

MUSEUM AND INSTITUTE OF ZOOLOGY
POLISH ACADEMY OF SCIENCES

FRAGMENTA FAUNISTICA

Fragm. faun.	Warszawa, 30.12.2001	44	169-177
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Grażyna WINISZEWSKA*, Oleksandr HOLOVACHOV**, Andrij SUSULOVSKY***

***Dintheria tenuissima* DE MAN, 1921 and *Stenonchulus troglodytes* SCHNEIDER, 1940
(Nematoda: Bastianiidae and Onchulidae) – two nematode species new for the fauna of Ukraine and Poland**

Abstract: The paper gives new data on the occurrence of *Dintheria tenuissima* DE MAN, 1921 and *Stenonchulus troglodytes* SCHNEIDER, 1940 in Europe. These two rare species are described and illustrated on the basis of material collected in Poland and Ukraine.

Key words: Nematoda, *Dintheria tenuissima*, *Stenonchulus troglodytes*, Poland, Ukraine

Authors' addresses: *Museum and Institute Zoology PAS, Wilcza 64, 00-679 Warszawa, POLAND

**Department of Zoology, Biological Faculty, Ivan Franko National University of Lviv, Grushevsky str.4, Lviv 79005, UKRAINE

***State Museum of Natural History, Theatralna str. 18, Lviv 79008, UKRAINE

FRAGMENTA FAUNISTICA

Fragm. faun.	Warszawa, 30.12.2001	44	179–201
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S. I. GOLOVATCH*, R. L. HOFFMAN**, S. KNAPINSKI*** and J. ADIS***

Review of the millipede genus *Cylindrodesmus* POCOCK, 1889 (*Diplopoda*: *Polydesmida*: *Haplodesmidae*)

Abstract: The genus *Cylindrodesmus* seems to actually comprise only two unquestioned species, (1) *C. hirsutus* POCOCK, 1889 (the type species), a pantropical anthropochore with bisexual populations, usually referred to as *C. hirsutus*, living in various places in the tropics, and parthenogenetic populations, normally referred to as *C. laniger* SCHUBART, 1944, occurring in numerous places in the tropics as well as in a few European hothouses, and (2) *C. villosus* POCOCK, 1898, from Rotuma Island, Pacific Ocean. Lectotypes of *C. hirsutus*, *C. villosus* as well as of *C. palmyrae* CHAMBERLIN, 1954, the latter a long-established junior synonym of *C. laniger*, have been selected, illustrated and discussed. As there are obviously no characters that would allow to distinguish *C. laniger* from *C. hirsutus* other than those apparently related to parthenogenesis, e.g. generally smaller body size, normally a bit more strongly falcate/sigmoid gonopods in the residual males, and the vulvae devoid of well-developed receptacula seminis, the following new synonym is proposed: *C. hirsutus* POCOCK, 1889 = *C. laniger* SCHUBART, 1944, syn.n. Revision of the types of *Inodesmus peduncularis* LOOMIS, 1934, from Surinam, also results in its formal synonymy under *C. hirsutus*, syn.n. It is certainly because of the numerous *C. hirsutus* populations being thelytokous, more or less devoid of males, that this species, and genus, has a pretty long list of synonymies. In addition, *Elatosus* CHAMBERLIN, 1945, monobasic, with *E. pygmaeus* CHAMBERLIN, 1945, from Java, is herewith formalized with *Cylindrodesmus*, and *E. pygmaeus* with *C. hirsutus*, both syn.n.

Key words: *Diplopoda*, *Cylindrodesmus*, taxonomy, new synonymy, anthropochorism, parthenogenesis

Authors' addresses: *Institute for Problems of Ecology and Evolution, Russian Academy of Sciences, Leninsky prospekt 33, Moscow 117071 (V-71), RUSSIA

**Virginia Museum of Natural History, 1001 Douglas Ave., Martinsville 24112, Virginia, U.S.A.

***Max-Planck-Institute for Limnology, Tropical Ecology Working Group, August-Thienemann-Str. 2, D-24306 Plön, GERMANY

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Fragm. faun.	Warszawa, 30.12.2001	44	203-212
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Dariusz SKARŻYŃSKI

Springtails (*Collembola*) of the Karkonosze Mountains (Poland)

Abstract: Faunistic studies in the Polish part of the Karkonosze Mts (W Sudetes) have revealed 128 species, including 5 species new to the fauna of the Sudetes and 41 species new to the fauna of the Karkonosze Mts. The total number of *Collembola* species of the Karkonosze Mts is 145, including species recorded in earlier studies. The author distinguished six zoogeographical elements in the *Collembola* fauna of the Karkonosze Mts: widely distributed, montane, Boreal-montane, Arctic-montane, Circumpolar and endemic. The fauna of springtails of the Karkonosze Mts is roughly comparable to the fauna of East Sudetes with a relatively high proportion of cavicolous and ripicolous species.

