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INVESTIGATION OF SPIDERS (ARANEAE) OF THE NATURE MONUMENT JESLIČKY (SOUTH MORAVIA, CZECH REPUBLIC)

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Abstract

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Faunistic records of spiders (Araneae) in the Nature Monument Jesličky (South Moravia, Czech Republic) are presented. Spiders were collected by pitfall trapping in 2009 and by sweeping of the herb vegetation in 2011. During the both periods a total of 847 specimens were collected, from which 617 adult spiders were determined. We found 88 species belonging to 20 families. Seven species listed on the Red List of Invertebrates of the Czech Republic were recorded: *Titanoeca schineri* L. Koch, 1872, *Scotina celans* (Blackwall, 1841), *Haplodrassus dalmatensis* (L. Koch, 1866), *Ozyptila pullata* (Thorell, 1875), *Ozyptila simplex* (O.P-Cambridge, 1862) and *Marpissa nivoyi* (Lucas, 1846). To the most significant finding belongs a very rare and endangered (EN) *Micaria guttulata* (C. L. Koch, 1839). A significant and rich finding of bioindicators of the well preserved steppe habitats *Atypus piceus* (Sulzer, 1776), *Eresus kollari* Rossi, 1846 and *Alopecosa sulzeri* (Pavesi, 1873) are to be mentioned.

Spiders, Araneae, faunistics, South Moravia, Czech Republic

Several major studies have been devoted to arachnological research of xerothermic sites in the Pannonian area of the Czech Republic recently. The main faunistic publications include the results of the arachnofauna research of the Lower Moravia Biosphere Reserve (Bryja *et al*., 2005). This area is geographically the most similar to our research site and therefore much of faunistic findings are compared to that work. Other major publications include results from the national nature reserves of Mohelenská hadcová step (Miller, 1947; Buchar, 1997), and Krumlovsko-rokytenské slepence (Bryja, 2002). Recently, faunistic studies of individual xerothermic sites in the district of Břeclav have been presented (Košulič & Hula, 2011a; Košulič & Hula, 2011b). The faunistic data on arachnofauna and conclusions arising from them should complement the mosaic of knowledge on spiders in South Moravia, where, despite extensive research and arachnological excursions, unexplored places can still be found.

MATERIALS AND METHODS

Localization

The study site, the Nature Monument of Jesličky, is located in the vicinity of a nearby village of Němčičky at Hustopeče in the district of Břeclav, South Moravia. This small area is composed of a dry valley in which there is a thermophilic turf grass steppe turning into Downy Oak woods with the occurrence of rare flora and fauna (Mackovčin *et al*., 2007). The forest starts on the northern edge of the site and is characterized by representation of *Quercus robur* and *Quercus pubescens*. In the past, the area was a vineyard and it was partly used for extensive grazing. At present, scattered fruit trees are growing there and autumn mowing of vegetation is carried out within conservation management in the steppe section of the locality. Jesličky was declared a natural monument in 2002 and with its area of 3.33 ha it belongs among small-area protected sites. The protected area is situated at an altitude of 228–289 m

1: *Marked border of the Nature Monument Jesličky with grid map of the Czech Republic (www.mapy.cz)*

a.s.l. and is a part of Sites of Community Importance (SCI) Kuntínov. The outside landscape with border of the studied locality is showed in Fig. 1.

Methods

We used pitfall traps as a primary collecting technique supplemented by sweeping of herb vegetation. Pitfall traps was filled with 4% formaldehyde solution as a fixative fluid. Three pitfall traps were placed in each of the three transects. Traps were always arranged in lines along the slope at about five meters intervals. Traps were placed on 18 April 2009 and collected at regular monthly intervals from May to October 2009 (16 May, 21 June, 23 July, 25 August, 25 September, and 25 October).

Sweeping of herb vegetation was also employed as an additional method for collecting spiders. We used this method in 2011 in the following dates: 21 May, 20 June, 6 August, 22 October. Sweeping took place in four lines over the whole steppe habitat area. After collection, the obtained material was preserved in 70% ethanol.

Individual transects used for collecting of spiders are identified by GPS coordinates (information below) and are designed in Fig. 2. The entire locality is located in faunistic square 7067 (Pruner & Míka, 1996).

