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TWO NEW SPECIES OF YPONOMEUTOID MOTHS (LEPIDOPTERA, YPONOMEUTIDAE, PLUTELLIDAE) FROM MADAGASCAR

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Two New Species of Yponomeutoid Moths (Lepidoptera, Yponomeutidae, Plutellidae) from Madagascar. Gershenson Z. S. — *Rhabdocosma dolini* Gershenson, sp. n. (Plutellidae) and *Yponomeuta madagascariensis* Gershenson, sp. n. (Yponomeutidae) are described. Both genera of these species are recorded from Madagascar for the first time.

Key words: Lepidoptera, Yponomeutidae, Plutellidae, moths, new species, Madagascar.

Два новых вида ипомеутоидных молей (Lepidoptera, Plutellidae, Yponomeutidae) с Мадагаскара. Гершензон З. С. — Описаны два новых вида молей: *Rhabdocosma dolini* Gershenson, sp. n. (Plutellidae) и *Yponomeuta madagascariensis* Gershenson, sp. n. (Yponomeutidae). Оба рода, к которым принадлежат эти виды, отмечены впервые для фауны Мадагаскара.

Ключевые слова: Lepidoptera, Yponomeutidae, Plutellidae, моли, новые виды, Мадагаскар.

Introduction

The superfamily Yponomeutoidea is one of the most widespread lepidopterous group occurring in almost all continents with the moderate, tropical and subtropical climate; the yponomeutoid moths are trophically connected with 23 plant families (Gershenson, Ulenberg, 1998). However, the taxonomic relationships within this group of phytophagous Microlepidoptera was not fully investigated till now, and one of the reasons is that its fauna out of Palaearctics has not been sufficiently studied yet.

Two new species from Ethiopian Region are described below. Specimens were collected in the light trap (Petromax petroleum lamp).

The material is deposited in the collection of the Department of General and Applied Entomology, Schmalhausen Institute of Zoology National Academy of Sciences of Ukraine, Kyiv (SIZK).

Classification follows Heppner (1998).

Rhabdocosma dolini Gershenson, sp. n.

Material examined. Holotype ♂, with white label: "Madagascar, Centr. Plateau, Park Perinet, 1200 m, 2–11.12.2000. V. Dolin & R. Andreeva leg." with inscription on the opposite side: "on light"; "Holotypus" (red label with printed text) and "Rhabdocosma dolini Gershenson, sp. n., ♂, Madagascar" (handwritten text in black Indian ink on upper side) and "Coll. Inst. Zool., Kiev, Ukraine, gen. praep. № 294" ♂" on its opposite side. The abdomen is detached and placed in a plastic microvial with glycerol pinned with the specimen.

Description. Wingspan 16 mm. Head structure and wing venation as described for the genus (Meyrick, 1935; Moriuti, 1977). Head, thorax and labial palpus dirtywhite, terminal segment of the latter shorter than middle one, pointed. Tegulae without dots or spots. Forewings nearly 3 times as long as broad. Both fore- and hindwings monochromatic, golden-bronze with somewhat darker cilia. Legs white with fuscous scales on tarsi. Male genitalia (fig. 1). Valva of almond shape, almost twice as long as saccus and somewhat shorter than aedeagus. Socii broadened, shorter than saccus, each with one claw at the end. Saccus nearly straight, parallel sided, hooked at the end. Aedeagus longer than valva, vesica with distinct cornuti resembling stout spines. Anellus with short hairs. Coremata absent.

