

Species composition of the harvestmen (Arachnida: Opiliones) in biocoenoses of the vicinities of Minsk (Belarus)

Видовой состав сенокосцев (Arachnida: Opiliones) в биогеоценозах пригорода Минска (Беларусия)

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ABSTRACT. The species composition and distribution of the harvestmen in different biocoenoses of the vicinities of Minsk (Belarus) is reviewed. Twenty-four species are identified, (sub)dominant and rare species are recognized.

РЕЗЮМЕ. Выявлен видовой состав и распределение сенокосцев в различных биогеоценозах пригородов Минска (Беларусь). Установлено 24 вида, выделены (суб)доминанты и редкие виды.

KEY WORDS: Belarus, harvestmen, species composition, biocoenosis, abundance.
КЛЮЧЕВЫЕ СЛОВА: Беларусь, сенокосцы, видовой состав, биогеоценоз, численность.

Introduction

The harvestman fauna of Belarus is poorly studied. There are some faunistic data for the harvestmen of European Russia [Roewer, 1923; Redikortsev, 1936; Šilhavý, 1956; Starega, 1976, 1978, 1979; Chevrizov, 1979; Georgiev, 1992], however, the only paper dealing with Opiliones of Belarus is that by Starega [1978], who listed eight species without giving exact localities. Recently, I started studying the opilionid fauna of Belarus and have preliminarily identified 18 species [Shavanova, 1999]. The aim of this short paper is to interpret the fauna and habitat preferences of Opiliones in the vicinities of Minsk, the capital of Belarus.

Material and methods

The following habitat types in the vicinities of Minsk were surveyed: spruce forest, sticky

alder forest, upland meadows and agricultural fields of perennial grasses. Harvestmen were collected by hand and using pitfall traps (31 traps, checked after ten days). In total, 3 964 harvestmen were collected. Chevrizov [1979] and D'Amico [1986, 1987] were used for identification and P. Mitov (Sofia, Bulgaria) verified identifications of all species. The Opiliones collection reported here is kept in the Institute of Zoology (Minsk, Belarus).

Results and discussion

The harvestmen collected belong to two families (Table): Nemastomatidae (one species only: *Nemastoma bimaculatum*) and Phalangidae (23 species). Most of the recorded species are widespread, having European, Euro-Siberian or Holarctic ranges. On the basis of habitat preferences, two species complexes can be

Table.
Species composition and abundance (% of the total number) of harvestmen in biocoenoses of the vicinities of Minsk (1995–1996).

Таблица.
Видовой состав и обилие (% от общего количества) сенокосцев в биоценозах пригородов Минска (1995–1996).

No.	Species	Number of specimens collected	Open habitats		Forest habitats	
			Upland meadows	Perennial grasses forest	Spruce forest	Sticky alder
1.	<i>Mitostoma chrysomelas</i> (Hermann, 1804)	103	5.5	9.7	5.5	3.1
2.	<i>Nemastoma bimaculatum</i> (Fabricius, 1775)	206	0.8	2.7	10.5	11.4
3.	<i>Leiobunum rupestre</i> (Herbst, 1799)	2			0.2	
4.	<i>L. blackwalli</i> Meade, 1861	1		0.9		
5.	<i>Paroligolophus agrestis</i> (Meade, 1855)	1			0.1	
6.	<i>Mitopus morio</i> (Fabricius, 1779)	23			2.3	0.3
7.	<i>M. bidentatus</i> (Morin, 1934)	3		2.6		
8.	<i>Oligolophus tridens</i> (C.L. Koch, 1836)	380	13.8	17.7	17.9	17.6
9.	<i>Odiellus troguloides</i> (Lucas, 1847)	145	4.0	5.3	8.0	6.1
10.	<i>O. bieniaszi</i> (Kulczyński, 1909)	2				0.2
11.	<i>Lacinius ephippiatus</i> (C.L. Koch, 1835)	327	11.0		11.6	20.7
12.	<i>L. dentiger</i> (C.L. Koch, 1848)	470	13.4	6.2	21.8	24.9
13.	<i>L. horridus</i> (Panzer, 1794)	86	0.8	0.9	5.8	3.3
14.	<i>Rilaena triangularis</i> (Herbst, 1799)	4	0.4		0.1	0.2
15.	<i>Phalangium opilio</i> (Linnaeus, 1761)	108	25.2	30.1	0.3	0.5
16.	<i>Lophopilio palpinalis</i> (Herbst, 1799)	240	0.8	1.8	15.5	10.5
17.	<i>Platybunus cirdei</i> Avram, 1964	18	3.1	5.3	0.1	0.3
18.	<i>P. bucephalus</i> (C.L. Koch, 1835)	95		8.8		
19.	<i>P. pinetorum</i> (C.L. Koch, 1839)	16		5.3		0.1
20.	<i>Opilio parietinus</i> (De Geer, 1778)	19	6.7		0.1	0.1
21.	<i>O. dinaricum</i> Šilhavý, 1938	15	4.0	1.8		0.3
22.	<i>O. redikorzevi</i> Roewer, 1951	14	4.3	0.9		0.2
23.	<i>O. saxatilis</i> C.L. Koch, 1839	1				0.1
24.	<i>Egaenus convexus</i> (C.L. Koch, 1835)	1	0.4			

characterized: those that live in open landscapes and those that live in forests.

The species complex of open landscapes (i.e., upland meadows and agricultural fields of perennial grasses) is dominated by one species, *Phalangium opilio* (25.2–30.1% of the encountered individuals). This species occurs in forests in very low numbers (0.3–0.5%, depending on the forest type). The subdominant species of open landscapes was *Oligolophus tridens* (13.8–17.7%). The total opilionid fauna of the upland meadows numbers 17 species, of which one (*Egaenus convexus*) was found to be strictly restricted to this habitat. The fauna of the agricultural fields consists of 15 species, of which two (*Leiobunum blackwalli* and *Mitopus bidentatus*) were confined to this habitat type.

Both forest biocoenoses were dominated by the same species, *Lacinius dentiger* (21.8–24.9%); the subdominants were also identical: *Oligolophus tridens*, *Lacinius ephippiatus* and

Nemastoma bimaculatum. The harvestman fauna of the spruce forest consisted of 16 species, with two of them (*Leiobunum rupestre* and *Paroligolophus agrestis*) confined to this habitat. The species complex of the sticky alder forest was richest, numbering 19 species, two of which (*Opilio saxatilis* and *Odiellus bieniaszi*) were not found outside this habitat. The abundance of *Opilio dinaricum*, *O. parietinus* and *Platybunus cirdei* was low in all habitats (0.1–5.3%).

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