Placement of collecting sites

1st transect (48°56'32"N, 16°50'23"E):

Traps was placed in one line in a strongly exposed xerothermic slope with southern orientation. Due to high sloping and substrate looseness, the soil is subject to considerable erosion. This caused frequent filling and drying of traps even with captured material. All three traps were placed in the central part of the slope in one line 5 meters between them.

2nd transect (48°56'33"N, 16°50'24"E):

The beginning of the line of traps was selected at the foot of Dogwood (*Cornus mas*) over the above mentioned slope. The line stretched along a slight slope and the last third trap was placed near a Pubescent Oak (*Quercus pubescens*). In the spring the traps line laid in a dense vegetation of Spring Pheasant's Eye (*Adonis vernalis*). The entire area of the vegetation was mowed in August within the reservations management.

3rd transect (48°56'34"N, 16°50'22"E):

These three traps were placed in a slightly sloping terrain of forest-steppe character with rich understory. The line was in the direction towards the edge of the forest formed by Scots Pines (*Pinus sylvestris*) and Pubescent Oaks (*Quercus pubescens*). The third trap was most of the day overshadowed by a grown oak. The entire area of vegetation was cut during August, only at the edge of the forest a belt of uncut vegetation remained.

2: *Design of collecting transects (full line with red dots – trasenct of pitfall traps, dashed line – transect of sweeping method)*

Evaluation of collected material

All spider material was determined to species level by means of special literature: Miller (1971), Heimer & Nentwig (1991), Roberts (1995), Almquist (2005), Nentwig *et al*. (2011).

Assessment of spider communities was carry out by bioindication classification by Buchar & Růžička (2002) supplemented by Růžička & Buchar (2008) and Řezáč (2009). This classification divides spider's communities by habitat preference to the four different situations: C (climax habitats), SN (semi-natural habitats), D (disturbed habitats), A (artificial habitats). Thermopreference was evaluated by Buchar & Růžička (2002) and Růžička & Buchar (2008). In this evaluation species were categorised as a species inhabiting thermophyticum (T), mesophyticum (M), oreophyticum (O).

Nomenclature and arrangement of families, genera and species follow the Catalogue of Spiders of the Czech Republic (Buchar & Růžička, 2002) and the most recent version of the World Spider Catalog 12.5 (Platnick, 2012), with exception of names by Clerck, where we accept Art 3.1 of ICZN (1999). Conservation status follows by Růžička (2005) – endangered (EN) and vulnerable (VU). Most of the species were determined by Ondřej Košulič. Morphologically complicated taxa were revised and determined by Vladimír Hula. Specimens of *Atypus piceus*, *Dysdera lantosquensis* and *Eresus kollari* were determined by Milan Řezáč. All of the examinted material is deposited in collection of Ondřej Košulič.

RESULTS AND DISCUSSION

In both catching periods, a total of 847 specimens of spiders were collected. Of this total number, 617 adult specimens belonging to 88 species of 20 families were determined. Most species with a total number of 531 specimens were found using the definitely effective method of pitfall traps. Using the sweeping method, 86 adult specimens were collected. Out of these, however, 18 species were found that were not recorded using pitfall traps. Logically, they are especially web-building spiders belonging to the families of Araneidae and Theridiidae. The highest representation of species was found in the families of Gnaphosidae (21 species), Lycosidae (12 species) and Thomisidae (11 species). These families were also the most numerous ones, since from the Lycosidae, Gnaphosidae, and Thomisidae families up to 247, 117, and 36 specimens respectively were collected.

A very interesting finding is the discovery of the most abundant species of spiders in the surveyed

area. These include rare species of steppe and forest-steppe habitats *Eresus kollari* Rossi, 1846 (67 specimens) and *Alopecosa sulzeri* (Pavesi, 1873) (66 specimens). The first species was found in all the examined lines with a gradually rising tendency from steppe to forest-steppe part of the site. Surprisingly, there were relatively frequent findings at the strongly exposed slope which formed the border with the neighboring agrocenosis (wheat grown in 2009). This species began to occur in the capture interval from 23 July to 25 August 2009 and was then found in every month until October. This phenomenon is due to its late-summer activity, when the adult males seek out females burrows. Another surprising finding concerning *Eresus kollari* was a discovery of three subadult females trapped in the third transect. The females spend most of their lives in their burrow and thus females found outside the nest are very sporadic and atypical. All these findings confirm the presence of a very strong population of *Eresus kollari* in the surveyed area. The main factors affecting such high numbers of a rare species include most likely favorable natural conditions and a relatively diverse landscape mosaic in the vicinity of Jesličky – a complex of thermophilic oak woods of Kuntínov with a mosaic of xerothermic steppes of Zázmoníky and Nosperk. The second numerous species in the material was the wolfspider *Alopecosa sulzeri* which was very frequently found especially in the third transect that created the transition into warm oak woods. At the steppe and peripheral part of the site towards the agrocenosis this species was found very sporadically. The big species of wolfspiders is often cited as a characteristic type of spider communities in Downy Oak woods and sunlit forest edges (Kůrka *et al*., 2010). The highest abundance was recorded in the trap located under the oak in leaf litter where it was often also observed visually.

