

An annotated checklist of spiders (Arachnida: Aranei) of the National Nature Park 'Buzkyi Hard' (Mykolaiv Area, Ukraine)

Аннотированный список пауков (Arachnida: Aranei) национального природного парка «Бугский Гард» (Николаевская область, Украина)

N.Yu. Polchaninova¹, V.A. Gnelitsa², K.V. Evtushenko³,
E.N. Singaevsky⁴
Н.Ю. Полчанинова¹, В.А. Гнелица², К.В. Евтушенко³,
Е.Н. Сингаевский⁴

¹ V.N. Karazin Kharkiv National University, Maidan Svobody, 4, Kharkiv 61022 Ukraine. E-mail: n.polchaninova@karazin.ua
Харьковский национальный университет им. В.Н. Каразина, пл. Свободы, 4, Харьков 61022 Украина

² Sumy State University, Rimsky-Korsakov Str. 2, Sumy 40007 Ukraine. E-mail: gnelitsav@gmail.com
Сумской государственный университет, ул. Римского-Корсакова, 2, Сумы 40007 Украина.

³ I.I. Schmalhausen Institute of Zoology of NAS of Ukraine, B. Khmelnytsky Str., 15, Kyiv 01601 Ukraine. E-mail: evt@izan.kiev.ua
Институт зоологии им. И.И. Шмальгаузена Национальной академии наук Украины, ул. Богдана Хмельницкого, 15, Киев 01601 Украина.

⁴ Taras Shevchenko National University of Kyiv, Volodymyrska Str., 64/13, Kyiv 01601 Ukraine. E-mail: filantus@gmail.com
Киевский национальный университет им. Тараса Шевченко, ул. Владимирская, 64/13, Киев 01601 Украина.

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КЛЮЧЕВЫЕ СЛОВА: пауки, фауна Европы, список видов, охраняемые территории.

ABSTRACT. The present annotated checklist of spiders of the National Nature Park 'Buzkyi Hard' (Mykolaiv Area, Ukraine) is based on the author's material collected in 1997, 2006, 2007, 2012, and 2013. The list includes 266 species of 28 families recorded in the habitats typical of the lower Pivdennyi Buh River region: granite outcrops, forb-bunchgrass steppe, dry and mesic meadows, rocky and floodplain forests, tree plantations, wetlands. It is the first results of long-term arachnological studies in this area. Records of the rare species with mosaic distribution (*Neottiura suaveolens*, *Cyclosa sierrae*, *Dysdera lata*), as well as the species having geographic boundaries in the area at hand (*Canariphantes nanus*, *Mimetus laevigatus*, *Agynera saaristoi*, *Zelotes apricorum*), confirm the high conservation value of the National Nature Park 'Buzkyi Hard'.

РЕЗЮМЕ. Данный аннотированный список пауков национального природного парка 'Бугский Гард' (Николаевская обл., Украина) основан на сборах авторов, проведенных в 1997, 2006, 2007, 2012 и 2013 гг. Список включает 266 видов из 28 семейств, собранных в биотопах, типичных для области нижнего течения р. Южный Буг: на гранитных обнажениях, в разнотравно-дерновиннозлаковой степи, на сухих и увлажненных лугах, в скальных и пойменных лесах, лесопосадках, околород-

ных биотопах. Это первые результаты долговременных арахнологических исследований на данной территории. Находки редких видов с мозаичным распространением (*Neottiura suaveolens*, *Cyclosa sierrae*, *Dysdera lata*), а также видов, имеющих границы ареалов в районе исследования (*Canariphantes nanus*, *Mimetus laevigatus*, *Agynera saaristoi*, *Zelotes apricorum*) подтверждают высокую природоохранную ценность НПП 'Бугский Гард'.

Introduction

A taxonomic inventory is the first step in assessing biodiversity of each locality, and is of particular importance for protected areas. Being a backbone of ecological and geographical studies, species lists provide databases for monitoring fauna and flora changes under protective regimes. Such data can be used in ecological planning and management of nature parks and reserves [Adler, Lauenroth, 2003].

The National Nature Park 'Buzkyi Hard' was established for the conservation of natural landscapes of South Ukraine in 2009. The Park is located at the southwest edge of the Ukrainian Crystalline Shield in the valley of the Pivdennyi Buh River and its two tributaries, Velyka Korabelna and Mertvovod (Fig. 1). According to the geobotanical regioning of Ukraine, the park territory belongs to the steppe zone, the sub-



Fig. 1. Map of collecting localities.
Рис. 1. Карта с указанием мест сбора.

zone of northern steppes, Dniester-Buh and Kryvyi Rih districts of forb-bunchgrass steppes, bairak forests (natural forests in the gullies in steppe and forest-steppe zones), and the vegetation of granite outcrops [Barbarych, 1997]. Total area of the Park is 6138.13 ha; it consists of three sectors: Myhiiske, Bohdanivske and Trykratske.

Until now, only nine spider species have been reported for the 'Buzkyi Hard' [Polchaninova, 2015a]. For *Alopecosa kovblyuki*, the Park represents a westernmost known locality of its range [Nadolny *et al.*, 2012]. Four species recorded from the Park were used as the comparative material in a review of the genus *Haplodrassus* in the Crimea: *H. bohemicus* Miller *et* Buchar, 1977, *H. kulczyński* Lohmander, 1942, *H. minor* (O. Pickard-Cambridge, 1879), and *H. pseudo-signifer* Marusik, Hippa *et* Koponen, 1996 [Kovblyuk *et al.*, 2012]. Four species were mentioned as rare and patchily distributed in the survey of spiders of Mykolaiv Area: *Neottiara suaveolens* (Simon, 1879), *Cyclosa sierrae* Simon, 1870, *Mimetes laevigatus* (Keyserling, 1863), and *Zelotes apricorum* (L. Koch, 1876) [Polchaninova, 2015a].

The first arachnological studies along the Pivdennyi Buh River between Myhiya and Yuzhnoukrainsk had been conducted by one of us (K. Evtushenko) in 1997, long before the National Park was established. At that time, the territory had a lower conservation status, simply as a Regional Landscape Park. Then V. Gnelitsa and N. Polchaninova continued investigations in 2006, 2007, 2012 and 2013, and E. Singaevsky added a small collection in 2012.

The aims of the present paper are (1) to combine all the spider material collected in different years, (2) to compile an annotated list of spiders of the National Nature Park 'Buzkyi Hard' and its vicinity, and (3) to comment on species of a high conservation value.

Material and methods

Arachnological studies were conducted in June 1997, April–June 2006, May–June 2007, September 2007, April 2012, and August 2013 in the vicinities of the following villages: Kuripchyne (48°00'28"N 31°00'57"E) and Myhiya (48°02'23"N 30°56'48"E) – the Myhiiske sector of the Park; Bohdanivka (47°48'48"N 31°09'23"E) and Yuzhnoukrainsk (47°49'18"N 31°10'30"E) – the Bohdanivske sector of the Park; Aktove (47°42'48"N 31°27'28"E) and Trykraty (47°42'59"N 31°24'17"E) – the Trykratske sector of the Park.

The material was collected by standard collecting methods:

1. Pitfall trapping. 250 ml plastic caps with the 4% formalin as preservative were set up in a line of 5–10 traps at a distance of 10 m from each other in 25 studied habitats: six lines in the Bohdanivske sector (StGr6, W4, F2, F14, FE2, FE6, 4.05–5.06.2007, collector N.Yu. Polchaninova (N.P.); its habitats' description and abbreviations are given in Table 1); 17 lines in the Myhiiske sector (St13, F9, FE4, 3.05–10.06.2006; StGr3, M8, F1, F10, FE1, FE5, 4.05–7.06.2006; StGr1, StGr2, M4, M5, M12, W1, 7.05–9.06.2007, collector N.P.; M10, F12, 22–29.06.1997, collector K.V. Evtushenko — K.E.) and two lines in the Trykraty sector (StGr7, 17–20.04.2012; F22, 18–21.04.2012, collector E.N. Singaevsky — E.S.). A total of 2431 adult spider specimens was collected by pitfall traps.

2. Sweep netting. We used 30-cm diameter entomological sweep-nets and took five repetitions of 25 double-sweeps per habitat in the forb-bunchgrass and granitic steppes, dry, wet and shrub meadows, along the edges of rocky oakeries, flood plain forests and forest plantations. Samples were taken by the corresponding collectors at the same periods as pitfall-trapping (see above), as well as by N.P. on 20.09.2007 and 19–23.08.2013. This method produced 986 adult individuals.

3. Hand collecting. The standard procedures of searching spiders under stones, tree bark and stamps, in crevices, etc, the beating of tree branches and brushing of vertical surfaces produced 552 adult spiders (E.S., K.E., N.P). V.A. Gnelitsa's (V.G.) collection, which was aimed at the Linyphiidae only, resulted in 773 adult specimens.

The total material accounts for 4742 adult spiders recorded from 89 localities.

We arranged collecting localities by the habitat types and provided them with geographic coordinates, name of the nearest village/town, and the collector name (see Table 1).

The recorded taxa are listed below in the alphabetic order following the nomenclature adopted from the World Spider Catalogue [2017] with minor changes. A total number of the collected species in a particular family is given in parenthesis after the family name. We mentioned several species based on juveniles, if adults from a certain Park sector were absent. In the following list, each species is provided with a number

Table 1. Collecting localities and brief habitat descriptions.
Таблица 1. Пункты сборов и краткое описание биотопов.

Abbreviation	Nearest village/town	Geographic coordinates		Description	Collector
ZONAL FORB-BUNCHGRASS STEPPE					
St1	Aktove	47.7007°N	31.4385°E	forb-bunchgrass steppe on the top slopes	NP
St2	Trykraty	47.7310°N	31.4294°E	5°–10° E slope, sparse small <i>Crataegus</i> bushes; in grass	VG, ES
St3	Myhiya	48.0173°N	30.9710°E	flat-interfluves steppe with <i>Cytisus</i> ; in grass and dead plant residues	VG
St4	Myhiya	47.9990°N	31.0021°E	flat-interfluves steppe, sparse <i>Crataegus</i> and stunted <i>Quercus</i> with grasses, forbs and moss; in grass and on the soil	VG
St5	Myhiya	47.9712°N	31.0377°E	steppe by the top hill; in grass near the small bushes	VG
St6	Trykraty	47.7310°N	31.4294°E	flat-interfluves steppe; in grass and on the soil	VG
St7	Trykraty	47.7310°N	31.4294°E	narrow gully with steppe vegetation; in grass and on the soil at the sides of a shallow depression	VG
St8	Myhiya	48.0099°N	30.9788°E	10° S slope along the river, forb-grass steppe with small bushes	VG
St9	Myhiya	48.0255°N	30.9627°E	40° SW slope of a granite hill; steppe, in grass	VG
St10	Myhiya	48.0098°N	30.9822°E	20° SE slope, steppe with small bushes, <i>Tragopogon</i> , <i>Thymus</i> , <i>Artemisia</i> ; in grass	VG
St11	Myhiya	48.0077°N	30.9865°E	15°–20° W slope, gramineous steppe with <i>Achillea</i> ; in grass	VG
St12	Trykraty	47.7310°N	31.4294°E	20° E slope, gramineous steppe with small <i>Prunus</i> bushes; in grass and dead plant residues near the bushes and in burrows of small rodents	VG
St13	Myhiya	48.0322°N	30.9175°E	steppe vegetation on a clayey slope	NP
St14	Myhiya	48.0186°N	30.9685°E	10° S slope, sparse <i>Crataegus</i> and <i>Rosa</i> , grasses, forbs; in grass and on the soil	VG
St15	Trykraty	47.7310°N	31.4294°E	E slope, small <i>Crataegus</i> and <i>Prunus</i> bushes with young <i>Pyrus</i> trees; in grass and in moss	VG
GRANITE OUTCROPS					
Gr1	Yuzhnoukrainsk	47.8208°N	31.1303°E	bare granite outcrops	KE
STEPPE ON THE GRANITIC ROCK ("GRANITIC STEPPE")					
StGr1	Myhiya	48.0397°N	30.9713°E	granitic steppe	NP
StGr2	Myhiya	48.0163°N	30.9727°E	granitic steppe	NP
StGr3	Kuripchyne	47.9983°N	30.0022°E	granitic steppe	NP
StGr4	Kuripchyne	47.9978°N	31.0000°E	granitic steppe	KE
StGr5	Bohdanivka	47.8208°N	31.1300°E	granitic steppe	KE
StGr6	Yuzhnoukrainsk	47.8178°N	31.1647°E	granitic steppe	NP
StGr7	Myhiya	48.0171°N	30.9715°E	steppe on a SW slope; in grass and in soil depressions near the large stones	VG, ES
StGr8	Trykraty	47.7310°N	31.4294°E	5°–10° E slope, granitic outcrops with the soil between the stones, moss, lichens, <i>Viola</i> , <i>Iris</i> ; in moss and on the soil	VG
StGr9	Trykraty	47.7310°N	31.4294°E	10°–30° stony slope, sporadic young <i>Pyrus</i> and <i>Crataegus</i> , grasses with <i>Ficaria</i> and moss; in grass, moss and on the soil	VG, ES
MEADOWS					
M1	Kuripchyne	47.8144°N	31.1683°E	meadow on the mid slope	KE
M2	Yuzhnoukrainsk	47.8217°N	31.1297°E	meadow on the mid slope	KE

Table 1 (continued).
Таблица 1 (продолжение).

Abbreviation	Nearest village/town	Geographic coordinates		Description	Collector
MEADOWS					
M3	Myhiya	48.0186°N	30.9685°E	25° S slope, sporadic <i>Crataegus</i> with grasses; in grass, on the soil and in burrows of small rodents	VG, ES
M4	Myhiya	48.0186°N	30.9681°E	meadow on the foot slope by the river	NP
M5	Myhiya	48.0125°N	30.9731°E	dry meadow in the river floodplain	NP
M6	Trykraty	47.7310°N	31.4294°E	rather dry meadow near the river; in grass, on the soil and in burrows of small rodents	VG
M7	Myhiya	48.0153°N	30.9695°E	10° SW slope of the river bank, meadow, sporadic <i>Elaeagnus</i> , <i>Crataegus</i> , <i>Sambucus</i> ; in grass	VG
M8	Kuripchyne	47.9989°N	30.9942°E	shrub meadow in the river floodplain	NP
M9	Myhiya	47.9950°N	31.0092°E	meadow near the river, sporadic <i>Ulmus</i> , <i>Prunus</i> , <i>Rosa</i> with moss; in dead leaves near the stones	VG, ES
M10	Kuripchyne	48.0014°N	30.9906°E	floodplain meadow	KE
M11	Yuzhnoukrainsk	47.8206°N	31.1586°E	floodplain meadow	KE
M12	Myhiya	48.0164°N	30.9694°E	wet meadow in the river floodplain	NP
M13	Myhiya	48.0267°N	30.9626°E	wet meadow in the river floodplain, solitary <i>Salix</i> and <i>Amorpha</i> with <i>Calamagrostis</i> , <i>Typha</i> , <i>Phragmites</i> , <i>Acorus</i> , <i>Juncus</i> ; in grass and in dead plants near the water	VG
OPEN WOODLANDS					
W1	Myhiya	48.0392°N	30.9706°E	open woodland with shrubs	NP
W2	Kuripchyne	48.0011°N	30.9928°E	sporadic <i>Quercus</i> and <i>Acer</i> trees with shrubs and grass	KE
W3	Bohdanivka	47.8208°N	31.1339°E	sporadic <i>Quercus</i> and <i>Acer</i> trees with shrubs and grass	KE
W4	Yuzhnoukrainsk	47.8178°N	31.1639°E	open woodland with shrubs	NP
W5	Myhiya	48.0200°N	30.9697°E	small open pit, young <i>Ulmus</i> , <i>Elaeagnus</i> , <i>Crataegus</i> with grass; in dead leaves and under the stones	VG
W6	Myhiya	48.0166°N	30.9701°E	slope near the river, <i>Crataegus</i> brushwood; in grass	VG
W7	Trykraty	47.7310°N	31.4294°E	<i>Crataegus</i> brushwood; in grass	VG
FORESTS					
F1	Kuripchyne	47.9972°N	30.0117°E	oak forests in the narrow ravines on a steep granitic river bank, so-called "rocky oakeries"	NP
F2	Yuzhnoukrainsk	47.8197°N	31.1569°E	rocky oakery	NP
F3	Myhiya	48.0018°N	30.9909°E	forest on a 5° S slope, <i>Robinia</i> , <i>Quercus</i> , <i>Sambucus</i> ; in grass and soil litter under fallen brunches	VG
F4	Myhiya	48.0108°N	30.9824°E	forest on a 45° ESE gully slope, <i>Quercus</i> , <i>Acer</i> ; in dead leaves near the tree trunks	VG
F5	Trykraty	47.7310°N	31.4294°E	thinness <i>Quercus</i> and <i>Acer</i> with <i>Cornus</i> ; in dead leaves near the stones and tree trunks	VG
F6	Myhiya	48.0086°N	30.9856°E	deciduous forest in a ravine, <i>Ulmus</i> , <i>Quercus</i> , <i>Populus</i> with <i>Crataegus</i> and <i>Euonymus</i> ; in dead leaves near the tree trunks	VG
F7	Yuzhnoukrainsk	47.8051°N	31.1686°E	deciduous forest in a ravine	KE
F8	Trykraty	47.7310°N	31.4294°E	20° W slope, <i>Quercus</i> plantation with <i>Cornus</i> ; in litter and near the tree trunks	VG
F9	Myhiya	48.0314°N	30.9161°E	forest plantation in the river floodplain	NP

Table 1 (continued).
Таблица 1 (продолжение).