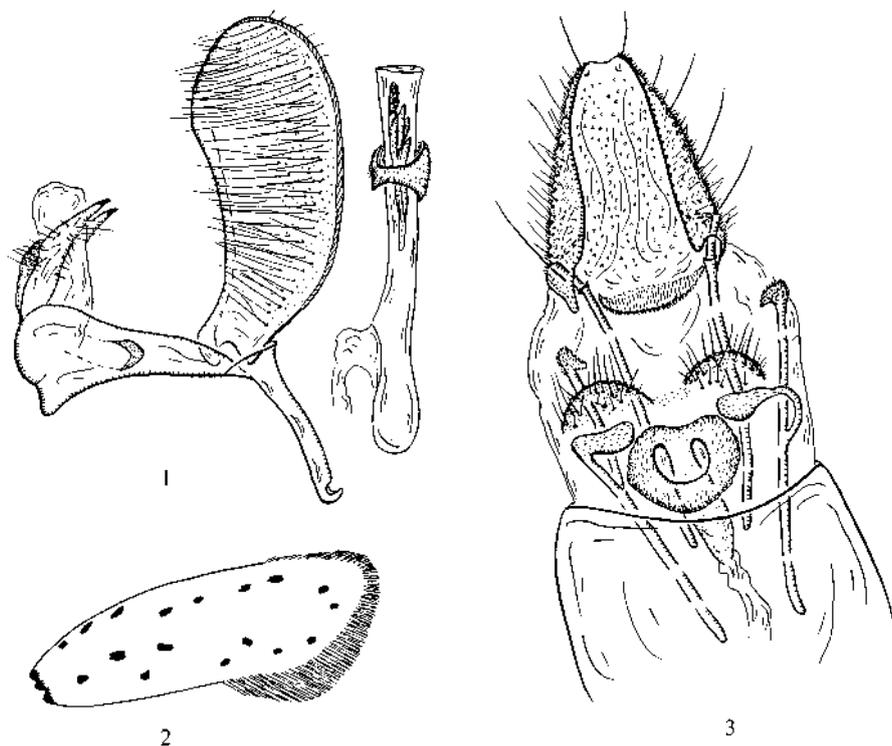


Fig. 1–3. 1 – *Rhabdocosma dolini*, male genitalia; 2 – *Yponomeuta madagascariensis*, forewing pattern; 3 – *Yponomeuta madagascariensis*, female genitalia.

Рис. 1–3. 1 – гениталии самца *Rhabdocosma dolini*; 2 – рисунок переднего крыла *Yponomeuta madagascariensis*. 3 – гениталии самки *Yponomeuta madagascariensis*.

Female not known.

Remarks. Externally similar to *Rhabdocosma aglaophanes* Meyrick, 1935, re-described by Moriuti (1977). Thus far, the genus was monotypic.

Biology. Not known. Larvae of *R. aglaophanes*, the second species of the genus, are trophically connected with celastraceous plants (Moriuti, 1977).

Etymology. Named after Vladimir G. Dolin, an eminent Ukrainian entomologist who collected the holotype.

Key to species of the genus *Rhabdocosma* Meyrick

Таблица для определения видов рода *Rhabdocosma* Meyrick

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| 1. | Head dirty-white. In male genitalia (fig. 1) valva shorter than aedeagus; saccus twice shorter than valva and hooked anteriorly. | <i>R. dolini</i> Gershenson, sp. n. |
| — | Head purplish-coppery. In male genitalia valva almost as long as aedeagus and more than 3 times as long as saccus. Saccus slightly bulbous at the anterior end. | <i>R. aglaophanes</i> Meyrick |

Yponomeuta madagascariensis Gershenson, sp. n.

Material examined. Holotype ♀, "Madagascar, Centr. Plateau, Park Perinet, 1200 m, 2–11.12.2000. V. Dolin & R. Andreeva leg." (white label with inscription on back side: "On light"), "Holotypus" (red label with printed text), "*Yponomeuta madagascariensis*, Gershenson, sp. n., ♀, Madagascar", (handwritten in black Indian ink on upper side) and "Coll. Inst. Zool., Kiev, Ukraine, gen. praep. N 295, ♀, det. Z. Gershenson" (on its back side). The abdomen is detached and placed in a plastic microvial with glycerol pinned with the specimen.

Description. Wingspan 18 mm. Head structure and wing venation as described for the genus (Friese, 1960; Moriuti, 1977; Gershenson, 1990). Head, palpi, antennae

and thorax white. Thorax with five black dots, and one on each tegula. Forewings and their cilia white with 17 black dots arranged in the irregular rows, wing apex with three small dots (fig. 2). Hindwings grey with white cilia.

Female genitalia (fig. 3). Membranous folds between papillae anales with small denticles. Intersegmental sclerite well expressed. Apophyses posteriores somewhat shorter than apophyses anteriores and less than twice as long as common stem of the last ones. Dorsal branch of apophyses anteriores less than in 2.5 times shorter than apophyses posteriores.

Male not known.

Remarks. Externally similar to *Yponomeuta mahalebella* Guenee, 1345, a species distributed in the southern Europe, differing in the features given in the following key. This genus is recorded from Madagascar for the first time.

Biology. Not known. Larvae of the similar species, *Y. mahalebella* are trophically connected with rosaceous plants (Gershenson, Ulenberg, 1998).

Key to separate *Yponomeuta madagascariensis* from related species of the genus *Yponomeuta* Latreille

Таблица для определения вышеуказанных родственных видов рода *Yponomeuta* Latreille

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|----|--|---|
| 1. | Wingspan 18 mm. Wing apex with 3 small black dots. Forewing apex with three small black dots (fig. 2). In female genitalia (fig. 3), apophyses posteriores shorter than apophyses anteriores and less than twice as long as common stem of the last ones. | <i>Y. madagascariensis</i> Gershenson, sp. n. |
| — | Wingspan 23–27 mm. Wing apex with 8–10 small black dots. In female genitalia apophyses posteriores longer than apophyses anteriores and not less than twice as long as common stem of the last ones. | <i>Y. mahalebella</i> Guenee |

Plutella xylostella Linnaeus, 1758

Material examined. ♂, ♀, Madagascar, Central Plateau, Park Perinet, 1200 m, 2–11.12.2000, in light (Dolin and Andreeva), 2 ♂, 2 ♀: Madagascar, Anbaside, 1150 m, forest, 28.11–11.12.2000, in light, (Dolin and Andreeva) (SIZK).

The diamond-back moth, *Plutella xylostella* (Plutellidae) is a cosmopolitan species now recorded from Madagascar for the first time.

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