



Ants (Hymenoptera: Formicidae) of Chelmowa Góra in the Świętokrzyski National Park

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Abstract: Species composition, nest densities and ecological profiles of ant communities in three main typical forest habitats of Chelmowa Góra (Chelmowa Mount) in the Świętokrzyski National Park were studied: fertile Carpathian beech forest *Dentario glandulosae*-Fagetum, subcontinental linden-oak-hornbeam forest *Tilio-Carpinetum* (marginal zone and interior), continental mixed pine forest *Quercus roboris*-Pinetum (marginal zone and interior). Additionally, a moist rye-grass meadow *Arrhenatheretum elatioris* adjacent to the mixed pine forest was also surveyed. Nest samples were collected by searching quadrats of different sizes (1 m², 10 m², 100 m²). In total, 16 species were found. Ant communities of the studied habitats differed from each other in their composition, abundance and structure. In respect of nest density, *Myrmica ruginodis* Nyl. dominated in *Tilio-Carpinetum* (in both forest zones) and in the interior of *Quercus roboris*-Pinetum, *Formica polyctena* Först. in the marginal zone of *Quercus roboris*-Pinetum and in *Dentario glandulosae*-Fagetum, and *Lasius niger* (L.) in the meadow. The results are discussed in the contexts of the former data from this region, and the possible community-forming impact of the local ‘supercolony’ of *F. polyctena*

Key words: ant communities, community structure, ecological preferences, forests, interspecific competition, Poland, wood ants



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***Myrmica karavajevi* (Arn.) (Hymenoptera, Formicidae) in Poland: a species not as rare as it is thought to be?**

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Abstract: The ant *Myrmica karavajevi* is an extremely rarely found and poorly known workerless social parasite of ants of the *Myrmica scabrinodis* species group. Hereafter detailed information of its previously published findings from four geographical regions in Poland (Bieszczady Mts, Pieniny Mts, Pomeranian Lakeland and Mazovian Lowland) as well as data on three new records from the Roztocze Upland, Lubelska Upland and Krakowsko-Częstochowska Upland is given. The latter suggests higher than hitherto suspected degree of host species infestation by *M. karavajevi*. Use of *M. rugulosa* as a host by *M. karavajevi* is also discussed.

Key words: ants, fauna of Poland, inquilines, *Myrmica rugulosa*, *Myrmica scabrinodis*, new localities, social parasitism



New records of two alien mud daubers *Sceliphron destillatorium* (Ill.) and *Sceliphron curvatum* (Sm.) (Hymenoptera, Sphecidae) from Poland with comments on expansion of their ranges

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Abstract: The paper presents information on two species of digger wasps, *Sceliphron destillatorium* (Illiger, 1807) and *S. curvatum* (Smith, 1870), alien for the fauna of Poland (within its present borders). Both species are presently spreading in the country. *Sceliphron destillatorium*, a South-Palaearctic species, has been observed in Poland since 1960. *Sceliphron curvatum* was introduced to Europe from Asia in the 1970s, and at present it is known from many South- and Central-European countries. The species was found for the first time in Poland in 2003. New localities of the two species in Poland are given and issues connected with their present distribution are discussed.

Key words: Hymenoptera, Sphecidae, *Sceliphron curvatum*, *Sceliphron destillatorium*, alien species, new localities, Poland



***Psenulus meridionalis* Beaumont, 1937, a digger wasp species new to the fauna of Poland (Hymenoptera, Crabronidae)**

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Abstract: The paper presents *Psenulus meridionalis* Beaumont, 1937 – the digger wasp new to Polish fauna. Three specimens were collected in the Podlasie region (Biebrza National Park) and another two in the Wielkopolska-Kujawy Lowland. The newly revealed localities define now the northern limit of the species range in Europe. Currently, six species representing the genus are known from Poland.

Key words: Hymenoptera, Crabronidae, *Psenulus meridionalis*, new record, Polish fauna



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***Nysson distinguendus* Chevrier, 1867 (Hymenoptera, Crabronidae), a new species to the fauna of Poland**

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Abstract: One female of *Nysson distinguendus* Chevrier, 1867 was found in the Wielkopolska-Kujawy Lowland in Toruń-Glinki, where vegetation is formed by multi-age pine forests with dry heaths and psammophilous grasslands. This is the first record in Poland. The present data indicate that this species may be just as widespread as *N. dimidiatus* Jurine, 1807, with whom *N. distinguendus* has long been identified.

