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Scythris buszkoi BARAN, 2004 – first record in Poland and new data on the occurrence of Scythrididae (Lepidoptera)

Scythris buszkoi BARAN, 2004 – pierwsze stwierdzenie w Polsce oraz nowe dane o występowaniu Scythrididae (Lepidoptera)

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ABSTRACT: The paper provides the first information on the occurrence of *Scythris buszkoi* BARAN, 2004 in Poland. The locality is situated in the south-eastern part of the country. So far this species was known only from a type locality in the south-western part of Ukraine. New regional records are also given for eleven other scythridid moths: *S. braschiella* (O. HOFMANN), *S. cicadella* (ZELLER), *S. clavella* (ZELLER), *S. knochella* (FABRICIUS), *S. laminella* (DENIS & SCHIFFERMULLER), *S. limbella* (FABRICIUS), *S. palustris* (ZELLER), *S. scopolella* (LINNAEUS), *S. seliniella* (ZELLER) , *S. siccella* (ZELLER) and *S. sinensis* (FELDER & ROGENHOFER 1875). Remarks on their distribution and habitat preferences are also presented.

KEY WORDS: Lepidoptera, Scythrididae, faunistics, new records, Poland.

The family Scythrididae is represented in Europe by 202 species belonging to six genera, of which the genus *Scythris* HÜBNER 1825 is the most numerous (BENGTSSON 2011). Out of these, 25 species have been

recorded from Poland so far (BARAN 2005, MALKIEWICZ & DOBRZAŃSKI 2011).

The family includes small or medium-sized moths, with the wingspan varying from 5.5 to 30 mm. Polish species are usually olive, olive brown to dark brown in colour. In some representatives wings are suffused with pale or dark scales forming a coloured pattern. Scythridid moths may sometimes be confused with the members of other microlepidopteran families, such as: Coleophoridae, Blastobasidae, Elachistidae, Momphidae. Most species are rather difficult to differentiate only on the basis of external appearance; the examination of genitalia is usually necessary (BARAN 2005).

Adults lead a sedentary and hidden lifestyle. Most species are day active, and the peak of their activity falls on midday and sunny afternoons. They are particularly active during warm or sultry, cloudless and windless days. The best method to collect these micro-moths is sweeping the net through low vegetation (BARAN 2005).

For a long time the Scythrididae had remained unattractive for lepidopterists, which resulted in the scarcity of faunistic and taxonomic studies. Luckily the recent monograph by BARAN (2005) gave a detailed overview of the family. However, the knowledge of the distribution of these small moths is still inadequate.

The present paper provides data on *Scythris buszkoi* BARAN, 2004, which is reported for the first time from Poland. Eleven other rarely encountered species are given as new regional records.

Scythris braschiella (O. HOFMANN 1897)

– Biedrusko military area (XU22), a complex of dry meadows and thickets: psammophilous grassland Diantho-Armerietum elongatae, 4 VII 2006 – 1 male, leg. T. Rynarzewski & U. Walczak.

The species occurs on dry meadows at forest edges or xerothermophilous grasslands on gypsum soils (BARAN 2005). In Poland this extremely local moth has been so far known from "Chotel Czerwony" Nature Reserve (BŁESZYŃSKI 1950), where it probably became extinct. Recently has been recorded from Kożuchów in western part of the country (BARAN 1996). The locality reported here is the second reliable site of the occurrence of this scythridid moth in Poland.

Scythris buszkoi BARAN, 2004

Fig. 1. Female of *Scythris buszkoi* BARAN, 2004
Ryc. 1. *Scythris buszkoi* BARAN, 2004 – samica

– Hrubieszów (GB03), an escarpment in the town centre, the second half of August 2009 – larvae on *Lycium barbarum* L. (18 X 2009 – 4 females e.l.), leg. G. Chowaniec.

Scythris buszkoi was known so far only from type locality in the south-western part of Ukraine (BARAN 2003). It is externally similar to other European species of the genus with olive brown forewings mixed with pale scales. Nevertheless, this species may be distinguished by the presence of dark spots on the wings, and whitish scales on the ventral side of the abdomen. Worn specimens may be difficult to identify only on the basis of external characteristics, and careful examination of genital apparatus morphology would be necessary.

The caterpillars live in silken tubes along branches and leaf-stalks of *Lycium barbarum*. They make blotch-like mines in the leaves that may be entirely mined out. The larvae stay in mines only during feeding, and are capable to move to another leaf and start a new mine. Mature larvae and adults so far were observed in the first half of July. The species occurs on

sunny slopes with *L. barbarum*. The biology and morphology of the immature stages and imagines are described in detail by BARAN (2003).