Abbreviation	Nearest village/town	Geographic coordinates		Description	Collector
FORESTS					
F10	Kuripchyne	47.9975°N	30.0027°E	forest plantation in the river floodplain	NP
F11	Aktove	47.7007°N	31.4385°E	forest plantation on the lake bank	NP
F12	Kuripchyne	47°59'58"N	30°59'32"	floodplain forest	KE
F13	Yuzhnoukrainsk	47.8117°N	31.1764°E	floodplain forest	KE
F14	Yuzhnoukrainsk	47.8197°N	31.1569°E	floodplain forest	NP
F15	Myhiya	48.0024°N	30.9903°E	forest on the river bank: <i>Acer</i> , <i>Ulmus</i> , <i>Populus</i> with grasses and ruderal vegetation; in grass and on the soil	VG
F16	Myhiya	48.0297°N	30.9404°E	forest on the river bank, <i>Populus</i> , <i>Acer</i> , <i>Salix</i> with <i>Phragmitis</i> and grass; in grass and dead leaves	VG
F17	Myhiya	48.0297°N	30.9404°E	forest on the river bank, <i>Populus</i> , <i>Acer</i> , <i>Salix</i> with <i>Phragmitis</i> and grass; in grass and on the soil near the tree trunks	VG
F18	Trykraty	47.7310°N	31.4294°E	forest on the river bank, 5° S slope, <i>Quercus</i> , <i>Acer</i> , <i>Cornus</i> ; in dead leaves and on the soil	VG
F19	Myhiya	48.0015°N	30.9912°E	forest on the river bank, <i>Populus</i> , <i>Acer</i> , <i>Ulmus</i> with <i>Padus</i> bushes; in dead leaves and on the soil near the <i>Populus</i> trunks	VG
F20	Myhiya	47.9701°N	31.0382°E	floodplain, place between two rocks, <i>Quercus</i> , <i>Sambucus</i> , <i>Euonymus</i> with moss; in moss and dead leaves	VG
F21	Myhiya	47.9990°N	31.0021°E	forest on the river bank, <i>Populus</i> , <i>Acer</i> , <i>Ulmus</i> with <i>Padus</i> bushes; in dead leaves and on the soil near the <i>Populus</i> trunks	VG
F22	Trykraty	47.7298°N	31.4298°E	<i>Quercus</i> plantation with <i>Cornus</i>	ES
F23	Trykraty	47.7310°N	31.4294°E	<i>Quercus</i> , <i>Fraxinus</i> , <i>Acer</i> forest near the rock, in litter and near the tree trunks	VG
FOREST EDGES					
FE1	Kuripchyne	47.9972°N	30.0117°E	edges of rocky oakeries	NP
FE2	Yuzhnoukrainsk	47.8197°N	31.1569°E	edges of the oakery on a hill top	NP
FE3	Myhiya	48.0304°N	30.9440°E	edge of a rocky oakery	VG
FE4	Myhiya	48.0314°N	30.9161°E	edges of the forest plantations in the river floodplain	NP
FE5	Kuripchyne	47.9978°N	30.0025°E	edges of the forest plantations in the river floodplain	NP
FE6	Yuzhnoukrainsk	47.8200°N	31.1569°E	edge of a floodplain forest	NP
FE7	Aktove	47.7007°N	31.4385°E	edge of a forest plantation on the lake bank	NP
FE8	Myhiya	48.0101°N	30.9810°E	edge of a gully forest: <i>Quercus</i> , <i>Crataegus</i> , <i>Euonymus</i> , <i>Sambucus</i> ; in dead leaves	VG
FOREST SPRINGS					
S1	Myhiya	48.0086°N	30.9856°E	broad-leaved forest in a gully; in grass between the roots of trees and bushes near the water	VG
S2	Myhiya	48.0090°N	30.9855°E	45° NW slope, <i>Acer</i> , <i>Euonymus</i> with grasses and forbs; in grass near the stones by the water	VG
RIVER/LAKE BANKS					
B1	Myhiya	48.0183°N	30.9682°E	in dead plant remnants among the silt covered grasses near the water	VG
B2	Trykraty	47.7310°N	31.4294°E	in dead plant remnants among <i>Phragmitis</i> and <i>Carex</i> near the water	VG

Table 1 (continued).
Таблица 1 (продолжение).

Abbreviation	Nearest village/town	Geographic coordinates		Description	Collector
RIVER/LAKE BANKS					
B3	Myhiya	48.0153°N	30.9695°E	by the water, in grass and <i>Carex</i> covered with silt	VG
B4	Trykraty	47.7310°N	31.4294°E	<i>Carex, Phragmitis</i> ; on the soil near the water	VG
B5	Trykraty	47.7310°N	31.4294°E	<i>Carex, Phragmitis, Typha</i> ; in dead plant remnants, in grass and on the soil	VG
B6	Yuzhnoukrainsk	47.8214°N	31.1575°E	river bank, in riparian vegetation	NP
B7	Myhiya	48.0308°N	30.9061°E	bank of a former river-bed, in riparian vegetation	NP
B8	Myhiya	48.0233°N	30.9611°E	sandy river bank, sparse vegetation	NP
B9	Aktove	47.7007°N	31.4385°E	bank of a man-made lake	NP
DWELLINGS AND HOUSEHOLD BUILDINGS					
D1	Myhiya	48.0300°N	30.9442°E	rural house	NP
D2	Kuripchyne	48.0036°N	31.0197°E	rural houses and sheds	NP

of males/females, the locality code (in square brackets, see Table 1) and collecting date(s). Abbreviations of the collectors' names are given only in the case of joint expeditionary work in the same locality. The localities are arranged by the name of the nearest village/town: **A.** — Aktove, **B.** — Bohdanivka, **K.** — Kuripchyne, **M.** — Myhiya, **T.** — Trykraty, **Y.** — Yuzhnoukrainsk.

The bulk of the studied material is deposited in authors' personal collections. Six species (17 specimens) were transferred to the National Arachnological Collection registered in the V.I. Vernadsky Taurida National University (TNU), Simferopol, the Crimea (curator: M.M. Kovblyuk); 36 species (150 specimens) will be deposited in the collection of the Manchester Museum, UK (curator: D.V. Logunov) and 83 species (161 specimens) in the Zoological Museum of the Moscow State University, Russia (curator: K.G. Mikhailov).

To clarify the specificity of the 'Buzkyi Hard' araneofauna, we have compared it with those of five well-studied nature parks and reserves that contain the same types of habitats (steppes, dry and wet meadows, natural and/or man-planted forests and forest shelterbelts, shores of water bodies). These conservation areas are situated within the steppe zone of the East European Plain in Ukraine and Russia: the Black Sea State Biosphere Reserve (Kherson Area) [Polchanionva, 2012; VG, unpublished data.], the Ukrainian Steppe Nature Reserve (Kamiani Mohyly and Khomutivskiyi Steppe departments, Donetsk Area), the National Nature Park 'Sviati Hory' (Donetsk Area), the Luhansk Natural Reserve (Luhansk Area) [updated lists see in Polchaninova, Prokopenko, 2013, 2017], and the Razdorsky Museum-Reserve (Rostov-on-Don Area) [Ponomarev, Tsvetkova, 2003; A.V. Ponomarev pers. comm.].

A comparative analysis has been performed by means of the program PAST [Hammer *et al.*, 2001], using two methods: combining method (the cluster analysis) and separation method (the correspondence analysis with remote trend, DCA). In the cluster analysis,

the Unweighted Pair Group Method with Arithmetic mean (UPGMA) was used as a cluster algorithm and the Bray-Curtis dissimilarity index as a distance measure. In the DCA, values of the axes characterizing their contribution to the spread of data were as follows: axis 1 = 0.28, axis 2 = 0.21, axis 3 = 0.11, axis 4 = 0.16.

List of species

Fam. AGELENIDAE (4)

Agelena labyrinthica (Clerck, 1758)

K. 1 ♂ [M10], 29.06.1997.

Allagelena gracilens C.L. Koch, 1841

A. 4 ♂♂ [FE7], 20.08.2013. **M.** 1 ♀ [W1], 19.08.2013.

Eratigena agrestis (Walckenaer, 1802)

M. 1 ♂ [W1], 19.08.2013.

Tegenaria lapicidinarum Spassky, 1934

K. 1 ♂ [F10], 4.05–7.06.2006. **M.** 1 ♂ [W1], 7.05–9.06.2007. **Y.** 1 ♂ [StGr6], 1 ♂ [W4], 1 ♂ [F2], 4.05–5.06.2007; 4 ♂♂, 3 ♀♀ [F7], 19.06.1997; 1 ♂ [FE6], 4.05–5.06.2007.

Fam. ANYPHAENIDAE (1)

Anyphaena accentuata (Walckenaer, 1802)

A. 1 ♀ juv. [FE7], 20.08.2013. **K.** 1 ♀ [F1], 1 ♂ [FE1], 7.05.2006; 1 ♀ [F10], 3.05–10.06.2006. **M.** 1 ♂, 1 ♀, 9.06.2007; **Y.** 1 ♂ [F2], 1 ♂ [F14], 1 ♂ [FE2], 1 ♂ [FE6], 4.05–5.06.2007.

Fam. ARANEIDAE (22)

Agalenatea redii (Scopoli, 1763)

K. 2 ♀♀ [StGr3], 4 ♀♀ [M8], 1 ♂, 1 ♀ [FE1], 1 ♂, 1 ♀ [W2], 7.05.2007. **M.** 4 ♂♂, 9 ♀♀ [St13], 1 ♂ [B7],

3.05.2006. **T.** 1 ♂ [St2], 20.04.2012, ES. **Y.** 1 ♂, 2 ♀♀ [StGr 6], 3 ♀♀ [FE2], 4.05.2007.

Araneus aff. angulatus Clerck, 1758

Y. 1 ♀ juv. [FE6], 5.06.2007.

Araneus diadematus Clerck, 1758

A. 3 ♂♂, 1 ♀ [FE7], 1 ♀ [B9], 20.08.2013. **K.** 3 ♂♂, 1 ♀ [FE1], 2 ♂♂, 5 ♀♀ [FE5], 22.08.2013. **M.** 1 ♂, 2 ♀♀ [W1], 1 ♂, 1 ♀ [FE4], 1 ♀ [B7], 23.08.2013.

Araneus quadratus Clerck, 1758

A. 1 ♂, 2 ♀♀ [M14], 20.08.2013. **K.** 1 ♀ [M8], 22.08.2013. **M.** 2 ♀♀ [M12], 23.08.2013; 1 ♀ [F9], 18.09.2006.

Araniella cucurbitina (Clerck, 1758)

K. 1 ♂ [M1], 29.06.1997.

Argiope bruennichi (Scopoli, 1772)

A. 4 ♀♀ [M14], 2 ♀♀ [B9], 20.08.2013. **K.** 2 ♀♀ [M8], 4 ♀♀ [W2], 1 ♂, 3 ♀♀ [FE1], 1 ♀ [FE4], 22.08.2013. **M.** 2 ♀♀ [StGr2], 3 ♀♀ [M12], 2 ♀♀ [W1], 1 ♀ [B7], 23.08.2013.

Cercidia prominens (Westring, 1851)

K. 1 ♀ [FE4], 7.05.2007.

Cyclosa conica (Pallas, 1772)

M. 1 ♀ [B7], 3.05.2006; **K.** 1 ♀ [FE1], 7.05.2006; **Y.** 1 ♀ [F14], 4.05.2007.

Cyclosa oculata (Walckenaer, 1802)

K. 3 ♂♂, 5 ♀♀ [StGr3], 4 ♀♀ [FE1], 7.06.2006. **M.** 1 ♀ [St13], 3.05.2006; 2 ♂♂, 1 ♀ [St13], 2 ♀♀ [FE4], 3.06.2006.

Cyclosa sierrae Simon, 1870

M. 1 ♂ [W1], 3.06.2006.

Gibbaranea bituberculata (Walckenaer, 1802)

K. 2 ♂♂, 3 ♀♀ [M8], 07.05.2007; 1 ♀ [F12], 29.06.1997; 4 ♂♂, 6 ♀♀ [FE1], 1 ♂, 4 ♀♀ [FE5], 7.05.2007. **M.** 1 ♀ [W1], 2 ♂♂, 1 ♀ [FE4], 7.05.2007. **Y.** 2 ♂♂ [StGr6], 1 ♀ [W2], 2 ♂♂, 2 ♀♀ [FE2], 3 ♀♀ [FE6], 4.05.2007; 2 ♂♂ [F7], 19.06.1997.

Gibbaranea ullrichi (Hahn, 1835)

M. 1 ♀ [St13], 9.06.2007.

Hypsosinga pygmaea (Sundevall, 1831)

K. 1 ♂ [StGr3], 7.06.2006.

Larinioides cornutus (Clerck, 1758)

T. 1 ♂ [StGr7], 17.04.2012, ES.

Larinioides folium (Schrank, 1803)

A. 1 ♀ [B9], 20.08.2013. **K.** 3 ♀♀ [M8], 4 ♀♀ [FE1], 7.05.2006. **M.** 1 ♂, 1 ♀ [M12], 20.09.2007. **Y.** 1 ♂, 1 ♀ [M11], 19.06.1997; 1 ♂, 1 ♀ [FE2], 1 ♀ [FE6], 5.06.2007.