The other most abundant species found in the surveyed area are wolfspiders typical for xerothermic open habitats – *Alopecosa accentuata* (Latreille, 1817), *Pardosa alacris* (C. L. Koch, 1833), *Pardosa hortensis* (Thorell, 1872) and *Pardosa lugubris* (Walckenaer, 1802). The significant findings include the occurrence of rare gnaphosids *Gnaphosa opaca* (Herman, 1879), *G. lucifuga* (Walckenaer, 1802), *Haplodrassus dalmatensis* (L. Koch, 1866), *H. kulczynskii* Lohmander, 1942 and *Drassyllus villicus (*Thorell, 1875). These are species belonging to the major bioindication elements of well-preserved xerothermic habitats which are in the constantly intensified landscape of southern Moravia diminishing due to poorly-led interventions into the landscape (e.g. intensified afforestation) and inconvenient management of protected grassland habitat.

List of threatened species in the Czech Republic (Růžička, 2005), 7 species belonging to categories (EN) endangered and (VU) vulnerable were found. These species include the following: EN – *Micaria guttulata* (C. L. Koch, 1839), VU – *Titanoeca schineri* L. Koch, 1872, VU – *Scotina celans* (Blackwall, 1841), VU – *Haplodrassus dalmatensis* (L. Koch, 1866), VU – *Ozyptila pullata* (Thorell, 1875), VU – *Ozyptila simplex* (O.P-Cambridge, 1862), VU – *Marpissa nivoyi* (Lucas, 1846).

According to bioindication and thermopreference evaluation (Buchar & Růžička, 2002; Růžička & Buchar, 2008; Řezáč, 2009), the collected communities of spiders can be characterized as strongly climax (C – 60%) with an absolute majority of spiders preferring warm areas of the Czech and Moravian thermophyticum (T – 55%). Mesophilic (M) component is characterized in 40% and the remaining 5% belong to species living in colder areas of oreophyticum (O). These species include euryvalent species occurring throughout the area of the Czech Republic. The remaining composition of species preferring the location according to site originality belongs to the species living in semi-natural habitats (SN – 28%), disturbed habitats (D – 11%) and artificial habitats (A – 1%). For this assessment it is necessary to mention quite misleading and inaccurate classification of habitats. Meadow habitat cannot be climax and undisturbed in the condition of the Czech Republic, while there is mowing and grazing of herb vegetation.

Annotated list of significant species found

Atypidae

Atypus piceus (Sulzer, 1776)

This rare species and one of three representatives of mygalomorph spiders in our area is bound by its occurrence on calcareous soil sites such as rocky steppes, sunny forest edges and south exposed slopes of thermophilic oak woods (Řezáč *et al*., 2007). In southern Moravia, it is found relatively rarely on the margins of thermophilic oak woods – Děvín, Milovická stráň and Milovický les (Bryja *et al*., 2005). In the collected material it was found in only one third-line trap located under the grown Pubescent Oak *(Quercus pubescens)* in the forest-steppe transition. All specimens were adult males who searched burrows of females for breeding.

Data: 2♂, 16. 5.–21. 6. 2009; 3♂, 21. 6.–23. 7. 2009, transect 3.

Eresidae

Eresus kollari Rossi, 1846

A remarkable species of spider which, thanks to its aposematic multicoloration of males, belongs among very attractive and well-known species of our arachnofauna. Due to its longevity and strict relation to xerothermic habitats, it is a significant species indicating nature conservation value of habitats. Its findings have been recorded mainly in the Czech thermophyticum – Czech Karst, České Středohoří Highlands, and in the vicinity of Prague. In Moravia it is often found at xerothermic sites of Pálava PLA, Bzenecko, Pouzdřany and Moravian Karst (Řezáč & Kubcová, 2002). In the surveyed area of Jesličky, this is the most common species of the

spider community with activity in late summer and early autumn months.

