Амурский зоологический журнал, 2023, т. XV, № 2
Amurian Zoological Journal, 2023, vol. XV, no. 2
www.azjournal.ru

https://www.doi.org/10.33910/2686-9519-2023-15-2-355-359
http://zoobank.org/References/701DD04E-0E88-4BA8-B680-7616760BD556

UDC 595.782

Assara hoeneella — a new species of phycitid moths (Lepidoprtera: Pyralidae, Phycitinae) for the fauna of Russia

A. N. Streltzov

Herzen State Pedagogical University of Russia, 48 Moika Emb., 191186, Saint Petersburg, Russia

Author
Alexandr N. Streltzov
E-mail: streltzov@mail.ru
SPIN: 8082-8539
Scopus Author ID: 57208545541
ResearcherID: P-9941-2015
ORCID: 0000-0002-5658-8515

Abstract. *Assara hoeneella* Roesler, 1965 (Lepidoprtera: Pyralidae, Phycitinae), found in Primorsky Krai near the village of Chuguevka, is reported for the fauna of Russia for the first time. In terms of the general character of the pattern, the species under consideration is close to the transpalearctic *Assara terebrella* (Zincken, 1818) and the East Asian *Assara funerella* (Ragonot, 1901). Apart from Russia, *Assara hoeneella* is also found in Japan and China. The given morphological characteristics of the species, illustrations of the appearance and genitalia of a female allow us to reliably identify the reported species. Data on the systematic position and distribution of the species are discussed briefly.

Keywords: Lepidoptera, Pyralidae, Phycitinae, *Assara hoeneella*, new record, Russia, Primorsky Krai

Assara hoeneella — новый вид узкокрылых огневок (Lepidoprtera: Pyralidae, Phycitinae) для фауны России

А. Н. Стрельцов

Российский государственный педагогический университет им. А. И. Герцена, наб. реки Мойки, д. 48, 191186, г. Санкт-Петербург, Россия

Сведения об авторе
Стрельцов Александр Николаевич
E-mail: streltzov@mail.ru
SPIN-код: 8082-8539
Scopus Author ID: 57208545541
ResearcherID: P-9941-2015
ORCID: 0000-0002-5658-8515

Аннотация. Впервые для фауны России указывается вид *Assara hoeneella* Roesler, 1965 (Lepidoprtera: Pyralidae, Phycitinae), обнаруженный в Приморском крае недалеко от села Чугуевка. По общему характеру рисунка рассматриваемый вид близок к транспалеарктическому *Assara terebrella* (Zincken, 1818) и восточноазиатскому *Assara funerella* (Ragonot, 1901). *Assara hoeneella* встречается, помимо России, в Японии и Китае. Приведенная морфологическая характеристика, иллюстрации внешнего вида и гениталий самки позволяют надежно идентифицировать данный вид. Обсуждаются сведения о систематическом положении и распространении вида.

Ключевые слова: Lepidoptera, Pyralidae, Phycitinae, *Assara hoeneella*, новая находка, Россия, Приморский край

Introduction

Assara Walker, 1863 is currently represented by 36 species in the fauna of the world (Nuss et al., 2023), the majority of which are found in Australia and East and Southeast Asia. Transpalaearctic *Assara terebrella* (Zincken, 1818) and East Asian *Assara korbi* (Caradja, 1910) are the two species known for Russia (Streltzov 2013; Sinev et al. 2019). The number of species in the genus is considerably higher in neighboring countries; for instance, eight species have been recorded in Japan (Yamanaka et al. 2013), four, in Northeast China (Du et al. 2002; Qi et al. 2014), and five, in Korea (Bae et al. 2017).

During the analysis of material stored at the Zoological Institute of the Russian Academy of Sciences (Saint Petersburg), a female specimen of *Assara hoeneella* Roesler, 1965 was found, the species, previously known from Japan and Northeast China. Notably, several other Pyraloidea species, whose distribution was previously believed to be restricted to Japan and Northeast China, have been found in the Russia during last years (Streltzov, Osipov 2007; Streltzov, Dubatolov 2009a; 2009b; 2020; Streltzov 2010; 2012; 2017; 2019a; 2019b).

Results and discussion

Genus ***Assara*** Walker, 1863

Type species: *Assara albicostalis* Walker, 1863.

***Assara hoeneella* Roesler, 1965**

Roesler, 1965: 43–44, figs 27, 178.