Larinioides ixobolus (Thorell, 1873)

M. 2 ♀♀, house wall, 9.06.2007.

Larinioides patagiatus (Clerck, 1758)

K. 2 ♀♀ [FE5], 7.05.2006. **M.** 1 ♀ [M5], 7.05.2007; 1 ♀ [FE4], 1 ♀ [B7], 3.06.2006. **Y.** 1 ♀ [FE6], 4.05.2007.

Mangora acalypha (Walckenaer, 1802)

K. 2 ♂♂, 1 ♀ [StGr3], 7.06.2006; 1 ♀ [M1], 29.06.1997; 3 ♂, 3 ♀ [M8], 7.06.2006; 1 ♀ [M10], 29.06.1997; 4 ♂♂, 2 ♀♀ [FE1], 1 ♂, 3 ♀♀ [F10], 1 ♂, 1 ♀ [FE5], 7.06.2006; **M.** 2 ♂♂ [St13], 3.05.2006; 5 ♀♀ [St13], 1 ♀ [FE5], 2 ♀♀ [B7] 9.06.2007. **Y.** 2 ♀♀ [StGr6], 4.05.2007; 3 ♀♀ [FE2], 5 ♀♀ [FE6], 5.06.2007. **A.** 1 ♀ [M14], 1 ♀ [B9], 20.08.2013.

Neoscona adianta (Walckenaer, 1802)

A. 1 ♀ [FE8], 20.08.2013. **M.** 1 ♀ [St13], 1 ♂ [FE4], 3.06.2006. **Y.** 1 ♀ [StGr5], 29.06.1997; 1 ♂, 1 ♀ [FE2], 1 ♀ [FE6], 5.06.2007.

Singa hamata (Clerck, 1758)

K. 1 ♀ [M10], 29.06.1997; 1 ♀ [FE1], 7.06.2006. **M.** 1 ♂ [M4], 2 ♂♂, 1 ♀ [M12], 9.06.2007.

Singa nitidula C.L. Koch, 1844

A. 1 ♀ [B9], 20.08.2013. **K.** 1 ♂ [M1], 29.06.1997; 1 ♀ [FE5], 7.06.2006. **M.** 1 ♀ [B7], 7.06.2006; 1 ♀ [B7], 9.06.2007.

Zilla diodia (Walckenaer, 1802)

B. 1 ♀ [W3], 19.06.1997. **K.** 1 ♀ [F1], 1 ♀ [F10], 7.05.2006; 2 ♀♀ [F10], 7.06.2006; 1 ♂, 1 ♀ [FE5], 7.05.2006. **Y.** 1 ♀ [FE2], 4.05.2007.

Fam. ATYPIDAE (1)

Atypus muralis Bertkau, 1890

B. 4 ♂♂ [StGr5], 19.06.1997. **K.** 1 ♂ [StGr3], 7.05.2006; 3 ♂♂ [StGr4], 29.06.1997; 6 ♂♂ [M8], 4.05–7.06.2006; 1 ♂ [M10], 2 ♂♂ [F12], 22–29.06.1997. 3 ♂ [FE1], 4.05–7.06.2006; **M.** 1 ♂ [St13], 3.05–10.06.2006; 1 ♂ [StGr2], 1 ♂ [M4], 7.05–9.06.2007. **T.** 1 juv. ♂ [M9], 18.04.2012, ES. **Y.** 1 ♂ [FE6] 4.05–5.06.2007.

Fam. CLUBIONIDAE (5)

Clubiona caerulescens L. Koch, 1867

K. 1 ♀ [FE1], 7.06.2006.

Clubiona lutescens Westring, 1851

K. 2 ♂♂ [F10], 7.06.2006. **M.** 1 ♂, 1 ♀ [B7], 7.06.2006. **Y.** 1 ♂ [W4], 05.06.2007.

Clubiona pallidula (Clerck, 1758)

Y. 1 ♀ [F2], 1 ♂ [F14], 4.05.–5.06.2007.

Clubiona phragmitis C.L. Koch, 1843

K. 1 ♀ [M10], 29.06.1997.

Clubiona pseudoneglecta Wunderlich, 1994
B. 1 ♀ [W3], 19.06.1997. **K.** 4 ♂♂ [M8], 7.06.2006; 2 ♂♂ [M10], 29.06.1997; 2 ♂♂ [FE1], 7.06.2006; 2 ♂♂, 2 ♀♀ [FE5], 6.06.2007. **M.** 2 ♂♂ [M5], 1 ♀ [FE4], 9.06.2007. **Y.** 1 ♀ [FE6], 5.06.2007.

Fam. DICTYNIDAE (6)

Argenna subnigra (O. Pickard-Cambridge, 1861)
B. 3 ♀♀ [W3], 19.06.1997.

Brigittea latens (Fabricus, 1775)
B. 6 ♀♀ [Gr1], 19.06.1997. **K.** 5 ♂♂, 7 ♀♀ [GrSt3], 3 ♀♀ [M8], 4 ♀♀ [FE1], 7.06.2006. **M.** 1 ♀ [St13], 10.06.2006; 1 ♂, 1 ♀ [St13], 1 ♀ [StGr3], 3 ♀♀ [M5], 9.06.2007; **Y.** 2 ♂♂, 1 ♀ [FE6], 5.06.2007.

Dictyna arundinacea (Linnaeus, 1758)
A. 1 ♀ [FE1], 20.08.2013. **K.** 6 ♂♂, 5 ♀♀ [GrSt3], 5.05.2006; 4 ♀♀ [GrSt3], 7.06.2006; 2 ♂♂, 18 ♀♀ [M8], 5.05.2006; [M8], 4 ♀♀, 7.06.2006; 5 ♂♂, 1 ♀ [FE1], 5.05.2006; 4 ♀♀ [FE1], 7.06.2006; 2 ♂♂ [FE4], 5.05.2006; 7 ♀♀ [FE4], 7.06.2006. **M.** 8 ♂♂, 20 ♀♀ [St13], 3.05.2006; 7 ♀♀ [St13], 8.06.2006; 3 ♂♂, 11 ♀♀ [StGr1], 3.05.2006; 2 ♀♀ [StGr2], 8.06.2006; 2 ♂♂, 5 ♀♀ [StGr3], 1 ♂♂, 3 ♀♀ [M4], 4 ♂♂, 6 ♀♀ [M5], 7.05.2007; 3 ♀♀ [M5], 8.06.2006; 2 ♂♂, 2 ♀♀ [W1], 7.05.2007; 1 ♀ [B7], 7.06.2006. **Y.** 3 ♂♂, 4 ♀♀ [StGr6], 4.05.2007; 1 ♀ [StGr6], 5.06.2007; 2 ♂♂, 1 ♀ [W4], 2 ♀♀ [F2] 4.05.2007.

Dyctyna uncinata Thorell, 1856
K. 1 ♀ [FE1], 4.05.2006; 1 ♀ [FE1], 7.06.2006; 1 ♂ [FE4], 1 ♂ [F10], 4.05.2006. **M.** 1 ♀ [FE5], 1 ♀ [B7], 8.06.2006. **Y.** 1 ♀ [W4], 4.05.2007; 2 ♀♀ [F13], 19.06.1997; 1 ♀ [FE1], 4.05.2007.

Lathys stigmatata (Menge, 1869)
M. 1 ♂ [St13], 3.05–10.06.2006, **T.** 5 ♂♂, 1 ♀ [St2], 17–22.04.2012, ES.

Nigma flavescens (Walckenaer, 1830)
A. 1 ♀ juv. [FE7], 20.08.2013. **K.** 2 ♀♀ [FE5], 4.05.2006. **Y.** 2 ♀♀ [FE2], 04.05.2007.

Fam. DYSDERIDAE (2)

Dysdera lata Reuss, 1834
B. 1 ♂ [Gr1], 19.06.1997.

Harpactea rubicunda (C.L. Koch, 1838)
B. 2 ♂♂, 2 ♀♀ [W3], 19.06.1997. **K.** 3 ♂♂, 4 ♀♀ [W2], 29.06.1997; 1 ♂ [F1], 7 ♂♂, 4 ♀♀ [FE1], 4.05–7.06.2006. **M.** 2 ♂♂ [StGr1], 1 ♂ [StGr2], 1 ♂ [M4], 7.05–9.06.2007; 3 ♂♂, 1 ♀♀ [W1], 3.05–10.06.2006; 2 ♂♂ [W1], 7.05–9.06.2007. **T.** 1 ♀ [StGr7], 19.04.2012, ES. **Y.** 10 ♀♀ [W4], 3 ♂♂, 3 ♀♀ [F2], 22 ♂♂ [F14], 4 ♂♂, 1 ♀ [FE1], 22 ♂♂, 4 ♀♀ [FE6], 4.05–5.06.2007.

Fam. ERESIDAE (1)

Eresus kollari Rossi, 1846
M. 1 ♀ [M3], 21.04.2012, ES.

Fam. EUTRICHURIDAE (5)

Cheiracanthium elegans Thorell, 1875
K. 1 ♂ [FE5], 7.06.2006; **Y.** 1 ♀ [M11], 19.06.1997.

Cheiracanthium mildei L. Koch, 1864
K. 2 ♀♀ [StGr3], 7.06.2006; 1 ♀ [F12], 29.06.1997.

Cheiracanthium pennyi O. Pickard-Cambridge, 1873
K. 2 ♂♂, 1 ♀ [StGr3], 8 ♂♂, 6 ♀♀ [M8], 1 ♂ [F12] 29.06.1997; [FE1] 3 ♂♂, 1 ♀, 7.06.2006. **M.** 1 ♂, 1 ♀ [St13], 8.06.2006; 2 ♂♂, 2 ♀♀ [St13], 1 ♂ [StGr1], 1 ♂ [M4], 2 ♂♂, 1 ♀ [M5], 9.06.2007. **Y.** 1 ♂, 1 ♀ [W4], 5.06.2007; [F13] 2 ♂♂, 19.06.1997.

Cheiracanthium punctorium (Villers, 1789)
M. 1 ♀ [M4], 18.09.2006; 10 ♀♀ [M12], 22.08.2013.

Cheiracanthium virescens (Sundevall, 1832)
Y. 1 ♂, 1 ♀ [FE6], 5.06.2007.

Fam. GNAPHOSIDAE (26)

Berlandina cinerea (Menge, 1872)
K. 4 ♂♂ [StGr3], 1 ♂ [FE1], 4.05–7.06.2006. **M.** 5 ♂♂ [StGr1], 2 ♂♂, 1 ♀ [StGr2], 7.05–9.06.2007; 4 ♂♂ [W1], 3.05–10.06.2006. **Y.** 20 ♂♂ [StGr6], 2 ♂♂ [FE2], 1 ♂, 1 ♀ [FE6], 4.05–5.06.2007.

Civizelotes caucasicus (L. Koch, 1866)
B. 3 ♂♂, 6 ♀♀ [Gr1], 4 ♂♂, 4 ♀♀ [StGr5], 19.06.1997. **K.** 1 ♂ [StGr3], 7.06.2006. **M.** 1 ♂, 2 ♀♀ [St13], 7.05.2007; 1 ♂ [StGr2], 7.05–9.06.2007; 1 ♀ [W1], 9.06.2007.

Civizelotes gracilis (Canestrini, 1868)
B. 4 ♂♂, 6 ♀♀ [Gr1], 19.06.1997; **K.** 1 ♂ [M1], 29.06.1997.

Drassodes lapidosus (Walckenaer, 1802)
B. 3 ♀♀ [Gr1], 8 ♂♂, 15 ♀♀ [StGr5], 19.06.1997. **K.** 1 ♂, 1 ♀ [StGr3], 4.05–7.06.2006; 4 ♂♂ [M1], 29.06.1997. **M.** 1 ♂ [StGr2], 7.05–9.06.2007; 1 ♀ [M5], 9.06.2007; 2 ♂♂ [M8], 7.05–9.06.2007; 1 ♂, 1 ♀ [W1], 9.06.2007. **Y.** 1 ♂ [W4], 1 ♂ [FE2], 1 ♂, 1 ♀ [FE6], 4.05–5.06.2007.

Drassodes pubescens (Thorell, 1856)
K. 1 ♂ [FE5], 4.05–7.06.2006. **M.** 12 ♂♂ [M4], 8 ♂♂ [M5], 3 ♂♂ [M12], 7.05–9.06.2007.

Drassyllus praefficus (L. Koch, 1866)
K. 3 ♀♀ [F12], 22–29.06.1997; 2 ♂♂ [FE1], 4.05–7.06.2006. **M.** 1 ♂ [St13], 3.05–10.06.2006; 1 ♂, 1 ♀ [StGr1], 1 ♂ [M4], 5 ♂♂, 1 ♀ [M5], 3 ♂♂ [M12], 8 ♂♂ [W1], 7.05–9.06.2007; 1 ♂ [FE4], 3.05–

10.06.2006. **Y.** 4 ♂♂ [W4], 1 ♂ [F2], 2 ♂♂ [FE2], 5 ♂♂ [FE6], 4.05–5.06.2007.

Drassyllus pumilus (C.L. Koch, 1839)
M. 1 ♂ [St13], (TNU), 3.05–10.06.2006.

Drassyllus pusillus (C.L. Koch, 1833)
K. 1 ♂ [M8], 5 ♂♂ [FE5], 4.05–7.06.2006; **M.** 1 ♂ [StGr2], 2 ♂♂ [M4], 11 ♂♂, 3 ♀♀ [M5], 3 ♂♂ [M12], 7.05–9.06.2007; 1 ♂ [W1], 3.05–10.06.2006; 1 ♂ [W1], 7.05–9.06.2007. **Y.** 1 ♂ [W2], 1 ♂ [FE2], 2 ♂♂, 1 ♀ [FE6], 4.05–5.06.2007.

Drassyllus vinealis (Kulczyński, 1897)
M. 1 ♂ [M5], 1 ♂ [W1], 7.05–9.06.2007.

Gnaphosa taurica Thorell, 1875
B. 3 ♀♀ [StGr5], 19.06.1997. **K.** 1 ♂ [M8], 1 ♂ [F1], 4.05–7.06.2006. **M.** 2 ♂♂ [M4], 7.05–9.06.2007. **Y.** 1 ♂, 2 ♀♀ [StGr6], 4 ♂♂, 1 ♀ [W2], 1 ♂ [F2], 1 ♂, 1 ♀ [FE2], 2 ♂♂, 1 ♀ [FE6], 4.05–5.06.2007.

Haplodrassus bohemicus Miller et Buchar, 1977
K. 6 ♂♂, (TNU, Kovblyuk et al., 2012), 2 ♂♂, 1 ♀ [StGr3], 4.05–7.06.2006; **M.** 5 ♂♂ [St13], 1 ♂, 1 ♀ [StGr1], 3.05–10.06.2006; 10 ♂♂, 2 ♀♀ [StGr2], 7.05–9.06.2007; 15 ♂♂, 2 ♀♀ [M4], 19 ♂♂, 9 ♀♀ [M5], 7.05–9.06.2007. **Y.** 32 ♂♂, 6 ♀♀ [StGr6], 3 ♂♂ [W2], 1 ♂ [FE6], 4.05–5.06.2007.

Haplodrassus dalmatensis (L. Koch, 1866)
M. 1 ♂ [StGr2], 7.05–9.06.2007.

Haplodrassus kulczyński Lohmander, 1942
B. 1 ♀ [StGr5], 19.06.1997. **M.** 1 ♂, (TNU, Kovblyuk et al., 2012), 2 ♂♂ [St13], 3.05–10.06.2006.

Haplodrassus minor (O. Pickard-Cambridge, 1879)
K. 2 ♂♂, (TNU, Kovblyuk et al., 2012), 1 ♂ [FE5], 4.05–7.06.2006.

Haplodrassus pseudosignifer Marusik, Hippa et Koponen, 1996
K. 1 ♀, (TNU, Kovblyuk et al., 2012) [FE1], 4.05–7.06.2006.

Haplodrassus signifer (C.L. Koch, 1839)
B. 1 ♀ [W3], 19.06.1997. **M.** 1 ♂ [St13], 3.05–7.06.2006.

Haplodrassus silvestris (Blackwall, 1833)
Y. 3 ♀♀ [F14], 4.05.2007.

Haplodrassus umbratilis (L. Koch, 1866)
Y. 1 ♂ [FE2], 4.05–5.06.2007.