Data: 1♂, 23. 7.–25. 8. 2009, 6♂, 25. 8.–25. 9. 2009, 7♂, 25. 9.–25. 10. 2009, transect 1; 9♂, 23. 7.–25. 8. 2009, 8♂, 25. 8.–25. 9. 2009, 5♂, 25. 9.–25. 10. 2009, transect 2; 2♀, 18. 4.–16. 5.2009, 16. 5.–21. 6. 2009, 1♀, 14♂, 23. 7.–25. 8. 2009, 9♂, 25. 8.–25. 9. 2009, 5♂, 25. 9.–25. 10. 2009, transect 3.

Titanoecidae

Titanoeca schineri L. Koch, 1872

Rare species living under stones on rock steppes, sand dunes and heatland, found also on artifical habitat as a motorway and train verge. In the south Moravia a very common species, in fact more abundant than common related species *Titanoeca quadriguttata* L. Koch, 1872 (Bryja *et al*., 2002). Hula *et al*. (2009) found affinity to the empty land snail shells, which are juveniles using for overwintering. **VU**

Data: 2♂, 16. 5.–21. 6. 2009, 1♂, 21. 6.–23. 7. 2009, 1♂, 1♀, 23. 7.–25. 8. 2009, transect 1; 2♂, 16. 5.–21. 6. 2009, transect 2.

Liocranidae

Scotina celans (Blackwall, 1841)

According to Buchar & Růžička (2002) a rare species inhabiting pine and oak forests, forest steppe, sometimes found also on a scree slope. Bryja *et al*. (2005) report this species as a scarce, usually find in a grass of steppes of all steppe habitat around the PLA Pálava. We found two specimens only in the autumn period of September–October 2009. **VU**

Data: 1♂, 25. 9.–25. 10. 2009, transect 1; 1♂, 25. 9.–25. 10. 2009, transect 3.

Gnaphosidae

Drassyllus pumilus (C. L. Koch, 1839)

Typical species for rocky steppe habitat, forest steppe, very numerous on the slope of vineyard terraces (Košulič & Hula, 2011c). Bryja *et al*. (2005) mentions relatively rich findings from south Moravia, however only from habitat on calcareous soil.

Data: 1♀, 16. 5.–21. 6. 2009, transect 1; 2♂, 16. 5.–21. 6. 2009, transect 3.

Gnaphosa alpica Simon, 1878

A very interesting finding. In general, within the Central Europe this species is usually reported under the name *G. modestior* Kulczynski, 1897 (e.g. Miller, 1971). Ovtsharenko *et al*. (1992) later pointed out some uncertainties in the taxonomy of *G. modestior* and in their revision they report the species of *G. modestior* only from the steppe regions of eastern Europe. The same authors report that all previous Central European findings of *G. modestior* belong to the species of *G. alpica*. A striking fact is that *G. alpica* was described by Simon from the high western Alps and the species, as it had been known by the time of Ovtsharenko's *et al*. review (1992), was considered extremely rare (see Grimm, 1985) and only from the westernmost Alps (Dauphine, Savoyen, Wallis, Zermatt). On the contrary, the Central European population live in the lowlands at the hottest sites (vineyard terraces of the Little Carpathians, near Lake Neusiedl, Hungarian Lowlands). The situation is unclear and requires further taxonomic study with an examination of type specimens.

Data: 1♀1♂, 18. 4.–16. 5. 2009, transect 2.

Haplodrassus dalmatensis (L. Koch, 1866)

An epigeic species living under stones on rocky steppes, also temporarily at depleted stockpiles at some stage of spontaneous succession (Kůrka *et al*., 2010). An important factor is the presence of sufficient number of loose stones which are used by these spiders as their hideout. As the above mentioned species, it is bound to the warm areas of the Czech Republic (Buchar & Růžička, 2002). **VU**

Data: 2♂, 16. 5.–21. 6. 2009, transect 2; 1♀1♂, 16. 5.–21. 6. 2009, transect 3.

