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E. A. Beljaev[1, *)], O. A. Velyaev[2)]. FIRST RECORDS OF SUBTROPICAL NOCTUOID MOTH *RISOBA YANAGITAI* NAKAO, FUKUDA ET HAYASHI, 2016 (LEPIDOPTERA: NOLIDAE, RISOBINAE) FROM RUSSIA AND KOREA. – Far Eastern Entomologist. 2016. N 325: 13-17.

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Summary. The moth *Risoba yanagitai* Nakao, Fukuda et Hayashi, 2016 (Nolidae: Risobinae) is reported for the first time Russia and Korea. The possible ways of migration of this subtropical species are briefly discussed.

Key words: Lepidoptera, Nolidae, *Risoba yanagitai*, fauna, new record, migration, Russia, Korea.

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Резюме. *Risoba yanagitai* Nakao, Fukuda et Hayashi, 2016 (Nolidae: Risobinae) впервые приводится из России и Кореи. Кратко обсуждается возможные пути миграции этого субтропического вида.

The genus *Risoba* Walker, 1881 includes 43 species, spreading throughout tropical and subtropical Asia, New Guinea Island, Solomons, Australia (Queensland) and Africa south of Sahara (including Madagascar), with most diverse in Sundaland and New Guinea (Poole, 1989; Holloway, 2003; Vos, 2014; De Prins & De Prins, 2016; Nakao *et al*., 2016). In Russia the genus was not known before the present.

NEW RECORD

***Risoba yanagitai* Nakao, Fukuda et Hayashi, 2016**
Figs 1, 2

SPECIMENS EXAMINED. **Russia**: Vladivostok, Bogataya Griva ridge, 5 km SEE of Okeanskaya, 240 m above sea level, 43°13'01 N, 132°03'48 E, on light, 03.IX 2016, 1♂, coll. E. Beljaev (deposited in Institute of Biology and Soil Science, Vladivostok).

REMARKS. The male from Vladivostok (Fig. 1) well conforms to the illustration of the male holotype of *Risoba yanagitai* in the original description (Nakao *et al*., 2016). From other congeners *R. yanagitai* is distinguishable by dark medial field, bordered by narrow, straight, bright white band along the postmedial line, by rounded eye-like apical patch on forewing, and by broad white basal field on hindwing. The male genitalia is characteristic by thin, long, gently curved right saccular process, by bifid left saccular process and by aedeagus with two small tooth-like processes at the middle (Fig. 2).

Specimen of *Risoba* illustrated in the Korean Biodiversity Information System and determined as "*Risoba prominens* Moore, 1881" (KBIS, 2014; specimen No GSNE0408112220, label data: "경상남도 남해군 이동면 신전리 / 1994 08 06 / 백유현" [Gyeongsangnam-do, Namhae-gun, Idong-myeon, Sinjeonri, 06.VIII 1994, collector Baeg Yu Hyeon]) by external characters well conforms to specimens of *R. yanagitai* from Japan and Russian Far East. Thus, *R. yanagitai* is firstly recorded here from Republic of Korea (Namhae Island).

Figs 1, 2. *Risoba yanagitai*, male from Vladivostok. 1 – moth; 2 – the genitalia.

FLIGHT PERIOD. The moths of *R. yanagitai* were collected in Japan in August and September, in Taiwan in June and August, and in Guangdong – in July and in October (Nakao *et al*., 2016).

HOST PLANT. *Juglans mandshurica* var. *sachalinensis* (Juglandaceae) in Japan (Nakao *et al*., 2016).

DISTRIBUTION (Fig. 3). Russia (new record), Japan (Kyushu Island), South Korea (new record), China (Guangdong), Taiwan, Vietnam (north), Thailand (north), Nepal.

