



Benthic and epiphytic fauna of Gastrotricha in littoral of mesotrophic lake in Łęczna-Włodawa Lakeland, Poland

Teresa NESTERUK

University of Podlasie, B. Prusa 12, 08-110 Siedlce, Poland

Abstract: The species composition and dominance structure of Gastrotricha living in bottom sediments and on plants: *Myriophyllum* sp., *Ceratophyllum* sp. and *Elodea canadensis* Michx. were studied in the littoral of the mesotrophic Lake Piaseczno from 1994 to 1996. A total of 31 Gastrotricha species altogether (22 species in bottom sediment and 20 species living on plants) were found in the habitats under study. In the benthic community there were three eudominant species (dominance >10.0%): *Chaetonotus heteracanthus* Remane, *Ch. macrochaetus* Zelinka and *Heterolepidoderma gracile* Remane, at: 13.3%, 15.1% and 17.1% respectively. In the epiphytic community, two species were eudominants: *Heterolepidoderma macrops* Kisielewski and *Lepidodermella squamata* Dujardin, at 27.9% and 32.4%, respectively. The Gastrotricha fauna in the bottom sediments was characterised by a more even structure of dominance, which was reflected in greater biodiversity ($H'=2.58$ compared to $H'=2.01$ for the community living on aquatic plants). Only 11 species were common to both habitats, with similarity of the two communities being as low as 17% (coefficient of homogeneity).

Key words: Freshwater Gastrotricha, bottom (benthic) and epiphytic fauna, species composition, dominance



The association of plant parasitic nematodes with fruit crops in Poland as related to some soil properties

Adam SZCZYGIEL and Alojzy ZEPP

Fruit Experiment Station of the Research Institute of Pomology and Horticulture Brzezna, 33-386 Podegrodzie

Abstract: The survey conducted in 1983-85 in 535 fruit orchards and small fruit plantings, distributed all over the country, revealed association of 82 plant parasitic nematode species of eight families with fourteen fruit crops, except strawberry, commonly grown in Poland. All species occurred in the soil in the vicinity of roots. 42 were also encountered in the roots of crops, usually seldom and in low densities in comparison with that in nearby soil. Only some species of the families Pratylenchidae, Hoplolamidae, Tylenchulidae and Criconematidae occurred relatively abundantly in the roots of some crops. Species of the families Belonolaimidae and Trichodoridae were seldom encountered in the roots and usually in small numbers. No species of the families Longidoridae and Hemicyclophoridae were found in the roots of any fruit crops. The occurrence of the majority of recorded species, expressed either in their frequency or population density, was significantly related to the surveyed fruit crops and soil type (mechanical composition and acidity). Most of the species preferred light sandy soils and acid or slightly acid ones. However, several species, particularly from the families Hoplolamidae and Tylenchulidae, preferred heavy soils. The paper also discusses the feeding habits of particular taxonomic groups, their harmfulness to fruit crops in temperate climates and their possible economic role in Polish fruit culture.

Key words: plant parasitic nematodes, fruit crops, mechanical composition of soil, soil acidity



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***Myrmecodesmus hastatus* (Schubart, 1945), a widespread Neotropical millipede (Diplopoda, Polydesmida, Pyrgodesmidae)**

Sergei I. GOLOVATCH* and Joachim ADIS**

**Institute for Problems of Ecology and Evolution, Russian Academy of Sciences, Leninsky pr. 33,
119071 Moscow (V-71), Russia; e-mail: sgol@orc.ru*

***Max-Planck-Institute for Limnology, Tropical Ecology Working Group, Postfach 165, D-24302 Plön, Germany;
e-mail: adis@mpil-ploen.mpg.de*

Abstract: The distribution of the small-bodied millipede *Myrmecodesmus hastatus* (Schubart, 1945), which currently covers much of South America, is reviewed and refined with the first records from Peru and Mato Grosso state, Brazil. Generally, this species seems to be so strongly associated with ant and termite nests that synanthropization might have also contributed to the species' extensive range due to host range expansions.

