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# PAPER-MULBERRY HAWKMOTH *PARUM COLLIGATA* (WALKER, 1856) (LEPIDOPTERA, SPHINGIDAE), A NEW SPECIES FOR THE FAUNA OF RUSSIA

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**Summary**. Paper-mulberry hawkmoth *Parum colligata* (Walker, 1856) is recorded for the first time from Russia (Primorskii krai, Ussuriisk district). Collected specimen is probably a migrant from the adjacent territory of China.

Key words: Lepidoptera, Sphingidae, fauna, new record, Primorskii krai, Russia.

## E. C. Кошкин, А. E. Костюнин. Бражник *Parum colligata* (Walker, 1856) (Lepidoptera, Sphingidae) — новый вид для фауны России // Дальневосточный энтомолог. 2017. N 344. C. 18-20.

**Резюме**. Бражник *Parum colligata* (Walker, 1856) впервые указан для территории России из Приморского края (Уссурийский район). Собранный экземпляр, вероятно, является мигрантом с сопредельной территории Китая.

During of entomological research in the Ussuriisk district of Primorskii krai in 2011, one specimen of *Parum colligata* (Walker, 1856) was collected. It was attracted to a powerful light lamp at night. This species has never been reported before for the territory of Russia. The new locality is the most northern in the range of species.

#### **NEW RECORD**

## Family Sphingidae Latreille, [1802] Subfamily Smerinthinae Grote et Robinson, 1865

Parum colligata (Walker, 1856)

Figs 1, 2

Daphnusa colligata Walker, 1856: 238. Type locality: North China.

MATERIAL EXAMINED. **Russia**: Primorskii krai, Ussuriisk district, Kaimanovka village,  $43^{\circ}38'$  N,  $132^{\circ}14'$  E, 80 m, 10–14.VI 2011, 1  $\circlearrowleft$ , leg. A.E. Kostyunin (stored in the collection of collector).

DISTRIBUTION. Russia (southern part of Primorskii krai); Japan (Hokkaido, Honshu, Shikoku, Kyushu, Tsushima, Ryukyu); North and South Korea; China (in the north to Inner Mongolia Autonomous Region and Jilin Province, in the south to Yunnan, Guangdong and Hainan Provinces, in the west to Qinghai Province and Tibet Autonomous Region); Taiwan; Philippines (Luzon); Vietnam; Laos; Cambodia; North Thailand; Myanmar (Shan State); India (Arunachal Pradesh) (Xi *et al.*, 2000; Pittaway & Kitching, 2000, 2017; Nakao, 2017; Kitching, 2017).

NOTES. In its external appearance and structure of genitalia the collected in Russia male is very similar to individuals from East and South-East Asia. The specimen collected in the vicinity of Ussuriisk is probably a migrant from the adjacent territory of China. This species is described from North China without indication of exact location. The most northern locality in China is the Changbaishan Mts in Jilin Province, situated about 250 km southwest of the Russian-Chinese border (Xi et al., 2000). The migrant origin of collected in Russia specimen may be indirectly indicated by its not good condition. There are one or two generations a year in northern China, with adults flying between May and July (Pittaway & Kitching, 2017). Larvae feed only on plants from the mulberry family (Moraceae): Broussonetia papyrifera, B. kaempferi, B. kazinoki, Morus alba, Maclura fruticosa (Pittaway & Kitching, 2000, 2017; Lin, 2000; Eitschberger & Ihle, 2008). Among these plants, only white mulberry (Morus alba) grows in cultivated in the south of the Russian Far East. White mulberry is known from the southern part of the Primorskii krai, some trees grow in Khabarovsk City. Therefore, the temporary populations of Parum colligata may be found in the south of the Russian Far East in the future.



Fig. 1. Parum colligata (Walker, 1856), male from Russia. 1 – habitus, 2 – genitalia.

#### REFERENCES

Eitschberger, U. & Ihle, Th. 2008. Raupen von Schwärmern aus Laos und Thailand – 1. Beitrag (Lepidoptera, Sphingidae). *Neue Entomologische Nachrichten*, 61: 101–114.

Kitching, I.J. 2017. Parum colligata (Walker, 1856). Sphingidae Taxonomic Inventory. Available from: http://sphingidae.myspecies.info/taxonomy/term/2147. (Accessed 28 April 2017).

Lin, C.S. 2000. Larval Morphology and Life History of Three Sphingid Moths (Lepidoptera: Sphingidae) of Taiwan. *Chinese Journal of Entomology*, 20(2): 89–95.

- Nakao, K. 2017. *Parum colligata* (Walker, 1856). *Digital Moths of Asia*. Available from: http://www.jpmoth.org/~dmoth/69\_Sphingidae/3025\_Parum\_colligata/Parum\_colligata.h tm. (Accessed 28 April 2017).
- Pittaway, A.R. & Kitching, I.J. 2000. Notes on selected species of hawkmoths (Lepidoptera: Sphingidae) from China, Mongolia and the Korean Peninsula. *Tinea*, 16(3): 170–211.
- Pittaway, A.R. & Kitching, I.J. 2017. *Parum colligata* (Walker, 1856) Paper-mulberry hawkmoth. *Sphingidae of the Eastern Palaearctic (including Siberia, the Russian Far East, Mongolia, China, Taiwan, the Korean Peninsula and Japan).* Available from: http://tpittaway.tripod.com/china/p col.htm. (Accessed 17 January 2017).
- Walker, F. 1856. List of the Specimens of Lepidopterous Insects in the Collection of the British Museum. Part VIII Sphingidae. Edward Newman, London. 271 pp.
- Xi J., Chen Yu. & Zhang, X. 2000. A List of Sphingidae in Jilin Province. *Journal of Jilin Agricultural University*, 22(2): 38–40. [In Chinese with English summary]

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