Key words: *Collembola*, fauna of the Karkonosze Mountains, Sudetes, Poland

Authors' address: Zoological Institute, Wrocław University, Sienkiewicza 21, 50-335 Wrocław, POLAND;
mail: hypogast@biol.uni.wroc.pl

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Fragm. faun.	Warszawa, 30.12.2001	44	213-227
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Franz W. QUEDNAU * and Seung H. LEE **

**An annotated list of drepanosiphine aphids (*Hemiptera: Aphidoidea*) from Korea.
Part I: *Saltusaphidinae* to *Calaphidinae* from South Korea with the description of a
new species**

Abstract: A total of 53 aphid species from South Korea are listed in the subfamilies *Saltusaphidinae*, *Phyllaphidinae*, *Drepanosiphinae* and *Calaphidinae*. The alate morph and embryo of *Saltusaphis tuberculata* n. sp. are described. This species is closely related to *S. scirpus* Theobald, but differs by the presence of wart-like spinal processes on the abdomen and by its hair-like pointed, not flabellate, dorsal body setae. Twenty aphid species are recorded for the first time on the Korean Peninsula.

Key words: *Hemiptera*, *Aphidoidea*, drepanosiphine aphids, new species, South Korea

Authors' addresses: *Natural Resources Canada, Canadian Forest Service, Laurentian Forestry Centre, 1055 du P.E.P.S., P.O. Box 3800, Sainte-Foy, Quebec, CANADA G1V 4C7; e-mail: fquednau@cfl.forestry.ca

**Division of Entomology, National Institute of Agricultural Science and Technology (NIAST), Suwon 441-707, KOREA; e-mail: seunglee@rda.go.kr

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Fragm. faun.	Warszawa, 30.12.2001	44	229-249
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Katarzyna GOLAN*, Bożena ŁAGOWSKA** and Bożenna JAŚKIEWICZ*

Scale insects (*Hemiptera, Coccoidea*) of the Kazimierz Landscape Park in Poland

Abstract: The studies were carried out in the years 1988–1991 and 1996–1998 in the Kazimierz Landscape Park in eastern Poland. 63 species, including 57 species that are new for that region and 9 species that are rare for the Polish fauna were found out in the material gathered during the research. Qualitative, quantitative and zoogeographical analyses of scale insects groups in various plant communities are presented. The relations between scale insects and plant communities are discussed. The degree of similarity of the species composition in plant communities is determined.

Key words: *Coccoidea*, plant communities, ecological and zoogeographical analysis of groups, Poland

Authors' addresses: *Department of Entomology, University of Agriculture, K. Leszczyńskiego 7, 20-069 Lublin, POLAND

**Department of Environmental Management, Technical University of Białystok, S. Tarasiuka 2, 16-001 Kleosin, POLAND

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Fragm. faun.	Warszawa, 30.12.2001	44	251-268
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Marcin SMOLEŃSKI

The environmental evaluation by synecological zoindication - a proposal of the method based on epigeic invertebrate communities^x

Abstract: This paper presents an original methodological attempt at natural valorization based on the analysis of epigeic invertebrate communities. The essence of the method is in determining the proximity of the real community towards the standard one, the latter elaborated so that it is representative for the ecosystem of given type. The survey, the assessment of the natural value and the evaluation of the anthropopressure are all based on the test describing epigeic communities of invertebrates with the use of seven indices: I. Per cent share: (1) per cent share of characteristic - exclusive species F_3 ; and total of characteristic exclusive and choosing species F_3+F_2 ; (2) the index of community uniqueness S_c ; (3) the index of community stability N_c ; (4) the index of species diversity H' ; (5) the index of community natural quality B_c ; (6) the index of dynamic heterogeneity DHt ; (7) the index of habitat species capacity P_c .

