

# Records of some rare noctuid moths (Lepidoptera: Noctuidae) in Daghestan republic (Russia) in 2009

A. Yu. Matov, E. V. Ilyina, A. N. Poltavsky

**Abstract.** Twelve rare Noctuidae moth species, which inhabit the territory of Daghestan Republic of Russia, were caught during the field-season 2009: *Abrostola clarissa* (Staudinger, 1900), *Haemerosia vassilininei* A. Bang-Haas, 1912, *Cucullia spectabilisoides* Poole, 1989, *Luperina rjabovi* Kljutschko, 1967, *Cardepi helix* (Boursin, 1962), *Dichagyris eremicola* (Standfuss, 1888), *Dichagyris flavina* (Herrich-Schäffer, 1852), *Euxoa deserta* (Staudinger, 1870), *Agrotis spinifera* (Hübner, [1808]), *Xestia cohaesa* (Herrich-Schäffer, 1849); including two new species for the Northern Caucasus and Russia: *Cardepi hartigi* Parenzan, 1981 and *Dichagyris celebrata* (Alpheraky, 1897).

**Samenvatting.** Waarnemingen van zeldzame uilensoorten (Lepidoptera: Noctuidae) in de republiek Daghestan (Rusland) in 2009

Twaalf zeldzame mottensoorten werden in 2009 vastgesteld voor Daghestan (Rusland): *Abrostola clarissa* (Staudinger, 1900), *Haemerosia vassilininei* A. Bang-Haas, 1912, *Cucullia spectabilisoides* Poole, 1989, *Luperina rjabovi* Kljutschko, 1967, *Cardepi helix* (Boursin, 1962), *Dichagyris eremicola* (Standfuss, 1888), *Dichagyris flavina* (Herrich-Schäffer, 1852), *Euxoa deserta* (Staudinger, 1870), *Agrotis spinifera* (Hübner, [1808]), *Xestia cohaesa* (Herrich-Schäffer, 1849); waarbij twee nieuwe soorten voor de Noord-Kaukasus en Rusland: *Cardepi hartigi* Parenzan, 1981 en *Dichagyris celebrata* (Alpheraky, 1897).

**Résumé.** Observation de quelques rares noctuelles (Lepidoptera: Noctuidae) de la République de Daghestan (Russie) en 2009

Douze espèces rares ont été observé en 2009 sur le territoire de Daghestan : *Abrostola clarissa* (Staudinger, 1900), *Haemerosia vassilininei* A. Bang-Haas, 1912, *Cucullia spectabilisoides* Poole, 1989, *Luperina rjabovi* Kljutschko, 1967, *Cardepi helix* (Boursin, 1962), *Dichagyris eremicola* (Standfuss, 1888), *Dichagyris flavina* (Herrich-Schäffer, 1852), *Euxoa deserta* (Staudinger, 1870), *Agrotis spinifera* (Hübner, [1808]), *Xestia cohaesa* (Herrich-Schäffer, 1849); en plus deux espèces nouvelles pour le Caucase septentrional et la Russie : *Cardepi hartigi* Parenzan, 1981 et *Dichagyris celebrata* (Alpheraky, 1897).

