

## NOCTUOIDEA COLLECTED IN THE SOUTHERN URALS IN 2006 – 2009. 1 (NOCTUIDAE)

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[Ахола М., Лагунов А.В., Сильвонен К. Совкообразные (Lepidoptera, Noctuoidea), собранные на Южном Урале в 2006 – 2009 гг. Сообщение 1 (Noctuidae)]

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**Summary.** A list comprising 287 species in the family Noctuidae from the Southern Ural Mountains is presented. The material was collected during four expeditions in 2006 – 2009. Our Finnish-Russian expeditions were directed to the following regions: Chelyabinsk oblast, Bashkiria and Orenburg oblast. Larvae of *Nola crambiformis* (Rebel, 1902), *Euclidia fortalitium* (Tauscher, 1809), *Cucullia pustulata* Eversmann, 1842, *Cucullia biornata* Fischer von Waldheim, 1840, *Cucullia virgaureae* Boisduval, 1840, *Oncocnemis campicola*, Lederer, 1853, *Oncocnemis nigricula* (Eversmann, 1847), *Oncocnemis senica* (Eversmann, 1856), *Fabula zollikoferi* (Freyer, 1836), *Resapamea vulpecula* (Eversmann, 1852), *Mythimna albiradiosa* (Eversmann, 1852), *Chersotis transiens* (Staudinger, 1897), *Dichagyris squalorum* (Eversmann, 1856), *Dichagyris truculenta* (Lederer, 1853) and *Euxoa ochrogaster* (Guenée, 1852) are described for the first time, basing on the material obtained during these trips.

**Резюме.** Приведен список, включающий 287 вида совков (Noctuidae), отмеченных на Южном Урале. Материал был собран в 2006-2009 гг. участниками российско-финских экспедиций, проходивших на территории Башкирии, Челябинской и Оренбургской областей. Впервые приводятся описания гусениц *Nola crambiformis* (Rebel, 1902), *Euclidia fortalitium* (Tauscher, 1809), *Cucullia pustulata* Eversmann, 1842, *Cucullia biornata* Fischer von Waldheim, 1840, *Cucullia virgaureae* Boisduval, 1840, *Oncocnemis campicola*, Lederer, 1853, *Oncocnemis nigricula* (Eversmann, 1847), *Oncocnemis senica* (Eversmann, 1856), *Fabula zollikoferi* (Freyer, 1836), *Resapamea vulpecula* (Eversmann, 1852), *Mythimna albiradiosa* (Eversmann, 1852), *Chersotis transiens* (Staudinger, 1897), *Dichagyris squalorum* (Eversmann, 1856), *Dichagyris truculenta* (Lederer, 1853) и *Euxoa ochrogaster* (Guenée, 1852), собранных во время экспедиции.

## INTRODUCTION

The expeditions to the steppes of the Southern Urals were organized by Alexander Lagunov in 2006 - 2009. The Ural Mountains form an about 2000 km long border between Europe and Asia, reaching Arctic Ocean in the north towards the Caspian Sea in the south. The study area, Southern Ural Mountains, is reduced to a foothill zone, gradually becoming a lowland steppe without any clear border. The habitats are mainly different kinds of steppe, small taiga forests, alpine meadows and also mountain tundra at higher altitudes over 1000 m a.s.l.

The fauna of Noctuidae is nowadays rather well known in this area [Eversmann, 1844; Sviridov & Lagunov, 1987; Ahola et al., 1997; Anikin et al., 2000; Nupponen & Fibiger, 2002 and 2006; Olshvang et al., 2004; Kononenko, 2005]. The early stages of many Noctuidae species inhabiting the easternmost Europe are still undescribed. The main goal of these collecting trips was to study the larvae of Noctuidae from steppe habitats.

## LOCALITIES, MATERIAL AND METHODS

The present article is based on the material collected during our 2006 - 2009 expeditions. The dates, collecting sites, and collectors are as follows. The longitude and latitude readings were measured by a GPS and may thus be slightly erroneous; the readings for Cheka are approximatively based on a map.

**A.** The first trip 21.07.-30.07.2006 (29.07. no collecting due to inadverse weather conditions), Chelyabinsk oblast, Matti Ahola, Alexandr Lagunov, Jyrki Lehto, Heikki Seppälä, Kimmo Silvonen and Elena Veisberg participated in this trip:

– **Miass, N 55°01.49' E 60°10.29', 350 m:** Chelyabinsk region, Miass town in the Ilmen State Reserve 21.07.2006 and 30.07.2006, forest steppes and old conifer forests.

– **Miassovo, N 55°10.23' E 60°17.42', 303 m:** Chelyabinsk region, Miassovo Lake in the Ilmen State Reserve 22-23.07.2006, mixed forest and meadows.

– **Vyatskoye, N 53°55.21' E 59°01.10', 530 m:**

Chelyabinsk region, Vyatskoe 24-25.7. and 28.07.2006 near the border of Bashkortostan, foothill regions with different kinds of steppe.

– **Arkaim**, N 52°33.25' E 59°32.57', 350 m: Chelyabinsk region, Arkaim reserve near Amurskii village 26-27.07.2006, a large area of *Artemisia* steppe.

**B.** The second trip 9.08-18.08.2007, Chelyabinsk oblast, by Ahola, Lagunov, Silvonen and Veisberg:

– **Vyatskoye**, N 53°55.70' E 59°01.60', 560 m: Chelyabinsk region, Vyatskoe 9-10.08.2007 in the same place as before.

– **Ural village**, N52°39.05' E 58°59.95', 290 m, N 52°38.74' E 59°00.11', 290 m: Chelyabinsk region, River Ural near village Ural 11-12.08.2007, wet waterside meadows, rocky hills and dry steppe.

– **Cheka**, N 52°58' E 59°20', 400-500 m: Chelyabinsk region, Mountain Cheka 13-14.08.2007 in a riverside and steppe area between Ural and Amurskii villages.

– **Arkaim**, N 52°33.25' E 59°32.57', 350 m: Chelyabinsk region, Arkaim 15-16.08.2007, the same spots as last year.

– **Stepnoye**, N 54°03.10' E 60°28.78', 270 m: Chelyabinsk region, River Uj near town Stepnoe 17-18.08.2007, waterside patches of willows, steppe.

**C.** The third trip 27.06.-5.06.2008, Chelyabinsk oblast, Bashkiria and Orenburg oblast. Ahola, Olga Chashchina, Pavel Kulikov, Lagunov, Silvonen and Veisberg participated:

– **Uvelka**, N 54°35.49' E 61°05.08', 220 m: Chelyabinsk region, River Uvelka 27.06.2008.

– **Irendyk**, N 52°47.17' E 58°16.42', 620 m: Bashkiria, Irendyk Mountains near Lake Talkas, 28-29.06.2008.

– **Verblyuzhka**, N 51°22.84' E 56°48.75', 160 m: Orenburg region, Mount Verblyuzhka close to Donskoje village. A hill beside the Ural river bank at the southern corner of the foothill region. *Artemisia* steppe, wet meadows and deciduous forest. 30.06.-3.07.2008.

– **Kizilskoye**, N 52°44.83' E 58°52.26', 300 m: Chelyabinsk region, Kizilskoye 4-5.07.2008. Steppe and waterside willows.

– **Stepnoye**, N 54°03.10' E 60°28.78', 270 m: Chelyabinsk region, river Uj close to town Stepnoe, 6.07.2008, as in last year.