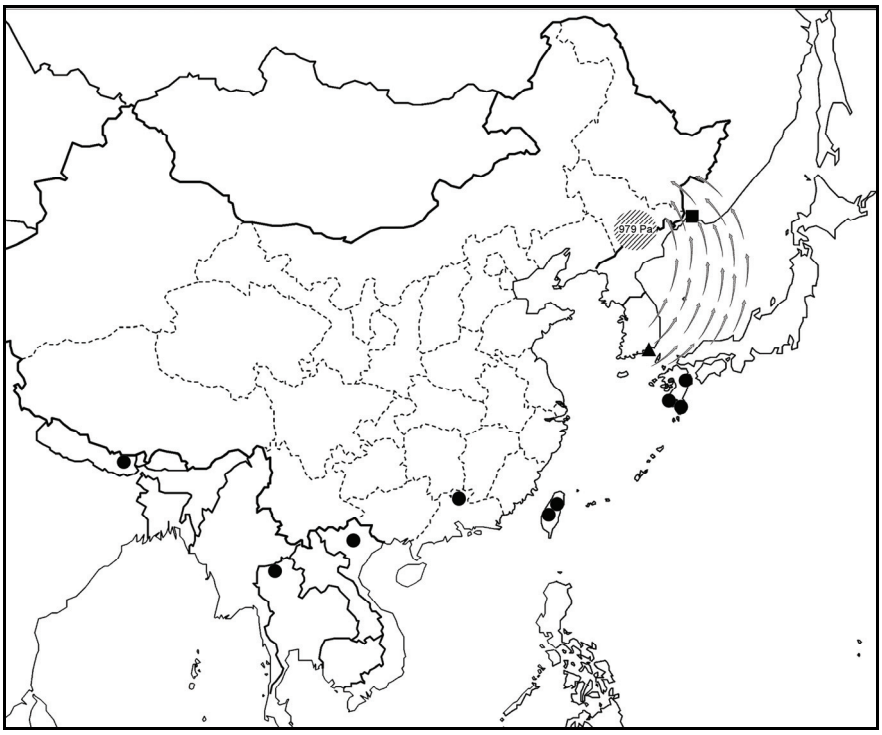

Fig. 3. Distribution of *Risoba yanagitai*. Black square – the new locality in Vladivostok; black triangle – the new locality on the Namhae Island; black circles – localities following Nakao *et al*. (2016). "979 Pa" – position of the centre of atmospheric depression, 31 August 2016, 12.00 of Vladivostok time, formed after the typhoon "Lionrock"; arrows – general direction of the wing over the Sea of Japan at the same time (after Windytv.com).

DISCUSSION

The founding of *R. yanagitai* lies in the modern tendency to immigration of southern moths in the south of Russian Far East. Recently a series of southern species was discovered here, such as: *Acosmeryx naga* (Moore, 1857) (Beljaev, 2003); *Ananarsia lineatella* (Zeller, 1839), *Grapholita dimorpha* Komai, 1979 and *Apocheima cinerarius* (Erschov, 1874) (Beljaev & Ponomarenko, 2005); *Ypthima multistriata* Butler, 1883 (Dubatolov, 2006); *Spilarctia alba* (Bremer et Grey, 1853) (Dubatolov & Dolgikh, 2010); *Acherontia styx* (Westwood, 1847) (Dubatolov & Yakovlev, 2013); *Ambulyx tobii* (Inoue, 1976) (Koshkin &

Bezborodov, 2013); *Idaea trisetata* (Prout, 1922) and *Thinopteryx crocoptera* (Kollar, 1844) (Beljaev, 2013); *Rhamnosa angulata* Fixsen, 1887 (Solovyev & Dubatolov, 2015). This tendency is likely associated with the current trend of global warming.

As is known, many noctuoid moths are active migrants. The founding of *R. yanagitai* in Russia is placed in 1150 km north from the known clothes localities on the Kyushu Island (Oita pref.) or 1000 km north from those in South Korea (Namhae Island). The collected specimen is rather fresh, that not assume long period of its migration from southern Japan, Korea or China. Possibly it could be descendant of a female, immigrated in the Vladivostok vicinity in June or July, since a host plant, *Juglans mandshurica*, is common here.

Alternatively, the moths could reach the Vladivostok through the strong typhoon "Lionrock", which was doing across Japan and north of Sea of Japan 30 August 2016, just before the data of the specimen collection. Long-range windborne migrations, including over a sea, are revealed for a number of noctuoid and other moths (Mikkola, 1986; Drake & Gatehouse, 1995; Dantart *et al*., 2009). Position of atmospheric depression, developed from the typhoon, and general direction of the wing over the Japan Sea on the 31 August 2016, 12.00 (Vladivostok time), are shown on the Fig. 3; wind speed over the Sea of Japan has reached up to 50-70 km/h (see Windytv.com). Using this wind, the moth could reach the Vladivostok from south of Korea or Japan for 15–20 hours, without regard to the own moths fright speed. However, it is unclear whether it can continuously hold out in air for so long. For noctuid moth, *Helicoverpa armigera* (Hübner), which has similar complexion but somewhat smaller than *R. yanagitai*, the displacement speed measured with the radar was 24–41 km/h, and duration of flight was 8–11 h, during the migration over the Bohai Sea (North China) (Feng *et al*., 2009.)

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