**Key words:** rare species – monitoring – Faunistics – Republic of Daghestan – Northern Caucasus – Noctuidae.

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## Introduction

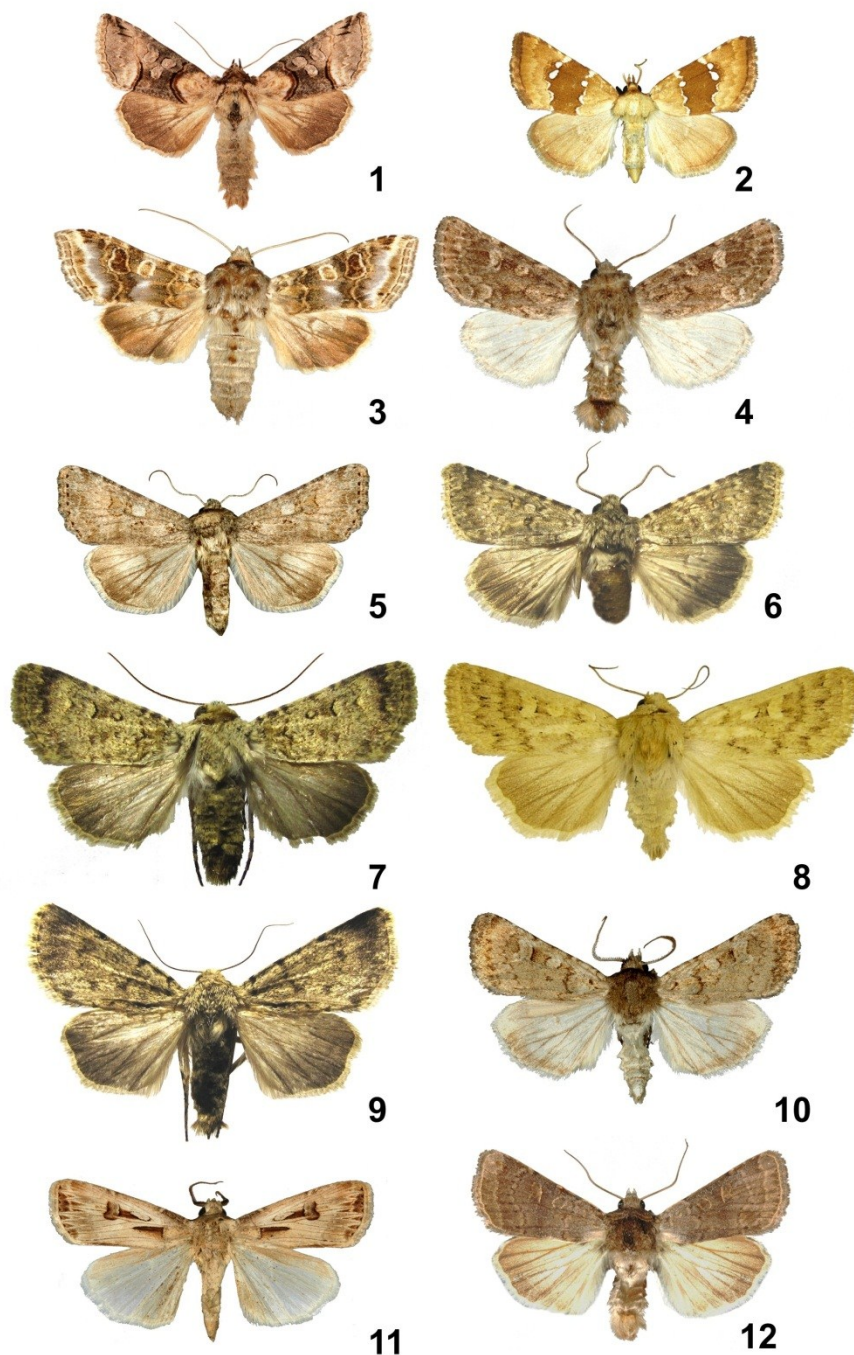
The Noctuidae fauna of the Republic of Daghestan is one of the richest and most completely investigated among the North Caucasus areas. Our first reports were published in Phegea (Poltavsky & Ilyina 2002, 2003) and listed 423 species. But an intensive annual monitoring, conducted by several groups of entomologists, presented new information. Soon, the total sum of Noctuidae had grown to 579 species (Poltavsky *et al.* 2007). Then, after further studies we have esteemed the Noctuidae-fauna of Daghestan at 628 species (Poltavsky *et al.* 2009). After observations during the summer-seasons 2009–2011 and a recent search in the ZIN collection (St.-Petersburg) the fauna reaches 646 species.

