



Orthoptera of the peat bogs and wet mountain grasslands in Orava region (NW Slovakia)

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Abstract: Peat bogs are habitats of European importance, but only few data exists on crickets and grasshoppers living in these habitats. Altogether 22 species of Orthoptera (6 Tettigonioidea, 2 Tetrigoidea and 14 Acrididoidea) were found in 16 selected localities, in peat bogs and wet mountain meadows in the Orava region in 2008–2011. Only 16 species were registered in peat bogs (4 Tettigonioidea, 2 Tetrigoidea and 10 Acrididoidea) and 18 species in wet mountain meadows. Number of species per site varied between 2 and 14 (mean 9.5). The euryoecious species *Euthystira brachyptera* (F=100% of sites), *Metrioptera roeselii* and *Omocestus viridulus* (both 93.8%), *Chorthippus apricarius* (87.5%) and *Chorthippus parallelus* (75%) were the most frequent species. Mountain species *Miramella alpina* and *Metrioptera brachyptera* are indicators of specific mountain bilberry meadows and peat bogs. In this extremely cold area we expected wing dimorphic individuals (macropterism) in some brachypterous species. The highest number of macropters was found in *Chrysochraon dispar*, especially in peat bogs ecotones of the Rudné Nature Reserve (26.8%). Occurrence, distribution and macropterism in some brachypterous species are commented..

Key words: grasshoppers, crickets, peat bogs, macropters, Slovakia



Ground beetle fauna (Coleoptera: Carabidae) of protected areas in the Łódź Province. Part I. Nature reserves

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Abstract: Ground beetle fauna of 35 nature reserves in the Łódź Province is summarized based on the literature data and unpublished records. For all studied reserves new faunistic data are presented, including first records of Carabidae for eight of them. In total, 140 ground beetle species (27.22% of Polish fauna and 54% of species recorded in the area of the Łódź Province) are noted from 35 (39%) nature reserves located in the Łódź Province. Moreover, it has been found, that the reserves “Rawka” and “Spała” encompass some of the highest Carabidae species richness noted among the all Polish nature reserves. Among the beetles recorded in the studied nature reserves, there are 16 species protected by Polish law, including 13 species of *Carabus* L. and 3 of *Calosoma* Web., what means 50% of Polish fauna and 76.19% of protected carabid species occurring in the Łódź Province. Twelve species are included in the Polish Red Data List: three species as critically endangered (CR) (*Badister dorsiges*, *Patrobus australis*, *Trechus austriacus*), one as endangered (EN) (*Carabus clatratus*), two as vulnerable (VU) (*Odacantha melanura* and *Oodes helopioides*), four as near threatened (NT) (*Calosoma sycophanta*, *Carabus convexus*, *Diachromus germanus*, and *Omophron limbatum*), one as least concern (LC) (*Carabus intricatus*), and one in “data deficient” category (DD) (*Brosicus cephalotes*). High number of Carabidae species recorded on a relatively very small area of investigated nature reserves (in total only 0.29% of the Łódź Province) proves their importance in the conservation of species diversity of Carabidae in Poland.

Key words: Carabidae, Central Poland, nature reserve, biodiversity, protected species, Red List, Red Book



Can the Black bog ant (*Formica picea* Nyl.) survive in the Bieszczady National Park (SE Poland)?

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Abstract: In the peat bogs of the Bieszczady National Park an inventory of the Black bog ant (*Formica picea* Nyl.) was made in order to get an impression of the probability of its survival in SE Poland. Three habitat networks are distinguished, which are situated too far from each other for (re)colonization by means of flying queens. The largest network includes five peat bogs. In two of them *F. picea* was found. The species was not found in peat bogs which belong to the other habitat networks. The quality of the peat bogs depends on management strategies, currently challenged by two main threats: desiccation and the influx of nutrients. This process will speed up the succession of the vegetation. As a result dwarf shrubs are encroaching on habitat areas of *F. picea*, where *Sphagnum* species are still dominating in the moss layer.

Key words: peat bog, *Formicidae*, *Formica picea*, survival, management



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Distribution of *Sceliphron destillatorium* Illiger, 1807 (Hymenoptera, Sphecidae) in Poland

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Abstract: There have been 49 confirmed localities of *Sceliphron destillatorium* Illiger, 1807 in Poland, including 39 documented localities and 10 undocumented localities requiring confirmation. Based on the locations of new localities of *S. destillatorium* as well as those already known from the literature, it has been possible to map where in Poland this species appears as well as the northern limits of its range.

