

## BLISTER BEETLE (*MELOE*) – THE INSECT OF THE YEAR 2009: CAMPAIGN REVIEW AND RESULTS

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### Introduction

Lithuanian Entomological Society is carrying out a campaign “The Insect of the Year” since 2002. The objective of the campaign is to spur greater public interest in insect diversity and to contribute to data collection, performed by entomologists, concerning density and distribution of the selected insect in Lithuania.

A blister beetle (*Meloe* L.) genus has been selected as the “Insect of the year 2009”. Four species belonging to this genus are found in Lithuania: *Meloe proscarabaeus* Linnaeus, 1758, *Meloe violaceus* Marsham, 1802, *Meloe brevicollis* Panzer, 1793 and *Meloe variegatus* Donovan, 1793 (Pileckis & Monsevičius, 1997). The adult beetles of all these species are active outdoors from April till June. The blister beetles are plant eaters, which usually eat common chickweed (*Stellaria media*) (Curtis, 1829), although the old literary sources describe these insects as the beet, beetroot or crop pests. A larva of the beetle usually leads its cuckoo life in solitary bee nests. It is anticipated that the bumble bee nests could be also suitable for larval development, but there is no doubt only on *Colletes* L. genus bees’ nests. Triungulins lurk on the windflowers (*Anemone nemorosa*) and dandelions (*Taraxacum*) waiting for bees (László, 1977).

Data collected during the campaign confirmed the facts presented in the literature that blister beetles mostly may be seen in the meadows, blooming in spring, and in the outskirts of forests, less – in the felling areas and dry pine forests (Sörensson & Mårtensson, 2007).

### Material and Methods

Data on beetle distribution was collected remotely. Using media assistance, general members of the society were encouraged to monitor the environment and look for the beetles. In order to ascertain the authenticity of findings, respondents were asked to submit pictures of beetles found by them. Finding confirmation forms without enclosed pictures were not included into the calculation of the campaign results, but the eventual place of the finding was noted in author’s personal records. Blister beetles were observed from early April until mid-June during the campaign.

All beetles were determined by the author.

### List of localities

Anykščiai district  
Biržai town

Antežerė

55°27'03,0"N, 25°10'31,9"E  
56°12'10"N, 24°45'30"E

Druskininkai district	Krikštonys, Dzūkija Nat. P.	54°12'33"N, 23°57'50"E
Jurbarkas district	Belvederis Pašventys f.	55°05'00"N, 23°23'23"E 55°05'01"N, 22°36'23"E
Kaunas district	Dubrava Vareikonys	55°5'50"N, 23°46'32"E
Kelmė district	Dubysa hidrological pr. Gauryliai	55°34'40"N, 22°58'28,8"E
Kėdainiai district	Mištautai	55°19'00"N, 23°53'00"E
Kretinga district	Darbėnai Kalotė pr.	56°01'20"N, 21°15'30"E 55°47'10"N, 21°07'20"E
Molėtai district	Kačergai	55°12'3"N, 25°32'33"E
Panevėžys district	Dembava	55°43'46"N, 24°24'28"E
Plungė district	Mikytai pr. Žemaitija Nat. P.	55°07'32"N, 21°56'55"E 55°54'40"N, 21°50'30"E
Radviliškis district	Praviršulis	55°30'35"N, 23°26'32"E
Raseiniai district	Sargeliai	55°28'45"N, 23°26'54"E
Švenčionys district	Sužionys	54°59'20"N, 25°30'30"E
Telšiai district	Pavandenė pr.	55°46'17,7"N, 22°29'1,1"E
Trakai district	Čižiūnai	54°35'40"N, 24°34'00"E
Vilkaviškis district	Jakiškiai	56°10'50"N, 23°31'40"E
Vilnius district	Bielazariškės (1) Bielazariškės (2) Liepiškės	54°82'65,9"N, 24°90'34,4"E 54°82'70,6"N, 24°90'45,8"E 54°37'40"N, 25°27'10"E
Vilnius city		54°69'17,1"N, 25°17'45,2"E
Zarasai district	Degučiai	55°39'30"N, 26°03'40"E

### List of species

#### *Meloe brevicollis* (Panzer, 1793)

Bielazariškės (1), 23 05 2009, 1 spec. (leg. G. Švitra); Biržai t., 31 05 2009, 1 spec. (leg. G. Gracijonas); Čižiūnai, 30 05 2009, 1 spec. (leg. L. Vaišvilas); Darbėnai, 07 05 2009, 1 spec. (leg. D. Barčkutė); Degučiai, 30 04 2009, 1 spec. (leg. S. Sinkevičius); Krikštonys, Dzūkija Nat. P., 20 05 2009, 1 spec. (leg. K. Arlauskaitė); Vareikonys, 11 05 2009, 1 spec. (leg. A. Aniulis); Vilnius t., 26 04 2009, 2 spec. (leg. S. Sinkevičius).