Type locality: China, Prov. Chekiang, West Tien-mu-shan.

Material: 1♀ — Russia, Primorsky Krai, 31 km SE of Chuguyevka, Verkhne-Ussuriysky station, 44°22′N, 134°12′E, h=590 m, 18.07.2018, S. Yu. Sinev.

Description (Fig. 1). Head rounded, forehead wide, equal to the eye diameter, covered with blackish-brown, slightly protruding scales. Labial palps thin, curved upwards. Antennae simple. Thorax and tegulae blackish brown. Wingspan 17 mm. Forewings blackish brown, its pattern consists of curved light gray basal band, diffuse light gray discal spot, and thin, almost straight, whitish gray postdiscal line.

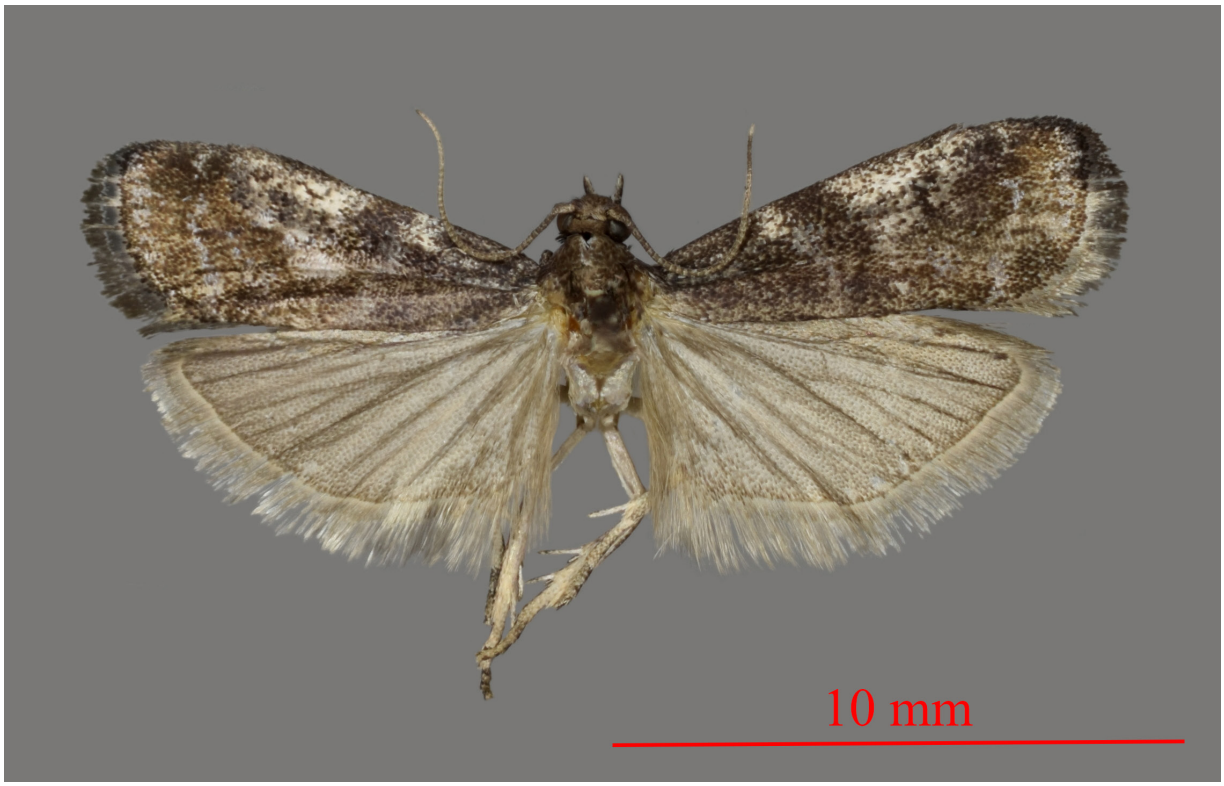

Fig. 1. *Assara hoeneella,* female, Russia, Primorsky Krai, 31 km SE of Chuguevka

