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Malachius scutellaris Erichson, 1840 and some other interesting species of Melyridae (Coleoptera: Cleroidea) from the Western Beskidy Mts.

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Abstract: The authors present data on 10 species of soft-winged flower beetles (Coleoptera: Melyridae) from the Western Beskidy Mts. Occurrence of *Malachius scutellaris* and *Ebaeus flavicornis* was confirmed for this territory. Discovery of *Hypebaeus flavipes* was the first in this region. Information about localities of *Aplocnemus nigricornis*, *Charopus flavipes*, *Dasytes niger*, *Dasytes plumbeus*, *Malachius aeneus*, *Malachius bipustulatus* are provided.

Key words: Coleoptera, Melyridae, Western Beskidy Mts., S Poland

Introduction

Melyridae are group of beetles known in our country not so well. After publication of the *Catalogus faunae Poloniae* (Burakowski et al. 1986), where most historical data has been included, not many new information about this group of beetles has been published. Individual data about common species are published often on the occasion of larger studies. In Polish literature, there is no publications devoted strictly to Melyridae from the Western Beskidy Mts. We can find some information about them in larger studies devoted to the Silesia, the Galicia and adjacent areas (Gerhardt 1910, Kotula 1873, Letzner 1871, Nowicki 1873, Wachtl 1870, Wanka 1915, 1927).

Many contributions to the knowledge of fauna of the Western Beskidy Mts. are research studies carried out in the vicinity of Mt. Babia Góra (Kiesenwetter 1869, Pawłowski 1967, Rottenberg 1868, Stobiecki 1883). Recently, all information on Mt.

Babia Góra beetles have been summarized in a comprehensive review (Kubisz and Szafraniec 2003).

In the present, the family Melyridae Leach, 1815 contains also former families Malachiidae Redtenbacher, 1835 and Dasytidae Laporte de Castelnau 1840. Nowadays in Poland 52 species of soft-winged flower beetles have been found (Kubisz and Szafraniec 2003). Although in the *Catalogus faunae Poloniae* 67 species have been listed, few of them refer in fact to misdetermined specimens of different species (Burakowski et al. 1986).

Until now 32 species of Melyridae have been found in the Western Beskidy Mts. Unfortunately, most of this information has only historical value. Many species, even very common in Poland, have not been confirmed for many years from that area (Burakowski et al. 1986).

All species presented below are derived from collection of Stanisław and Paweł Szafraniec. They were collected in the Western Beskidy Mts. in the vicinity of Mt. Babia Góra and adjacent areas. Most of presented localities were situated in valley of the river Skawica.

During field research, standard entomological methods were used (sweeping net and collecting on hands).

The Białka Maryniaki site [DA00] (440 – 450 m above sea level) was located on flood terrace; beetles were collected from riparian scrub and on the edge of mixed forest growing on the southern slope of Mt. Groniów. It also covers spaces of meadows and ruderal plant communities.

The Skawica Żurkowo site [CA90] (480 – 485 m above sea level) contains the small areas of *Alnetum incanae carpaticum*, surrounded by field crops. Nearby here is a forest complex on slopes of the Mt. Sitkowa Grapa.

At each locality the Universal Transverse Mercator [UTM] was used.

All specimens are deposited in the collection of Stanisław and Paweł Szafraniec.

We wish to thank dr Daniel Kubisz and Roman Królik for determination of some specimens.

Faunistics

Malachius scutellaris Erichson, 1840

Western Beskidy Mts.: Skawica Żurkowo, 11.05.1995, 2 exx., on *Alnetum incanae carpaticum* plant communities, leg. et coll. P. & S. Szafraniec, det. D. Kubisz. Białka – Maryniaki, 17.05.2010, 1 ex., on ruderal plant communities, leg. et coll. P. & S. Szafraniec, det. M. A. Mazur.

Malachius scutellaris Erichson, 1840 is one of the rarest species from the genus *Malachius* Fabricius, 1775 in Poland. It is known so far in a few scattered localities in just six faunistic regions (Burakowski et al. 1986). Information about this species from the Western Beskidy Mts. comes from one locality in Cieszyn (Reitter 1870), further records of this species were only reported in earlier reports quoting Reitter (Letzner 1871, 1889; Gerhardt 1910). *M. scutellaris* has not been known yet from Mt. Babia Góra and has not been found for the pre-war studies of S. Popek and subsequent of J. Pawłowski (Pawłowski 1967). Some smaller works on beetles of Mt. Babia Góra and adjacent areas also failed to have reported about occurrence of this species (Kubisz and Szafraniec 2003).

Malachius scutellaris is considered to be a rare species throughout its range.

In addition to Poland, they are also known in the countries of Central Europe, Bulgaria, Bosnia, Czech Republic and Slovakia. Biology of species is very poorly known. The larvae are predatory and hunting on immature stages of other insects. Imagines are palynivore and reside mostly on warm slopes on plants from the genus *Barbarea* Aiton and *Isatis* L. (Kolibáč et al. 2005). This large, characteristic and easy to find species probably did not exist at the time when the most intensive research on beetles in this area has been conducted.