Leptodrassex memorialis (Spassky, 1940)
B. 1 ♂, 4 ♀♀ [Gr1], 19.06.1997.

Micaria dives (Lucas, 1846)
K. 1 ♂ [StGr3], 7.06.2006.

Nomisia aussereri (L. Koch, 1872)
M. 1 ♀ [StGr2], 23.08.2013.

Nomisia exornata (C.L. Koch, 1839)
B. 4 ♀♀ [Gr1], 1 ♀ [StGr5], 19.06.1997.

Trachyzelotes pedestris (C.L. Koch, 1837)
K. 1 ♂ [M1], 29.06.1997; 2 ♂♂ [M8], 4.05–7.06.2006; 1 ♂, 1 ♀ [F12], 22–29.06.1997. **M.** 1 ♂ [StGr1], 3.05–10.06.2006; 1 ♂ [M4], 1 ♂ [M12], 2 ♂♂ [W1], 7.05–9.06.2007; 1 ♂ [FE5], 3.05–10.06.2006. **Y.** 1 ♂ [FE1], 4 ♂♂ [F2], 1 ♂, 1 ♀ [FE6], 1 ♂ [F14], 4.05–5.06.2007.

Zelotes apricorum (L. Koch, 1876)
B. 2 ♂♂ [Gr1], 19.06.1997. **K.** 1 ♂ [M8], 2 ♂♂ (TNU) [F1], 4.05–7.06.2006; 3 ♂♂ [F12], 22–29.06.1997; 1 ♂ [FE1], 4.05–7.06.2006. **M.** 4 ♀♀ (TNU), 2 ♂♂ [W1], 3.05–10.06.2006; 1 ♂, 1 ♀ [W1], 7.05–9.06.2007. **T.** 2 ♂♂ [F22], 18–21.04.2012. **Y.** 1 ♂ [F7], 19.06.1997; 1 ♂ [FE2], 4.05–5.06.2007.

Zelotes electus (C.L. Koch, 1839)
K. 1 ♂ [StGr3], 7.05.2006; 4 ♀♀ [M8], 3 ♂♂, 1 ♀ [FE5], 4.05–7.06.2006; **M.** 7 ♂♂, 1 ♀ [StGr1], 3.05–10.06.2006; 1 ♂ [StGr1], 1 ♀ [StGr2], 7.05–9.06.2007; 13 ♂♂, 2 ♀♀ [M4], 6 ♂♂ [M5], 7.05–9.06.2007; 2 ♂♂, 2 ♀♀ [W1], 3.05–10.06.2006; **T.** 1 ♂ [St2], 17–22.04.2012, ES. **Y.** 7 ♂♂, 2 ♀♀ [StGr6], 6 ♂♂ [W2], 1 ♂ [FE6], 4.05–5.06.2007.

Zelotes longipes (L. Koch, 1866)
Y. 1 ♂ [StGr6], 4.05–5.06.2007; **K.** 1 ♀ [StGr3], 4.05–7.06.2006; 1 ♂ [M1], 29.06.1997. **M.** 1 ♂ [StGr2], 7.05–9.06.2007; 1 ♂ [W1], 3.05–10.06.2006; **T.** 1 ♀ [St2], 17–22.04.2012, ES.

Fam. HAHNIDAE (1)

Hahnia pusilla C.L. Koch, 1841
T. 1 ♂ [StGr7], 19.04.2012, ES.

Fam. LINYPHIIDAE (61)

Abacoproeces saltuum (L. Koch, 1872)
K. 1 ♂ [F12], 22–29.06.1997. **M.** 1 ♂, 2 ♀♀ [W1], 7.05–9.06.2007. **Y.** 2 ♂♂, 1 ♀ [F14], 1 ♀ [FE6], 4.05–5.06.2007.

Acartauchenius scurrilis (O. Pickard-Cambridge, 1872)
T. 2 ♂♂, 1 ♀ [StGr9], 18.04.2012, ES; 1 ♀ [StGr9], 20.04.2012, VG. **Y.** 4 ♀♀ [F13], 19.06.1997.

Agyneta fuscipalpa (C.L. Koch, 1836)
M. 1 ♂ [St10], 21.04.2006; 1 ♂ [St14], 19.04.2006. **T.** 1 ♂ [StGr9], 20.04.2012, VG.

Agyneta rurestris (C.L. Koch, 1836)
K. 1 ♂ [FE1], 7.05.2006; 1 ♀ [FE1], 6.06.2007; 1 ♀ [F1], 7.06.2007; 1 ♀ [F10], 7.05.2006. **M.** 1 ♂ [St3],

20.04.2006; 1 ♂, 2 ♀♀ [St5], 26.04.2006; 2 ♀♀ [St9], 18.04.2006; 4 ♂♂, 1 ♀ [St14], 19.04.2006; 6 ♀♀ [M3], 19.04.2006; 1 ♂ [W5], 19.04.2006; 1 ♂ [F21], 24.04.2006. **T.** 1♀ [StGr7], 19.04.2012; 4 ♀♀ [StGr7], 21.04.2012, VG; 3 ♂♂, 6 ♀♀ [StGr9], 20. 04.2012, VG; 1 ♀ [W7], 18.04.2012.

Agyneta saaristoi Tanasevitch, 2000

K. 2 ♀♀ [M1], 2 ♀♀ [F12], 1 ♂ [M10], 29.06.1997. **Y.** 1 ♂ [W3], 19.06.1997.

Agyneta simplicatarsis (Simon, 1884)

K. 2 ♂♂, 3 ♀♀ [M1], 1 ♂ [F12], 29.06.1997. **M.** 4 ♂♂, 1 ♀ [St3], 20.04.2006; 5 ♂♂, 2 ♀♀ [St4], 24.04.2006; 1 ♀ [St8], 22.04.2006; 1 ♂ [St9], 18.04.2006; 1 ♂ [St11], 22.04.2006; 1 ♂ [St14], 19.04.2006; 1 ♀ [M3], 19.04.2006; 2 ♂♂ [M7], 20.04.2006; 1 ♂ [W5], 19.04.2006; 1 ♂ [W6], 20.04.2006; 2 ♀♀ [F21], 24.04.2006. **Y.** 1 ♀ [M2], 19.06.1997.

Araeoncus humilis (Blackwall, 1841)

K. 1 ♀ [F1], 7.05.2006. **M.** 1 ♀ [St3], 20.04.2006; 1 ♀ [M13], 18.04.2006. **T.** 1 ♂ [StGr7], 21.04.2012, VG.

Bathypantes approximatus (O. Pickard-Cambridge, 1871)

M. 1 ♀ [M13], 18.04.2006.

Bathypantes gracilis (Blackwall, 1841)

M. 2 ♀♀ [S1], 21.04.2006; 1 ♂ [St14], 1 ♀ [M3], 19.04.2006; 1 ♂, 12 ♀♀ [M7], 20.04.2006; 1 ♂, 7 ♀♀ [M13], 18.04.2006; 1 ♂, 1 ♀ [F16], 17.04.2006; 3 ♂♂, 1 ♀ [B3], 20.04.2006. **T.** 1 ♂ [B4], 20.04.2012. **Y.** 2 ♂♂, 1 ♀ [F13], 19.06.1997.

Bathypantes nigrinus (Westring, 1851)

K. 1 ♀ [FE1], 07.05.2006. **M.** 1 ♀ [F3], 23.04.2006; 1 ♂ [F16], 17.04.2006; 1 ♀ [B1], 19.04.2006; 3 ♂♂, 1 ♀ [B3], 20.04.2006; 2 ♂♂, 1 ♀ [B7], 03.05.2006.

Canariphantes nanus (Kulczyński, 1898)

M. 1 ♀ [StGr7], 20.04.2006, VG; 1 ♀ [F20], 26.04.2006. **T.** 1 ♀ [St2], 21.04.2012, VG; 1 ♀ [St12], 18.04.2012; 1 ♀ [F5], 17.04.2012; 1 ♀ [F8], 14.04.2012.

Centromerus capucinus (Simon, 1884)

T. 5 ♀♀ [St7], 19.04.2012.

Centromerus sylvaticus (Blackwall, 1841)

K. 1 ♀ [FE5], 7.05.2006. **M.** 1 ♀ [S2], 23.04.2006; 1 ♀ [StGr7], 20.04.2006, VG.

Ceratinella brevis (Wider, 1834)

K. 1 ♂ [F1], 7.06.2006; 1 ♀ [F10], 3.05.2007. **M.** 1 ♂ [St5], 26.04.2006; 1 ♂, 3 ♀♀ [St14], 19.04.2006; 1 ♂, 3 ♀♀ [F15], 23.04.2006; 1 ♂ [FE8], 21.04.2006. **T.** 1 ♀ [StGr7], 19.04.2012, ES; 1 ♀ [M6], 17.04.2012; 1 ♂ [F5], 17.04.2012. **Y.** 1 ♂ [F2], 3.05.2007.

Dactilipisthes digiticeps (Simon, 1881)

K. 1 ♂ [F12], 29.06.1997. **M.** 1 ♀ [B1], 19.04.2006.

Diplocephalus cristatus (Blackwall, 1833)

M. 3 ♂♂, 1 ♀ [F16], 17.04.2006; 1 ♂, 1 ♀ [B1], 19.04.2006; 8 ♂♂, 38 ♀♀ [B3], 20.04.2006.

Diplocephalus picinus (Blackwall, 1841)

K. 1 ♀ [F10], 7.06.2006. **M.** 1 ♀ [F17], 17.04.2006.

Diplostyla concolor (Wider, 1834)

K. 1 ♂ [M10], 22–29.06.1997. **M.** 1 ♂, 6 ♀♀ [M7], 20.04.2006; 2 ♂♂, 2 ♀♀ [M9], 25.04.2006; 1 ♂, 1 ♀ [M13], 18.04.2006; 2 ♂♂, 6 ♀♀ [F3], 23.04.2006; 1 ♀ [F6], 21.04.2006; 1 ♂, 4 ♀♀ [F15], 23.04.2006; 1 ♀ [F16], 17.04.2006; 2 ♀♀ [F19], 24.04.2006; 1 ♀ [FE5], 3.05–10.06.2006; 1 ♀ [B1], 19.04.2006; 1 ♂, 10 ♀♀ [B3], 20.04.2006; 1 ♂, 2 ♀♀ [B7], 3.05.2007; 1 ♀ [S2], 23.04.2006.

Donacochara speciosa (Thorell, 1875)

M. 2 ♀♀ [F16], 17.04.2006.

Erigone dentipalpis (Wider, 1834)

K. 1 ♀ [F12], 29.06.1997. **M.** 1 ♀ [B7], 3.05.2007. **Y.** 1 ♀ [B6], 04.05.2007.

Gnathonarium dentatum (Wider, 1834)

K. 1 ♂ [F12], 29.06.1997. **M.** 9 ♂♂, 31 ♀♀ [M13], 18.04.2006; 1 ♀ [F16], 17.04.2006; 1 ♀ [B1], 19.04.2006; **T.** 3 ♂♂, 3 ♀♀ [B2], 18.04.2012; 1 ♀ [B5], 22.04.2012. **Y.** 1 ♂, 1 ♀ [FE5], 4.05.2007.

Gongyliellum murcidum Simon, 1884

M. 2 ♂♂, 1 ♀ [M13], 18.04.2006; 1 ♂ [B2], 18.04.2012. **T.** 1 ♂ [B4], 20.04.2012.

Hypomma cornutum (Blackwall, 1833)

T. 1 ♀ [B2], 18.04.2012; 1 ♀ [B5], 22.04.2012.

Hypsocephalus pusillus (Menge, 1869)

M. 2 ♀♀ [St11], 22.04.2006.

Ipa keyserlingi (Ausserer, 1867)

M. 1 ♀ [St5], 26.04.2006; 1 ♀ [St11], 22.04.2006.

Lepthyphantes leprosus (Ohlert, 1865)

B. 7 ♂♂, 3 ♀♀ [W3], 19.06.1997; **M.** 1 ♀ [W5], 19.04.2006; 3 ♀♀ [M9], 25.04.2006. **T.** 1 ♀ [StGr9], 20.04.2012, VG.

Linyphia hortensis Sundevall, 1830

M. 1 ♂, 1 ♀ [FE5], 9.06.2007; 1 ♀ [B7], 9.06.2007.

Linyphia triangularis (Clerck, 1758)

A. 1 ♂, 13 ♀♀ [F11], 20.08.2013; 1 ♂, 6 ♀♀ [FE7], 6 ♀♀ [B9], 20.08.2013; **K.** 1 ♀ [M8], 3 ♀♀ [FE1], 8 ♀♀ [FE5], 22.08.2013; 1 ♀ [F12], 29.06.1997. **M.** 7 ♀♀ [F9], 19.08.2013; 2 ♀♀ [B7], 20.09.2007; 1 ♂, 4 ♀♀ [B7], 22.08.2013.

Mecopisthes peusi Wunderlich, 1972

T. 2 ♀♀ [St2], 21.04.2012; 1 ♀ [St7], 19.04.2012; 15 ♀♀ [StGr7], 21.04.2012; 8 ♀♀ [StGr9], 20.04.2012, VG; 1 ♀ [M6], 17.04.2012.