**D.** The fourth trip 9-18.07.2009, Chelyabinsk oblast, Bashkiria and Orenburg oblast, Ahola, Silvonen, Pekka Tokola and Chashchina participated:

– **Bashkirsky reserve**, N 53°20.89' E 57°46.36', 550 m, N 53°20.67' E 57°46.76', 517 m: Bashkiria, Bashkirsky State Reserve, Sargaya, 9-10.07.2009. Hills and meadows of Juznyj Kraka.

– **Kuvandyk**, N 51°31.68' E 57°24.13', 277 m,

N 51°31.65' E 57°23.49', 354 m: Orenburg region, close to Kuvandyk town, 11-12.07.2009. A bach valley with bigger *Quercus* trees and steppe.

– **Verblyuzhka**, N 51°23.00' E 56°48.46', 173 m, N 51°22.83' E 56°48.84', 159 m: Orenburg region, Mount Verblyuzhka close to Donskoje village, 13-14.07.2009, as in last year.

– **Guberlya**, N 51°14.56' E 58°04.71', 270 m, N 51°14.72' E 58°04.77', 215 m: Orenburg region, Guberlya, 15-16.07.2009. Close to river Guberlja, old *Populus* trees, riverside and steppe.

– **Kizilskoye**, N 52°44.83' E 58°52.31', 317 m: Chelyabinsk region, Kizilskoye, 17.07.2009, as in last year.

– **Stepnoye**, N 54°03.18' E 60°28.77', 270 m: Chelyabinsk region, Stepnoye, 18.07.2009. River Uj near town Stepnoe, as in 2007 and 2008.

The material was mainly collected by artificial light, 250 W mercury vapor lamps and 20 W UV tubes, at night. Sugar ropes were temporarily used and some day-active species were netted during daytime. All identified species were listed, undetermined material collected during the trips was pinned and carried home for further study. Females of interesting species were taken alive to lay eggs in small plastic jars. Larvae were reared in plastic jars when travelling, and partly in larger boxes at home. Larvae were described and photographed, some species for the first time as new to science (see below). Authors Ahola and Silvonen were especially interested in the larval stages of Noctuidae because of the on-going identification book project [Ahola & Silvonen 2005, 2008, 2011].

## RESULTS

### 1. Rearings of the earlier undescribed larvae

*Nola crambiformis* (Rebel, 1902): Head black, cervical shield large, shining black, divided by whitish grey middorsal line, D1 setae single, others as secondary setae on warts. Middorsal line of body broad, continuous, whitish grey; bordered on anterior part of abdominal segments 1-9 by triangular, dark flecks. Dark grey, wavy shadow is present on the place of the subdorsal line; spiracular line is narrow, wavy, whitish grey. Larva accepted *Taraxacum* and *Vaccinium myrtillus*, but the natural host plant remains unknown.

*Euclidia fortalitium* (Tauscher, 1809): Larva resembles *Callistege mi*, but the white genal stripe of head is much broader and the subdorsal line of body is as broad as the moddorsal line. Longitudinal lines of body white with narrow, brown margins, zones are greyish. Spiracles are dark yellow. Larvae were fed on grasses.

*Cucullia pustulata* Eversmann, 1842 (*C. fraterna*):

The larva resembles that of *Cucullia lactucae* a lot, but the dark flecks between abdominal segments on subdorsal zone are very concave and the white transverse stripes are much wider on the subdorsal zone. *Sonchus* and *Mycelis* were accepted.

***Cucullia biornata*** Fischer von Faldheim, 1840: Larvae resemble those of *Cucullia umbratica* (Linnaeus, 1758). Middorsal line of *biornata* is, however, present as large, orange flecks between segments, spiracular line is orange, broad and continuous on thorax. Large black pinacula absent at bases of dorsal setae, but small, whitish flecks are present in this place. The skin of *umbratica* is more roughly granulated. Larvae were fed in captivity on *Taraxacum* flowers and leaves. No other offered plants (mainly Compositae) were accepted!

***Cucullia virgaureae*** Boisduval, 1840: Larvae resemble those of *Cucullia asteris* ([Denis & Schiffermüller], 1775), showing longitudinal lines. Middorsal line of *virgaureae* is creamy white, broad and divided longitudinally by a narrow orange stripe. Dorsal zone between middorsal and subdorsal lines is dark grey, mottled with darker colour elements. Subdorsal and supraspiracular lines are narrow, white, and subdorsal zone between these lines pale brownish or yellowish brown. The ventral part of subdorsal zone between supraspiracular and spiracular lines is dark grey like the dorsal zone, but narrow. Spiracular line is white, broad and continuous. Larvae were fed on *Solidago*, but much better on *Asteris*.

***Oncocnemis campicola*** Lederer, 1853: The assumed host plant in the area is *Spiraea crenata*. Larva resembles that of *O. nigricula*. Head is chocolate brown, anterior part paler than the black posterior part; net fields often obscure, negative when visible; genal stripe white. Shields brown; both longitudinal lines of cervical shield narrow, white, enlarged in front of shield, setae black with white base-spots; middorsal line of anal shield yellowish white, rather broad, reaching seta D1. Longitudinal lines of body similar to *O. nigricula*.

***Oncocnemis nigricula*** (Eversmann, 1847): We assume that the species feeds at least on *Spiraea crenata*. Two colour forms occur, green and reddish brown. Anterior part of head green or pale grey and posterior part of head black. Coronal stripe is reddish brown; frontal stripe green or pale grey. White genal stripe is present. Reticulate pattern negative, fields dark brown or black, encircled by pale grey, bands reddish brown; all groups of net fields visible. Setae black. Shields reddish brown or green; middorsal line of cervical shield white, narrow, subdorsal line white, broad, both lines divided in front of and behind the shield. Lines of anal shield white. Longitudinal lines

of body divided, margins white or yellowish white and central part green or reddish grey; spiracular line white, continuous, broad, ventrally bordered sharply by a dark green or black margin; ventral line divided, margins white, central part broad, pale green or pale reddish grey. Zones narrow, dorsal zone green or reddish grey, border of middorsal line dark reddish violet or dark green; dorsal subdorsal zone dark, narrow, green or reddish grey, borders of lines dark, ventral subdorsal zone olive green, pale yellow spiracles present on this zone; pleural and ventral zones green or pale reddish grey.

***Oncocnemis senica*** (Eversmann, 1856): The most probable host plant in the locality is *Spiraea crenata*. Head grey with bluish tinge, stripes dark violet grey and additional narrow, white stripe between adfrons and frontal stripe. Reticulate pattern negative, fields are black or reddish brown, bands pale yellowish brown or bluish grey. Genal stripe is white, narrow; genae otherwise dark brown. Cervical shield black or dark brownish, longitudinal lines white, middorsal line very broad bordered by black margin. Anal shield brownish grey, dark between D1-D2 setae; middorsal line is white, broad in anterior part of shield. Segments of body are chocolate brown in the middle part, pale brownish grey between segments. Middorsal line broad, white, divided only shortly between segments, bordered by narrow, dark brown margins, broken on segments Ab8-Ab9 by black fleck; subdorsal line visible only between segments; supraspiracular line divided, margins white, dorsal margin very narrow and visible only between segments, ventral margin broad and continuous in thorax, but visible only between abdominal segments 2-9; spiracular line white, continuous in thorax. The dorsal region of larva is chocolate brown on the centre of segments but blackish grey between segments, setae with white dorsal base spots, D2 on raised warts on abdominal segment 8; pleural zone dark brown, dark grey between segments; ventral zone brownish grey.