Рис. 1. *Assara hoeneella,* самка, Россия, Приморский край, 31 км ЮВ Чугуевки

 https://www.doi.org/10.33910/2686-9519-2023-15-2-355-359

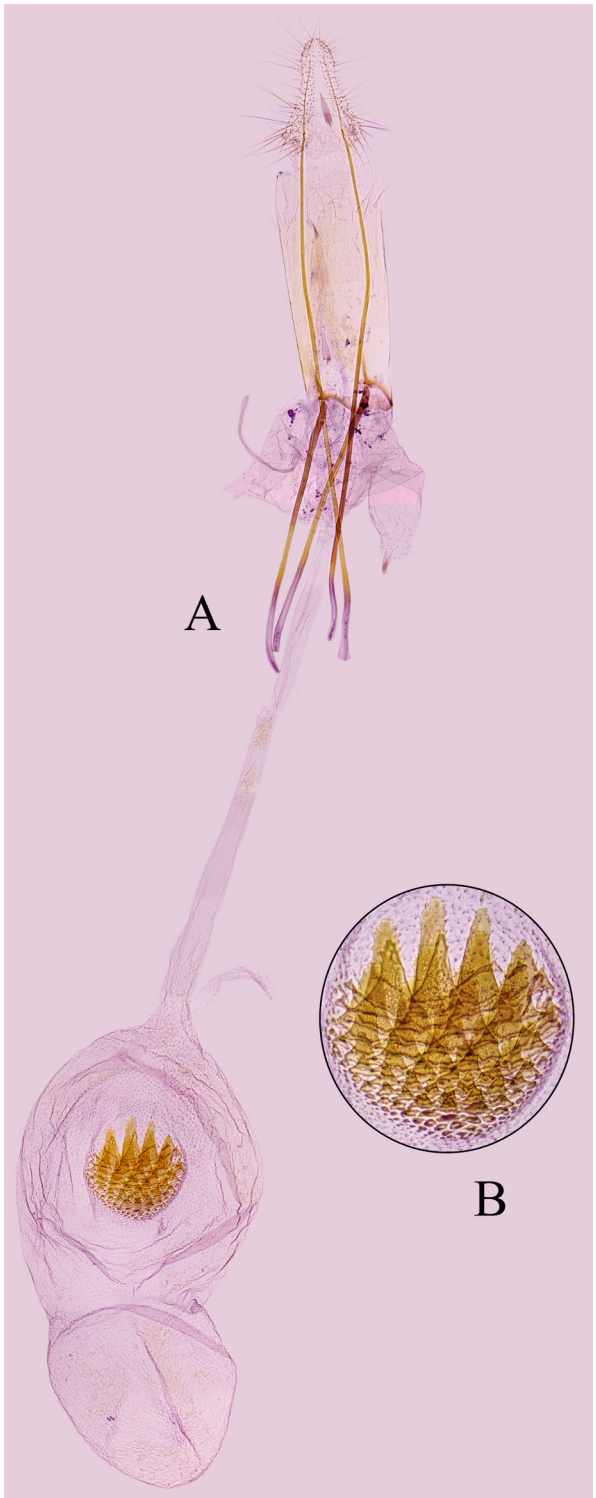

Fig. 2. *Assara hoeneella,* female genitalia: *A* — general view; *B* — signum, enlarged

Рис. 2. *Assara hoeneella,* гениталии самки: *A* — общий вид; *B* — сигнум, увеличено

Fringe uniformly blackish-brown. Hindwings unicolorous, gray with brown scales, fringe light gray. Legs light grey.

Female genitalia (Fig. 2). Papillae anales wedge-shaped from lateral view, more than three times shorter than apophyses posteriores and covered with short setae, which only at the base of papillae are longer. Apophyses posteriores more than two times longer than anterior ones. Apophyses anteriores thin, slightly curved apically. Antrum moderately wide, funnel-shaped, smoothly passes into ductus bursae. Ductus bursae membranous without traces of sclerotization, thin, only slightly widened before bursa. Corpus bursae oval, slightly constricted anteriorly. Signum large, consists of several rows of columnar teeth.

Distribution. Russia (Primorsky Krai); China (Liaoning, Hebei, Henan, Tianjin, Shanxi, Zhejiang, Fujian, Jiangsu, Hunan, Hubei, Guizhou, Chongqing, Sichuan), Japan (Honshu, Shikoku, Kyushu) (Yamanaka et al. 2013; Qi et al. 2014).