- Metopobactrus ascitus* (Kulczyński, 1894):
M. 2 ♀♀ [F17], 17.04.2006.
- Micrargus laudatus* (O. Pickard-Cambridge, 1881)
T. 1 ♂ [St2], 21.04.2012.
- Microlinyphia impigra* (O. Pickard-Cambridge, 1871)
M. 1 ♂, 1 ♀ [M13], 18.04.2006; 1 ♂ [F17], 17.04.2006.
- Microlinyphia pusilla* (Sundevall, 1830)
K. 1 ♀ [F10], 4 ♀♀ [FE1], 1 ♂ [FE5], 7.05.2006;
M. 2 ♂♂, 5 ♀♀ [St3], 20.04.2006; 1 ♀ [St4], 24.04.2006; 1 ♂, 2 ♀♀ [St8], 22.04.2006; 2 ♀♀ [St9], 18.04.2006; 1 ♂, 1 ♀ [St10], 21.04.2006; 1 ♀ [St11], 22.04.2006; 1 ♂, 2 ♀♀ [St14], 1 ♂, 2 ♀♀ [M3], 19.04.2006; 1 ♂ [B7], 3.05.2006; **T.** 1 ♂, 2 ♀♀ [StGr7], 21.04.2012.
- Microneta viaria* (Blackwall, 1841)
K. 1 ♀ [F1], 7.05.2006; **Y.** 2 ♂♂, 3 ♀♀ [F14], 4.05.2007.
- Minicia marginella* (Wider, 1834)
T. 1 ♂ [St6], 17.04.2012; 4 ♂♂, 4 ♀♀ [St12], 18.04.2012; 6 ♂♂, 4 ♀♀ [St15], 21.04.2012; 2 ♀♀ [StGr7], 20.04.2012, ES; 1 ♂, 1 ♀ [M6], 17.04.2012; 3 ♂♂, 3 ♀♀ [W7], 18.04.2012.
- Mioxena blanda* (Simon, 1884)
M. 2 ♀♀ [F17], 17.04.2006.
- Neriene clathrata* (Sundevall, 1830)
K. 5 ♀♀ [M8], 7.06.2006; 1 ♂, 1 ♀ [F1], 7.05.2006; 1 ♀ [FE1], 7.05.2006; **M.** 2 ♂♂, 2 ♀♀ [M7], 20.04.2006; 1 ♂, 1 ♀ [M9], 25.04.2006; 1 ♂, 1 ♀ [M13], 18.04.2006; 1 ♂, 1 ♀ [F3], 23.04.2006; 1 ♀ [F6], 21.04.2006; 2 ♀♀ [F15], 23.04.2006; 3 ♂♂, 2 ♀♀ [F17], 17.04.2006; 1 ♀ [F19], 24.04.2006; 1 ♀ [F20], 26.04.2006; 1 ♂, 1 ♀ [FE8], 21.04.2006; 3 ♂♂, 2 ♀♀ [B3], 20.04.2006; 1 ♀ [B7], 3.05.2006; 2 ♀♀ [B7], 8.06.2007; 1 ♀ [S2], 23.04.2006. **T.** 3 ♂♂, 6 ♀♀ [St15], 21.04.2012; 5 ♀♀ [W7], 18.04.2012; 2 ♀♀ [F5], 17.04.2012; 1 ♂, 1 ♀ [F8], 19.04.2012; 2 ♀♀ [F18], 18.04.2012; 1 ♀ [F23], 20.04.2012; 1 ♀ [B5], 22.04.2012; **Y.** 1 ♂ [F14], 1 ♂ [FE2], 4.05–5.06.2007.
- Neriene montana* (Clerck, 1758)
M. 1 ♂ [F15], 23.04.2006; 1 ♂ [F17], 17.04.2006.
- Neriene radiata* (Walckenaer, 1841)
K. 2 ♂♂, 4 ♀♀ [F10], 1 ♂, 2 ♀♀ [FE5], 7.06.2006.
M. 3 ♀♀ [S2], 1 ♂, 4 ♀♀ [F3], 23.04.2006. **T.** 2 ♀♀ [F5], 17.04.2012; 2 ♀♀ [F8], 19.04.2012; 1 ♀ [B5], 22.04.2012. **Y.** 1 ♀ [F13], 19.06.1997.
- Oedothorax apicatus* (Blackwall, 1850)
K. 1 ♂ [F12], 29.06.1997. **M.** 1 ♂, 4 ♀♀ [B1], 19.04.2006. **Y.** 1 ♀ [M11], 19.06.1997.
- Oedothorax fuscus* (Blackwall, 1834)
K. 3 ♂♂, 1 ♀ [F12], 22–29.06.1997; 1 ♀ [FE5], 4.05–5.06.2007. **M.** 1 ♀ [FE3], 3.05.2006.
- Oedothorax retusus* (Westring, 1851)
M. 1 ♀ [B7], 3.05.2006.
- Panamomops menzei* Simon, 1926
T. 1 ♀ [F23], 20.04.2012. **Y.** 1 ♂ [FE2], 1 ♀ [FE5], 4.05–5.06.2007.
- Pocadicnemis juncea* Locket et Millidge, 1953
T. 1 ♂ [B4], 20.04.2012.
- Porrhomma microphthalmum* (O. Pickard-Cambridge, 1871)
T. 1 ♂ [St6], 17.04.2012.
- Porrhomma pygmaeum* (Blackwall, 1834)
M. 1 ♂ [F15], 23.04.2006. **T.** 1 ♀ [B4], 20.04.2012; 1 ♀ [B5], 22.04.2012.
- Silometopus reussi* (Thorell, 1871)
Y. 1 ♀ [F13], 19.06.1997.
- Stemonyphantes lineatus* (Linnaeus, 1758)
M. 1 ♀ [St10], 21.04.2006; 1 ♀ [StGr2], 4.05–5.06.2007; 2 ♀♀ [StGr7], 20.04.2006; 1 ♂, 1 ♀ [M3], 19.04.2006; 1 ♂, 1 ♀ [M5], 4.05–5.06.2007; 1 ♀ [B3], 20.04.2006.
- Tapinocyboides pygmaeus* (Menge, 1869)
Y. 1 ♀ [F13], 19.06.1997.
- Tenuiphantes flavipes* (Blackwall, 1854)
A. 1 ♂ [B9], 20.08.2013. **B.** 7 ♀♀ [W3], 19.06.1997; **K.** 2 ♀♀ [F12], 29.06.1997. **M.** 5 ♂♂, 1 ♀ [M9], 25.04.2006, VG; 2 ♂♂, 11 ♀♀ [F3], 23.04.2006; 4 ♂♂, 9 ♀♀ [F4], 22.04.2006; 3 ♂♂, 17 ♀♀ [F6], 21.04.2006; 1 ♂ [F17], 17.04.2006; 2 ♂♂, 8 ♀♀ [F19], 24.04.2006; 2 ♂♂, 7 ♀♀ [F20], 26.04.2006; 4 ♂♂, 10 ♀♀ [FE8], 21.04.2006; 1 ♀ [B7], 7.06.2006; 1 ♀ [S1], 21.04.2006; 3 ♂♂, 6 ♀♀ [S2], 23.04.2006; **T.** 1 ♀ [StGr7], 21.04.2012, VG; 5 ♂♂, 4 ♀♀ [F5], 17.04.2012; 5 ♂♂, 14 ♀♀ [F8], 19.04.2012; 3 ♂♂, 11 ♀♀ [F18], 18.04.2012; 3 ♂♂ [F22], 18–21.04.2012; 4 ♂♂, 10 ♀♀ [F23], 20.04.2012. **Y.** 1 ♂ [F2], 4.05.2007.
- Tenuiphantes tenuis* (Blackwall, 1852)
M. 1 ♀ [M9], 25.04.2006, VG.
- Trichoncoides piscator* (Simon, 1884)
T. 1 ♀ [St2], 21.04.2012.
- Trichoncus hackmani* Millidge, 1955
K. 1 ♀ [FE1], 7.06.2006. **M.** 2 ♂♂, 5 ♀♀ [St3], 20.04.2006. **T.** 2 ♀♀ [St7], 19.04.2012.
- Trichopterna cito* (O. Pickard-Cambridge, 1872)
K. 2 ♀♀ [M8], 4.05–7.06.2006. **M.** 1 ♂, 3 ♀♀ [St3], 20.04.2006; 7 ♀♀ [St4], 24.04.2006; 4 ♂♂, 11 ♀♀ [St5], 26.04.2006; 2 ♂♂, 6 ♀♀ [St11], 22.04.2006; 3 ♂♂, 11 ♀♀ [St14], 19.04.2006; 1 ♂, 1 ♀ [StGr7], 20.04.2006; 3 ♂♂, 1 ♀ [M3], 19.04.2006. **T.** 1 ♂, 6

♀♀ [St2], 21.04.2012; 3 ♂♂, 5 ♀♀ [M6], 17.04.2012.
Y. 1 ♂ [F13], 19.06.1997.

Troxochrus scabriculus (Westring, 1851)

M. 2 ♂♂, 4 ♀♀ [B3], 20.04.2006.

Walckenaeria alticeps (Denis, 1952)

M. 3 ♀♀ [S2], 23.04.2006; **T.** 1 ♂ [F5], 17.04.2012; 2 ♀♀ [F23], 20.04.2012.

Walckenaeria antica (Wider, 1834)

K. 1 ♀ [F12], 22–29.06.1997.

Walckenaeria atrotibialis (O. Pickard-Cambridge, 1878)

K. 1 ♀ [FE5], 4.05–7.06.2006.

Walckenaeria cucullata (C.L. Koch, 1836)

T. 2 ♂♂ [F22], 18–21.04.2012.

Walckenaeria stylifrons (O. Pickard-Cambridge, 1875)

T. 1 ♀ [M6], 17.04.2012.

Walckenaeria vigilax (Blackwall, 1853)

K. 1 ♀ [FE1], 4.05–7.06.2006.

Fam. LIOCRANIDAE (2)

Agroeca cuprea Menge, 1873

K. 2 ♀♀ [StGr3], 1 ♀ [F10], 4.05–7.06.2006; 1 ♀ [F12], 29.06.1997; 2 ♀♀ [FE1], 1 ♂, 6 ♀♀ [FE5], 4.05–7.06.2006. **M.** 1 ♀ [M5], 1 ♀ [W1], 7.05–9.06.2007. **T.** 1 ♀ [St2], 17–22.04.2012, ES; 1 ♀ [StGr7], 19.04.2012, 1 ♂ [StGr9], 20.04.2012, ES.

Agroeca lusatica (L. Koch, 1875)

K. 2 ♀♀ [FE5], 4.05–7.06.2006. **M.** 1 ♀ [M5], 7.05–9.06.2007; 1 ♀ [B7], 9.06.2007. **T.** [St2], 1 ♀, 17–22.04.2012, ES.

Fam. LYCOSIDAE (20)

Alopecosa cursor (Hahn, 1831)

M. 10 ♂♂, 5 ♀♀ [St13], 3.05–10.06.2006. **Y.** 2 ♂♂, 6 ♀♀ [StGr6], 4.05–5.06.2007.

Alopecosa farinosa (Herman, 1879)

K. 2 ♀♀ [StGr], 5 ♂♂, 2 ♀♀ [M10], 1 ♀ [FE1], 1 ♀ [FE5], 4.05–7.06.2006. **M.** 1 ♂, 1 ♀ [St13], 1 ♂, 5 ♀♀ [StGr1], 3.05–10.06.2006; 2 ♀♀ [StGr1], 7.05–9.06.2007; 1 ♀ [M1], 29.06.1997; **T.** 49 ♂♂, 1 ♀ [St2], 2 ♂ [StGr9], 1 ♂ [F22], 17–21.04.2012, ES. **Y.** 1 ♀ [StGr6], 4.05–5.06.2007.

Alopecosa kovblyuki Nadolny et Ponomarev, 2012

K. 1 ♀ [FE5], 4.05–7.06.2006. **M.** 1 ♀ [St13], 3 ♀♀ [M4], (Nadolny et al., 2012), 3.05–10.06.2006; 1 ♀ [StGr2], 3 ♀♀ [M12], 3 ♀♀ [W1], 7.05–9.06.2007. **Y.** 1 ♀ [StGr6], 1 ♀ [FE1], 4.05–5.06.2007.

Alopecosa pulverulenta (Clerck, 1758)

K. 8 ♂♂ [M10], 1 ♂ [FE1], 20 ♂♂, 3 ♀♀ [FE5], 4.05–7.06.2006. **M.** 24 ♂♂, 3 ♀♀ [StGr1], 2 ♂♂, 1 ♀ [StGr2], 15 ♂♂, 26 ♀♀ [M4], 8 ♂♂, 10 ♀♀ [M5], 27 ♂♂, 8 ♀♀ [M12], 7.05–9.06.2007; 1 ♂ [W1], 4 ♂♂ [FE4], 3.05–10.06.2006; 21 ♂♂, 12 ♀♀ [FE4], 7.05–9.06.2007. **T.** 6 ♂♂, 1 ♀ [StGr7], 17–20.04.2012, ES; 2 ♂♂ [M9], 19.04.2012, ES. **Y.** 1 ♂, 1 ♀ [W4], 4 ♂♂, 2 ♀♀ [FE1], 8 ♂♂, 3 ♀♀ [FE6], 4.05–5.06.2007.

Alopecosa schmidtii (Hahn, 1835)

K. 24 ♂♂, 5 ♀♀ [StGr3], 4.05–7.06.2006. **T.** 1 ♂ [St2], 17–20.04.2012 ES. **Y.** 1 ♂ [StGr6], 4.05–5.06.2007.

Alopecosa sulzeri (Pavesi, 1873)

K. 1 ♂, 1 ♀ [M8], 1 ♂, 2 ♀♀ [F1], 3 ♂♂, 1 ♀ [FE1], 1 ♂ [FE5], 4.05–7.06.2006. **Y.** 8 ♂♂, 1 ♀ [F2], 14 ♂♂, 6 ♀♀ [FE2], 4.05–5.06.2007.

Arctosa leopardus (Sundevall, 1833)

Y. 3 ♂♂, 5 ♀♀ [M11], 19.06.1997.

Mustelicosa dimidiata (Thorell, 1875)

K. 5 ♂♂ [F12], 22–29.06.1997.

Pardosa agrestis (Westring, 1861)

K. 2 ♀♀ [M10], 22–29.06.1997; 1 ♀ [F10], 1 ♂ [FE5], 4.05–7.06.2006. **M.** 1 ♀ [St13], 9.06.2007; 3 ♂♂ [M4], 40 ♂♂, 24 ♀♀ [M5], 15 ♂♂, 2 ♀♀ [M12], 7.05–9.06.2007. **Y.** 1 ♂ [F2], 4.05–5.06.2007.

Pardosa alacris (C.L. Koch, 1833)

K. 20 ♂♂, 2 ♀♀ [F10], 17 ♂♂ [FE4], 4.05–7.06.2006. **M.** 97 ♂♂, 3 ♀♀ [M12], 7.05–9.06.2007; 237 ♂♂, 12 ♀♀ [FE5], 1 ♀ [B7], 3.05–10.06.2006. **Y.** 17 ♂♂, 9 ♀♀ [FE6], 4.05–5.06.2007.

Pardosa amentata (Clerck, 1758)

K. 2 ♂♂, 1 ♀ [F12], 22–29.06.1997.

Pardosa lugubris (Walckenaer, 1802)

B. 1 ♀ [W3], 19.06.1997. **K.** 1 ♀ [StGr3], 2 ♂♂, 1 ♀ [M8], 4.05–7.06.2006; 1 ♂, 2 ♀♀ [M10], 29.06.1997; 59 ♂♂, 5 ♀♀ [F1], 7 ♂♂ [F10], 22 ♂♂, 2 ♀♀ [FE1], 43 ♂♂, 4 ♀♀ [FE4], 4.05–7.06.2006; 3 ♂♂, 6 ♀♀ [F12], 29.06.1997; **M.** 2 ♂♂ [St13], 2 ♂♂ [StGr1], 3.05–10.06.2006; 1 ♂ [M4], 5 ♂♂ [M12], 4 ♂♂, 1 ♀ [W1], 7.05–9.06.2007; **Y.** 1 ♂ [W4], 8 ♂♂, 1 ♀ [FE2], 2 ♂♂, 2 ♀♀ [FE6], 4.05–5.06.2007; 1 ♂, 2 ♀♀ [F13], 19.06.1997.

Pardosa prativaga (L. Koch, 1870)

A. 1 ♀ [B9], 20.08.2013. **K.** 1 ♀ [M10], 2 ♂♂, 1 ♀ [F12], 22–29.06.1997; **M.** 60 ♂♂, 13 ♀♀ [M12], 7.05–9.06.2007; 1 ♂, 6 ♀♀ [B7], 3.05.2006. **Y.** 1 ♀ [FE6], 4.05–5.06.2007.

Pirata tenuitarsis Simon, 1876

K. 1 ♂, 1 ♀ [M10], 22–29.06.1997.

Piratula hygrophila (Thorell, 1872)
M. 1 ♂ [B7], 3.05.2006; **Y.** 1 ♂, 1 ♀ [M11], 19.06.1997.

Piratula latitans (Blackwall, 1841)
Y. 1 ♂, 4 ♀♀ [M11], 19.06.1997.

Trochosa robusta (Simon, 1876)
K. 2 ♂♂, 1 ♀ [StGr3], 4.05–7.06.2006. **M.** 1 ♀ [StGr1], 1 ♂, 1 ♀ [M5], 7.05–9.06.2007; 1 ♂ [W1], 3.05–10.06.2006. **T.** 7 ♂♂ [St2], 17–22.04.2012, ES.

Trochosa ruricola (De Geer, 1778)
K. 1 ♀ [FE5], 4.05–7.06.2006. **M.** 10 ♂♂, 1 ♀ [M12], 7.05–9.06.2007.