It is possible to discover this species in other regions of Poland as *L. barbarum* is a shrub often planted on embankments, steep hillsides and roadsides.

Scythris cicadella (ZELLER 1839)

– Biedrusko military area: Złotkowo vic. (XU22), psammophilous grassland of the class Koelerio-Corynephoretea in an old gravel-pit, 12 VII 1998 – 1 female, leg. U. Walczak; 6 VI 1999 – 1 male, leg. U. Walczak.

This local scythridid moth occurs in open, sandy places with sparse vegetation and so far has been recorded from Cuiavian-Pomeranian, Lublin, Masovian and Podlaskie voivodeships. It is also known from historical records from Lower Silesia (BARAN 2005). Recently it was collected in Lubuskie Voivodeship (MALKIEWICZ & DOBRZAŃSKI 2011). The finding of the species in Biedrusko military area confirms its occurrence in Greater Poland after nearly 60 years (TOLL 1947).

Scythris clavella (ZELLER, 1855)

– Poznań (XU21), psammophilous grassland, 14 VI 1995 – 1 female, leg. T. Rynarzewski.

This very local species so far has been known from Poznań and Toruń (BARAN 2005). In Greater Poland it was recorded before the 1960s.

Scythris knochella (FABRICIUS 1794)

– Biedrusko military area: Złotkowo vic. (XU22), psammophilous grassland of the class Koelerio-Corynephoretea in an old gravel-pit, 12 VII 1998 – 2 males, leg. U. Walczak; 4 VII 2000 – 1 female, leg. U. Walczak; Biedrusko military area: Świerczewskiego Hill (XU22), xerothermophilous grassland, 24 VII 1998 – 1 female, leg. U. Walczak; Biedrusko military area: Poznań-Radojewo vic. (XU31), xerothermophilous grassland, 5 VIII 1998 – 1 female, leg. U. Walczak.

The species occurs in dry, open, sunny biotopes with rich herbaceous vegetation (BARAN 2005). It was known from several historical localities in three voivodeships. It has been currently recorded in six voivodeships (BARAN 2005). This scythridid moth was recently collected in Sudety Mts. (MALKIEWICZ & DOBRZAŃSKI 2011). The finding of the species in

Biedrusko military area confirms its occurrence in Greater Poland after over 80 years (WIZE 1917).

Scythris laminella (DENIS & SCHIFFERMULLER 1775)

– Beskid Niski Mts.: Zyndranowa (EV57), eutrophic meadow with *Gladiolus imbricatus* L., 21 VII 1996 – 2 females, leg. U. Walczak; Zawiercie-Zuzanka (CA89), 20 VII 1943 – 1 male, leg. Masłowski, coll. Museum and Institute of Zoology, Polish Academy of Sciences, Warszawa.

Although *S. laminella* is one of the most common species of the family *Scythrididae* in Poland, it is known mostly from historical records. The species has been currently recorded in 11 localities in NE and SE part of the country. The moth inhabits various open, herbaceous habitats (BARAN 2005).

Scythris limbella (FABRICIUS 1775)

– Mosina (XT29), ruderal vegetation with *Atriplex* sp., 30 VI 1993 – 1 female, 3 males, leg. E. Baraniak; Zawiercie (CA89), VI (1930) – IX (1938) – 8 females, 4 males, leg. Masłowski, coll. Museum and Institute of Zoology, Polish Academy of Sciences, Warsaw.

S. limbella inhabits various sunny and dry anthropogenic habitats (BARAN 2005). Though it is one of the most common scythridid species in Poland, it was recorded from comparatively few localities so far; most of them are historical records. In Greater Poland it was found before the 1960s (SZULCZEWSKI 1932, BARAN 2005). The species is reported from Silesia Province for the first time.

Scythris palustris (ZELLER, 1855)

– Zawiercie (CA89), 5 VII 1943 – 1 male, leg. Masłowski, coll. Museum and Institute of Zoology, Polish Academy of Sciences, Warszawa.

S. palustris occurs in humid habitats. It is a rare species in Poland, and has been known from nine localities so far (BARAN 2005). It is the first record in Silesia Province, however the occurrence of this scythridid moth should be confirmed in this region, as it is reported on the basis of historical material.

Scythris scopolella (LINNAEUS 1767)

– „Murawy Dobromierskie" Nature Reserve (DB25), xerothermic grassland on calcareous soils, 16 VI 2009 – 1 male, leg. T. Rynarzewski.

The species can be found in dry habitats (BENGTSSON 1997). This extremely rare scythridid moth so far has been known from one, outdated record from Szczecin (BENGTSSON 1984). The locality reported here confirms the occurrence of *S. scopolella* in Poland.