Micaria guttulata (C. L. Koch, 1839)

A very rare species of gnaphosid spider that imitates ants by its mimicry. From a historical point of view, only a few records from southern Moravia are known from the Czech Republic (Miller, 1947; Kůrka 1994). Recent findings are confirmed only from the locality of Skalky (Bryja *et al*., 2005) and an unpublished finding from the Malhotky NNR, which was the first faunistic indication of the southeastern Moravia (V. Hula lgt.). Significant information of the extension of this rare thermophilic spider (see Fig. 3). **EN**

Data: 1♂, 25. 9.–25. 10. 2009, transect 2.

Zelotes pygmaeus Miller, 1943

Species typical for rocky steppes described from southern Moravian xerothermic habitats (Miller, 1943), quite widespread (Bryja *et al*., 2005). In the area of Bohemia, it has been found only very rarely at three locations (Kůrka & Buchar, 2010). In the surveyed area, it was recorded only in the steppe with sparse vegetation.

Data: 1♀, 16. 5.–21. 6.2009, 1♀, 21. 6.–23. 7. 2009, 1♀, 23. 7.–25. 8. 2009, transect 2.

Thomisidae

Ozyptila pullata (Thorell, 1875)

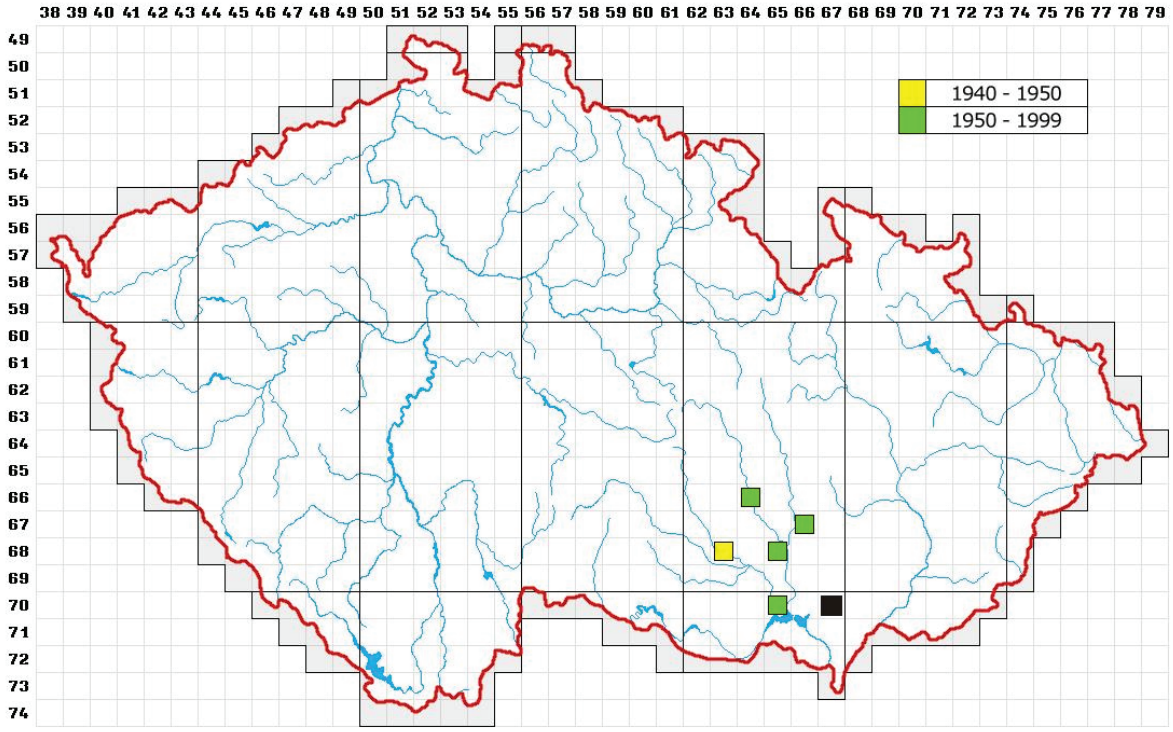
A rare species so far reported only from a few South Moravian steppes by prof. Miller (Kůrka, 1997) and in the reservation of Čubernice at Plumlov Dam (Špičáková, 1985). The district of Břeclav relatively abundant presence was discovered in the nearby nature reserve of Louky pod Kumstátem (Košulič & Hula, 2011b). Pannonian element (Bryja, 2002). **VU**

Data: 1♂, 18. 4.–16. 5. 2009, 1♀, 21. 6.–23. 7. 2009, transect 2.

