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A NEW SPECIES OF THE GENUS *EPISCHIDIA* REBEL, 1901 (LEPIDOPTERA: PYRALOIDEA, PYRALIDAE) FROM THE RUSSIAN FAR EAST

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Summary. *Epischidia margaritae* sp. n. is described and illustrated from vicinity of Blagoveshchensk, Russia. The new species is most similar to the type species of the genus, *Epischidia fulvostrigella* (Eversmann, 1844), from which it differs by a brighter coloration of the forewings and a larger outgrowth on the forehead. The differences in the structure of the male genitalia of the new species from *E. fulvostrigella* are as follows: the presence of a large triangular harp on the valva, a relatively longer uncus, and a curved aedeagus with a large number of large spiny cornuti. In the structure of the female genitalia, the differences are in the V-shaped area of sclerotization of the antrum and a more extensive area of sclerotization on the bursa near the confluence of the ductus.

Key words: Lepidoptera, pyralid moths, taxonomy, new species, Russia.

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Резюме. Из окрестностей г. Благовещенск в России описан *Epischidia margaritae* sp. n. Новый вид наиболее близок к *Epischidia fulvostrigella* (Eversmann,

1844), типовому виду рода, от которого отличается более яркой окраской передних крыльев и более крупным выростом на лбу. Гениталии самца нового вида отличаются от *E. fulvostrigella* в наличии крупной треугольной гарпы на вальве, относительно более длинным ункусом и изогнутым эдеагусом с большим количеством крупных шиповидных конутусов. В строении гениталий самки отличия заключаются в V-образном участке склеротизации антрума и более обширном участке склеротизации на бурсе возле впадения в нее дуктуса.

INTRODUCTION

The genus *Epischidia* Rebel, 1901 was established in the subfamily Phycitinae for the species *Phycis fulvostrigella* Eversmann, 1844 described from the Urals (Eversmann, 1884). Later Roesler (1987) transferred to this genus *Proceratia caesariella* (Hampson, 1901) described from Turkey. Both these species are found in Russia (Sinev *et al.*, 2019): *Epischidia fulvostrigella* is distributed from the North Caucasus and the Volga Region to the Middle Urals and south of Western Siberia, while *E. caesariella* is known from the southern regions of the European part of Russia and Tuva. Leraut (2014) assigned the third species, *Prorophora albunculella* (Staudinger, 1879), to this genus, guided by the fact that the genus *Epischidia* was considered a subgenus of *Prorophora* Ragonot, 1887. However, according to the morphological features and the structure of the genitalia of males and females, the latter species belongs specifically to the genus *Prorophora*, and not to *Epischidia*. Thus, the range of the genus *Epischidia* does not cover the Russian Far East. *Epischidia* is morphologically very close to the genera *Gymnancyla* Zeller, 1848 (type species: *Tinea canella* [Denis et Schiffermüller] 1775) and *Prorophora* Ragonot, 1887 (type species: *Prorophora curvibasella* Ragonot, 1887).

MATERIAL AND METHODS

The material was collected at night using a light trap with an exposure of 5-6 hours. Photographs of adult moths were taken with an Olympus Tough TG-5 camera, genital preparations with a Nikon DS-Fi1 camera using a Leica DM1000 microscope.

The holotype and paratypes of a new species are deposited at the Zoological Institute of the Russian Academy of Sciences, St. Petersburg (ZISP).

DESCRIPTION OF NEW SPECIES

Epischidia margaritae Streltsov, sp. n.

<https://zoobank.org/NomenclaturalActs/F44F6B61-CC62-4E6F-9F2D-3EFCB9805786>

Figs 1–6

TYPE MATERIAL. Holotype: ♂, **Russia**: Amur Region, neighborhood of Blagoveshchensk, village Verkhneblagoveshchenskoe, agrobiological station of BSPU

(Blagoveshchensk State Pedagogical University), 50°16'32" N, 127°27'6" E, 20–25.07.2014, A. Streltsov leg. (permanent slide no. PPH038) (ZISP). Paratypes: 4♀, the same locality, 17–26.07.2012 (1♀ – permanent slide no. PPH052) (ZISP).