***Fabula zollikoferi*** (Freyer, 1836): In addition to the most probable host plant *Phragmites australis*, the larvae accepted other bigger grasses, *Carex* and *Iris pseudacorus*, but not *Typha latifolia*. Head and shields reddish brown; net fields of head weak, negative, only RG2 visible; Bp dark brown without SB. MDL of cervical shield grey, narrow, SDL absent; shield with darker front margin. Longitudinal lines and figures of body are absent, DOR reddish grey, pinacula large, brownish grey, spiracles yellowish white. Larval development resembles that of *Rhizodra lutosa*.

***Resapamea vulpecula*** (Eversmann, 1852) (*Mesapamea hedeni*): Head, cervical and anal shields brown,

shields strongly sclerotised. Anal shield with semi-circular ridge on setae D1 and with another ridge on caudal margin of shield. Larvae of the genus *Lupe-rina* have this feature as well. Body greyish white without ornaments; pinacula brownish. Young larva feeds inside a grass straw.

***Mythimna albiradiosa*** (Eversmann, 1852): The larva belongs to the group of species with divided net field RG2 on head (like *Mythimna andereggii*). Middorsal line of body narrow and not so intensive, dark margin of subdorsal line weak, particularly on thorax. Subdorsal line is white, wider than the middorsal line. Larva feeds on grasses.

***Chersotis "transiens"***: Two very close species of *Chersotis*, *C. transiens* (Staudinger, 1897) and *C. stridula* (Hampson, 1903), are found in the Southern Urals. Because the identification of our species is not confirmed yet, we use here the name "*transiens*". Larva of this species seems to be close to that of *Chersotis alpestris* (Boisduval, [1837]). Middorsal line of thoracic shield is, however, narrower, and spiracular line nearly absent. Dorsal zone with dark brown fleck between segments in middorsum, weak whitish mid-dorsal line runs through this fleck. Dark dorsal border of subdorsal line is visible between setae MD1 and D2, especially in the 5. – 7. abdominal segments, ventral border of this line is not visible. Larvae were fed in captivity on *Taraxacum*.

***Dichagyris squalorum*** (Eversmann, 1856): Head with negative reticulation, stripes absent, setae P1, P2, A3 and L1 with dark brown bases. Cervical shield with darker brown fore part, also setal bases are dark. Body is brown, middorsal line narrow, visible only on thorax; subdorsal line yellowish white with sharp, narrow, dark brown dorsal margin on anterior part of segments. Spiracular line is white with wavy dorsal edge. *Achillea millefolium* was the only host plant accepted.

***Dichagyris truculenta*** (Lederer, 1853): like the preceding species, also this larva belongs to the group of *Dichagyris* species, close to *D. candelisequa* ([Denis & Schiffermüller], 1775), which have no dark longitudinal stripes on head. Reticulation of head is negative, the fields are darker brown than the bands. Thoracic shield is dark with black bases of setae and sutures. Anal shield is pale brownish grey, with black suture punctures and white, short, fleck-like mid-dorsal line, and longer subdorsal line. Middorsal and subdorsal lines of body are weak, narrow, broken to white spots; subdorsal line bordered dorsally by black margin; supraspiracular line white, broader than subdorsal line between segments. Spiracular line is white and broad with a grey stripe in the middle. Larvae hatched in the autumn, hibernated in the first instar

and fed only after the diapause on *Lactuca sativa* and *Taraxacum*.

***Euxoa ochrogaster*** (Guenée, 1852): Larva is a typical *Euxoa*, with negative net fields on the head. Frontal stripe of head is black but short and narrower at the beginning and broader near seta P1. It resembles the larva of *Euxoa hastifera* (Donzel, 1847) because the supraspiracular line is wavy from the second thoracic segment to the 8. abdominal segment and the line is about twice as wide as subdorsal line. Dorsal zone between middorsal and subdorsal lines, however, is yellowish brown. Dorsal pinacula black, both D1 and D2 equal in size. Larvae hatched in late autumn and were fed on *Taraxacum* and *Lactuca sativa*.

More information and photos of larvae can be found in Ahola & Silvonen [2005, 2008, 2011].

## 2. List of species

The species names follow mostly the list Lepidoptera of Europe by Karsholt & Razowski [1996], but we tried to apply the new subfamily level interpretation of Zahiri et al. [2011]. This means for instance that the families Arctidae and Lymantriidae are now included as subfamilies inside the family Erebidae. The recorded dates and localities for each species are given below.

### Family Noctuidae (Owlet Moths)

***Protodeltote pygarga*** (Hufnagel, 1766): Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.

***Deltote deceptor*** (Scopoli, 1763): Arkaim 27.07.2006, Uvelka 27.06.2008, Kizilskoye 4.07.2008, Stepnoye 6.07.2008, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Verblyuzhka 30.06.2008 and 13-14.07.2009.

***Deltote uncula*** (Clerck, 1759): Stepnoye 6.07.2008, Guberlya 15-16.07.2009.

***Deltote bankiana*** (Fabricius, 1775): Stepnoye 17-18.08.2007, 6.07.2008 and 18.07.2009, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Bashkirsky Reserve 9-10.07.2009, Verblyuzhka 30.06.-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.