Key words: Hymenoptera, Crabronidae, *Nysson distinguendus*, first record, Poland



New data on the occurrence of two invasive harvestmen species – *Odiellus spinosus* (Bosc) and *Lacinius dentiger* (C. L. Koch) in Poland

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Abstract: The occurrence of *Odiellus spinosus* and *Lacinius dentiger* in Poland – two expansive harvestmen species is considered. *O. spinosus* was known in Poland from only one location near Poznań. New information presented in this work on the next seven locations indicate that this expansive species has already colonized large part of Greater Poland. Previously, *L. dentiger* was listed in Poland with 18 sites, mostly along the latitudinal belt encompassing Toruń – Eberswalde glacial valley, Bug and Narew valleys. Further 49 locations are reported here, what shows that this species is currently widespread also along the Nysa Łużycka (Neisse), Oder and the Vistula valleys.

Key words: *Odiellus spinosus*, *Lacinius dentiger*, Opiliones, new localities, Poland



The first record of *Hahnia difficilis* Harm, 1966 (Araneae, Hahniidae) in Poland

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Abstract: *Hahnia difficilis* was found in Orawa-Nowy Targ Basin (Podhale) and western Sudety Mountains, these are the first records of this spider species for Poland. Its distribution and typical habitats are discussed. Moreover, *Hahnia montana* – a species closely related to *H. difficilis* – is recorded from the Western Tatra Mountains and a few diagnostic features to distinguish these two species are given.

Key words: spiders, *Hahnia difficilis*, *H. montana*, peat bogs, mountains



Small mammals of Kampinos National Park and its protection zone, as revealed by analyses of the diet of tawny owls *Strix aluco* Linnaeus, 1758^(*)

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Abstract: Analyses of tawny owl pellets were used to determine the species composition and distribution of small mammals in Kampinos National Park and its protection zone (central Poland). The total material collected from 58 localities contained the remains of 11,235 vertebrates (including 8,335 mammals). The study revealed 29 species of small mammals of the following orders: Soricomorpha – 4, Chiroptera – 9, Rodentia – 14, Lagomorpha – 1 and Carnivora – 1. These included two bat species of special interest (*Myotis myotis* and *Barbastella barbastellus*) listed in the 2nd Annex to the Habitats Directive of the European Union. *Muscardinus avellanarius*, a rodent typical of broad-leaved woodland, appeared to be relatively common and abundant in suitable habitats. Species inhabiting wet habitats, *Microtus oeconomus* and *Neomys fodiens*, were found in many localities, whereas *Arvicola amphibius* was rarer and less abundant. Some important refuges of small mammals were found, mostly in strictly protected areas. Although the studies conducted to date in this area likely reveal a complete list of small species of Soricomorpha and Rodentia, it is possible that 3-5 species of Chiroptera and 2 small species of Carnivora may remain to be identified.

Key words: Soricomorpha, Chiroptera, Rodentia, Lagomorpha, Carnivora, pellet analysis, tawny owl, central Poland



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Urban drainage systems as important bat hibernacula in Poland

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Abstract: The results of winter checks in drainage systems of three cities in northern Poland are presented. The analysis of importance of this type of roosts for hibernating bats is conducted. In total 7524 bats were counted in the winter 2013: 3412 individuals in Olsztyn, 3403 in Piła and 709 in Koszalin. Higher number of bats than in rainwater sewers of Olsztyn and Piła was observed in Nietoperek Reserve only. Six bat species were recorded in checked rainwater sewage systems: *Myotis nattereri*, *Myotis daubentonii*, *Myotis myotis*, *Plecotus auritus*, *Barbastella barbastellus* and bats from *Myotis mystacinus* complex. Urban sewage systems are important especially for *Myotis nattereri*. This species dominates in all checked objects, with 3314 individuals in Olsztyn, 2532 in Piła and 597 in Koszalin. Given the sheer size of the drainage systems, this type of roosts may belong to the most important hibernation sites, particularly for *M. nattereri* and *M. daubentonii*.

Key words: Chiroptera, hibernation site, drainage system, northern Poland, urban fauna