MATERIAL EXAMINED FOR COMPARISON. *Epischidia fulvostrigella* – 1♂, 1♀, Astrakhan Nature Reserve, Damchik cordon, 08/5/1968, Penchukovskaya; Volgograd Region, Tumak community, 6.08.1993, Komarov D.A.; 1♂, Novosibirsk, 11.08.1987, P.Ya. Ustyuzhanin. Image: Roesler, 1973: taf. 3, fig. 26 (imago); taf. 45, fig. 26 (male genitalia); taf. 100, fig. 26 (female genitalia). *Epischidia caesariella* – 1♂, Kherson, 07.24.1912, E. Yatsentkovsky. Image: Roesler, 1973: taf. 3, fig. 27 (imago); taf. 45, fig. 27 (male genitalia); taf. 100, fig. 27 (female genitalia).

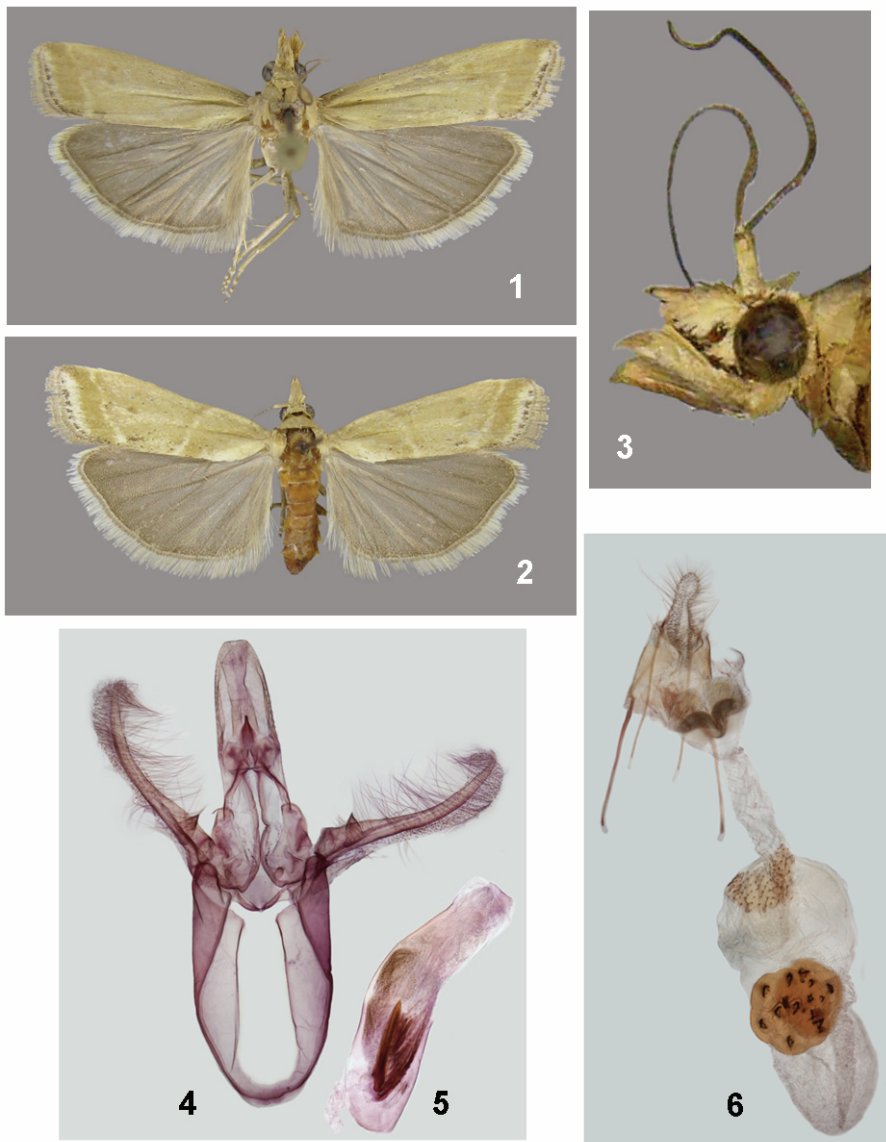
DESCRIPTION. Male (Fig. 1). Head: forehead broad with large triangular (lateral view) outgrowth 1.2–1.5 times larger than the diameter of the eye, covered with yellowish elongated scales (Fig. 3); eyes rounded, bare; basal segment of antennae long, straight, first segments of antennal flagellum small, forming a curve with short androconial scales; Labial palpus long, twice as long as eye diameter, covered with yellowish scales; Maxillary palpus is short with a small tuft of elongated thin scales. Thorax, tegulae and tarsi rufous light brown. Forewings: general color background – light brown with a buffy tinge. Ante-medial line yellowish-white, slightly visible; discal spot in the form of two dark brown blurry dots; post-medial line thin, yellowish-white, almost straight with slight inward curvature at the discal part; the outer area is slightly darker than the general background; marginal line yellowish white with small black dots along the edge; fringe light brown. Hind wings are light brown with a grayish tinge, without pattern. The fringe is lighter than on the forewings. The length of the forewing is 10 mm, the wingspan is 22 mm.