Salticidae

Marpissa nivoyi (Lucas, 1846)

Rare species of jumping spiders living among grass on xerothermic slopes. Bryja *et al*. (2005) considered this species common and it seems to



3: *Distribution of Micaria guttulata (C. L. Koch, 1839) in the Czech Republic (black mark – studied locality Jesličky) (orig. Ivan Marik)*

prefer steppes on sandy and loess soils. We found only one adult male by sweeping of herb vegetation on 21 May 2011. **VU**

Data: 1♂, 21. 5. 2011, sweeping method.

Research of the natural monument of Jesličky resulted in several important faunistic data of the extension rare xerothermophilous spider species in southern Moravia. The 7 species listed in the List of threatened species in the Czech Republic (Růžička, 2005) can be included among the significant findings. From these rare species, particularly interesting is the discovery of endangered (EN) of *Micaria guttulata*. This species is known only from historical findings by prof. Miller at protected steppes of Pouzdřany NNR – Kolby, Hádecká Planinka in Moravian Karst and from the top of Květnice at Tišnov (Miller, 1966; Miller, 1967; Kůrka, 1994). A recent finding is reported only from the sandy parts of the location of Skalky where several specimens of the species were found (Bryja *et al*., 2005). Vladimír Hula (lgt.) reports an unpublished finding of three adult specimens in 2005 from the National Nature Reserve of Malhotky. The Malhotky location is situated in southeast Moravia and the finding belongs among the first data on *Micaria guttulata* in this area. It was found that this spider inhabits only tufts of dry grass in whose neighborhood is enough disturbed turf with free soil surface. Similar vegetation conditions are favorable also for other rare species found – especially Gnaphosidae, such as *Haplodrassus dalmatensis*, *H. kulczynski*, *Gnaphosa lucifuga*, *G. opaca*, *Zelotes pygmaeus*, and Thomisidae *Ozyptila pullata* and *O. simplex*. Vulnerable species (VU) of steppe Thomisidae of *Ozyptila pullata* and *O. simplex* belong among a complex of related species with very similar determination characteristics. Both species were captured only in the number of two representatives at different parts of the site and, due to their incidence, they are classified among the Pannonian thermophilic species (Buchar & Růžička, 2002). As above-mentioned species, they need bale vegetation structure with plenty of exposed soil surface. These required microhabitat conditions deteriorate by gradual succession and ingrowing of the habitat. Therefore, it is more than desirable to maintain some kind of management at the site. The already established autumn vegetation mowing certainly has some positive function, however, the highest positive effect on epigeon would be reached by the introduction of grazing in certain parts of the site, as was the case in the past.

I: *Summary of species recorded – Habitat preference (Řezáč, 2009): C (climax), SN (seminatural), D (disturb), A (artificial); Thermopreferences (Buchar & Růžička, 2002): T (thermo), M (meso), O (oreo); Conservation status (Růžička, 2005): EN (Endangered), VU (Vulnarable). Bold means main preference, bracket mean minority preference.*