Key words: *Diplopoda*, *Myrmecodesmus*, myrmecophily, termitophily, synanthropization, South America



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Redescription of the East Carpathian millipede *Ochogona (Beskidia) jankowskii* (Jawłowski, 1938) (Diplopoda, Chordeumatida, Craspedosomatidae)

Jolanta WYTWER* and Sergei I. GOLOVATCH**

**Museum and Institute of Zoology, Polish Academy of Sciences, Wilcza 64, 00-679 Warszawa, Poland;*
e-mail: jolawyt@robal.miiiz.waw.pl

** *Institute for Problems of Ecology and Evolution, Russian Academy of Sciences, Leninsky pr. 33,*
Moscow 119071 Russia; e-mail: sgot@orc.ru

Abstract: The East Carpathian millipede *Ochogona jankowskii* (Jawłowski, 1938), more frequently referred to as *Beskidia jankowskii* (Jawłowski, 1938), is properly redescribed based on material from the Bieszczady Mountains of Poland. *Beskidia* Jawłowski, 1938 is confirmed as probably representing a "good" subgenus of the prolific Western and Central European genus *Ochogona* Cook, 1895.

Key words: Diplopoda, Craspedosomatidae, Atractosomatini, *Beskidia*, taxonomy, Carpathians



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Collembola of North Bull Island – new records for the Irish coast

Maria STERZYŃSKA* and Thomas BOLGER**

***Museum and Institute of Zoology Polish Academy of Sciences, 00-679 Warsaw, Wilcza 64, Poland
e-mail: majka@miiiz.waw.pl*

***Department of Zoology University College Dublin, Belfield, Dublin 4
e-mail: tom.bolger@ucd.ie*

Abstract: A study of the Collembola from the marine littoral habitats on North Bull Island, which is a nature Man and the Biosphere Nature Reserve in Ireland, revealed 43 species of which 9 are new to the Irish fauna. Several rare species, known only from a few localities in Europe, *Willemia multilobata*, *Friesea* cf. *baltica*, *Protaphorura pseudocellata* and *Isotomodes sotoensis* were found.

Key words: Collembola, marine littoral habitats, Irish seashore



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Further record of *Formica glauca* Ruzsky, 1895 (Hymenoptera: Formicidae) in Poland

Wiesława CZECHOWSKA*, Vera ANTONOVA** and Wojciech CZECHOWSKI*

*Laboratory of Social and Myrmecophilous Insects, Museum and Institute of Zoology PAS, Wilcza St 64,
00-679 Warszawa, Poland; e-mail: w.czechowska@miiz.waw.pl

**Department of Biodiversity, Central Laboratory of General Ecology, BAS, 2 Gagarin St., 1113 Sofia, Bulgaria;
e-mail: vera_antonova@yahoo.com

Abstract: The second site of *Formica glauca* Ruzs., a highly xerothermophilous, rare in Central Europe, ant species related to *F. rufibarbis* F. and *F. cunicularia* Latr., is reported from Poland. Workers of *F. glauca* occurred in two places of the Kazimierz Landscape Park (the Lubelska Upland, SE Poland) in xerothermal grasslands.

Key words: ants, *Formica glauca*, *Formica rufibarbis*, *Formica cunicularia*, *Formica lusatica*, taxonomy, fauna of Poland



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First record of *Myrmica salina* Ruzsky (Hymenoptera: Formicidae) for Poland

Alexander RADCHENKO*, Anna STANKIEWICZ* and Marcin SIELEZNIEW**

*Laboratory of Social and Myrmecophilous Insects, Museum and Institute of Zoology, Polish Academy of Sciences,
Wilcza 64, PL-00-679 Warszawa, Poland; e-mail: agradchenko@hotmail.com

**Department of Applied Entomology, Warsaw, Agriculture University, Nowoursynowska 166, 02-787, Warszawa,
Poland; e-mail: sielezniew@alpha.sggw.waw.pl;

Abstract: A rare and little known ant species, *Myrmica salina* Ruzsky is for the first time reported from Poland. General data on its distribution and ecology are given. Characteristic morphological features of the species are pointed out and compared with those of closely related species.