***Cucullia argentina*** (Fabricius, 1787): Arkaim 26-27.07.2006, Verblyuzhka 2.07.2008.

***Cucullia magnifica*** Freyer, 1839: Arkaim 26-27.07.2006 and 15-16.08.2007, Ural village 11-12.08.2007.

***Cucullia splendida*** (Stoll, 1782): Vyatskoye 24-25.07. and 28.07.2006, Ural village 11-12.08.2007,

- Cheka 13-14.08.2007, Arkaim 27.07.2006 and 15-16.08.2007.
- Cucullia fraudatrix* Eversmann, 1837: Stepnoye 6.07.2008.
- Cucullia absinthii* (Linnaeus, 1758): Ural village 11-12.08.2007, Cheka 13-14.08.2007, larvae on *Artemisia*.
- Cucullia argentea* (Hufnagel, 1766): Arkaim 26-27.07.2006, Ural village 11-12.08.2007, Verblyuzhka 13-14.07.2009, Kizilskoye 17.07.2009, Stepnoye 18.07.2009.
- Cucullia spectabilisoides* Poole, 1989: Verblyuzhka 30.06.-3.07.2008 and 13-14.07.2009, Stepnoye 6.07.2008 and 18.07.2009, Guberlya 15-16.07.2009.
- Cucullia cineracea* Freyer, 1841: Arkaim 27.07.2006, Verblyuzhka 2.07.2008, Guberlya 16.07.2009.
- Cucullia artemisiae* (Hufnagel, 1766): Arkaim 27.07.2006, Vyatskoye 28.07.2006, Ural village 11-12.08.2007, Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Stepnoye 6.07.2008, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Cucullia praecana* Eversmann, 1843: Vyatskoye 28.07.2006.
- Cucullia mixta* Freyer, 1841: Verblyuzhka 30.06-3.07.2008.
- Cucullia lactea* (Fabricius, 1787): Verblyuzhka 1-2.07.2008 and 13-14.07.2009.
- Cucullia xeranthemi* (Boisduval, 1840): Vyatskoye 25.07.2006, 28.07.2006, Verblyuzhka 13.07.2009, Arkaim 27.07.2006 and 15-16.08.2007, larva on *Asteris*.
- Cucullia propinqua* Eversmann, 1842: Arkaim 26.07.2006 and 16.08.2007, Vyatskoye 28.07.2006, Stepnoye 6.07.2008.
- Cucullia pustulata* Eversmann, 1842 (*C. fraterna*): Verblyuzhka 30.06-3.07.2008, Kizilskoye 4-5.07.2008, Kuvandyk 11-12.07.2009, Guberlya 15.07.2009.
- Cucullia umbratica* (Linnaeus, 1758): Miassovo 22-23.07.2006, Arkaim 26-27.07.2006 and 15-16.08.2007, Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Stepnoye 6.07.2008 and 18.07.2009, Guberlya 15-16.07.2009.
- Cucullia biornata* Fischer von Waldheim, 1840: Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Arkaim 26-27.07.2006 and 15-16.08.2007, Ural village 11-12.08.2007, Cheka 14.08.2007, Kizilskoye 4-5.07.2008.
- Cucullia santonici* (Hübner, 1813): Arkaim 26-27.07.2006, Bashkirsky Reserve 9-10.07.2009, Verblyuzhka 1.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008.
- Cucullia gnaphalii* (Hübner, 1813): Stepnoye 6.07.2008, Ural village 11-12.08.2007, larva on *Aster*.
- Cucullia dracunculi* (Hübner, 1813): Cheka 14.08.2007, Vyatskoye 28.07.2006, Arkaim 27.07.2006 and 15-16.08.2007, larva on *Artemisia*, Guberlya 15-16.07.2009, Verblyuzhka 1-2.07.2008.
- Cucullia virgaureae* Boisduval, 1840: Vyatskoye 25.07., 28.07.2006, Arkaim 26-27.07.2006 and 15-16.08.2007, Ural village 11-12.08.2007.
- Cucullia asteris* (Denis & Schiffermüller, 1775): Arkaim 15-16.08.2007, Verblyuzhka 30.06-3.07.2008.
- Schargacucullia scrophulariae* (Denis & Schiffermüller, 1775): Vyatskoye 25.07. and 28.07.2006.
- Schargacucullia lychnitis* (Rambur, 1833): Verblyuzhka 3.07.2008.
- Calophasia lunula* (Hufnagel, 1766): Vyatskoye 24-25.07.2006, 28.07.2006, Miass 21.07.2006, 30.07.2006, Arkaim 26-27.07.2006 and 15-16.08.2007, Vyatskoe 9-10.08.2007, Ural village 11-12.08.2007, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009, Stepnoye 18.07.2009.
- Calophasia opalina* (Esper, 1793): Verblyuzhka 1.07.2008.
- Omphalophana antirrhinii* (Hübner, 1803): Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009, Guberlya 15-16.07.2009, Kizilskoye 17.07.2009.
- Oncocnemis senica* (Eversmann, 1856): Stepnoye 17-18.08.2007.
- Oncocnemis nigricula* (Eversmann, 1847): Vyatskoe 9-10.08.2007, Ural village 11-12.08.2007, Arkaim 15-16.08.2007, Stepnoye 17-18.08.2007.
- Oncocnemis campicola* (Lederer, 1853): Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007.
- Epimecia ustula* (Freyer, 1835): Arkaim 26-27.07.2006, Kizilskoye 17.07.2009, Stepnoye 18.07.2009.
- Euchalcia uralensis* (Eversmann, 1842) (*variabilis*, taxon status unclear): Bashkirsky Reserve 9-10.07.2009.
- Euchalcia siderifera* (Eversmann, 1846): Ural village 11.-12.8.2007, Verblyuzhka 30.6.-3.7.2008.
- Euchalcia consona* (Fabricius, 1787): Stepnoye 17.08.2007, Verblyuzhka 30.06-1.07.2008.
- Polychrysia moneta* (Fabricius, 1787): Miass 21.07.2006, 30.07.2006, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Verblyuzh-

ka 13-14.07.2009.

*Lamprotes c-aureum* (Knoch, 1781): Miassovo 22-23.07.2006, Miass 21.07.2006, 30.07.2006, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kuvandyk 11-12.07.2009.

*Panchrysia deaurata* (Esper, 1787): Ural village 11-12.08.2007, Arkaim 16.08.2007, Verblyuzhka 30.6-3.07.2008.

*Panchrysia ornata* (Bremer, 1864): Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007.

*Diachrysia chrysitis* (Linnaeus, 1758): Miassovo 22-23.07.2006, Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07. and 28.07.2006, Ural village 11-12.08.2007, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009, Guberlya 15-16.07.2009, Kizilskoye 17.07.2009, Stepnoye 18.07.2009.

*Diachrysia stenochrysis* (Warren, 1913): Miassovo 22-23.07.2006, Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 26-27.07.2006 and 15-16.08.2007, Stepnoye 17-18.08.2007, 6.07.2008 and 18.07.2009, Uvelka 27.06.2008, Kizilskoye 4-5.07.2008 and 17.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009.

*Diachrysia zosimi* (Hübner, 1822): Kizilskoye 4-5.07.2008, Stepnoye 6.07.2008.

*Diachrysia chryson* (Esper, 1789): Miassovo 22-23.07.2006, Miass 21.07.2006, 30.07.2006, Vyatskoye 28.07.2006.

*Macdunnoughia confusa* (Stephens, 1850): Miassovo 22-23.07.2006, Miass 21.07.2006, 30.07.2006, Ural village 11-12.08.2007, Cheka 14.08.2007, Arkaim 26-27.07.2006 and 15-16.08.2007, Vyatskoye 10.08.2007, Stepnoye 17-18.08.2007 and 18.07.2009, Irendyk 28-29.06.2008, Verblyuzhka 2.07.2008.

*Plusia festucae* (Linnaeus, 1758): Miassovo 22-23.07.2006, Miass 21.07.2006, 30.07.2006, Ural village 11-12.08.2007, Arkaim 26-27.07.2006 and 15-16.08.2007, Cheka 14.08.2007, Stepnoye 17.-18.08.2007, Uvelka 27.06.2008, Guberlya 15-16.07.2009.

*Plusia putnami* (Grote, 1873): Miass 21.07.2006, Arkaim 15.08.2007, Stepnoye 18.07.2009.

*Autographa gamma* (Linnaeus, 1758): Vyatskoe 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 15-16.08.2007, Stepnoye 17-18.08.2007, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Kuvandyk 11-12.07.2009 Guberlya 15-16.07.2009.

*Autographa macrogamma* (Eversmann, 1842): Vyat-

skoye 28.07.2006.

*Autographa mandarina* (Freyer, 1845): Miassovo 22-23.07.2006, Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 15-16.08.2007, Stepnoye 17-18.08.2007.

*Autographa buraetica* (Staudinger, 1892): Arkaim 15-16.08.2007, Bashkirsky Reserve 9-10.07.2009, Stepnoye 18.07.2009.

*Autographa jota* (Linnaeus, 1758): Vyatskoye 24-25.07. and 28.07.2006.

*Autographa bractea* (Denis & Schiffermüller, 1775): Vyatskoye 24-25.07. and 28.07.2006.

*Autographa excelsa* (Kretschmar, 1862): Miassovo 22-23.07.2006, Miass 21.07.2006, 30.07.2006, Vyatskoye 28.07.2006.

*Plusidia cheiranthi* (Tauscher, 1809): Vyatskoye 24-25.07. and 28.07.2006, Arkaim 26-27.07.2006, Stepnoye 17-18.08.2007 and 18.07.2009, Uvelka 27.06.2008, Verblyuzhka 30.06.-3.07.2008 and 13-14.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.

*Syngrapha ain* (Hochenwarth, 1785): Miass 21.07.2006, 30.07.2006, Bashkirsky Reserve 9-10.07.2009.

*Syngrapha interrogationis* (Linnaeus, 1758): Ural village 11-12.08.2007.

*Trichoplusia ni* (Hübner, 1803): Arkaim 27.07.2006 and 15-16.08.2007, Ural village 11-12.08.2007, Verblyuzhka 13-14.07.2009.