Species	1. Transect	2. Transect	3. Transect	Sweeping method	Habitat preferences	Thermopreferences	Conservation status
Atypidae							
Atypus piceus (Sulzer, 1776)			5		C	(T), **M**	
Dysderidae							
Dysdera lantosquensis (Walckenaer, 1802)			4		**C**, (A)	**T**, (M)	
Harpactea rubicunda (C. L. Koch, 1838)			2		C, SN, D, A	T, M	
Eresidae							
Eresus kollari Rossi, 1846	14	22	31		C	T	
Theridiidae							
Enoplognatha latimana (Clerck, 1758)				13	SN, **D**	T, M	
Enoplognatha thorarica (Hahn, 1833)				1	C, SN, D	T, **M**	
Neottiura bimaculata (Linné, 1767)			1	2	C, SN, D	T, M	
Robertus lividus (Blackwall, 1836)			2		C, SN, D	T, M, O	
Theridion impressum (L. Koch, 1881)				6	C, SN, D	T, M, O	
Linyphiidae							
Erigone atra (Blackwall, 1833)				2	C, SN, D	T, M, O	
Diplostyla concolor (Wider, 1834)			1		C, SN	T, M, O	
Linyphia hortensis (Sundevall, 1830)				1	C, SN	(T), **M**	
Linyphia triangularis (Clerck, 1758)			1	6	C, SN, D	T, **M**	
Meioneta rurestris (C.L. Koch, 1836)		1		3	C, SN, D	T, M, O	
Micrargus subaequalis (Westring, 1851)		1	2	2	C, SN, D	T, M	
Nematogmus sanguilentus (Walckenaer, 1841)				1	C	T	
Tetragnathidae							
Tetragnatha pinicola L. Koch, 1870				4	C, SN	T, M	
Araneidae							
Araneus quadratus (Clerck, 1758)				2	C, SN	T, M	
Argiope bruennichi (Scopoli, 1772)				5	C, **SN**, D	T, M	
Cercidia prominens (Westring, 1851)				1	**C**, SN	T, **M**	
Hypsosinga sanguinea (C. L. Koch, 1844)				6	C, SN	T, M	
Mangora acalypha (Walckenaer, 1802)				12	C, SN, D	T, M	
Singa hamata (Clerck, 1758)				1	C, SN	T, **M**	
Lycosidae							
Alopecosa accentuata (Latreille, 1817)	7	20	12		C, SN	T, M	
Alopecosa aculeata (Clerck, 1758)			3		C	M	
Alopecosa cuneata (Clerck, 1758)	0	2	6		C, SN, D	T, M, O	
Alopecosa sulzeri (Pavesi, 1873)	2	7	57		C	T	
Aulonia albimana (Walckenaer, 1805)	0	1	20		C, SN	T, **M**	
Pardosa alacris (C. L. Koch, 1833)	1	10	26		C,SN	**T**, M	
Pardosa bifasciata (C. L. Koch, 1834)			2		C	**T**	
Pardosa hortensis (Thorell, 1872)	12	5	16		C, SN, D	T	
Pardosa lugubris (Walckenaer, 1802)	1	2	27		C, SN, D	T, M, O	
Trochosa rurricola (De Geer, 1778)		1	1		C, SN, D	T, M	

Species	1. Transect	2. Transect	3. Transect	Sweeping method	Habitat preferences	Thermopreferences	Conservation status
Trochosa terricola (Thorell, 1856)			5		C, SN, D	T, M, (O)	
Xerolycosa nemoralis (Westring, 1861)	1				C, SN	T, M, O	
Pisauridae							
Pisaura mirabilis (Scopoli, 1763)	2	1	1	1	C, SN, D	**M**, (O)	
Agelenidae							
Agelena labyrinthica (Clerck, 1758)		1			C, SN	T, **M**	
Tegenaria agrestis (Walckenaer, 1802)	8	7	5		C, SN, D	**T**, M	
Dictynidae							
Cicurina cicur (Frabricius, 1793)	1				C, SN, D	T, M	
Titanoecidae							
Titanoeca schineri L. Koch, 1872	5	2			C	T	VU
Liocranidae							
Agroeca cuprea Menge, 1873		1	1		C	**T**, M	
Scotina celans (Blackwall, 1841)	1		1		C	T	VU
Zodariidae							
Zodarion germanicum (C. L. Koch, 1837)			1		**C**, SN	**T**, M	
Zodarion rubidum Simon, 1914	1				C, SN	T	
Gnaphosidae							
Drassodes lapidosus (Walckenaer, 1802)	2	6	11		C, SN	T, M	
Drassodes pubescens (Thorell, 1856)	1		2		C, SN	T, M	
Drassyllus praeficus (L. Koch, 1866)			1		C, SN	T, **M**	
Drassyllus pumilus (C. L. Koch, 1839)	1		2		C	**T**, M	
Drassyllus pusillus (C. L. Koch, 1833)	1	1			C, SN, (D)	T, M	
Drassyllus villicus (Thorell, 1875)			5		C	T	
Gnaphosa lucifuga (Walckenaer, 1802)	14	3	2		C	T	
Gnaphosa alpica Simon, 1878		2			x	x	
Gnaphosa opaca Herman, 1879		6	3		C	T	
Haplodrassus dalmatensis (L. Koch, 1866)		2	2		C	T	VU
Haplodrassus kulczynskii Lohmander, 1942	1	3			C	T	
Haplodrassus signifer (C.L.Koch, 1839)	3	5	3		C, SN, D	T, M, O	
Micaria guttulata (C. L. Koch, 1839)		1			C	T	EN
Micaria pulicaria (Sundevall, 1831)	2				C, SN	T, M, O	
Trachyzelotes pedestris (C. L. Koch, 1837)			5		C, SN	**T**, (M)	
Zelotes electus (C. L. Koch, 1839)	1		2		C	T, M	
Zelotes erebeus (Thorell, 1871)		1	3		C	T, M	
Zelotes latrellei (Simon, 1878)			2		C, SN, D	T, **M**	
Zelotes longipes (L. Koch, 1866)		1			C	T, (M)	
Zelotes petrensis (C. L. Koch, 1839)	1	8	5		C, SN	T, M	
Zelotes pygmaeus Miller, 1943		3			C	T	
Zoridae							
Zora silvestris Kulczynski, 1897		2			C, SN	M	
Zora spinnimana (Sundevall, 1833)	1				C, SN, D	T, **M**, (O)	
Sparassidae							
Micrommata virescens (Clerck, 1758)			1		C, SN	M	