Trochosa terricola Thorell, 1856
K. 2 ♀♀ [M1], 29.06.1997; 2 ♂♂, 2 ♀♀ [M8], 4.05–7.06.2006; 8 ♂♂, 1 ♀ [M10], 11 ♂♂, 3 ♀♀ [F12], 22–29.06.1997; 1 ♂, 2 ♀♀ [F1], 3 ♂♂, 1 ♀ [F10], 2 ♀♀ [FE1], 4 ♂♂, 1 ♀ [FE5], 4.05–7.06.2006. **M.** 4 ♂♂, 4 ♀♀ [M4], 8 ♂♂, 1 ♀ [M12], 7.05–9.06.2007; 2 ♂♂, 5 ♀♀ [W1], 3.05–10.06.2006; 2 ♂♂, 3 ♀♀ [W1] 7.05–9.06.2007; 1 ♂, 1 ♀ [FE4], 3.05–10.06.2006. **T.** 2 ♂♂ [F22] 18–21.04.2012. **Y.** 2 ♀♀ [W4], 2 ♂♂, 3 ♀♀ [F2], 4.05–5.06.2007; 6 ♂♂, 1 ♀ [F7], 19.06.1997; 16 ♂♂ [F14], 3 ♂♂, 3 ♀♀ [FE2], 12 ♂♂, 9 ♀♀ [FE6], 4.05–5.06.2007.

Xerolycosa miniata (C.L. Koch, 1834)
B. 1 ♀ [Gr1], 1 ♀ [StGr5], 19.06.1997; **K.** 1 ♂, 1 ♀ [StGr3], 4.05–7.06.2006; 10 ♂♂, 13 ♀♀ [M10], 22–29.06.1997; 1 ♂ [FE1], 2 ♂♂, 1 ♀ [FE5], 4.05–7.06.2006; **M.** 2 ♂♂, 1 ♀ [St13], 3.05–10.06.2006; 3 ♀♀ [StGr1], 1 ♂, 1 ♀ [M4], 5 ♂♂, 1 ♀ [M5], 3 ♂♂ [M12], 7.05–9.06.2007; **Y.** 14 ♂♂, 3 ♀♀ [StGr6], 1 ♀ [W3], 1 ♀ [FE6], 4.05–5.06.2007.

Fam. MIMETIDAE (2)

Ero aphana (Walckenaer, 1802)
K. 1 ♀ [M8], 22.08.2013; 2 ♂♂ [FE1], 4.05–7.06.2006. **M.** 1 ♀ [StGr1], 9.06.2007.

Mimetus laevigatus (Keyserling, 1863).
K. 1 ♂ [FE1], 3.05–10.06.2006. **Y.** 1 ♀ [F13], 19.06.1997.

Fam. MITURGIDAE (2)

Zora pardalis Simon, 1878
M. 1 ♂ [FE5], 3.05–10.06.2006. **Y.** 2 ♂♂ [FE2], 5 ♂♂ [FE6], 4.05–5.06.2007.

Zora spinimana (Sundevall, 1833)
M. 1 ♂ [W1], 9.06.2007; 1 ♂ [FE5], 8.06.2006.

Fam. OXYOPIDAE (2)

Oxyopes heterophthalmus (Latreille, 1804)
K. 8 ♂♂, 5 ♀♀ [StGr3], 1 ♂ [M10], 2 ♂♂, 1 ♀ [FE1], 7.06.2006. **M.** 1 ♂ [St13], 1 ♀ [M5], 9.06.2007. **Y.** 1 ♀ [W4], 1 ♀ [F2], 5.06.2007.

Oxyopes lineatus Latreille, 1806
A. 2 ♀♀ [St1], 20.08.2013. **M.** 1 ♀ [M4], 9.06.2007. **Y.** 1 ♀ [FE6], 5.06.2007.

Fam. PHILODROMIDAE (12)

Philodromus cespitum (Walckenaer, 1802)
K. 1 ♂ [StGr3], 3 ♀♀ [M8], 7.06.2006; 2 ♂♂ [M10], 29.06.1997; 2 ♂♂, 3 ♀♀ [FE1], 2 ♂♂, 1 ♀ [FE5], 7.06.2006. **M.** 1 ♂, 1 ♀ [StGr2], 9.06.2007; 1 ♂ [W1], 1 ♀ [FE4], 1 ♂, 1 ♀ [B7], 7.06.2006. **Y.** 1 ♂ [M11], 2 ♂♂, 1 ♀ [F13], 19.06.1997; 1 ♀ [FE1], 1 ♂, 1 ♀ [FE6], 5.06.2007.

Philodromus dispar Walckenaer, 1826
K. 1 ♂, 1 ♀ [FE1], 7.06.2006. **M.** 1 ♀ [F9], 9.06.2007. **Y.** 1 ♂, 2 ♀♀ [F2], 1 ♂ [F14], 5.06.2007.

Philodromus marmoratus Kuleczyński, 1891
Y. 1 ♀ [F7], 19.06.1997.

Philodromus rufus Walckenaer, 1826
K. 2 ♂♂, 4 ♀♀ [FE1], 4 ♀♀ [FE5], 1 ♀ [F10], 7.06.2006; 2 ♀♀ [F12], 29.06.1997. **M.** 1 ♀ [W1], 1 ♀ [FE4], 9.06.2007; 1 ♀ [B7], 7.06.2006. **Y.** 1 ♀ [F7], 19.06.1997; 1 ♂ [FE6], 5.06.2007.

Rhysodromus fallax (Sundevall, 1883)
M. 1 ♂ [B8], 9.06.2007.

Rhysodromus histrio (Latreille, 1819)
K. 1 ♀ [StGr3], 7.06.2006. **M.** 1 ♀ [St13], 7.06.2006. **Y.** 1 ♀ [StGr6], 5.06.2007.

Thanatus arenarius L. Koch, 1872
K. 4 ♂♂, 1 ♀ [StGr3], 5 ♂♂ [M8], 4.05–7.06.2006. **M.** 5 ♂♂ [St13], 6 ♂♂ [StGr1], 3.05–10.06.2006; 1 ♂, 1 ♀ [StGr2], 7.05–9.06.2007; 21 ♂♂, 1 ♀ [M4], 39 ♂♂ [M5], 1 ♂ [M12], 7.05–9.06.2007; 3 ♂♂ [W1], 3.05–10.06.2006. **Y.** 25 ♂♂ [StGr6], 3 ♂♂ [FE1], 1 ♀ [FE6], 4.05–5.06.2007.

Thanatus oblongiusculus (Lucas, 1846)
K. 1 ♀ [FE1], 6.06.2007.

Thanatus striatus C.L. Koch, 1845
M. 1 ♀ [FE4], 9.06.2007.

Thanatus vulgaris Simon, 1870
B. 3 ♂♂, 4 ♀♀ [StGr5], 19.06.1997.

Tibellus macellus Simon, 1875
K. 1 ♀ [M8], 7.06.2006. **M.** 1 ♀ [St13], 7.06.2006.

Tibellus oblongus (Walckenaer, 1802)
K. 1 ♀ [M8], 7.06.2006; 1 ♀ [FE5], 7.06.2006. **M.** 3 ♂♂ [St13], 7.06.2006; 1 ♀ [FE4], 7.06.2006; 2 ♂♂ [FE4], 9.06.2007. **T.** 1 ♀ [St2], 20.04.2012, ES.

Fam. PHOLCIDAE (3)

Pholcus opilionoides (Shrank, 1781)
B. 2 ♂♂, 7 ♀♀ [Gr1], 19.06.1997. **Y.** 3 ♀♀ [F7], 19.06.1997.

Pholcus phalangioides (Fuesslin, 1775)

M. 2 ♂♂ [D1], 9.06.2007.

Pholcus ponticus Thorell, 1875

K. 1 ♀ [D2], 22.08.2013. **M.** 2 ♂♂ [D1], 7.06.2006.

Fam. PHRUROLITHIDAE (2)

Phrurolithus festivus (C.L. Koch, 1835)

B. 2 ♀♀ [Gr1], 1 ♀ [W3], 19.06.1997. **K.** 1 ♂ [M10], 29.06.1997; 2 ♂♂ [F1], 7.05.2006; 1 ♀ [F1], 1 ♂, 1 ♀ [F10], 7.05.2006; 2 ♂♂, 3 ♀♀ [F12], 22–29.06.1997; 1 ♀ [F12], 29.06.1997; 1 ♀ [FE5], 4.05–7.06.2006; 1 ♂, 6.06.2007. **M.** 1 ♂, 1 ♀ [W1], 9.06.2007; 2 ♂♂, 1 ♀ [B7], 3.05.2006. **Y.** 1 ♂ [W4], 4.05–5.06.2007; 1 ♂, 2 ♀♀ [F14], 5.06.2007.

Phrurolithus pullatus Kulczyński, 1897

K. 1 ♂ [FE1], 7.06.2006.

Fam. PISAURIDAE (2)

Pisaura mirabilis (Clerck, 1758)

K. 1 ♀ [FE1], 4.05–7.06.2006.

Pisaura novicia (L. Koch, 1878)

K. 4 ♀♀ [M10], 22–29.06.1997; 1 ♂, 2 ♀♀ [FE5], 1 ♂ [F10], 7.06.2006. **M.** 1 ♀ [StGr1], 1 ♂, 1 ♀ [FE4], 3.05–10.06.2006; 1 ♀ [B7], 7.06.2006. **Y.** 2 ♂♂, 6 ♀♀ [StGr6], 4.05–5.06.2007; 4 ♀♀ [M11], 19.06.1997; 1 ♂ [W3], 1 ♂ [F14], 1 ♀ [FE2], 1 ♂ [FE6], 4.05–5.06.2007.

Fam. SALTICIDAE (30)

Aelurillus v-insignitus (Clerck, 1758)

Y. 3 ♂♂, 1 ♀ [StGr6], 1 ♂ [FE2], 4.05–5.06.2007. **T.** 1 ♂ [StGr9], 20.04.2012, ES.

Asianellus festivus (C.L. Koch, 1834)

K. 1 ♂ [StGr3], 4.05–7.06.2006. **M.** 1 ♂ [StGr2], 1 ♂ [M12], 2 ♂ [W1], 7.05–9.06.2007. **Y.** 1 ♂ [W2], 4.05–5.06.2007.

Ballus chalybeius (Walckenaer, 1802)

K. 3 ♀♀ [FE1], 7.06.2006; 1 ♀ [FE1], 6.06.2007; 1 ♀ [F1], 2 ♀♀ [FE5], 1 ♀ [F10], 7.06.2006. **M.** 1 ♂ [StGr2], 1 ♂ [M12], 7.05–9.06.2007. **T.** 1 ♂, juv. [StGr9], 20.04.2012, ES. **Y.** 1 ♂ [W2], 4.05.2007; 1 ♀ [F14], 5.06.2007.

Carrhotus xanthogramma (Latreille, 1819)

K. 2 ♀♀ [FE5], 7.05.2006. **Y.** 1 ♀ [W2], 5.06.2007.

Euophrys frontalis (Walckenaer, 1802)

B. 1 ♂ [W3], 19.06.1997. **K.** 1 ♀ [M8], 1 ♂, 3 ♀ [FE1], 7.06.2006; 1 ♂ [FE5], 4.05–7.06.2006. **M.** 1 ♂, 1 ♀ [StGr1], 9.06.2007. **Y.** 1 ♂ [W2], 1 ♀ [F2], 4.05–5.06.2007.

Euophrys petrensis (C.L. Koch, 1837)

K. 1 ♀ [StGr4], 29.06.1997.

Evarcha arcuata (Clerck, 1758)

A. 1 ♀ [St1], 1 ♂, 1 ♀ [FE6], 20.08.2013. **K.** 1 ♂, 1 ♀ [M8], 6.06.2007; 1 ♂ [F12], 29.06.1997; 1 ♀ [FE1], 7.06.2006; 1 ♂ [FE1], 5.05.2007; 1 ♂, 1 ♀ [FE5], 7.05.2006; 2 ♀♀ [FE5], 6.06.2007. **M.** 1 ♀ [M4], 7.05.2007; 2 ♂♂ [M12], 7.05–9.06.2007; 1 ♀ [M12], 23.08.2013; 1 ♀ [W1], 1 ♀ [FE4], 9.06.2007; 1 ♀ [B7], 7.05.2007. **Y.** 1 ♂, 1 ♀ [W2], 1 ♀ [FE6], 4.05–5.06.2007.

Evarcha falcata (Clerck, 1758)

K. 1 ♀ [FE1], 4 ♂♂, 1 ♀ [FE5], 1 ♀ [F10], 7.06.2006.

Heliophanus auratus C.L. Koch, 1835

K. 3 ♀ [M8], 7.06.2006; 1 ♂ [FE1], 7.05.2006. **M.** 2 ♀♀ [B7], 7.06.2006.

Heliophanus cupreus (Walckenaer, 1802)

K. 1 ♂, 1 ♀ [StGr3], 7.05.2006; 1 ♂, 4 ♀♀ [StGr3], 7.06.2006; 1 ♂ [M10], 2 ♂♂ [F12], 29.06.1997; 1 ♂ [W1], 7.06.2006; 2 ♂♂, 2 ♀♀ [FE1], 7.05.2006; 2 ♂♂, 1 ♀ [FE1], 2 ♂♂, 3 ♀♀ [FE5], 1 ♂, 1 ♀ [F10], 7.06.2006. **M.** 1 ♀ [StGr2], 1 ♂, 2 ♀♀ [W1], 1 ♂, 2 ♀♀ [FE4], 9.06.2007. **Y.** 1 ♂ [W2], 2 ♂♂ [FE2], 4.05–5.06.2007; 1 ♂, 1 ♀ [FE2], 4.05.2007; 1 ♀ [FE6], 5.06.2007.

Heliophanus flavipes (Hahn, 1832)

A. 3 ♂♂ [FE7], 20.08.2013. **K.** 2 ♂♂ [StGr3], 7.05.2006, 1 ♂, 9 ♀♀ [StGr3], 7.06.2006; 1 ♂, 6 ♀♀ [M8], 7.06.2006; 1 ♂, 3 ♀♀ [W1], 7.06.2006; 1 ♂ [FE1], 7.05.2006; 1 ♂, 1 ♀ [FE1], 1 ♂ [FE5], 7.06.2006; 1 ♂, 2 ♀♀ [FE5], 6.06.2007; **M.** 1 ♂ [St13], 3.05.2006; 1 ♀ [StGr1], 1 ♂ [M4], 1 ♀ [M5], 1 ♀ [W1], 1 ♂ [FE4], 9.06.2007. **Y.** 1 ♂, 1 ♀ [W2], 2 ♂♂ [FE6], 5.06.2007.

Heliophanus lineiventris Simon, 1868

M. 1 ♀ [StGr1], 9.06.2007. **Y.** 1 ♂, 3 ♀♀ [StGr6], 2 ♀♀ [W2], 5.06.2007.

Heliophanus patagiatus Thorell, 1875

B. 1 ♀ [Gr1], 19.06.1997. **K.** 5 ♀♀ [F12], 29.06.1997; 1 ♂ [FE1], 7.05.2006; 1 ♀ [FE1], 6.06.2007. **M.** 1 ♀ [W1], 9.06.2007. **Y.** 1 ♂, 1 ♀ [M2], 19.06.1997; 1 ♂ [W2], 1 ♀ [FE2], 5.06.2007.