*Abrostola tripartita* (Hufnagel, 1766): Arkaim 15.08.2007, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11.07.2009, Verblyuzhka 14.07.2009.

*Abrostola asclepiadis* (Denis & Schiffermüller, 1775): Uvelka 27.06.2008, Bashkirsky Reserve 9-10.07.2009.

*Abrostola triplasia* (Linnaeus, 1758): Arkaim 15.08.2007, Uvelka 27.06.2008, Verblyuzhka 2-3.07.2008, Bashkirsky Reserve 9.07.2009.

*Panthea coenobita* (Esper, 1785): Stepnoye 6.07.2008, Bashkirsky Reserve 9-10.07.2009.

*Colocasia coryli* (Linnaeus, 1758): Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Bashkirsky Reserve 9-10.07.2009.

*Emmelia trabealis* (Scopoli, 1763): Arkaim 26-27.07.2006, Ural village 11-12.08.2007, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.6-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.

*Acontia lucida* (Hufnagel, 1766): Ural village

- 11-12.08.2007, Arkaim 15-16.08.2007, Stepnoye 17.08.2007, Verblyuzhka 2.07.2008, Kuvandyk 12.07.2009, Guberlya 15-16.07.2009.
- Acontia melanura* (Tauscher, 1809) (*A. titania*): Stepnoye 17-18.08.2007, Irendyk 28-29.06.2008, Kuvandyk 11-12.07.2009, Verblyuzhka 30.06.2008 and 13-14.07.2009, Guberlya 15-16.07.2009.
- Oxycesta geographica* (Fabricius, 1787): Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Moma alpium* (Osbeck, 1778): Kuvandyk 11-12.07.2009.
- Acronicta alni* (Linnaeus, 1767): Bashkirsky Reserve 9-10.07.2009.
- Acronicta tridens* (Denis & Schiffermüller, 1775): Bashkirsky Reserve 9-10.07.2009
- Acronicta psi* (Linnaeus, 1758): Miass 21.07.2006, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 15-16.08.2007, Uvelka 27.06.2008, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009, Guberlya 15-16.07.2009.
- Acronicta aceris* (Linnaeus, 1758): Verblyuzhka 30.06.-3.07.2008 and 13-14.07.2009, Stepnoye 6.07.2008 and 18.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Acronicta leporina* (Linnaeus, 1758): Uvelka 27.06.2008, Bashkirsky Reserve 9-10.07.2009, Guberlya 15-16.07.2009, Kizilskoye 17.07.2009.
- Acronicta megacephala* (Denis & Schiffermüller, 1775): Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Stepnoye 6.07.2008 Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Acronicta strigosa* (Denis & Schiffermüller, 1775): Irendyk 28-29.07.2008, Stepnoye 6.07.2008.
- Acronicta auricoma* (Denis & Schiffermüller, 1775): Miass 21.07.2006, Arkaim 26-27.07.2006, Vyatskoe 9.08.2007, Stepnoye 6.07.2008, Kuvandyk 11-12.07.2009.
- Acronicta cinerea* (Hufnagel, 1766): Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 15-16.08.2007, Stepnoye 6.07.2008, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009, Guberlya 15-16.07.2009.
- Acronicta rumicis* (Linnaeus, 1758): Ural village 12.08.2007, Arkaim 15.08.2007, Verblyuzhka 13-14.07.2009.
- Simyra nervosa* (Denis & Schiffermüller, 1775): Arkaim 26-27.07.2006, Vyatskoe 28.07.2006, Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Stepnoye 6.07.2008, Kizilskoye 4.07.2008 and 17.07.2009.
- Simyra albovenosa* (Goeze, 1781): Arkaim 26-27.07.2006, Cheka 14.08.2007, Guberlya 15-16.07.2009.
- Amphipyra pyramidea* (Linnaeus, 1758): Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009, Guberlya 15-16.07.2009.
- Amphipyra perflua* (Fabricius, 1787): Miass 21.07.2006, 30.07.2006.
- Amphipyra berbera* Rungs, 1949: Kuvandyk 12.07.2009, Verblyuzhka 13-14.07.2009, Guberlya 15-16.07.2009.
- Amphipyra tragopoginis* (Clerck, 1759): Guberlya 15-16.07.2009.
- Amphipyra tetra* (Fabricius, 1787): Arkaim 15.08.2007, Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009.
- Phidrimana amurensis* (Staudinger, 1892): Vyatskoye 10.08.2007, Ural village 11.08.2007, Verblyuzhka, 13-14.07.2009.
- Aegle kaekeritziana* (Hübner, 1799): Guberlya 16.07.2009.
- Mycteroplus puniceago* (Boisduval, 1840): Arkaim 26-27.07.2006 and 15-16.08.2007, Vyatskoe 9-10.08.2007, Stepnoye 17.08.2007.
- Schinia scutosa* (Denis & Schiffermüller, 1775): Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Cheka 13-14.08.2007, Arkaim 26-27.07.2006 and 15-16.08.2007, Ural village 11-12.08.2007, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Guberlya 15-16.07.2009.
- Heliothis viriplaca* (Hufnagel, 1766): Arkaim 26-27.07.2006 and 15-16.08.2007, Vyatskoe 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Stepnoye 17-18.08.2007, 6.07.2008 and 18.07.2009, Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Guberlya 15-16.07.2009, Kuvandyk 12.07.2009.
- Heliothis adaucta* (Butler, 1878): Arkaim 26-27.07.2006, Vyatskoe 9-10.08.2007, Ural village 11-12.08.2007, Cheka 14.08.2007, Uvelka 27.06.2008, Verblyuzhka 30.06-30.7.2008, Kuvandyk 12.07.2009, Guberlya 15-16.07.2009.
- Heliothis ononis* (Denis & Schiffermüller, 1775): Stepnoye 18.07.2009.
- Helicoverpa armigera* (Hübner, 1808): Vyatskoe 27.07.2006.
- Heliothis peltigera* (Denis & Schiffermüller, 1775): Arkaim 15.08.2007, Uvelka 27.06.2008.
- Pyrrhia umbra* (Hufnagel, 1766): Vyatskoe 28.07.2006, Uvelka 27.06.2008, Verblyuzhka 30.06-