Remark. The genus *Assara* Walker, 1863, consists of two morphologically distinct groups: the species of the first group are similar in appearance and in the structure of female genitalia with *Assara albicostalis* Walker, 1863, the type species of the genus; the second group includes species close to *Assara terebrella* (Zincken, 1818). The species of the first group has a more or less contrasting coloration with clearly expressed particularly light elements of the pattern. Besides, female genitalia have a kind of signum in the form of a transverse strip. Of the species found in Russia, *Assara korbi* (Caradja, 1910) belongs to this group. The species of the second group is characterized by a darker coloration with an indistinct light pattern, and the female genitalia have a more or less rounded signum representing a group of serrated formations, similar with those found in the closely related genus *Euzophera* Zeller, 1867 (type species: *Myelois cinerosella* Zeller, 1839). In Russian fauna, this group includes the transpalearctic *Assara terebrella* (Zincken, 1818) and east asian *Assara hoeneella* Roesler, 1965. The latter species is very close to *Assara funerella* (Ragonot, 1901), which is known from Japan (Yamanaka et al. 2013) and South Korea (Bae et al. 2017), but differs considerably in the structure of female genitalia having ductus bursae much longer and not widened before bursa copulatrix.

Acknowledgements

The author is grateful to Dr S. Yu. Sinev (Saint Petersburg, Russia) for the opportunity to work with the collections of the Zoological Institute of the Russian Academy of Sciences. Special thanks to Dr Yang-Seop Bae (Incheon, Korea) for his help in finding literary sources.

References

Bae, Y. S., Paek, M., Qi, M. (2017) *Insect Fauna of Korea. Vol. 16. No. 15. Arthropoda: Insecta: Lepidoptera: Pyralidae (Phycitinae I) Pyralid Moths II*. Incheon: National Institute of Biological Resources Publ., 148 p. (In English)

Du, Y., Li, H., Wang, S. (2002) A taxonomic study on the genus *Assara* Walker from China (Lepidoptera: Pyralidae: Phycitinae). *Acta Zootaxonomica Sinica*, vol. 27, no. 1, pp. 8–19. (In English)

Qi, M. J., Han, H. L., Park, B. S., Bae, Y. S. (2014) Taxonomic study of the genus *Assara* Walker (Lepidoptera, Pyralidae, Phycitinae) in NE China, with description of a new species. *Zootaxa*, vol. 3814, no. 2, pp. 283–291. https://doi.org/10.11646/zootaxa.3814.2.8 (In English)

Roesler, R.-U. (1965) *Untersuchungen über die Systematik und Chorologie des Homoeosoma-Ephestia-Komplexes (Lepidoptera: Phycitinae). Inaugural-Dissertation*. Saarbrücken, pp. 1–266. (In German)

Sinev, S. Yu., Streltzov, A. N., Trofimova, T. A. (2019) Pyralidae. In: S. Yu. Sinev (ed.). *Katalog cheshuekrylykh (Lepidoptera) Rossii [Catalogue of the Lepidoptera of Russia]*. 2nd ed. Saint Petersburg: Zoological Institute of RAS Publ., pp. 165–178. (In Russian)

Streltzov, A. N. (2010) *Asclerobia sinensis* (Caradja, 1937) — novyj rod i vid uzkokrylykh ognevok (Pyraloidea, Phycitidae) dlya fauny Rossii [*Asclerobia sinensis* (Caradja, 1937), a new genus and species of phycitid moths (Pyraloidea, Phycitidae) for the Russian fauna]. *Evraziatskij Entomologicheskij Zhurnal — Eurasian Entomological Journal*, vol. 9, no. 3, pp. 548–549. (In Russian)

Streltzov, A. N. (2012) Two species of *Acrobasis* Zeller, 1839 (Lepidoptera, Pyraloidea: Phycitidae) new for the fauna of Russia. *Far Eastern Entomologist*, no. 249, pp. 8–11. (In English)

Streltzov, A. N. (2013) Obzor vidov roda *Assara* Walker, 1863 (Lepidoptera: Pyralidae, Phycitinae) yuga Dal'nego Vostoka Rossii [A review of the species of the genus *Assara* Walker, 1863 (Lepidoptera: Pyralidae, Phycitinae) from the south of the Russian Far East]. *Amurskij zoologicheskij zhurnal — Amurian Zoological Journal*, vol. V, no. 3, pp. 288–290. https://doi.org/10.33910/1999-4079-2013-5-3-288-290 (In Russian)

Streltzov, A. N. (2017) *Sciota taishanella* (Lepidoptera: Pyralidae, Phycitinae) v faune Rossii [*Sciota taishanella* (Lepidoptera: Pyralidae, Phycitinae) in the fauna of Russia]. *Amurskij zoologicheskij zhurnal — Amurian Zoological Journal*, vol. IX, no. 1, pp. 38–41. https://doi.org/10.33910/1999-4079-2017-9-1-38-41 (In Russian)