Most of the species listed below, are typical for arid habitats of Mediterranean and Irano-Turanian areas. Moreover, *Cardepi hartigi* and *Dichagyris celebrata* are reported for the first time from the Northern Caucasus and Russia. Also, such species as *Haemerosia vassilininei*, *Nyctobrya amasina*, *Luperina rjabovi*, *Cardepi helix*, *Euxoa deserta*, *Agrotis spinifera*, *Xestia cohaesa*

represent very local populations, which were not detected near Makhatchkala during 50–70 years, since M. A. Rjabov's period of studies. We suppose that such rare arid species could serve as species-markers for detecting climate changes in the Northern Caucasus, if their populations would demonstrate the tendency for increasing and dispersing to the north-west of the North Caucasus.

Abbreviations: ZIN = Zoological Institute of the Russian Academy of Sciences, St.-Petersburg; dist. - district; t. - town; v. - village.

Likewise at other areas of the Northern Caucasus, there are many rare species in Daghestan too. Such moth species are seldom registered by light-trapping. In 2009 Elena Ilyina caught 12 rare noctuids in different zones of Daghestan: v. Karaman-2 – the suburb of the republic's capital - town Makhatchkala (Lowland Daghestan), v. Gurbuki of Karabudahkent dist. (Foothill Daghestan); v. Chirkata of Gumbetovsky dist. (Central mountain area of Daghestan); v. Rutul of Rutul dist. (Highland Daghestan).



Figs. 1–12. Moths observed in the Republic of Dagestan in 2009; 1.– *Abrostola clarissa* (Staudinger, 1900); 2.– *Haemerosia vassilini* A. Bang-Haas, 1912; 3.– *Cucullia spectabilisoides* Poole, 1989; 4.– *Luperina rjabovi* Kljutschko, 1967; 5.– *Cardezia helix* (Boursin, 1962); 6.– *Cardezia hartigi* Parenzan, 1981; 7.– *Dichagyris eremicola* (Standfuss, 1888); 8.– *Dichagyris flavina* (Herrich-Schäffer, 1852); 9.– *Dichagyris celebrata* (Alpheraky, 1897); 10.– *Euxoa deserta* (Staudinger, 1870); 11.– *Agrotis spinifera* (Hübner, [1808]); 12.– *Xestia cohaesa* (Herrich-Schäffer, 1849).

***Abrostola clarissa*** (Staudinger, 1900) - Irano-Anatolian, xerophilous.

Subfamily: Plusiinae.

Larval food plants: *Vincetoxicum* spp.

Dagestan localities: 1) Levashi dist., v. Hadjalmahi, 18.06.1944 (ZIN: M. A. Rjabov); 2) Gergebil dist., v. Gergebil, 11.05.2004, 1 ex. (V.V. Tihonov); 3) Tsumada dist., v. Agvali, 15.08.2006, 1 ex.; 4) Agulsky dist., v. Misi, 12.07.2006, 1 ex. (E.V. Nikolaeva); 5) Tabasaransky dist., v. Hapil, 17.07.2007, 1 ex. (ZIN: N.S. Kurbanova); 6) Rutul dist., v. Rutul, 24.07.2009, 1 ex.; 7) Gumbetovskiy dist., v. Chirkata, 11.07.2009, 1 ex.

Nearest localities in Chechen republic and Ingush republic: 1) v. Itum-Kale, 11.08.1988; 2) Furtoug, 03.08.1988, 17 ex. (Herczig et al. 1990).

Nearest localities in Stavropol area: 1) t. Kislowodsk, 30.06.2008 (ZIN: E.V. Tsvetkov); 2) v. Podkumok, near t. Kislowodsk, 22.07.2007 (ZIN: E.V. Tsvetkov); 3) t. Pjatigorsk, mount Mashuk, 20.06.1925 (ZIN: M. A. Rjabov), 26.05-26.07.1937, 13.06-21.07.1939, 06.06.1940, 15.08.1947, 29.05.1948, 24.08.1949 (ZIN: N. M. Egorov) (Poltavsky et al. 2009).