Heliophanus simplex Simon, 1826

K. 1 ♂ [StGr3], 7.06.2006; 1 ♂ [FE1], 7.05.2006; 1 ♂ [FE1], 7.06.2006. **M.** 1 ♂ [W1], 9.06.2007.

Macaroeris flavicomis (Simon, 1884)

K. 2 ♀♀ [FE1], 7.06.2006. **Y.** 1 ♀ [W2], 5.06.2007.

Marpissa muscosa (Clerck, 1758)

Y. 1 ♀ [F7], 19.06.1997.

- Mendoza canestrinii* Ninni, 1868
M. 1 ♂ juv. [B7], 3.05.2006. 1 ♀ [F1], 1 ♂ [FE1], 07.05.2006. **Y.** 1 ♀ [W2], 1 ♀ [F14], 7 ♀ [FE2], 14 ♂♂, 10 ♀♀ [FE6], 4.05–5.06.2007.
- Myrmarachne formicaria* (De Geer, 1778)
K. 1 ♂ [M10], 29.06.1997. *Pachygnatha listeri* Sundevall, 1830
M. 1 ♂, 1 ♀ [FE5], 07.05.2007.
- Pellenes nigrociliatus* (Simon, 1875)
K. 1 ♀ [StGr3], 7.06.2006; 1 ♂ [FE1], 4.05–7.06.2006. *Tetragnatha extensa* (Linnaeus, 1758)
K. 1 ♀ [M8], 7.06.2006. **M.** 1 ♀ [St13], 9.06.2006; 1 ♀ [FE4], 8.06.2006.
- Pellenes seriatus* (Thorell, 1875)
K. 1 ♀ [StGr3], 7.06.2006; 1 ♀ [M8], 6.06.2007; 1 ♀ [FE1], 6.06.2007; 1 ♂ [FE8], 4.05–7.06.2006. *Tetragnatha montana* Simon, 1874
A. 1 ♀ [B9], 20.08.2013. **K.** 2 ♂, 1 ♀ [FE5], 7.06.2006; 1 ♀ [FE5], 6.06.2007; 3 ♂♂ [F9], 7.06.2006; 2 ♀ [F9], 6.06.2007. **M.** 1 ♀ [M12], 9.06.2007; 1 ♀ [FE4], 8.06.2006; 1 ♀ [FE4], 1 ♂, 1 ♀ [B7], 9.06.2006. **Y.** 1 ♀ [FE6], 5.06.2007.
- Phlegra fasciata* (Hahn, 1826)
M. [M5], 1 ♂, 7.05–9.06.2007. **Y.** 1 ♂ [W2], 4.05–5.06.2007. *Tetragnatha nigrita* Lendl, 1886
A. 2 ♂♂, 1 ♀ [B9], 20.08.2013. **K.** 1 ♀ [FE5], 22.08.2013. **M.** 1 ♂ [W1], 9.06.2007.
- Pseudicius encarpatus* (Walckenaer, 1802)
K. 1 ♀ [FE1], 6.06.2007. **Y.** 1 ♀ [W2], 5.06.2007. *Tetragnatha obtusa* C.L. Koch, 1837
K. 1 ♂ [FE1], 7.06.2006.
- Pseudeuophrys obsoleta* (Simon, 1868)
B. 1 ♂ [StGr5], 1 ♂, 2 ♀♀ [W3], 19.06.1997. *Tetragnatha pinicola* L. Koch, 1870
K. 1 ♂, 1 ♀ [FE1], 6.06.2007. **M.** 1 ♂ [W1], 2 ♂♂ [FE4], 9.06.2007. **Y.** 3 ♀♀ [FE2], 1 ♂, 3 ♀♀ [FE6] 5.06.2007.
- Salticus scenicus* (Clerck, 1758)
B. 4 ♂♂, 3 ♀♀ [Gr1], 19.06.1997. **K.** 4 ♀♀ [StGr3], 7.05.2006; 1 ♀ [M8], 6.06.2013; 2 ♂♂, 2 ♀♀ [FE1], 7.05.2006; 1 ♀ [FE1], 7.06.2006; 1 ♀ [FE1], 6.06.2007. **M.** 1 ♀ [W1], 9.06.2007. *Sibianor aurocinctus* (Ohlert, 1865)
K. 1 ♀ [FE5], 4.05–7.06.2006.
- Sitticus dzieduszyckii* (L. Koch, 1870)
Y. 1 ♂ [M2], 19.06.1997. *Sitticus pubescens* (Fabricius, 1775)
B. 1 ♂ [StGr5], 19.06.1997. **T.** 4 ♂♂, 1 ♀ [StGr8], 18.04.2012, ES.
- Sitticus zimmermanni* (Simon, 1877)
K. 1 ♀ [StGr3], 4.05–7.06.2006; 1 ♂ [FE1], 6.06.2013. *Synageles hilarulus* (C.L. Koch, 1846)
Y. 1 ♀ [W2], 4.05.2007.
- Synageles subcingulatus* Simon, 1878
M. 1 ♂ [StGr1], 2 ♀♀ [M5], 9.06.2007.
- Fam. TETRAGNATHIDAE (9)
- Metellina segmentata* (Clerck, 1758)
A. 1 ♂, 2 ♀♀ [FE7], 20.08.2013. **K.** 2 ♂♂ [FE5], 22.08.2013. **M.** 1 ♂ [B7], 22.08.2013. *Enoplognatha ovata* (Clerck, 1758)
K. 1 ♂ [M8], 1 ♀ [F10], 7.06.2006; 1 ♀ [F12], 29.06.1997. **M.** 1 ♂ [FE4], 9.06.2007; 1 ♂ [B7], 7.06.2006. **Y.** 1 ♂ [FE2], 5.06.2007.
- Pachygnatha clercki* Sundevall, 1823
K. 3 ♀♀ [FE5], 4.05–7.06.2006. **M.** 4 ♂♂ [B7], 7.05.2006. *Enoplognatha thoracica* (Hahn, 1833)
B. 1 ♂, 4 ♀♀ [W3], 19.06.1997. **K.** 1 ♀ [FE5], 4.05–7.06.2006. **M.** 1 ♂ [M4], 7.05–9.06.2007. **Y.** 1 ♂ [FE2], 1 ♂ [FE6] 4.05–5.06.2007.
- Pachygnatha degeeri* Sundevall, 1830
A. 1 ♂ [B9], 20.08.2013. **M.** 21 ♀♀ [M12], 2 ♀♀ [W1], 7.05–9.06.2007. **K.** 1 ♀ [M8], 4.05–7.06.2006; *Episinus truncatus* Latreille, 1809
K. 1 ♂ [FE5], 22.08.2013.

- Euryopis quinqueguttata* Thorell, 1875
T. 1 ♀ [StGr7], 19.04.2012, ES.
- Heterotheridion nigrovariegatum* Simon, 1873
K. 1 ♂ [StGr3], 7.06.2006. **Y.** 2 ♀♀ [FE6], 5.06.2007.
- Neottiura bimaculata* (Linnaeus, 1767)
K. 1 ♂ [FE1], 1 ♀ [F10], 7.06.2006. **Y.** 1 ♂ [FE2], 5.06.2007.
- Neottiura suaveolens* (Simon, 1879)
K. 2 ♂♂, 3 ♀♀ [StGr3], 7.06.2006; 6 ♀♀ [M1], 29.06.1997; 2 ♂♂ [M8], 7.05.2006; 3 ♀♀ [M8], 5.06.2007.
- Parasteatoda lunata* (Clerck, 1758)
K. 1 ♀ [F10], 1 ♀ [FE1], 7.06.2006. **Y.** 1 ♂ [W3], 5.06.2007.
- Parasteatoda tepidariorum* (C.L. Koch, 1841)
M. 1 ♀ [W1], 19.08.2013. **Y.** 1 ♀ [F7], 19.06.1997.
- Phylloneta impressa* (L. Koch, 1881)
A. 1 ♀ [St1], 1 ♀ [M11], 20.08.2013. **K.** 1 ♂ [StGr3], 7.05.2006; 3 ♂♂, 6 ♀♀ [StGr3], 7.06.2006; 1 ♀ [StGr3], 22.08.2013; 1 ♂, 4 ♀♀ [M8], 7.06.2006; 2 ♀♀ [M8], 22.08.2013; 1 ♀ [F12], 29.06.1997; 1 ♂, 4 ♀♀ [FE1], 7.06.2006; 1 ♂ [FE5], 7.05.2007; 1 ♀ [FE5], 6.06.2007; 2 ♀♀ [FE5], 22.08.2013. **M.** 1 ♂, 1 ♀ [St13], 3.05.2006; 2 ♂♂, 1 ♀ [St13], 7.06.2006; 3 ♂♂, 1 ♀ [StGr2], 1 ♀ [M4], 9.06.2007; 3 ♂♂ [M5], 7.05.2007; 3 ♀♀ [M5], 1 ♂, 2 ♀♀ [W1], 9.06.2007; 2 ♀♀ [W1], 19.08.2013. **Y.** 1 ♂ [StGr6], 4.05.2007.
- Platnickina tinctoria* (Walckenaer, 1802)
Y. 1 ♀ [W4], 5.06.2007.
- Simitidion simile* (C.L. Koch, 1836)
B. [StGr5] 1 ♀, 19.06.1997; **K.** 4 ♀♀ [StGr3], 7.05.2006; 1 ♀ [M1], 29.06.1997; 1 ♂, 6 ♀♀ [M8], 7.05.2006; 1 ♀ [M10], 29.06.1997; 1 ♂, 3 ♀♀ [FE1], 1 ♂ [FE5], 7.05.2006. **M.** 1 ♂ [W1], 1 ♀ [FE4], 9.06.2007. **Y.** 1 ♂, 1 ♀ [FE6], 5.06.2007.
- Steatoda albomaculata* (De Geer, 1778)
M. 1 ♂ [St13], 7.05.2007.
- Theridion innocuum* Thorell, 1875
M. 1 ♀ [StGr1], 7.05–9.06.2007; 1 ♀ [M4], 9.06.2007.
- Theridion varians* Hahn, 1833
K. 2 ♂♂, 5 ♀♀ [FE1], 2 ♀♀ [F10], 7.06.2006. **M.** 1 ♂, 1 ♀ [FE4], 8.06.2006; 1 ♀ [FE4], 9.06.2007. **Y.** 1 ♂ [FE2], 1 ♂ [FE6], 5.06.2007.
- Fam. THOMISIDAE (23)
- Ebrechtella tricuspidata* (Fabricius, 1775)
A. 1 ♂ [FE7], 20.08.2013. **K.** 1 ♂ [StGr3], 7.06.2006; 1 ♀ [M8], 7.05.2006; 1 ♀ [W2], 29.06.1997; 1 ♂, 1 ♀ [FE1], 7.05.2006, 1 ♀ [FE1], 1 ♂ [FE5], 7.06.2006. **M.** 1 ♂ [St13], 7.06.2006; 1 ♂, 1 ♀ [FE6], 1 ♀ [B7], 3.05.2007. **Y.** 1 ♀ [F14], 1 ♀ [FE2], 5.06.2007.
- Misumena vatia* (Clerck, 1758)
A. 1 ♀ [FE7], 20.08.2013. **K.** 1 ♂, 1 ♀ [StGr3], 7.06.2006; 1 ♂ [M8], 7.05.2006; 1 ♀ [FE1], 1 ♂, 1 ♀ [FE5], 7.06.2006; **M.** 1 ♂ [W1], 9.06.2007; 1 ♀ [FE4], 7.06.2006.
- Ozyptila atomaria* (Fabricius, 1775)
T. 2 ♀♀ [StGr7], 19–20.04.2012, ES; 1 ♀ [StGr9], 20.04.2012, ES. **Y.** 1 ♀ [FE2], 4.05–5.06.2007.
- Ozyptila claveata* (Walckenaer, 1937)
K. 1 ♂, 4 ♀♀ [M8], 4.05–7.06.2006; 7 ♂♂ [M10], 22–29.06.1997; 1 ♂, 1 ♀ [F1], 3 ♂♂, 1 ♀ [FE1], 1 ♂ [FE5], 4.05–7.06.2006. **M.** 1 ♂, 1 ♀ [StGr1], 3.05–10.06.2006; 3 ♂♂, 2 ♀♀ [W1], 7.05–9.06.2007. **Y.** 3 ♂♂ [W2], 3 ♂♂ [F2], 2 ♂♂, 1 ♀ [FE2], 4.05–5.06.2007.
- Ozyptila praticola* (C.L. Koch, 1837)
K. 11 ♂♂ [M10], 7 ♂♂, 1 ♀ [F12], 22–29.06.1997; 1 ♂ [FE5], 4.05–7.06.2006; **M.** 2 ♂♂ [M12], 7.05–9.06.2007. **Y.** 1 ♂ [W2], 4.05–5.06.2007; [F7], 4 ♂♂, 19.06.1997; 3 ♂♂ [F14], 4.05–5.06.2007.
- Ozyptila scabricula* (Westring, 1851)
K. 1 ♂ [FE5], 4.05–7.06.2006. **M.** 1 ♂ [W1], 3.05–10.06.2006. **T.** 7 ♂♂ [St2], 17–22.04.2012, ES; 1 ♂ [StGr9], 20.04.2012 ES. **Y.** 1 ♂ [W2], 4.05–5.06.2007.
- Ozyptila simplex* (O. Pickard-Cambridge, 1862)
Y. 1 ♀ [F7], 19.06.1997.
- Pistius truncatus* (Pallas, 1772)
K. 1 ♂ [FE1], 7.05.2006.
- Runcinia grammica* (C.L. Koch, 1837)
A. 2 ♀♀ juv. [FE7], 20.08.2013; **K.** 2 ♂♂, 6 ♀♀ [M1], 29.06.1997; **Y.** 1 ♂ [W2], 2 ♀♀ juv. [FE6], 5.06.2007.
- Synaema aff. globosum* (Fabricius, 1775)
A. 2 ♀♀ juv. [B9], 20.08.2013.
- Thomisus onustus* Walckenaer, 1805
K. 4 ♂♂, 9 ♀♀ [StGr3], 1 ♂, 1 ♀ [M1], 29.06.1997; 1 ♂ [M8], 1 ♀ [FE1], 7.06.2006. **M.** 3 ♀♀ [St13], 9.06.2007.
- Tmarus piger* (Walckenaer, 1802)
Y. 1 ♂ [FE1], 3.05.2007
- Xysticus acerbus* Thorell, 1872
K. 1 ♂ [StGr3], 7.06.2006; 1 ♀ [M1], 29.06.1997; 1 ♀ [FE5], 7.05.2006. **M.** 1 ♂ [FE4], 9.06.2006. **T.** 2 ♂♂ [St2], 17–22.04.2012 ES; 1 ♀ [StGr7], 22.04.2012, ES; 1 ♂ [StGr9], 17.04.201, ES.

Xysticus cristatus (Clerck, 1758)

K. 3 ♂♂, 3 ♀♀ [StGr3], 7.05.2006; 11 ♀♀ [StGr3], 7.06.2006; 2 ♀♀ [M8], 7.05.2006; 2 ♂♂, 3 ♀♀ [M8], 7.06.2006; 1 ♂, 4 ♀♀ [M8], 6.06.2007; 3 ♂♂, 10 ♀♀ [FE1], 7.05.2006, 1 ♀, 6.06.2006; 1 ♀ [FE1], 6.06.2007; 2 ♂♂ [FE5], 7.05.2006; 1 ♀ [FE5], 7.06.2006; 3 ♀♀ [FE5], 6.06.2007. **M.** 14 ♂♂, 17 ♀♀ [St13], 3.05.2006; 1 ♀ [St13], 7.06.2006; 1 ♂, 1 ♀ [StGr2], 2 ♂♂ [M4], 5 ♂♂, 3 ♀♀ [M5], 1 ♂ [M12], 7.05–9.06.2007; 3 ♂♂, 1 ♀ [W1], 9.06.2007; 2 ♂♂ [FE4], 3.05.2006. **T.** 2 ♂♂, 1 ♀ [St2], 17–22.04.2012, ES. **Y.** 1 ♂ [StGr6], 4.05–5.06.2007, 2 ♂♂, 3 ♀♀ [StGr6], 5.06.2007; 2 ♂♂, 1 ♀ [FE2], 1 ♂, 1 ♀ [FE6], 4.05–5.06.2007.