Species	1. Transect	2. Transect	3. Transect	Sweeping method	Habitat preferences	Thermopreferences	Conservation status
Philodromidae							
Tibellus oblongus (Walckenaer, 1802)		1		4	C, SN	T, M	
Thomisidae							
Misumena vatia (Clerck, 1758)				3	C, SN	T, M	
Ozyptila claveata (Walckenaer, 1837)		1	1		C	T, M	
Ozyptila pullata (Thorell, 1875)		2			C	T	VU
Ozyptila simplex (O. P-Cambridge, 1862)			2		C, SN	T, M	VU
Tmarus piger (Walckenaer, 1802)				1	**C**, SN	T	
Xysticus audax (Schrank, 1803)			1	1	C, SN	T, **M**, (O)	
Xysticus cristatus (Clerck, 1758)				1	C, SN, D	T, **M**, (O)	
Xysticus kochi (Thorell, 1872)	1	8	5	1	C, SN, D	T, M	
Xysticus lanio C. L. Koch, 1835					C, SN	T, **M**	
Xysticus luctuosus (Blackwall)			2		C, SN	M	
Xysticus robustus (Hahn, 1832)	3		3		C	**T**, M	
Salticidae							
Aelurillus festivus (C. L. Koch, 1834)	1	1			C	**T**, M	
Evarcha arcuata (Clerck, 1757)	1				C, SN	T, **M**	
Evarcha laetabunda (C. L. Koch, 1846)			1	1	C	**T**, (M)	
Euophrys frontalis (Walckenaer, 1802)					C, SN	T, M	
Heliophanus cupreus (Walckenaer, 1802)				2	C, SN	T, M	
Heliophanus flavipes (Hahn, 1832)				2	C	T, **M**	
Marpissa nivoyi (Lucas, 1846)				1	C	T	VU
Phlegra fasciata (Hahn, 1806)	1	2			C, SN	T, M	

SUMMARY

This paper provides information about the arachnofauna of the xerothermic locality Nature Monument Jesličky, which is situated near from Hustopeče in south Moravia, Czech Republic. Eighty-eight epigeic and epiphytic species of spiders belonging to 20 families have been recorded. According to the number of species collected, the families Lycosidae and Gnaphosidae were dominant in epigeon and family Araneidae were dominant in higher vegetation During the arachnological research in 2009 and 2011 847 specimens have been collected, from which 617 adult spiders were determined. The significant records are as follows: *Micaria guttulata* (C. L. Koch, 1839) – rare species known from a few localities of south Moravia. Our findings belong to the second recent record since prof. Miller's collecting. *Titanoeca schineri* L. Koch, 1872, *Scotina celans* (Blackwall, 1841), *Haplodrassus dalmatensis* (L. Koch, 1866), *Ozyptila pullata* (Thorell, 1875), *O. simplex* (O.P-Cambridge, 1862) and *Marpissa nivoyi* (Lucas, 1846) are listed in the Red List of the Invertebrates of the Czech Republic. Among the significant findings belong *Eresus kollari* Rossi, 1846 and *Alopecosa sulzeri* (Pavesi, 1873) which are the most abundant species on our examined locality. In total we found a rich spectrum of the thermophilic species living only in the undisturbed steppe habitats and other small xerothermic areas that are gradually disappearing from the landscape of the southern Moravia. To protect these remaining areas and to support populations of these rare xerothermophilous species living there, it would be useful to establish some management of locality as a grazing in small areas or continue with the conducted mowing of herb vegetation.

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