Streltzov, A. N. (2019a) *Catoptria satakei* (Okano, 1962) — novyj vid travyanykh ognevok (Lepidoptera: Crambidae, Crambinae) dlya fauny Rossii [*Catoptria satakei* (Okano, 1962) — a new species of the grass moth (Lepidoptera: Crambidae, Crambinae) for the fauna of Russia]. *Amurskij zoologicheskij zhurnal — Amurian Zoological Journal*, vol. XI, no. 3, pp. 218–222. https://doi.org/10.33910/2686-9519-2019-11-3-218-222 (In Russian)

Streltzov, A. N. (2019b) First record of *Acrobasis rubrizonella* (Ragonot, 1893) (Lepidoptera: Pyralidae, Phycitinae) in Russia. *Far Eastern Entomologist*, no. 380, pp. 20–22. https://doi.org/10.25221/fee.380.3 (In English)

Streltzov, A. N., Dubatolov, V. V. (2009a) *Acrobasis sasakii* Yamanaka, 2003 — novyj vid uzkokokrylykh ognevok (Lepidoptera: Pyraloidea, Phycitidae) dlya fauny Rossii [*Acrobasis sasakii* Yamanaka, 2003 — a new species of phycitid moths (Lepidoptera: Pyraloidea, Phycitidae) for the fauna of Russia]. *Amurskij zoologicheskij zhurnal — Amurian Zoological Journal*, vol. I, no. 3, pp. 219–220. https://doi.org/10.33910/1999-4079-2009-1-3-219-220 (In Russian)

Streltzov, A. N., Dubatolov, V. V. (2009b) Rod *Bradina* Lederer, 1863 (Lepidoptera, Pyraloidea: Pyraustidae) v Rossii [The genus *Bradina* Lederer, 1863 (Lepidoptera, Pyraloidea, Pyraustidae) in Russia]. *Evraziatskij Entomologicheskij Zhurnal — Eurasian Entomological Journal*, vol. 8, no. 2, pp. 255–258. (In Russian)

Streltzov, A. N., Dubatolov, V. V. (2020) First record of *Oncocera bitinctella* (Wileman, 1911) (Lepidoptera: Pyralidae, Phycitinae) in Russia. *Far Eastern Entomologist*, no. 401, pp. 10–12. https://doi.org/10.25221/fee.401.2 (In Russian)

Streltzov, A. N., Osipov, P. E. (2007) Travyanaya ognevka (Pyraloidea, Crambidae) *Elethyia taishanensis* (Caradja, 1937) — novyj vid dlya fauny Dal'nego Vostoka Rossii [*Elethyia taishanensis* (Caradja, 1937): a new species of grass moths (Pyraloidea: Crambidae, Crambinae) for the Far East of Russia]. In: A. N. Streltzov (ed.). *Zhivotnyj mir Dal'nego Vostoka. Vyp. 6 [Fauna of the Far East. Vol. 6]*. Blagoveshchensk: BSPU Publ., pp. 87–88. (In Russian)

Yamanaka, H., Sasaki, A., Yoshiyasu, Y. (2013) Pyralidae. In: Y. Nasu, T. Hirowatari, Y. Kishida (eds.). *The Standard of Moths in Japan. Vol. IV*. Tokyo: Gakken Education Publ., pp. 314–373. (In Japanese)

For citation: Streltzov, A. N. (2023) *Assara hoeneella* — a new species of phycitid moths (Lepidoprtera: Pyralidae, Phycitinae) for the fauna of Russia. *Amurian Zoological Journal*, vol. XV, no. 2, pp. 355–359. https://www.doi.org/10.33910/2686-9519-2023-15-2-355-359

Received 15 May 2023; reviewed 31 May 2023; accepted 6 June 2023.

Для цитирования: Стрельцов, А. Н. (2023) *Assara hoeneella* — новый вид узкокрылых огневок (Lepidoprtera: Pyralidae, Phycitinae) для фауны России. *Амурский зоологический журнал*, т. XV, № 2, с. 355–359. https://www.doi.org/10.33910/2686-9519-2023-15-2-355-359

Получена 15 мая 2023; прошла рецензирование 31 мая 2023; принята 6 июня 2023.