Female (Fig. 2). Somewhat larger than the male, length of the forewing 10.5–11 mm, wingspan 22–23 mm. The coloration is the same as in males, but the dark and light elements of the pattern are better expressed. Antennae simple, without androconial sinus.

Male genitalia (Figs 4–5). The uncus is oblong with a blunt apex. The gnathos is short, hook-shaped with a pointed apex. Valva narrow, membranous, with strongly sclerotized costal margin. The harp is large, cone-shaped. Sacculus small, triangular. Vinculum is large, its branches are approximately equal to the length of the valva. The juxta is forked, with somewhat widened apices covered with short hairs. Aedeagus (Fig. 5) is large, slightly curved in the middle, somewhat longer than the valva. The aedeagus tube has a large area of finely granulated sclerotization on the vesicle and a group of cornuti: one large, straight, spiny, three somewhat smaller, and five thinner and serrate.

Female genitalia (Fig. 6). Papillae anales are oblong, elongated. Apophyses posteriors thin, twice as long as papillae anales. Apophyses anteriores are thicker and somewhat shorter than apophyses posteriors. Antrum wide with v-shaped area of sclerotization. The ductus bursae is membranous, rather wide, shorter than the apophyses posteriors. The corpus bursae is large, oblong, with a large area of sclerotization covered with small teeth (near the confluence of the ductus bursae).

Approximately in the middle of the corpus bursae there are two rounded-angular signums. Each signum consists of six lobes, in the center of which there is a hook-shaped spike.



Figs 1-8. *Epischidia margaritae* sp. n.: 1 – holotype, adult male; 2 – paratype, adult female; 3 – head, lateral view; 4, 5 – male genitalia: 4 – armature genitalis, 5 – aedeagus; 6 – female genitalia.

DIFFERENTIAL DIAGNOSIS. The new species is closest to the type species of the genus *Epischidia fulvostrigella*, from which it differs by a brighter coloration of the forewings and a larger outgrowth on the forehead. In the structure of the male genitalia in the new species, the differences are as follows: the presence of a large triangular harp on the valva, a relatively longer uncus, and a curved aedeagus with a large number of large spiny cornuti. In the structure of the female genitalia, the differences are in the v-shaped area of sclerotization of the antrum and a more extensive area of sclerotization on the bursa near the confluence of the ductus bursae. The new species differs from *E. caesariella* by its larger size and developed areas of orange coloration of the forewings; the differences in the structure of the male genitalia are the absence of a harp on the valva and small cornuti in the tube of the aedeagus in *E. caesariella*; in the female genitalia, *E. caesariella* differs from the new species by the absence of large signums on the bursa.

DISTRIBUTION. New species is known only from the type locality: the vicinity of Blagoveshchensk, Amur Region, Russia. It probably lives in the adjacent territory of China.

BIOLOGY. The type material was collected in agricultural landscapes in mid-July. Of the natural biotopes, there are heavily modified meadows of various types and oak-lespedecia sparse forests nearby.

ETYMOLOGY. The species is named after the famous Russian lepidopterist Dr Margarita Ponomarenko (Vladivostok, Russia).

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