#### *Meloe proscarabaeus* (Linnaeus, 1758)

Antežerė, 17 05 2009, 1 spec. (leg. P. Smalskas); Neris Reg. P., Bielazariškės (2), 23 05 2009, 1 spec. (leg. G. Švitra); Dembava, 03 05 2009, 1 spec. (leg. M. Vazonis); Kaunas district 12 05 2009, 1 spec. (leg. A. Gedminas); Naujatriobiai, 13 05 2009, 1 spec. (leg. V. Gluoksnyš); Sužionys, 24 05 2009, 1 spec. (leg. D. Sungaila); Žemaitija Nat. P., 13 06 2005, 1 spec. (leg. G. Sidabrienė).

#### *Meloe violaceus* (Marsham, 1802)

Belvederis, 30 05 2009, 1 spec. (leg. D. Vainutis); Dubysa hidrological pr., 25 05 2009, 1 spec. (leg. E. Živatkauskas); Dubrava, 03 05 2009, 1 spec. (leg. S. Balčiūnas); Gauryliai, 10 06 2009, 1 spec. (leg. N. Budraitytė); Jakiškiai, 26 05 2009, 1 spec. (leg. L. Didvalis); Kalotė pr., 09 05 2008, 1 spec. (leg. M. Norkutė);

Kačergai, 10 06 2009, 1 spec. (leg. M. Grybauskas); Liepiškė, 13 04 2009 (leg. R. Savickienė); Mištautai, 19 05 2008, 1 spec. (leg. G. Beviršis); Pašventys f., 29 04 2009, 1 spec. (leg. A. Čeponis); Praviršulis, 26 04 2009, 1 spec. (leg. B. Gliwa); Sargeliai, 03 05 2009, 1 spec. (leg. B. Gliwa); Varniai Reg. P., Pavandenė pr., 13 05 2009, 1 spec. (leg. K. Grigaliūnaitė); Žemaitija Nat. P., Mikytai pr., 27 04 2009, 1 spec. (leg. G. Sidabrienė).



Figure 1. Distribution of *Meloe brevicollis*



Figure 2. Distribution of *Meloe proscarabaeus*



Figure 3. Distribution of *Meloe violaceus*

## Discussion

Twenty eight participants involved in the campaign presented 32 blister beetle finding confirmation forms. Although the data was collected only for one season, it is possible to make some preliminary conclusions concerning blister beetle population density in Lithuania.

Eight specimens of *M. brevicollis* (Fig.1) were registered in total; seven of them were

found in the eastern part of the country and one - in the western part (Kretinga district). Also nine specimens of *M. proscarabaeus* (Fig. 2) were found, majority of these insects being concentrated in central and eastern Lithuania. Of 15 recorded specimens of *M. violaceus* (Fig. 3), 11 specimens were registered in the western part of the country. No specimens of *M. variegatus* were found during the campaign.

Approximately 70% of beetles were found in meadows and outskirts, the remaining 30% - in dry pine forests and felling areas, confirming the facts presented in the literature (Sörensson & Mårtensson, 2007).

All the available data suggests that the most stable populations in the country are those of *M. violaceus* and *M. brevicollis*. The latter species is endangered in northern Europe and together with *M. proscarabaeus* are local species in Lithuania. *M. variegatus* is very rare or extinct in Lithuania.

Blister beetle population is directly dependent on solitary bees, whereas population of bees depends on natural, not-agricultural grasslands (Sörensson & Mårtensson, 2007). Short generation time of these beetles significantly impacts the observations and results. In order to preserve and further explore the blister beetle, greater attention should be paid to the investigation and conservation of the solitary bees.

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### Akcijos „Metų vabzdys 2009 – gegužvabalis (*Meloe*)“ apžvalga bei rezultatai

D. A. LIEKIS

### Santrauka

Straipsnyje pateikiami Lietuvos entomologų draugijos vykdytos akcijos „Metų vabzdys 2009 – gegužvabalis (*Meloe*)“ rezultatai. Apžvelgiami duomenys apie trijų akcijos dalyvių aptiktų gegužvabalių rūšių - *Meloe brevicollis* (8 individai), *M. proscarabaeus* (9 ind.) ir *M. violaceus* (15 ind.) pasiskirstymą ir gausą. *Meloe variegatus* vabalų nebuvo aptikta. Autorius aprašo vabalų buveines, mitybinius augalus.

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