- 3.07.2008 and 13-14.07.2009, Baskirskt Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009, Stepnoye 18.07.2009.
- Pyrrhia exprimens* (Walker, 1857): Bashkirsky Reserve 9-10.07.2009, Vebljushka 13-14.07.2009, Guberlya 15-16.07.2009.
- Aedophron rhodites* (Eversmann, 1851): Verblyuzhka 30.06-3.07.2008.
- Aedia funesta* (Esper, 1786): Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Cryphia orthogramma* Boursin, 1954: Ural village 11-12.08.2007, Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 17.08.2007, 6.07.2008 and 18.07.2009, Arkaim 16.08.2007, Kuvandyk 11-12.07.2009, Guberlya 15.-16.07.2009.
- Pseudeustrotia candidula* (Denis & Schiffermüller, 1796): Miass 21.07.2006, 30.07.2006, Ural village 11-12.08.2007, Arkaim 15.08.2007, Stepnoye 17-18.08.2007 and 18.07.2009, Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Elaphria venustula* (Hübner, 1790): Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008, Kizilskoye 4-5.07.2008, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009.
- Caradrina morpheus* (Hufnagel, 1766): Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07. and 28.07.2006, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008, Kizilskoye 4-5.07.2008.
- Platyperigea montana* (Bremer, 1861): Vyatskoe 9-10.08.2007, Arkaim 15-16.08.2007, Stepnoye 17-18.08.2007.
- Platyperigea albina* (Eversmann, 1848): Cheka 13-14.08.2007, Arkaim 15-16.08.2007, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Stepnoye 17.08.2007 and 18.07.2009.
- Platyperigea terrea* (Freyer, 1840): Vyatskoe 9.08.2007, Ural village 11-12.08.2007, Cheka 13.08.2007, Arkaim 15-16.08.2007, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Kizilskoye 17.07.2009, Stepnoye 17-18.08.2007 and 18.07.2009, .
- Paradrina wullschlegeli* (Püngeler, 1903): Irendyk 28-29.06.2008, Kizilskoye 5.07.2008, Kuvandyk 11.07.2009.
- Hoplodrina octogenaria* (Goeze, 1781): Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07. and 28.07.2006, Arkaim 26-27.07.2006, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Irendyk 28-29.06.2008, Verblyuzhka 30-3.07.2008 and 13-14.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009, Kizilskoye 17.07.2009, Stepnoye 18.07.2009.
- Hoplodrina blanda* (Denis & Schiffermüller, 1775): Miass 21.07.2006, Vyatskoye 24-25.07. and 28.07.2006, Arkaim 26-27.07.2006, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 6.07.2008 and 17.08.2007, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Hoplodrina ambigua* (Denis & Schiffermüller, 1775): Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Spodoptera exigua* (Hübner, 1808): Arkaim 27.07.2006 and 15.08.2007, Vyatskoe 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13.08.2007.
- Chilodes maritima* (Tauscher, 1806): Ural village 11-12.08.2007, Guberlya 15-16.07.2009.
- Athetis gluteosa* (Treitschke, 1835): Verblyuzhka 13-14.07.2009.
- Athetis furvula* (Hübner, 1808): Irendyk 29.6.2008, Verblyuzhka 30.06-2.07.2008 and 13-14.07.2009, Kizilskoye 4.07.2008, Stepnoye 6.07.2008 and 18.07.2009, Kuvandyk 11-12.07.2009.
- Dypterygia scabriuscula* (Linnaeus, 1758): Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Stepnoye 6.07.2008, Kuvandyk 11-12.07.2009.
- Rusina ferruginea* (Esper, 1785): Verblyuzhka 30.06-3.07.2008, Bashkirsky Reserve 9-10.07.2009.
- Trachea atriplicis* (Linnaeus, 1758): Vyatskoye 24-25.07. and 28.07.2006, Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Guberlya 15-16.07.2009.
- Euplexia lucipara* (Linnaeus, 1758): Miassovo 22-23.07.2006, Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07. and 28.07.2006, Kizilskoye 4-5.07.2008, Bashkirsky Reserve 9-10.07.2009.
- Actinotia polyodon* (Clerck, 1759): Arkaim 15-16.08.2007, Stepnoye 17-18.08.2007 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009.
- Hadula trifolii* (Hufnagel, 1766): Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Arkaim 26-27.07.2006 and 15-16.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Stepnoye 17-18.08.2007, 6.07.2008 and 18.07.2009, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Kuvandyk 11-12.07.2009, Guberlya 15-

16.07.2009.

*Hadula dianthi* (Tauscher, 1809): Arkaim 26-27.07.2006, Stepnoye 6.07.2008.

*Hadula stigmosa* (Christoph, 1887): Arkaim 15-16.08.2007.

*Lacanobia w-latinum* (Hufnagel, 1766): Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kuvandyk 11-12.07.2009.

*Lacanobia amurensis* (Staudinger, 1901): Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009, Stepnoye 18.07.2009.

*Lacanobia splendens* (Hübner, [1808]): Guberlya 15-16.07.2009.

*Lacanobia oleracea* (Linnaeus, 1758): Miass 21.07.2006, 30.07.2006, Arkaim 15-16.08.2007, Irendyk 28-29.06.2008, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009, Guberlya 15-16.07.2009, Kizilskoye 17.07.2009, Stepnoye 18.07.2009.

*Lacanobia thalassina* (Hufnagel, 1766): Cheka 13-14.08.2007, Irendyk 28-29.06.2008, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Verblyuzhka 2.07.2008 and 13-14.07.2009, Guberlya 15-16.07.2009, Kizilskoye 17.07.2009, Stepnoye 18.07.2009.

*Lacanobia contigua* (Denis & Schiffermüller, 1775): Vyatskoye 24-25.07. and 28.07.2006, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Guberlya 15-16.07.2009.

*Lacanobia suasa* (Denis & Schiffermüller, 1775): Arkaim 26-27.07.2006 and 15-16.08.2007, Vyatskoe 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Stepnoye 17-18.08.2007, Uvelka 27.06.2008, Bashkirsky Reserve 9-10.07.2009, Guberlya 15-16.07.2009, Kizilskoye 17.07.2009.

*Hada plebeja* (Linnaeus, 1758): Vyatskoe 24.07.2006, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Stepnoye 6.07.2008, Bashkirsky Reserve 9-10.07.2009.

*Hecatera dysodea* ([Denis & Schiffermüller], 1775): Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009, Kizilskoye 17.07.2009, Stepnoye 6.07.2008 and 18.07.2009.

*Hecatera bicolorata* (Hufnagel, 1766): Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Arkaim 26-27.07.2006 and 15-16.08.2007, Ural village 11-12.08.2007, Stepnoye 17-18.08.2007 and 18.07.2009, Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Ku-

vandyk 11-12.07.2009, Guberlya 15-16.07.2009.

*Hecatera cappa* (Hübner, 1809): Verblyuzhka 30.06-3.07.2008.

*Hadena capsincola* (Denis & Schiffermüller, 1775): Vyatskoe 28.07.2006, Ural village 11-12.08.2007, Arkaim 15-16.08.2007, Stepnoye 17-18.08.2007 and 6.07.2008, Uvelka 27.06.2008.

*Hadena compta* (Denis & Schiffermüller, 1775): Miass 21.07.2006, Vyatskoe 24.07.2006, Ural village 11-12.08.2007, Stepnoye 17-18.08.2007 and 6.07.2008, Uvelka 27.06.2008, Irendyk 29.06.2008, Verblyuzhka 1.07.2008, Kizilskoye 4-5.07.2008, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009.

*Hadena confusa* (Hufnagel, 1766): Vyatskoye 25.07. and 28.07.2006, Ural village 11-12.08.2007, Verblyuzhka 3.07.2008, Bashkirsky Reserve 10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009, Kizilskoye 4.07.2008 and 17.07.2009, Stepnoye 6.07.2008 and 18.07.2009.

*Hadena variolata* (Smith, 1888): Uvelka 27.6.2008, Verblyuzhka 1-3.07.2008.

*Hadena albimacula* (Borkhausen, 1792): Vyatskoye 25.07.2006, 28.07.2006 and 10.08.2007, Arkaim 26.07.2006, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Kizilskoye 4-5.07.2008, Kuvandyk 11.07.2009.

*Hadena filograna* (Esper, 1788): Uvelka 27.06.2008, Kizilskoye 5.07.2008, Stepnoye 6.07.2008 and 18.07.2009.

*Hadena perplexa* ([Denis & Schiffermüller], 1775): Uvelka 27.06.2008, Verblyuzhka 1-2.07.2008 and 13-14.07.2009, Kizilskoye 4.07.2008, Stepnoye 6.07.2008 and 18.07.2009, Kuvandyk 11.07.2009.

*Hadena persimilis* (Hacker, 1996): Vyatskoye 28.07.2006, Kizilskoye 4-5.07.2008, Verblyuzhka 3.07.2008, Bashkirsky Reserve 9.07.2009.