Key words: natural valorization, zoindication, indices, method, epigeic communities, invertebrates

Author's address: Museum and Institute of Zoology PAS, Wilcza 64, 00-679 Warszawa, POLAND

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Fragm. faun.	Warszawa, 30.12.2001	44	269-300
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Marcin SMOLEŃSKI

**The environmental evaluation of coastal pine forests of the Łebsko sand bar by
zooindication based on epigeic staphylinid communities (*Coleoptera*,
Staphylinidae)^x**

Abstract: The coastal pine forest bioindication has been carried out with use of epigeic staphylinid communities and applying the test containing seven zooindicative indices. The empirical standard of *Empetro nigri* *Pinetum* epigeic communities of staphylinids enabled the natural value valorization and man-made changes assessment in the ecosystem. The natural valorization of coastal pine forest of the Mierzeja Łebska sand bar has been based on the four indices: the index of uniqueness S_c , natural quality B_c , equability J' and general species diversity H' . The system of natural valorization discriminates the ecosystems into six valorization classes: from the most valuable to the poorest one.

Key words: natural valorization, zooindication, communities, *Staphylinidae*, *Empetro-nigri pinetum* – coastal pine forest, Słowiński National Park

Author's address: Museum and Institute of Zoology PAS, Wilcza 64, 00-679 Warszawa, POLAND

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Fragm. faun.	Warszawa, 30.16.2001	44	301-308
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Marcin SMOLEŃSKI

The use of similarity analysis in the environmental research – a case study of multispecies invertebrate communities^x

Abstract: Similarity analysis was carried out with use of two techniques, the Ward method and Renkonen method, in order to analyze staphylinid (*Coleoptera: Staphylinidae*) epigeic communities of the coastal pine forest. This attempt enabled a multilateral spatial description of the coastal pine forest microsite structure including the domination structure of microsites, the degree of their isolation, and the migration impact and edge effect of ecotone zones.

Key words: similarity, communities, *Staphylinidae*, *Empetro-nigri Pinetum* – coastal pine forest

Author's address: Museum and Institute Zoology PAS, Wilcza 64, 00-679 Warszawa, POLAND

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R. Henry L. DISNEY

Sciadoceridae (Diptera) reconsidered

Abstract: TONNOIR's (1926) assignment of *Sciadocera rufomaculata* WHITE to the *Phoridae* is supported and SCHMITZ's (1929) transfer of it and *Archiphora patagonica* SCHMITZ to a separate family, *Sciadoceridae*, is rejected. The growing number of fossils bridging the gap between *Sciadoceridae* and *Phoridae* support the view that the sciadocerids are merely an assortment of *Phoridae* that share some plesiomorphic features.

Key words: *Diptera*, *Phoridae*, *Sciadoceridae*, *Aschiza*, systematic position

Author's address: University Department of Zoology, Downing Street, Cambridge CB2 3EJ, U. K.
e-mail: rhld2@hermes.cam.ac.uk

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Fragm. faun.	Warszawa, 30.12.2001	44	319–328
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R. Henry L. DISNEY and Martin D. F. ELLWOOD

An intriguing new genus of scuttle fly (*Diptera: Phoridae*) from Borneo

Abstract: *Dohrnigma nudifrons* n. gen., n. sp. is described from Borneo. It seems to represent a transitional form related to *Dohrniphora* DAHL. *Synaptophora* BROWN is transferred to the *Diplonevrini*, which in turn is removed from the subfamily *Aenigmatiinae*.

Key words: *Diptera*, *Phoridae*, new genus, new species, Oriental Region, phylogeny.

Authors' address: University Museum of Zoology, Downing Street, Cambridge CB2 3EJ, UK

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Fragm. faun.	Warszawa, 30.12.2001	44	329-340
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R. Henry L. DISNEY* and Marina V. MICHAILOVSKAYA**

New species and new records of *Puliciphora* DAHL (*Phoridae: Diptera*) from Russia, India and the Seychelles

Abstract: *Puliciphora taigae* n. sp. and *P. spirapensis* n. sp. are described from the far east of Russia, and *P. puerilis*, from Madeira and the Canary Islands, is synonymised with *P. borinquensis*. A key to the Palaearctic species is provided. *P. collinsi* and *P. pulex* are reported from India, and the latter from the Seychelles as well. The hitherto unknown male of the former is described and that of the latter amplified. Adults of *P. tokyoensis* emerging in summer were exclusively females, suggesting that facultative parthenogenesis gives rise to this generation.