Key words: ants, *Myrmica salina*, *scabrinodis*-group, morphology, fauna of Poland



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**The first record of *Orthostigma cratospilum* (Thomson, 1895)
(Hymenoptera: Braconidae, Alysiinae) in Poland, with a note on its host
and a description of the female**

Sergey A. BELOKOBYLSKIJ*, Piotr CERYNGIER** and Ewa DURSKA*

**Museum and Institute of Zoology, Polish Academy of Sciences, Wilcza 64, 00-679 Warsaw, Poland;*

e-mail: wcz@miz.waw.pl; edurska@miz.waw.pl

***Centre for Ecological Research, Polish Academy of Sciences, Dziekanów Leśny, 05-092 Łomianki, Poland;*

e-mail: ceryngier@cbe.internet.dsl.pl

Abstract: The alysiine wasp, *Orthostigma cratospilum*, is reported for the first time from Poland (Dziekanów Leśny near Warsaw). It was found to parasitize the larvae of the phorid fly, *Megaselia minor*, which developed in dead pentatomid bugs, in the litter under pine trees. The hitherto unknown female of *O. cratospilum* is described.

Key words: Hymenoptera, Braconidae, *Orthostigma*, description of female, host, Diptera, Phoridae



Butterflies (Lepidoptera, Rhopalocera) of the Błędów Desert and neighbouring area in the Olkusz District, Poland¹

Wojciech KUDŁA and Janusz WOJTUSIAK

*Zoological Museum, Jagiellonian University, Ingardena 6, 30-060 Kraków, Poland
e-mail: wojt@zuk.iz.uj.edu.pl*

Abstract: Based on seventeen years of observations, a list of 88 species of Rhopalocera recorded in the Błędów Desert (Małopolska province, Poland) and neighbouring area is presented. From among all the species found within the study area, 68 were observed in the core area of the Błędów Desert. The abundance of all species of butterflies appeared to be considerably lower in the Błędów Desert than in its neighbourhood except for *Pontia daplidice*, *Hyponphele lycaon*, *Hipparchia semele* and *H. alcyone*. Only the abundance of one species, *P. daplidice*, was significantly higher in the Błędów Desert than in neighbouring areas.

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A new species of *Chonocephalus* Wandolleck (Diptera: Phoridae) that is a secondary pest of oyster mushrooms (*Poriales*: Lentinaceae) in Indonesia

ROSTAMAN* and R. Henry L. DISNEY**

*Laboratory of Entomology, Department of Biology, ITB, Bandung, Jalan Ganesha 10 Bandung 40132, Indonesia,
e-mail: rostaman@bi.itb.ac.id

**Department of Zoology, University of Cambridge, Downing, Street, Cambridge CB2 3EJ, UK,
e-mail: rhld2@hermes.cam.ac.uk

Abstract: *Chonocephalus rostamani* Disney sp. n. is described from a series reared from larvae feeding on the mycelium of *Pleurotus ostreatus* (Jacq. ex Fr.) Quélet in Java. The damage caused contributes to the reduced production of sporophores caused by it and other pests. The species is an occasional pest that probably originates from other fungi utilizing litter in the mushroom houses.

Key words: Diptera, Phoridae *Chonocephalus*, new species, *Poriales*, Lentinaceae, *Pleurotus*, pest



A new species of *Megaselia* (Diptera: Phoridae) attacking a wasp and a bee (Hymenoptera: Vespidae, Eumeninae and Megachilidae) in South Korea

Heung-Sik LEE* and R. Henry L. DISNEY**

* *National Plant Quarantine Service, Anyang 6-dong 433-1, Manan-gu Anyang 430-016, Republic of Korea; e-mail: lhgso@npqs.go.kr*

***Department of Zoology, University of Cambridge, Downing, Street, Cambridge CB2 3EJ, UK, e-mail: rhld2@hermes.cam.ac.uk*

Abstract: Newly emerged females of *Megaselia sextovittata* sp. n. and *M. chapmani* Borgmeier are reported imbibing haemolymph from the pupae of *Chalicodoma sculpturalis* (Megachilidae) and *Anterhynchium flavomarginatum* (Vespidae, Eumeninae). Pupae thus attacked subsequently died. The larvae are reported to be parasitoids of the larvae of these two species of Hymenoptera, but possibly only develop in hosts that are already debilitated or moribund. No newly emerged flies were observed ovipositing into or onto living host pupae. The feeding on the haemolymph of potential host pupae, by causing the death of those thus attacked, is likely to prevent the normal defensive response that would inhibit the development of the fly larvae in still living pupae. This may have been one route by which the evolution of the parasitoid habit in Phoridae evolved.