*Hadena syriaca* (Osthelder, 1933): Verblyuzhka 1.07.2008.

*Hadena irregularis* (Hufnagel, 1766): Kizilskoye 4-5.07.2008, Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009, Guberlya 15-16.07.2009, Stepnoye 18.07.2009.

*Enterpia picturata* (Alphéraky, 1882): Kuvandyk 11-12.07.2009, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Guberlya 15-16.07.2009.

*Enterpia laudeti* (Boisduval, 1840): Verblyuzhka 30.06-3.07.2008.

*Sideridis lampra* (Schawerda, 1913): Arkaim 26-27.07.2006, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008, Kizilskoye 4.07.2008.

*Sideridis turbida* (Esper, 1790): Miass 21.07.2006,

- Vyatskoye 25.07.2006, Arkaim 26-27.07.2006 and 15-16.08.2007, Stepnoye 17-18.08.2007, Uvelka 27.06.2008, Irendyk 28.06.2008, Verblyuzhka 30.06-3.07.2008, Guberlya 15-16.07.2009, Kizilskoye 5.07.2008 and 17.07.2009.
- Sideridis egena* (Lederer, 1853): Verblyuzhka 30.06-3.07.2008, Kuvandyk 11.07.2009.
- Sideridis rivularis* (Fabricius, 1775): Vyatskoye 28.07.2006, Ural village 11-12.08.2007, Stepnoye 17-18.08.2007, Kizilskoye 5.07.2008, Bashkirsky Reserve 9-10.07.2009, Verblyuzhka 13-14.07.2009.
- Sideridis reticulata* (Goeze, 1781): Vyatskoye 24-25.07. and 28.07.2006, Arkaim 26-27.07.2006, Ural village 11-12.08.2007, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Sideridis kitti* (Schawerda, 1914): Vyatskoye 24-25.07. and 28.07.2006, Uvelka 27.06.2008.
- Conisania leineri* (Freyer, 1836): Arkaim 16.08.2007, Verblyuzhka 30.06-3.07.2008.
- Conisania arida* (Lederer, 1855): Kizilskoye 4-5.07.2008, Stepnoye 6.07.2008.
- Conisania luteago* (Denis & Schiffermüller, 1775): Vyatskoye 24-25.07. and 28.07.2006, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06.-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Stepnoye 6.07.2008 and 18.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15.07.2009.
- Saragossa porosa* (Eversmann, 1854): Verblyuzhka 30.06-3.07.2008, Kizilskoye 5.07.2008, Stepnoye 6.07.2008, Kuvandyk 17.07.2009.
- Melanchra persicariae* (Linnaeus, 1761): Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07. and 28.07.2006, Arkaim 26-27.07.2006, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Ceramica pisi* (Linnaeus, 1758): Uvelka 27.06.2008, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009.
- Mamestra brassicae* (Linnaeus, 1758): Miassovo 22.23.07.2006, Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07.2006, Verblyuzhka 13-14.07.2009.
- Polia bombycina* (Hufnagel, 1766): Miassovo 22-23.07.2006, Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07. and 28.07.2006, Arkaim 26-27.07.2006, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Polia trimaculosa* (Esper, [1788]): Bashkirsky Reserve 9-10.07.2009.
- Polia nebulosa* (Hufnagel, 1766): Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07. and 28.07.2006, Arkaim 26-27.07.2006, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Stepnoye 6.07.2008, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Polia serratilinea* Ochsenheimer, 1816: Vyatskoye 28.07.2006, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008, Kizilskoye 4-5.07.2008, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Polia altaica* (Lederer, 1853): Vyatskoye 28.07.2006 (one male).
- Polia vespertilio* (Draudt, 1934): Bashkirsky Reserve 9-10.07.2009.
- Mythimna turca* (Linnaeus, 1761): Bashkirsky Reserve 9-10.07.2009.
- Mythimna conigera* (Denis & Schiffermüller, 1775): Miass 21.07.2006, Miassovo 22-23.07.2006, Vyatskoye 25.07.2006 and 10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 26.07.2006 and 15-16.08.2007, Stepnoye 17-18.08.2007, 6.07.2008 and 18.07.2009, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Mythimna ferrago* (Fabricius, 1787): Vyatskoye 10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 15-16.08.2007, Stepnoye 17-18.08.2007, 6.07.2008 and 18.07.2009, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009, Kizilskoye 17.07.2009.
- Mythimna albipuncta* (Denis & Schiffermüller, 1775): Arkaim 15-16.08.2007, Stepnoye 17-18.08.2007 and 6.07.2008.
- Mythimna pudorina* (Denis & Schiffermüller, 1775): Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008, Kizilskoye 5.07.2008.
- Mythimna straminea* (Treitschke, 1825): Cheka 13-14.08.2007, Kizilskoye 5.07.2008.
- Mythimna impura* (Hübner, 1808): Miass 21.07.2006, Miassovo 22.07.2006, Cheka 13-14.08.2007, Arkaim 15-16.08.2007, Uvelka 27.06.2008, Irendyk

- 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Bashkirsky Reserve 9-10.07.2009, Stepnoye 18.07.2009.
- Mythimna pallens* (Linnaeus, 1758): Arkaim 27.07.2006, Vyatskoe 10.08.2007, Stepnoye 17-18.08.2007 and 18.07.2009, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008, Bashkirsky reserve 9-10.07.2009, Kizilskoye 17.07.2009.
- Mythimna obsoleta* (Hübner, [1803]): Guberlya 15-16.07.2009.
- Mythimna comma* (Linnaeus, 1761): Vyatskoye 25.07.2006, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Mythimna velutina* (Eversmann, 1846): Vyatskoye 24-25.07. and 28.07.2006, Arkaim 26-27.07.2006, Ural village 11-12.08.2007, Cheka 14.08.2007, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 6.07.2008, Bashkirsky Reserve 9-10.07.2009, Guberlya 15-16.07.2009.
- Mythimna alopecuri* (Boisduval, 1840): Uvelka 27.06.2008, Stepnoye 18.07.2009.
- Mythimna albiradiosa* (Eversmann, 1852): Uvelka 27.06.2008, Kizilskoye 4-5.07.2008, Stepnoye 6.07.2008, Guberlya 15-16.07.2009.
- Perigrapha circumducta* (Lederer, 1855): Irendyk 28-29.06.2008, larva.
- Hyssia cavernosa* (Eversmann, 1842): Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 5.07.2008, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009.
- Cerapteryx graminis* (Linnaeus, 1758): Miass 21.07.2006, 30.07.2006, Miassovo 22-23.07.2006.
- Tholera cespitis* (Denis & Schiffermüller, 1775): Vyatskoe 28.07.2006 and 10.08.2007, Ural village 11.08.2007, Stepnoye 17-18.08.2007.
- Tholera decimalis* (Poda, 1761): Vyatskoe 9-10.08.2007, Stepnoye 17-18.08.2007.
- Eriopygodes imbecilla* (Fabricius, 1794): Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008.
- Lasionycta proxima* (Hübner, 1809): Vyatskoye 24-25.07. and 28.07.2006, Arkaim 26-27.07.2006, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Axylia putris* (Linnaeus, 1761): Miass 21.07.2006, 30.07.2006, Arkaim 26-27.07.2006, Uvelka 27.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Ochropleura plecta* (Linnaeus, 1761): Uvelka 27.06.2008, Verblyuzhka 13-14.07.2009.
- Diarsia mendica* (Fabricius, 1775): Bashkirsky Reserve 9-10.07.2009.
- Diarsia dahlii* (Hübner, 1813): Miass 21.07.2006, 30.07.2006, Miassovo 22-23.07.2006, Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 15-16.08.2007, Stepnoye 17-18.08.2007.
- Diarsia brunnea* (Denis & Schiffermüller, 1775): Miassovo 22-23.07.2006, Vyatskoye 25.07.2006, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Bashkirsky Reserve 9-10.07.2009.
- Noctua interposita* (Hübner, 1790): Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Arkaim 27.07.2006, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Noctua fimbriata* (Schreber, 1759): Kuvandyk 11-12.07.2009.
- Pseudohermonassa melancholica* (Lederer, 1853): Ural village 12.08.2007 (a single male specimen).
- Chersotis "transiens"* (Staudinger, 1897): Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 15-16.08.2007.
- Chersotis capnistis* (Lederer, 1872): Vyatskoye 24-25.07. and 28.07.2006, Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009, Guberlya 15-16.07.2009.
- Chersotis deplanata* (Eversmann, 1843): Vyatskoye 24.07.2006, Miass 30.07.2006.
- Chersotis cuprea* (Denis & Schiffermüller, 1775): Vyatskoye 24-25.07. and 28.07.2006.
- Agronoma punicea* (Hübner, [1803]): Bashkirsky reserve 9-10.07.2009.
- Eurois occulta* (Linnaeus, 1758): Miass 21.07.2006, 30.07.2006, Vyatskoye 24-25.07. and 28.07.2006, Ural village 11-12.08.2007, Arkaim 26-27.07.2006 and 15-16.08.2007, Uvelka 27.06.2008, Bashkirsky

- Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Kizilskoye 17.07.2009, Stepnoye 18.07.2009.
- Spaelotis ravida* ([Denis & Schiffermüller], 1775): Vyatskoye 25.07.2006, Arkaim 26-27.07.2006, Ural village 11.08.2007, Cheka 14.08.2007, Irendyk 29.06.2008, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Verblyuzhka 2.07.2008 and 13-14.07.2009, Guberlya 15-16.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Syepnoye 6.07.2008 and 18.07.2009.
- Spaelotis suecica* (Aurivillius, 1890): Verblyuzhka 13-14.07.2009
- Opigena polygona* (Denis & Schiffermüller, 1775): Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009, Kizilskoye 17.07.2009, Stepnoye 18.07.2009.
- Graphiphora augur* (Fabricius, 1775): Kizilskoye 4-5.07.2008 and 17.07.2009.
- Eugnorisma insignata* (Lederer, 1853): Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 15-16.08.2007.
- Xestia c-nigrum* (Linnaeus, 175): Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 15-16.08.2007, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 17-18.08.2007, 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Xestia ditrapezium* (Denis & Schiffermüller, 1775): Miass 21.07.2006, 30.07.2006, Miassovo 22-23.07.2006, Vyatskoye 25.07.2006, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 17-18.08.2007, 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Xestia triangulum* (Hufnagel, 1766): Miassovo 22-23.07.2006, Miass 21.07.2006, 30.07.2006, Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008 and 17.07.2009, Stepnoye 17-18.08.2007, 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Xestia kollari* (Lederer, 1853): Ural village 11-12.08.2007, Cheka 13-14.08.2007.
- Xestia ashworthii* (Doubleday, 1855): Uvelka 27.06.2008, Irendyk 28-29.06.2008, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009.
- Xestia baja* (Denis & Schiffermüller, 1775): Miass 21.07.2006, 30.07.2006, Miassovo 22-23.07.2006, Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 15-16.08.2007, Stepnoye 17-18.08.2007 and 18.07.2009, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009, Kizilskoye 17.07.2009.
- Xestia sexstrigata* (Haworth, 1809): Vyatskoye 24-25.07. and 28.07.2006.
- Eugraphe sigma* (Denis & Schiffermüller, 1775): Uvelka 27.06.2008, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kizilskoye 4-5.07.2008, Stepnoye 6.07.2008, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009.
- Anaplectoides prasina* (Denis & Schiffermüller, 1775): Miass 21.07.2006, 30.07.2006, Irendyk 28-29.06.2008, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009, Kizilskoye 17.07.2009.
- Cryptocala chardinyi* (Boisduval, 1829): Miass 21.07.2006, 30.07.2006, Stepnoye 6.07.2008 and 18.07.2009, Bashkirsky reserve 9-10.07.2009, Kizilskoye 17.07.2009.
- Euxoa adumbrata* (Eversmann, 1842): Vyatskoye 24-25.07.2006, 28.07.2006 and 9.08.2007, Arkaim 26-27.07.2006 and 15.08.2007, Ural village 11.08.2007, Cheka 13-14.08.2007, Kizilskoye 4-5.07.2008, Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009, Guberlya 16.07.2009.
- Euxoa recussa* (Hübner, 1817): Miass 30.07.2006, Vyatskoye 24-25.07.2006, 28.07.2006 and 9-10.08.2007, Ural village 11-12.08.2007.
- Euxoa aquilina* (Denis & Schiffermüller, 1775): Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 15-16.08.2007, Verblyuzhka 1.07.2008 and 13.07.2009.
- Euxoa basigramma* (Staudinger, 1870): Cheka 13-14.08.2007, Arkaim 15.08.2007, Stepnoye 17-18.08.2007.
- Euxoa nigricans* (Linnaeus, 1761): Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 15-16.08.2007, Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009.
- Euxoa obelisca* (Denis & Schiffermüller, 1775): Ural village 11-12.08.2007, Cheka 13.08.2007, Arkaim 15-16.08.2007, Kuvandyk 11.07.2009, Verblyuzhka 13.07.2009, Kizilskoye 17.07.2009.
- Euxoa vitta* (Esper, 1789): Arkaim 16.08.2007, Stepnoye 17.08.2007, Kuvandyk 12.07.2009.
- Euxoa ochrogaster* (Guenée, 1852): Vyatskoe

- 9-10.08.2007, Ural village 11-12.08.2007, Cheka 13-14.08.2007, Arkaim 27.07.2006 and 15-16.08.2007, Stepnoye 17-18.08.2007 and 18.07.2009, Verblyuzhka 14.07.2009, Guberlya 16.07.2009.
- Dichagyris musiva*** (Hübner, 1803): Miass 21.7./30.7.2006, Vyatskoye 24.-25.7. and 28.7.2006, Ural village 11.-12.8.2007, Cheka 13.-14.8.2007, Arkaim 26.-27.7.2006 and 15.-16.8.2007, Stepnoye 17.-18.8.2007, Kuvandyk 11.-12.7.2009.
- Dichagyris squalorum*** (Eversmann, 1856): Bashkirsky reserve 9-10.07.2009, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009, Kuvandyk 11-12.07.2009, Guberlya 15-16.07.2009.
- Dichagyris signifera*** (Denis & Schiffermüller, 1775): Miass 21.07.2006, 30.07.2006, Bashkirsky Reserve 9-10.07.2009, Kuvandyk 11-12.07.2009, Verblyuzhka 13-14.07.2009, Stepnoye 17.08.2007 and 18.07.2009.
- Dichagyris forcipula*** (Denis & Schiffermüller, 1775): Verblyuzhka 1-2.07.2008.
- Dichagyris truculenta*** (Lederer, 1853): Ural village 11-12.08.2007, Cheka 13-14.08.2007, Kuvandyk 11-12.07.2009.
- Agrotis desertorum*** Boisduval, 1840: Kuvandyk 12.07.2009.
- Agrotis ipsilon*** (Hufnagel, 1766): Ural village 11-12.08.2007, Arkaim 15-16.08.2007, Verblyuzhka 30.06-3.07.2008 and 13-14.07.2009.
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