
Psilogramma increta (Walker, 1865)

Figs 1–4

MATERIAL EXAMINED. **Russia:** Primorskii krai, Khasansky District, Andreevka village, disturbed broadleaf forest, 42°37'30"N, 131°08'44"E, 1–7.VIII 2020, 1♂, leg. E. Spitsyna & V. Spitsyn (specimen voucher RMBH Shp0890).

DISTRIBUTION. Russia: Primorskii krai (new record). – NE, E, and S China, S and N Korea, Japan, Taiwan, Vietnam, Malaysia, the Philippines, Indonesia, Myanmar, Nepal, India, Sri Lanka, introduced in Hawaii (Park *et al.*, 2001.; Zolotuhin & Evdoshenko, 2019).

NOTES. *Psilogramma increta* shares a variable wing markings pattern. It differs from *P. discistriga* (Walker, 1856) by having a white ventral side of the abdomen (in *P. discistriga*, abdomen entirely brownish). No closely related species has been recorded northwards to China. This is the first record of the genus *Psilogramma* from Russia.



Figs. 1–4. Male of *Psilogramma increta* from Primorskii Krai, Russia: 1 – upperside; 2 – underside; 3 – genitalia and aedeagus; and 4 – habitat: disturbed broadleaf forest. Scale bars for figs 1, 2 = 10 mm. (Photo by E.A. Spitsyna).

DISCUSSION

At first glance, we could assume that *Psilogramma increta* can establish viable populations in Russia under recent warm climatic episode, although an assessment of this species' status

(resident or migratory) needs future research efforts. Taxa with high long-distance dispersal capabilities such as butterflies, moths, and birds can be considered sensitive indicators of climate changes, rapidly expanding their ranges when favorable temperature conditions do occur (Spitsyn, 2019). In 2002–2003, *Acosmeryx naga* (Moore, 1858), another southern hawk moth species, was recorded in Russia for the first time (Beljaev, 2003). Currently, this species was found to be locally common in appropriate habitats in the southern part of the Sikhote-Alin Mountain Range in 2017 (our unpublished data). Moreover, two southern hawk moths, *Clanis undulosa* Moore, 1879 and *Ambulyx tobii* (Inoue, 1976), are also found in the Russian Far East recently and now successfully naturalized here (Koshkin *et al.*, 2015; Pittaway & Kitching, 2020).

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