Xysticus kochi Thorell, 1872

K. 3 ♂♂ [StGr3], 7.05.2006; 2 ♀♀ [StGr3], 7.06.2006; 1 ♀ [M1], 29.06.1997; 3 ♂, 2 ♀♀ [M8], 7.05.2006; 1 ♀ [M10], 2 ♀♀ [F12], 22–29.06.1997; 2 ♂♂, 2 ♀♀ [FE1], 7.05.2006; 1 ♂ [FE5], 4.05–7.06.2006; 1 ♂, 1 ♀ [F10], 7.06.2006. **M.** 7 ♂♂, 1 ♀ [St13], 3.05–10.06.2006; 1 ♀ [St13], 7.06.2006; 1 ♂, 1 ♀ [StGr1], 3.05–10.06.2006; 3 ♂♂ [StGr1], 3 ♂♂, 2 ♀ [StGr2], 10 ♂♂, 1 ♀ [M5], 1 ♂ [M12], 7.05–9.06.2007; 1 ♂ [W1], 3.05.2006; 1 ♀ [FE4], 7.06.2006; **T.** 1 ♂ [St2], 20.04.2012 ES; 1 ♂ [StGr7], 18.04.2012 ES. **Y.** 25 ♂♂ [StGr6], 1 ♂, 1 ♀ [FE2], ♂, 1 ♀ [FE6], 4.05–5.06.2007.

Xysticus laetus Thorell, 1875

K. 1 ♀ [StGr3], 7.05.2006. **M.** 2 ♂♂ [M3], 21.04.2012 ES. **T.** 1 ♂ [StGr7], 19.04.2012 ES.

Xysticus lanio C.L. Koch, 1835

M. 1 ♂ [M8], 7.05–9.06.2007.

Xysticus luctator L. Koch, 1870

K. 1 ♂ [M10], 1 ♂, 1 ♀ [F12], 22–29.06.1997; 1 ♂ [FE5], 4.05–7.06.2006. **M.** 7 ♂♂ [W1], 3.05–10.06.2006.

Xysticus luctuosus (Blackwall, 1836)

B. 1 ♀ [StGr5], 19.06.1997.

Xysticus ninnii Thorell, 1872

M. 1 ♂ [StGr2], 9.06.2007.

Xysticus robustus (Hahn, 1832)

K. 1 ♂ [F12], 22–29.06.1997 KE.

Xysticus striatipes L. Koch, 1870

A. 3 ♂ [St1], 4 ♂♂ [FE7], 20.08.2013. **K.** 3 ♂♂ [StGr3], 22.08.2013; 1 ♀ [M8], 7.06.2006; 4 ♂♂, 1 ♀ [M8], 22.08.2013; 1 ♀ [FE1], 5.05.2007; **M.** 2 ♂♂ [StGr1], 1 ♂ [M12], 4 ♂♂ [W1], 19.08.2013. **T.** 1 ♀ [StGr7], 19.04.2012 ES. **Y.** 2 ♀♀ [StGr6], 4.05–5.06.2007.

Xysticus ulmi (Hahn, 1831)

M. 3 ♂♂ [M12], 7.05.2007; 1 ♂ [FE4], 3.05.2006.

Fam. TITANOECIDAE (1)

Titanoeca schineri L. Koch, 1872

B. 1 ♀ [StGr5], 2 ♂♂, 1 ♀ [W3], 19.06.1997. **K.** 1 ♀ [StGr3], 7.05.2006; 1 ♂ [M8], 7.06.2006; 1 ♂, 1 ♀ [M10], 3 ♀♀ [F12], 29.06.1997; 2 ♂♂ [FE1] 6.06.2007. **M.** 1 ♀ [St13], 3.05.2007; 1 ♂ [M4], 7.05–9.06.2007. **T.** 1 ♂, 1 ♀ [StGr7], 19.04.2012 ES. **Y.** 2 ♂♂, 1 ♀ [M2], 19.06.1997; 1 ♂ [F2], 1 ♂ [FE2], 3 ♂♂ [FE6], 4.05–5.06.2007.

Fam. ULOBORIDAE (1)

Uloborus walckenaerius Latreille, 1806

K. 3 ♂♂, 4 ♀♀ [StGr3], 6.06.2007; 1 ♀ [M9], 22.08.2013; 3 ♀♀ [FE1], 7.06.2006; 2 ♀♀ [FE1], 6.06.2007. **M.** 1 ♀ [St13], 7.06.2006; 1 ♂, 1 ♀ [StGr2], 7.05–9.06.2007. **Y.** 1 ♀ [M2], 19.06.1997; 1 ♀ [FE2], 3 ♂♂, 1 ♀ [FE6], 5.06.2007.

Fam. ZODARIIDAE (1)

Zodarium sp. **K.** 1 ♂, juv. [StGr3], 4.05–7.06.2006.

Discussion

A total of 266 spider species of 28 families has been recorded from the National Nature Park 'Buzkyi Hard' and its vicinity. Of them, the family Linyphiidae is most species-rich (61 species). The next species-rich families are ranked as follows: Salticidae, Gnaphosidae, Thomisidae, Araneidae, Lycosidae, Theridiidae, and Philodromidae (Table 2).

The studied local spider fauna appears to be less diverse than those of other well-studied protected areas (Table 2). Although these parks and reserves have different territories and different ratios of steppe, forest and wetland habitats, everywhere the Linyphiidae is a dominant family, Gnaphosidae and Salticidae follow up; only in the 'Sviati Hory', the Salticidae is less diverse than Araneidae, Lycosidae or Theridiidae. In the 'Buzkyi Hard', the species richness of Araneidae, Linyphiidae, Philodromidae, Salticidae and Thomisidae was not much lower than the average in other parks and reserves, while the families Lycosidae, Theridiidae and especially Gnaphosidae were much poorer.

Both combining and separation methods of the faunas comparison have produced similar results (Fig. 2). The three most closely located reserves within the forbanchgrass steppe subzone (Ukrainian Steppe, Luhanskyi and Razdorskyi) are grouped together at the DCA ordination plot and form a central cluster in the dendrogram. They represent vast steppe sites and various plots with arboreal vegetation. The 'Sviati Hory' Park stands apart, as it has a very small steppe area and is known as an "island of the forest-steppe in the steppe zone". The Black Sea Reserve is situated in the south of the bunchgrass steppe subzone. Its high variety of habitats on sandy soils includes saline marshes and marine bay shores that are absent in other reserves. The

Table 2. Species richness of spider families in nature parks and reserves of the steppe zone of the East European Plain. BH — National Nature Park 'Buzkyi Hard', BSSBR — Black Sea State Biosphere Reserve, USNR — Ukrainian Steppe Nature Reserve, LNR — Luhansk Natural Reserve, SH — National Nature Park 'Sviati Hory', RMR — Razdorsky Museum-Reserve. Species number (%).

Табл. 2. Видовое богатство семейств пауков в природных парках и заповедниках степной зоны Восточноевропейской равнины. BH — Национальный природный парк «Бугский Гард», BSSBR — Черноморский государственный биосферный заповедник, USNR — Украинский степной заповедник, LNR — Луганский природный заповедник, SH — Национальный природный парк «Святые Горы», RMR — Раздорский музей-заповедник. Число видов (%).

Family	Nature Parks and Reserves					
	BH	BSSBR	USNR	LNR	SH	RMR
Agelenidae	4 (1.5)	3 (1.0)	4 (1.4)	4 (1.2)	4 (1.4)	5 (1.5)
Anyphaenidae	1 (0.4)	1 (0.3)	—	1 (0.3)	1 (0.3)	1 (0.3)
Araneidae	22 (8.3)	22 (7.3)	23 (8.2)	28 (8.3)	22 (7.6)	19 (5.8)
Atypidae	1 (0.4)	1 (0.3)	1 (0.4)	1 (0.3)	2 (0.7)	1 (0.3)
Argyronetidae	—	1 (0.3)	1 (0.4)	—	1 (0.3)	—
Clubionidae	5 (1.9)	5 (1.7)	8 (2.8)	11 (3.3)	9 (3.1)	8 (2.4)
Dictyniidae	6 (2.3)	7 (2.3)	9 (3.2)	6 (1.8)	6 (2.1)	7 (2.1)
Dysderidae	2 (0.8)	—	3 (1.1)	—	1 (0.3)	1 (0.3)
Eresidae	1 (0.4)	1 (0.3)	1 (0.4)	1 (0.3)	1 (0.3)	1 (0.3)
Eutrichuridae	5 (1.9)	6 (2.0)	5 (1.8)	5 (1.5)	4 (1.4)	7 (2.1)
Gnaphosidae	26 (9.8)	41 (13.5)	37 (13.1)	38 (11.3)	30 (10.4)	49 (14.8)
Hahniidae	1 (0.4)	1 (0.3)	2 (0.7)	2 (0.6)	2 (0.7)	2 (0.6)
Linyphiidae	61 (22.9)	64 (21.1)	64 (19.5)	71 (21.1)	63 (21.9)	57 (17.3)
Liocranidae	2 (0.8)	4 (1.3)	2 (0.7)	4 (1.2)	5 (1.7)	6 (1.8)
Lycosidae	20 (7.5)	30 (9.9)	22 (7.8)	27 (8.0)	26 (9.0)	27 (8.2)
Mimetidae	2 (0.8)	2 (0.7)	2 (0.7)	1 (0.3)	2 (0.7)	4 (1.2)
Miturgidae	2 (0.8)	4 (1.3)	2 (0.7)	3 (0.9)	3 (1.0)	4 (1.2)
Oxyopidae	2 (0.8)	2 (0.7)	2 (0.7)	2 (0.6)	1 (0.3)	1 (0.3)
Philodromidae	12 (4.5)	13 (4.3)	11 (3.9)	14 (4.2)	16 (5.6)	11 (3.3)
Pholcidae	3 (1.1)	1 (0.3)	2 (0.7)	3 (0.9)	2 (0.7)	3 (0.9)
Phrurolithidae	2 (0.8)	2 (0.7)	3 (1.1)	2 (0.6)	1 (0.3)	2 (0.6)
Pisauridae	2 (0.8)	1 (0.3)	3 (1.1)	2 (0.6)	3 (1.0)	2 (0.6)
Salticidae	30 (11.3)	35 (11.6)	33 (11.7)	40 (11.9)	21 (7.3)	41 (12.4)
Scythodidae	—	1 (0.3)	1 (0.4)	—	—	1 (0.3)
Sparassidae	—	1 (0.3)	1 (0.4)	1 (0.3)	1 (0.3)	1 (0.3)
Tetragnathidae	9 (3.4)	5 (1.7)	6 (2.1)	10 (3.0)	10 (3.5)	8 (2.4)
Theridiidae	19 (7.1)	24 (7.9)	18 (6.4)	28 (8.3)	26 (9.0)	31 (9.4)
Thomisidae	23 (8.6)	20 (6.6)	22 (7.8)	26 (7.7)	22 (7.6)	25 (7.6)
Titanoecidae	1 (0.4)	3 (1.0)	2 (0.7)	3 (0.9)	3 (1.0)	3 (0.9)
Uloboridae	1 (0.4)	1 (0.3)	—	1 (0.3)	1 (0.3)	1 (0.3)
Zodariidae	1 (0.4)	1 (0.3)	1 (0.4)	1 (0.3)	—	1 (0.3)
Total	266 (100)	303 (100)	282 (100)	336 (100)	289 (100)	330 (100)

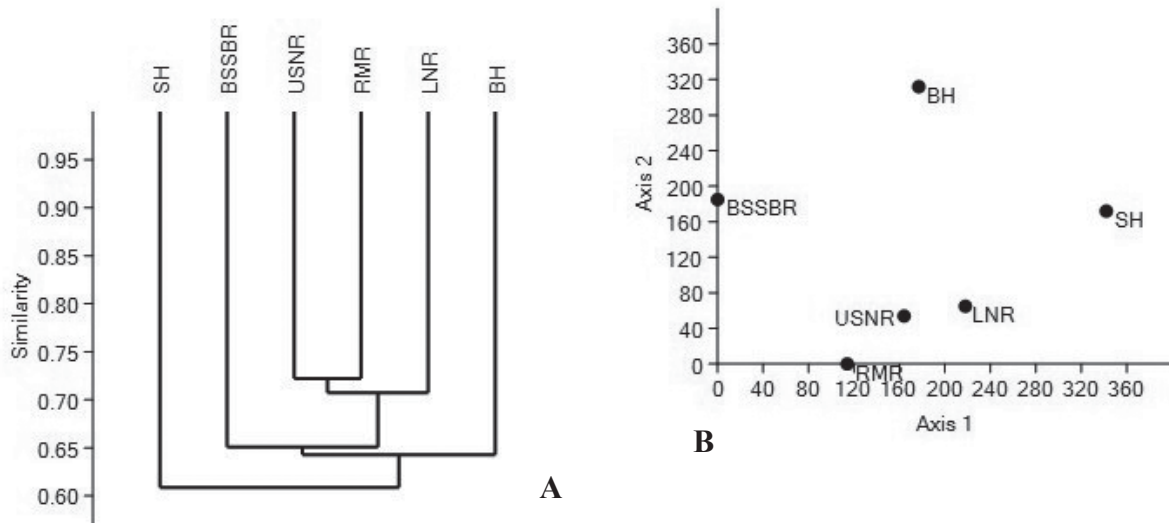


Fig. 2. Comparative analysis of the spider faunas of six conservation areas. A — cluster analysis based on the UPGMA method as a cluster algorithm and the Bray-Curtis index as a similarity measure. B — DCA ordination. For abbreviations, see Table 2.

Рис. 2. Сравнительный анализ фаун пауков шести охраняемых территорий. А — кластерный анализ на основе метода UPGMA как кластерного алгоритма и индекса Брея-Куртиса как меры сходства. В — DCA ординация. Сокращения см. табл. 2.

'Buzkyi Hard' remote position at the DCA ordination and its least similarity with the steppe reserves can be explained by its westernmost geographical location.

The 'Buzkyi Hard' is inhabited by a number of rare species. For *Neottiura suaveolens*, it is the second record from Ukraine. Hitherto, *N. suaveolens* was found in the northeast part of Luhansk Area [Polchaninova, 1990]. In 2008, that area was affected by extensive fire, and since that time *N. suaveolens* has not been registered from there [Polchaninova, 2015b]. Therefore, now the 'Buzkyi Hard' is the only verified locality of this species in Ukraine.

The geographic range of *Cyclosa sierre* extends from Portugal to Azerbaijan and from south Ukraine to Israel [Kovblyuk, Kastrygina, 2015]. To date, the 'Buzkyi Hard' represents the northernmost known locality of this species. For *Canariphantes nanus* and *Dysdera lata*, the Park is their northernmost findings in Ukraine. The Park also lies at the northernmost boundary of the *Mimetus laevigatus* range (a more detailed information is available in Kovblyuk, Kastrygina, 2015).

For *Zelotes apricorum*, the Park seems to represent the southern boundary of its range in the East European Plain. Being widely distributed in the forest zone, this species has been found in two localities in the steppe zone only: viz., the National Parks 'Sviati Hory' [Polchaninova, Prokopenko, 2013] and 'Buzkyi Hard' (present data). Both Parks are situated in the uplands with chalky or granitic hills. For three species, *Haplodrassus pseudosignifer* [Kovblyuk, Kastrygina, 2015], *Alopecosa kovblyukii* [Nadolny et al., 2012] and *Agneta saaristoi*, the 'Buzkyi Hard' is the westernmost known locality of their ranges.

Spiders have long been known as particularly sensitive to habitat disturbances. Their high abundance, wide

distribution and vulnerability make spiders ideal candidates for conservation studies [Cardoso, Morano, 2010]. Our investigations have confirmed a high conservation value of the National Nature Park 'Buzkyi Hard'. Besides the typical representatives of steppe and forest habitats, its fauna includes a number of rare species (see above). Some of them seem have boundaries of their geographic ranges that are situated in the Park territory. The next stage of arachnological researches in the Park should be focused on a comparative analysis of spider assemblages and an estimation of the number of rare species.

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