Status: rare species.

***Haemerosia vassilini*** A. Bang-Haas, 1912 - East-mediterranean, hemixerophilous.

Subfamily: Metoponiinae.

Larval food plants: *Delphinium* spp. (based on the unpublished data of M. A. Rjabov)

Daghestan localities: 1) t. Derbent, 30.07-28.08.1928 (ZIN: M. A. Rjabov); 2) v. Kaptchugaj, 21.08.1940, 17.07.1945 (ZIN: M.A. Rjabov); 3) v. Tarki, 22.07.1947, 27.07.1949, 27.07.1952 (ZIN: M.A. Rjabov); 4) Makhatschkala, v. Karaman-2, 25.08.2009, 2 ex.

Nearest localities in Chechen republic: 1) Naursky dist., v. Naurskaja (ZIN: Vostrikov, no dates) (Poltavsky et al. 2009).

Nearest localities in Krasnodar area: 1) Taman, 21.08.1999, 1 ex., 13.07.2003 (Shchurov, 2004).

Status: very rare Mediterranean relic-species.

***Cucullia spectabilisoides*** Poole, 1989 (= *C. spectabilis* (Hübner, [1813])) - East-mediterranean, hemixerophilous.

Subfamily: Cuculliinae.

Larval food plants: *Artemisia* spp., *Senecio* spp., *Verbascum* spp.

Daghestan localities: 1) Kizilyurt dist., v. Aknada-2 (ZIN: M. A. Rjabov); 2) v. Rutul, 05.08.2004, 1 ex. (V.V. Tihonov); 26.07.2009, 1 ex.

Nearest localities: 1) Karachaj-Cherkess republic, v. Arhiz, 24.07.1938 (ZIN: A.V. Djakonov); 2) Stavropol area, t. Pjatigorsk, mount Mashuk, 27.06.1938, 12.07-5.08.1939, 24.06.1940 (ZIN: N. M. Egorov); 3) t. Stavropol, 16.07.1920 (ZIN: I.N. Filipjiev) (Poltavsky et al. 2009); 4) Ingush republic, Furtoug, 03.08.1988, 2 ex. (Herczig et al. 1990).

Status: very rare species.

***Luperina rjabovi*** Kljutschko, 1967 - endemic of Caucasus, hemixerophilous.

Subfamily: Xyleninae.

Larval food plants: unknown.

Daghestan localities: 1) t. Makhatschkala, v. Tarki, 28.09.1926, 11.09.1939, 14-23.09.1940, 13.09.1944, 03-12.09.1945, 15.09.1947, 06.09.1948, 19.09.1951 (ZIN: M. A. Rjabov); 2) v. Sulak, 04.05.1976 (ZIN: M. A. Rjabov); 2) v. Karaman-2, 11-25.09.2009, 20 ex.

Nearest localities in Chechen republic: 1) Shelkovskaja, 04.05.1976 (Sviridov et al, 2006).

Status: very rare and local species.

***Cardepia helix*** (Boursin, 1962) - East-mediterranean, xerophilous.

Subfamily: Hadeninae.

Larval food plants: unknown.

Daghestan localities: 1) t. Derbent, 14.07.1928, 1 ex. (ZIN: M.A. Rjabov); 2) Makhatschkala, 01.05.1926, 1 ex. (ZIN: M.A. Rjabov); 3) v. Karaman-2, 14.06-25.08.2009, 23 ex.

Nearest localities: 1) Kalmyk republic, v. Zunda-Tolga, 14.05.1979, 1 ex. (Poltavsky, Nekrasov, 2002).

Status: very rare species.

***Cardepia hartigi*** Parenzan, 1981 - East-mediterranean, xerophilous.

Subfamily: Hadeninae.

Larval food plants: unknown.

Daghestan localities: 1) v. Karaman-2, 10.07.2009, 1 ex.