Key words: expansion, digger wasp, new records



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Distribution of *Xylomoia graminea* (Graeser, 1889) (Lepidoptera: Noctuidae) in Poland

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Abstract: A review of distribution and new data on the occurrence of the noctuid moth *Xylomoia graminea* (Graeser, 1889) in Poland are given. The new material includes observations collected from 2005 to 2010 in Małopolska, Podkarpacie and Podlasie regions. *Xylomoia graminea* (Graeser, 1889) is observed for the first time in Pogórze Dynowskie, Kotlina Jasielsko-Krośnieńska, Pogórze Wiśnickie and Garb Tenczyński in south-eastern and southern Poland.

Key words: Lepidoptera, Noctuidae, Noctuinae, *Xylomoia graminea*, Poland, expansion, faunistics



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State of knowledge of the tachinid fauna of Eastern Asia, with new data from North Korea. Part III. Phasiinae. Supplement

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Abstract: Additions are made to the "State of knowledge of the tachinid fauna of Eastern Asia, with new data from North Korea. Part I. Phasiinae" (Draber-Mońko 2008). Seven species of the phasiine flies representing five genera were identified in the material. Six species are reported for the first time in the fauna of Korea. Two of them: *Calyptromyia barbata* Villeneuve, and *Parerigone tianmushana* Chao et Sun are presented in colour images. At present twenty three species of the phasiine flies are recorded from the Korean Peninsula.

Key words: Diptera, Tachinidae, supplement to Phasiinae, North Korea



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***Maro lepidus* Casemir, 1961, a newly recorded spider species (Araneae, Linyphiidae) for Poland**

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Abstract: *Maro lepidus* Casemir, 1961, a new linyphiid species for Poland is recorded and described. Its distribution and characteristic habitats are discussed and a few remarks on the other two members of the genus *Maro* (*M. minutus*, *M. sublestus*) in Poland are also given.

Key words: Araneae, Linyphiidae, *Maro lepidus*, Poland



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The invasive harvestman *Opilio canestrinii* (Thorell, 1876) (Opiliones: Phalangiidae) in Poland

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Abstract: *Opilio canestrinii* is an expansive harvestman originating from the Apennine Peninsula which in the last decades of the XX century invaded Central Europe. New details on the occurrence of the species in Poland are given. The investigation carried out in Lublin revealed that currently this species is one of the most common harvestmen in Polish urban areas. The new data suggest that the species occurs in the whole country but its distribution is limited mainly to large and mid-sized towns.

Key words: *Opilio canestrinii*, synanthropic fauna, competition, invasive harvestman, Poland



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Is *Siro carpaticus* Rafalski, 1956 (Arachnida: Opiliones) really a rare harvestmen species?

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Abstract: *Siro carpaticus* (Arachnida: Opiliones: Cyphophthalmi) is a harvestman endemic to the Eastern Carpathian Mountains. Although the species was known only from a few localities in Poland and Slovakia and was considered as a rare species, 51 new records from the Bieszczady Mountains are newly presented. This expands the species' range to the Ukrainian border. The search results suggest that *Siro carpaticus* occurs quite commonly in Bieszczady National Park but is difficult to find due to their specific habitat.

Key words: *Siro carpaticus*, Opiliones, distribution, Poland, Carpathians



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Distribution of *Leiobunum limbatum* L. Koch, 1861 (Opiliones: Sclerosomatidae) in Poland

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Abstract: *Leiobunum limbatum* is an expansive harvestman species of Alpine provenience connected with zone of hills and lower mountains. In the second half of 20th and the beginning of 21st century the species began its expansion to the East and North, mainly in Germany and the Czech Republic but reaching to Poland and even Sweden. The review of the new records shows that *L. limbatum* occurs in man-made habitats in the whole hill zone in Poland, from the Sudeten till the Bieszczady Mts. It is numerous, aggressive and competing successfully with local fauna.

Key words: *Leiobunum limbatum*, expansive harvestman, distribution in Poland



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Canestriniidae (Acari, Astigmata) of Poland, with key to species of the genus *Photia* Oudemans, 1904

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Abstract: In Poland 14 species of canestriniid mites were found. The total number of collected mites were 1693. *Photia hejniana* and *P. chrysocarabi* are most numerous species in the country. Only *P. hejniana* was stated in the whole country. Very rare species are *Percanestrinia blaptis*, *Dicanestrinia knobi*, *D. huberti*, *Coleopterophagus albini* and *Pseudocanestrinia mahunkai*. All these species are associated with rare host species in Poland. Key to the *Photia* species of the world is provided.

Key words: Acari, Canestriniidae, faunistic list, Poland, *Photia*