Perhaps its recent appearance is due to a change in how to use the surrounding areas, where many forests have been removed and a large area designated for development. In such areas synanthropic processes are easier to occur and emerging ruderal plant communities are good habitat for *M. scutellaris*.

***Hypebaeus flavipes* (Fabricius, 1787)**

Western Beskidy Mts.: Skawica Żurkowo, 1 ex., 17.06.1998, leg. et coll. P. & S. Szafraniec, det. R. Królik.

Occurrence of species includes central and south parts of Europe. In Poland known from not many, mostly historical, localities in six faunistic regions (Burakowski et al. 1986). In the mountain areas it is known only from Krościenko in the Pieniny Mts. (Burakowski et al. 1986 – data with the asterisk). Similar to aforementioned species, larvae are predatory living in dying or dead wood of deciduous trees. Similar habitats are inhabited by adult forms, which are feeding on flowers pollen.

Species is new for the Western Beskidy Mts.

***Ebaeus flavicornis* Erichson, 1840**

Western Beskidy Mts.: Skawica Żurkowo, 17.07.2003, 1 ex., leg. et coll. P. & S. Szafraniec, det. D. Kubisz.

Species was known from even many localities in Poland, but only one published report (from the vicinity of the village Klucze on the Kraków-Częstochowa Upland) is a contemporary one (Mazur et al. 1998). Other information about finding this species in the south and south-west Poland came from 19th century (Burakowski et al. 1986). Single information about finding *E. flavicornis* in Western Poland can be found in databases of the Polish Biodiversity Information Network, where this species is in the database Coleoptera of Białowieża Forest viewed by the Forest Research Institute – Department of Natural Forest (http://coleoptera.ksib.pl/search.php?taxonid=28346&clkShowKSIBData=y&l=pl#dettop).

Biology of species is very poorly known. Imagines was seen on different species of trees and bushes.

Other species of Melyride from the Western Beskidy Mts., deposited in the collection of Paweł and Stanisław Szafraniec, are presented below.

***Anthocomus equestris* (Fabricius, 1781)**

Western Beskidy Mts.: Skawica Żurkowo, 29.06.2003, 1 ex, leg. et coll. P. & S. Szafraniec, det. D. Kubisz; Białka Maryniaki, 25.04.2010, 1 ex., leg. et coll. P. & S. Szafraniec, det. M. A. Mazur.

Species prefers warm and sunny localities. Quite common, known from almost all faunistic regions.

***Aplocnemus nigricornis* (Fabricius, 1792)**

Western Beskidy Mts.: Białka Maryniaki, 25.04.2010, at the edge of forest, 1 ex., leg. P. Szafraniec, coll. P. & S. Szafraniec, det. M. A. Mazur.

Species known from most regions, but rarely collected. Most information about occurrence of this species in Poland has more than one hundred years. Unlike other species of Melyridae *A. nigricornis* prefers the conifers, mainly pine and spruce.

***Charopus flavipes* (Paykull, 1798)**

Western Beskidy Mts.: "Na Policy" reserve [DV09], 1150 m above sea level., 26.06.1999, collected from bushes of *Sorbus* L., 2 exx., leg. S. Szafraniec, coll. P. & S. Szafraniec, det. D. Kubisz.

Common species in Poland, it prefers shady habitats where it is collected from different species of grasses.

Dasytes niger (Linnaeus, 1761)

Western Beskidy Mts.: Skawica [DA00], 22.06.1996, 1 ex, leg. S. Szafraniec, coll. P. & S. Szafraniec, det. D. Kubisz.

Very common species known all over Poland.

***Dasytes plumbeus* (Müller, 1776)**

Western Beskidy Mts.: Mt. Babia Góra, Zawoja Policzne [CV99], 26.09.1999, 1 ex., leg. A. Florczak, coll. P. & S. Szafraniec, det. D. Kubisz.

Most common species from the genus in Poland.

***Malachius aeneus* (Linnaeus, 1758)**

Western Beskidy Mts.: Skawica Żurkowo, 22.06.1997, leg. S. Szafraniec, collected in scrubs of *Alnetum incanae carpathicum*, coll. P. & S. Szafraniec, det. D. Kubisz; Białka Maryniaki, 8 VI 1997, 1 ex., leg. P. Szafraniec, coll. P. & S. Szafraniec, det. D. Kubisz; 19 VI 2010, 1ex., leg. et coll. P. & S. Szafraniec, det. D. Kubisz.

Very common species in Poland, known in all regions.

***Malachius bipustulatus* (Linnaeus, 1758)**

Western Beskidy Mts.: Skawica Żurkowo, 26.05.2000, 1 ex., leg. P. Szafraniec, coll. P. & S. Szafraniec, det. D. Kubisz; Białka Maryniaki, 3.06.2004, 1ex., leg. P. Szafraniec, coll. P. & S. Szafraniec, det. D. Kubisz.

Together with previous species it is the most common species of the genus *Malachius* in Poland, without any specify habitat prefers.

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