Nearest localities: 1) Ukraine, Kherson region, Novo-Alekseevka, 17.08.1952, 2 ex. (Hacker, 1998); 2) Ukraine, Donetsk region, Khomutovskaja Steppe, 3.07.1965, 1 ex. (Hacker, 1998); 3) Kazakhstan, Batkul lake, 15 - 31.07.1994, 1 ex., 4.06.2001, 2 ex. (Hacker, 1998; Hacker et al., 2002)

Status: new species for the Northern Caucasus and Russia.

***Dichagyris eremicola*** (Standfuss, 1888) - East-mediterranean, xerophilous.

Subfamily: Noctuidae.

Larval food plants: unknown.

Daghestan localities: 1) t. Makhatschkala, v. Tarki, 16.06.1946, 24.07.1949, 27.07.1952 (ZIN: M.A. Rjabov); 2) v. Chirkata, 17.07.2009, 1 ex.

Nearest localities: 1) mount Mashuk, 23.06.1949 (ZIN: N. M. Egorov); 2) Kazakhstan republic, Uralsk area, Inderskoe lake (Anikin et. al, 2000).

Status: very rare species.

***Dichagyris flavina*** (Herrich-Schäffer, 1852) (= *D. ochrina* (Staudinger, 1898)) - Mediterranean, xerophilous.

Subfamily: Noctuidae.

Larval food plants: unknown.

Daghestan localities: 1) Bujnaxsk dist., v. Low Djengutaj, 07.07.1926 (ZIN: M.A. Rjabov); 2) t. Derbent, 11-20.06.1928; 3) v. Tarki, 15.06.1947 (ZIN: M.A. Rjabov); 4) Kaiakent dist., v. Kaiakent, 18.06.1998, 1 ex.; 5) Hivsky dist., v. Kondik, 09.07.2005, 1 ex. (ZIN: N.S. Kurbanova); 6) Karabudakhkent dist., v. Gurbuki, 14.06.2009, 8 ex.

Nearest localities: 1) Turkey, Urfa, Viransehir, 01.06.1982; Nevsehir, Topuzdagi Gecidi, 06.07.1984 (Fibiger, 1990); 2) Armenia, Erevan, 25.05.1925, 1 ex. (ZIN: M.A. Rjabov); 3) Azerbaijan, Talysh, v. Gosmoljan, 26.06.1979, 20.06.1980, 3 ex. (ZIN: Danilevskij, A. Danchenko); 4) Azerbaijan, v. Avrora, 8.06.1979, 1 ex. (ZIN: A. Danchenko)

Status: rare species.

***Dichagyris celebrata*** (Alpheraky, 1897), ssp. *D. armeniaca* (Kozhantschikov 1929) (= *D. assimilata* (Kozhantschikov 1929)) - Irano-Turanian, xerophilous.