Key words: *Phoridae*, *Puliciphora*, new species, synonymy, Palaearctic, Oriental, key, parthenogenesis.

Authors' addresses: * University Museum of Zoology, Downing Street, Cambridge CB2 3EJ, UK

**Mountain Taiga Station, Far Eastern Branch, Russian Academy of Sciences, Gornotayozhnoe, Primorski krai, 692533, RUSSIA

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Fragm. faun.	Warszawa, 30.12.2001	44	341-351
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Waldemar MIKOŁAJCZYK

***Mycetophilidae* s.l. (Diptera) of linden-oak-hornbeam woods in the Białowieża National Park**

Abstract: Fungus gnats were studied in linden-oak-hornbeam woods, the most representative plant associations in the Białowieża National Park. The species composition, abundance and frequency of *Mycetophilidae* s. l. at three selected sites were compared. 257 species were recorded. Most of the material was collected by netting, some by light and by odour baits.

Key words: *Diptera*, *Mycetophilidae* s.l., linden-oak-hornbeam woods (*Tilio-Carpinetum*), Białowieża National Park, Poland.

Author's address: Museum and Institute Zoology PAS, Wilcza 64, 00-679 Warszawa, POLAND

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Dušan CYPRICH*, Jan PINOWSKI**, Miroslav KRUMPÁL*

Occurrence of *Ceratophyllus pullatus* JORDAN et ROTHSCCHILD, 1920 (*Siphonaptera*) in Poland

Abstract: About 2000 specimens of fleas (*Siphonaptera*) were taken from 54 nests of the house sparrow (*Passer domesticus*) and 184 nests of the tree sparrow (*Passer montanus*) in central Poland. Among them, *Ceratophyllus pullatus* JORDAN et ROTHSCCHILD, 1920, represented by two males, is formally new to the Polish fauna.

Key words: *Ceratophyllus pullatus*, *Siphonaptera*, nest, *Passer* spp., *Aves*, central Poland, faunistics

Authors' addresses: * Department of Zoology, Comenius University, Mlynská dolina B-1, 84215 Bratislava, Slovak Republic

**Department of Vertebrate Ecology, Institute of Ecology of PAS, 05-092 Łomianki, Dziekanów Leśny, Poland

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Fragm. faun.	Warszawa, 30.12.2001	44	357-364
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Maria WOLAK

Rare spider species (*Araneae*) in agrocoenoses

Abstract: The spider fauna of four balks in agricultural landscape of Eastern Poland was analysed. Spiders known as agrobionts were most abundant but a few species rare for Poland were also recorded. Some spiders immigrated from other unmanaged areas (small woodlands) were found in the balks, indicating that these habitats act as ecological corridors. An analysis of spider fauna composition reveals that the presence of balks increases biodiversity in agroecosystems.

Key words: agrocoenoses, balks, organic farming, spiders

Authors' addresses: Katedra Zoologii, Akademia Podlaska, ul. Prusa 12, 08-110 Siedlce, POLAND;
e-mail: wolak@siedlce.pl

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Piotr SKUBAŁA*, Ritva NIEMI**, Izabela MLECZKO***

Oribatid mite fauna of greenhouses in Upper Silesia, Poland

Abstract: Oribatid mites occurring in greenhouses in Gliwice and Sosnowiec (Upper Silesia) from different vegetation types (tropical, cultivated, desertic, temperate ones) were investigated. In total 1715 oribatids, representing 58 species, were collected. The oribatid fauna was accidentally established as a result of using soil from different sources. The oribatid mite communities were poorly developed. Differences in the structure of oribatid communities were not significant. Furthermore, relationships between oribatids and specific plant species were not revealed for most oribatids. Eight rare species arriving by passive transport were collected.

Key words: *Oribatida*, greenhouses, passive dispersal

Authors' addresses: *University of Silesia, Department of Ecology, Bankowa 9, 40-007 Katowice, POLAND; e-mail: pskubala@us.edu.pl;

**University of Turku, Zoological Museum FIN-20014 Turku, FINLAND; e-mail: ritniemi@utu.fi;

***Warszawska 49/8, 40-010 Katowice, POLAND