Scythris seliniella (ZELLER 1839)

– „Murawy Dobromierskie" Nature Reserve (DB25), xerothermic grassland on calcareous soils, 16 VI 2009 – 1 female, leg. T. Rynarzewski; Olsztyn ad. Częstochowa (CB72), xerothermic grassland on calcareous soils, 20 VIII 2008 – 1 male, leg. T. Rynarzewski; Winiary ad Busko-Zdrój (DA78), xerothermic grassland on gypsum soils, 18 VI 2008 – 1 male, leg. T. Rynarzewski; Czumów (GB12), xerothermic grassland, 25 VI 1993 – 2 females, leg. E. Baraniak.

The moth occurs in xerothermic grasslands on gypsum, calcareous or loess soils. The species has been found in 10 localities in the southern part of the country, most of them are historical records (BARAN 2005).

Scythris siccella (ZELLER 1839)

– Biedrusko military area: Poznań-Radojewo vic. (XU21), psammophilous grassland Spergulo vernalis – Corynephoretum, 27 V 1998 – 1 male, leg. U. Walczak; Poznań-Radojewo (XU21), psammophilous grassland of the class Koelerio-Corynephoretea, 17 VI 1999 – 1 female, leg. T. Rynarzewski; Biedrusko military area: Złotkowo vic. (XU22), psammophilous grassland of the class Koelerio-Corynephoretea in an old gravel-pit, 6 VI 1999 – 1 female, leg. U. Walczak.

S. siccella occurs in open, sandy habitats. The species has been found in 13 localities in the country. In Greater Poland it was reported before the 1960s (TOLL 1947, BARAN 2005).

Scythris sinensis (FELDER & ROGENHOFER 1875)

– Mosina (XT29), the wall of a building near anthropogenic vegetation with *Chenopodium album*, 15 V 2011 – 1 female, in the afternoon, leg. E. Baraniak.

In Poland it was collected for the first time in 2009 in Wrocław (MALKIEWICZ & DOBRZAŃSKI 2011). The finding reported here is the second locality of *S. sinensis* in the country. The discovery of this moth should be expected also in other places in Poland as its host plant occurs almost everywhere in soils rich in nitrogen, especially on wasteland.

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STRESZCZENIE

Rodzina Scythrididae (Lepidoptera) jest reprezentowana w Europie przez 202 gatunki, należące do sześciu rodzajów (BENGTSSON 2011). Z Polski dotychczas wykazano 25 gatunków, wszystkie z rodzaju *Scythris* HÜBNER 1825 (BARAN 2005, MALKIEWICZ & DOBRZAŃSKI 2011).

W pracy przedstawiono pierwsze stwierdzenie *Scythris buszkoi* Baran, 2004 w Polsce. Gatunek ten został znaleziony w południowo-wschodniej części kraju, na nasłonecznionej skarpie w centrum Hrubieszowa (GB03). Z gąsienic minujących liście kolcowoju pospolitego *Lycium barbarum* L. wyhodowano 4 samice (18 X 2009 e.l.). Gatunek ten znany był dotychczas tylko z miejsca opisu w południowo-zachodniej Ukrainie (BARAN 2003).

Przedstawiono również nowe dane o występowaniu kolejnych 11 gatunków z rodziny Scythrididae. *Scythris sinensis*, niedawno został wykazany po raz pierwszy z terenu Polski (MALKIEWICZ & DOBRZAŃSKI 2011), z Dolnego Śląska. W 2011 gatunek ten został odnaleziony w Mosinie k. Poznania (Wielkopolska) (1 ♀) co sugeruje szerszy zasięg jego występowania. *S. scopolella* znany był dotychczas z jednego historycznego stanowiska w Szczecinie (BENGTSSON 1984). Gatunek ten ponownie został stwierdzony w 2009 roku w rezerwacie „Murawy Dobromierskie". Jest to jedyna pewna informacja potwierdzająca jego występowanie na terenie kraju. *S. braschiella* został wykazany po raz pierwszy z Wielkopolski i jest to drugie pewne, zweryfikowane stanowisko tego gatunku w Polsce. Dla kilku gatunków: *S. cicadella*, *S. clavella*, *S. knochella*, *S. limbella* i *S. siccella* potwierdzono ich współczesne występowanie na terenie województwa wielkopolskiego. *S. limbella* i *S. palustris* wykazano również po raz pierwszy z województwa śląskiego (*S. palustris* na podstawie okazów muzealnych, pochodzących z kolekcji Masłowskich przechowywanej w MiIZ PAN w Warszawie). W pracy umieszczono również informacje o nowych stanowiskach występowania *S. laminella* i *S. seliniella*.

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