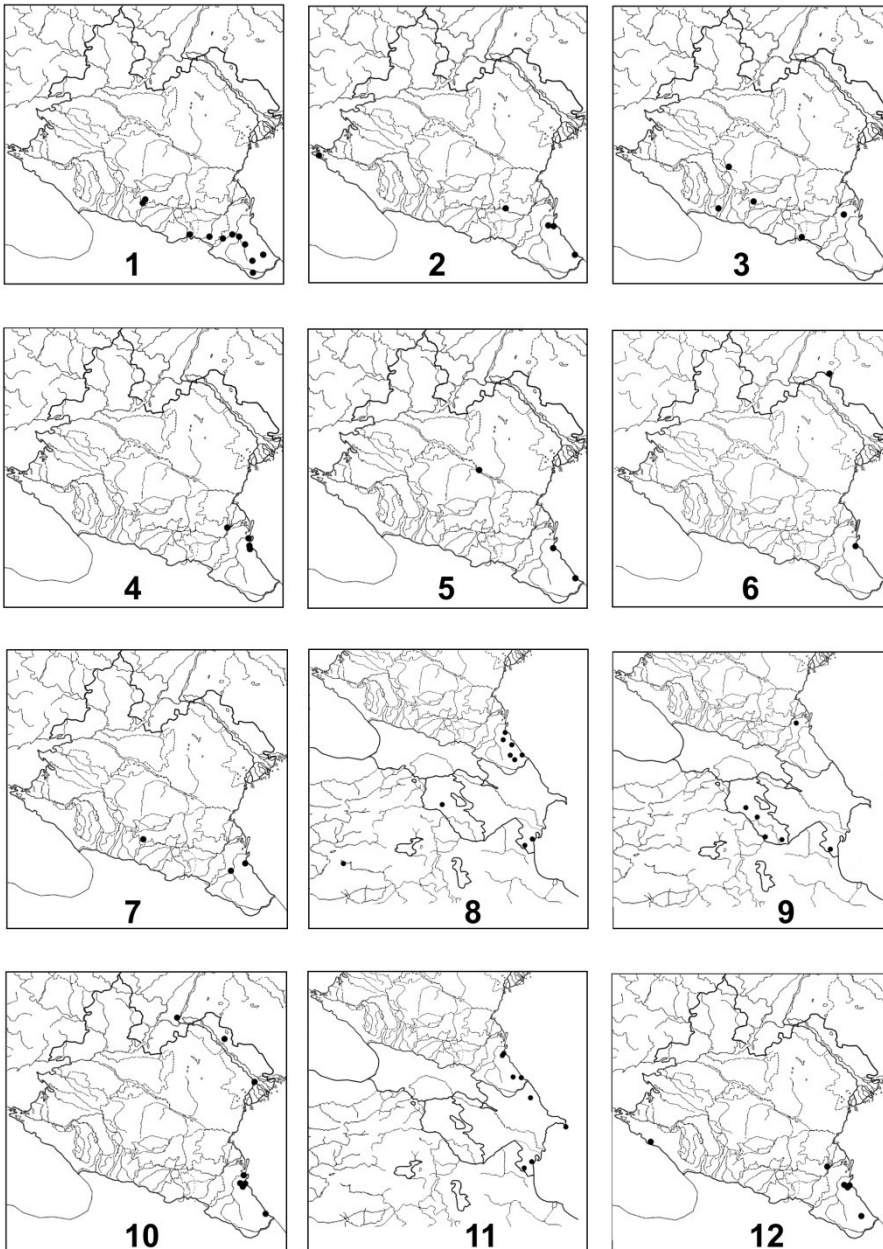
Subfamily: Noctuidae.

Larval food plants: unknown.

Daghestan localities: 1) v. Chirkata, 15.07.2009, 1 ex.

Nearest localities: 1) Armenia, t. Erevan, 10-11.07.1934, 5 ex. (ZIN: M.A. Rjabov); 18.07.1957, 15.07.1959, 3 ex. (ZIN: S. Vardikjan); 2) Armenia, v. Migry (modern – Megry), 5-7.07.1931, 2 ex. (ZIN: M.A. Rjabov); 3) Armenia, Gegamskij range, Khosrov reserve, 20.06.2002, 2 ex. (ZIN: M. Kalashjan); 4) Azerbaijan, Nakhichevan, river Arax, station Darasham II, 2.07.1931, 2.07.1934, 5 ex. (ZIN: M.A. Rjabov); 5) Azerbaijan, Talysh, v. Gosmoljan, 10.07.1986, 1 ex. (ZIN: V. Chikolovets)

Status: new species for the Northern Caucasus and Russia.



Figs. 1–12. Localities of rare moths in the Republic of Dagestan in 2009; 1.– *Abrostola clarissa* (Staudinger, 1900); 2.– *Haemerosia vassilininei* A. Bang-Haas, 1912; 3.– *Cucullia spectabilisoides* Poole, 1989; 4.– *Luperina rjabovi* Kljutschko, 1967; 5.– *Cardezia helix* (Boursin, 1962); 6.– *Cardezia hartigi* Parenzan, 1981; 7.– *Dichagyris eremicola* (Standfuss, 1888); 8.– *Dichagyris flavina* (Herrich-Schäffer, 1852); 9.– *Dichagyris celebrata* (Alpheraky, 1897); 10.– *Euxoa deserta* (Staudinger, 1870); 11.– *Agrotis spinifera* (Hübner, [1808]); 12.– *Xestia cohaesa* (Herrich-Schäffer, 1849).

***Euxoa deserta*** (Staudinger, 1870) – Irano-Turanian, xerophilous.

Subfamily: Noctuidae.

Larval food plants: unknown.

Dagestan localities: 1) t. Makhatschkala, 27.09.1926 (ZIN: M.A. Rjabov); 2) t. Derbent, 22.09.1931 (ZIN: M.A. Rjabov); 3) v. Sulak, 05.10.1934 (ZIN: M.A. Rjabov); 4) v. Kaptchugaj, 02.10.1940 (ZIN: M.A. Rjabov); 5) lake Ak-gel near t. Makhatschkala, 13.09.1947 (ZIN: M.A. Rjabov) (Poltavsky et al. 2007); 6) Karaman-2, 23.09.2009, 1 ex.

Nearest localities: 1) Volgograd area, v. Sarepta, 30.08.1895, 15.08.1905; 2) Astrakhan area, t. Astrakhan, 3) v. Bogdo (Kozhantshikov, 1937).

Status: rare species.

***Agrotis spinifera*** (Hübner, [1808]) (= *A. biconica* Kollar, 1844) – East-mediterranean, xerophilous.

Subfamily: Noctuidae.

Larval food plants: *Beta* spp., *Arachis* spp., *Sesamum* spp., *Allium* spp., Poaceae spp.

Dagestan localities: 1) t. Derbent, 25.08.1931, 2 ex. (ZIN: M.A. Rjabov); 2) t. Makhatschkala, sand dune Sarykum (Poltavsky et al. 2007); 3) v. Hapil, 28.09-07.10.2008, 1 ex. (ZIN: N.S. Kurbanova); 4) Karaman-2, 11.09.2009, 1 ex.

Nearest localities: 1) Azerbaijan, Lenkoran, v. Avrora, 12.05.1979, 1 ex. (ZIN: A. Danchenko); 2) Azerbaijan, v. Apsheron, 11-12.10.1978, 2 ex. (ZIN: P. Kazarjan); 3) Azerbaijan, v. Kuba, 20.07.1962, 1 ex. (ZIN: Tsyganenko); 4) Azerbaijan, Talysh, v. Gosmoljan, 30.06.1980, 1 ex. (ZIN: A. Danchenko).

Status: rare species.

**Xestia cohaesa** (Herrich-Schäffer, 1849) (= *X. pulverea* (Hampson, 1903)) - East-mediterranean, hemixerophilous.

Subfamily: Noctuidae.

Larval food plants: Poaceae.

Daghestan localities: 1) t. Makhatschkala, v. Agatchaul, 13.10.1925, 23.08-23.09.1940 (ZIN: M.A. Rjabov); 2) Kumtor-Kale, 07.10.1940 (ZIN: M.A. Rjabov); 3) v. Kaptchugaj, 02.10.1940 (ZIN: M.A. Rjabov); 4) v. Tarki, 18.09.1939, 12-29.09.1945, 20.09.1947 (ZIN: M.A. Rjabov); 5) v. Hapil, 5-18.09.2007 (ZIN: N.S. Kurbanova); 6) t. Makhatschkala, sand dune Sarykum, 08.10.2007 (V.V. Tihonov); 7) v. Karaman-2, 11.09.2009, 1 ex.

Nearest localities: 1) Krasnodar area, v. Betta, 12.10.1998 (Poltavsky et al. 2009); 2) Chechen republic,

Voskresenskoye, 23-25.09.1990, 2 ex. (Herczig et al. 1991)

Status: rare species.

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