

Nachruf / Obituary

Farewell to RNDr. Zdeněk Majkus, CSc.

Sad information reached Czech arachnologists in spring of this year – Zdeněk Majkus (Fig. 1), an important Czech arachnologist, an outstanding university teacher and – namely – a good friend, passed away.

Zdeněk was born on 1 June 1943 in Ostrava – Přívoz. He was interested in nature since his studies at secondary school. In the years 1960–1965 he studied didactics of biology and chemistry at the Faculty of Natural History, Palacký University in Olomouc. From the same faculty Zdeněk graduated in biology and chemistry in 1967–1970, and in 1981 he passed the state doctoral exam. Eight years later, Zdeněk defended his dissertation entitled “The composition of arachnocoenoses of selected pit heaps in Ostrava town”. Furthermore, he acquired valuable experience during his stays abroad, specifically in laboratory of P. M. Brignoli (Istituto di Zoologia, L'Aquila, Italy, 1983) and visits to Cambodia and Vietnam (1988). However, Zdeněk began his scientific and pedagogical career in his place of birth.

Zdeněk's pedagogical activities were diverse. He started his career at the secondary school in Ostrava – Vítkovice, where he taught biology and chemistry from 1965–1973. At the Faculty of Education (where he arrived in 1973), later (since 1991) the Faculty of Science, he taught many biological subjects (Biology, General Zoology, Developmental Biology, Ethology, Invertebrates of the Czech Republic, Field courses on Biology), and led seminars on pedagogy and arachnology. Zdeněk worked there for 45 years and stayed at this institution until the end of his life. He supervised over a hundred theses (only after the year 2005, 62 bachelor and 35 diploma theses). He was also a referee for theses from various universities (e.g. Palacký University in Olomouc, Technical University of Ostrava) as well as a member of the boards of a Ph.D. study at the Department of Zoology of the Slovak Academy of Science (Bratislava) and the Faculty of Natural History of the Palacký University (Olomouc).

Beside his demanding pedagogical work, Zdeněk also carried out research activities. These resulted in many publications; most of them focused on faunistics of his beloved Moravian and Silesian regions. He studied, for example, spiders of Moravian karstic areas (Hranický kras Karst, Jeseníký kras Karst, Moravský kras Karst). Together with Jaroslav Svatoň, he focused on spiders of the Pavlovské vrchy Hills, the corridor of the Upper Odra River, Osoblaha Region, the Hostýnské vrchy Hills, the Beskydy Mts., the Jeseníky Mts. and other many areas in Moravia and Silesia. He found for the first time five spider species new for the Czech Republic, namely: *Alopecosa pinetorum* and *Pardosa agricola* (Lycosidae), *Araniella inconspicua* (Araneidae), *Heliophanus patagiatus* and *Talavera aperta* (Salticidae). Zdeněk also participated in four European Colloquia of Arachnology: in České Budějovice (1994), Siedlce (1996), Stará Lesná (1999) and Blagoevgrad (2005). Furthermore, Zdeněk organized the Czechoslovakian-Polish arachnological meeting in Ostrava (1986), in cooperation with Polish arachnologists.

Zdeněk is known among arachnologists (Fig. 2) mainly through his unique research on slag heaps in Ostrava. We



Fig. 1: Dr. Zdeněk Majkus in 2012 (photo M. Dominik)

therefore call him “The Slag Heap Expert”. Zdeněk proved that slag heaps are a unique biotope where surprising succession occurs. Due to his interest in the ecology of slag heaps, Zdeněk began to cooperate with Polish zoologists from the Upper Silesian Basin. Together, they studied the impact of heavy metals on spiders and other arthropods in industrial agglomerations. The studies on spiders from black coal slag heaps, their physiology, as well as research on the arachnofauna of Moravia and Silesia belong to his most cited works.

Zdeněk Majkus was a member of many scientific societies, editorial boards and committees: Czech and Slovak colleagues never forget his active participation in the Czech and the Slovak Arachnological Societies. He was also a member of the Czech Zoological Society, Czech Entomological Society, Arachnologische Gesellschaft (Germany) and C.I.D.A. (Centre international de documentation arachnologique) in Paris. Zdeněk also worked as member of the departmental committee for development of universities and as an editor of the journal *Acta Facultatis Rerum Naturalium Universitatis Ostraviensis*. He belonged to long-lasting organisers of scientific competitions of Czech students (Secondary-School Scientific Activity, Biological Olympiad). As an enthusiastic biologist, Zdeněk took part for many years in the popularization of biology, especially in organisation of the international film festival Ekofilm.



Fig. 2: Dr. Zdeněk Majkus (second from left) among Czech and Slovak colleagues (Jaroslav Svatoň, Vladimír Šilhavý, Pavel Kasal and Miroslav Krumpál) at the arachnological meeting in Ostrava, 1978 (courtesy of P. Gajdoš)

We always enjoyed meeting Zdeněk. He passed away suddenly and unexpectedly, literally during his work, namely on a student field trip on 22 May 2018 into one of his beloved regions, the Beskydy Mts...

We would like to thank Jiří Král (Prague) for valuable comments to the manuscript and Aneta Dominiková (Lelekovice) and Peter Gajdoš (Nitra) for the photos of Dr. Majkus.

Arachnological works (congress abstracts not included)

- Bryja V & Majkus Z 1999 Pavouci (Araneida) CHKO Poodří (Česká republika) [Spiders (Araneida) of Protected Landscape Area of Poodří (Czech Republic)]. – *Časopis Slezského zemského muzea, Série A, Vědy přírodní* 48: 73-82 [in Czech, English abstract]
- Bryja V, Svatoň J, Chytil J, Majkus Z, Růžička V, Kasal P, Dolanský J, Buchar J, Chvátalová I, Řezáč M, Kubcová L, Erhart J & Fenclová I 2005 Spiders (Araneae) of the Lower Morava Biosphere Reserve and closely adjacent localities (Czech Republic). – *Acta Musei Moraviae, Scientiae biologicae* 90: 13-184
- Gajdoš P, Moscaliuc A, Rozwałka R, Hirina A, Majkus Z, Gubányi A, Gábor MH & Svatoň J 2014 Red list of spiders (Araneae) of the Carpathian Mts. In: Kadlecík J (ed.) Carpathian red list of forest habitats and species. Carpathian list of invasive alien species (draft). The State nature conservancy of the Slovak Republic, Banská Bystrica. pp. 118-171
- Gajdoš P, Svatoň J & Majkus Z 1989 Pavúky (Araneae) okolia Novej Sedlice (Východné Karpaty) [Spinnen (Araneae) der Umgebung von Nová Sedlica (Ostkarpaten)]. – *Zborník Východoslovenského múzea, Prírodné vedy* 29 (1988): 73-90 [in Slovak, German and Russian summary]
- Majkus Z 1982a Príspevek k bionomii druhu *Zelotes aeneus* (Simon, 1878), (Araneida) [Beitrag zur Bionomie der Art *Zelotes aeneus* (Simon, 1878)]. – *Acta Facultatis Paedagogicae Ostraviensis, Series E-12* 79: 35-45 [in Czech, German summary]

- Majkus Z 1982b Príspevek k poznání fauny pavouků (Araneida) SPR Loucké rybníky [Beitrag zur Erkenntnis von Spinnenfauna (Araneida) des Naturschutzgebiets Loucké rybníky]. – *Přírodovědecký sborník* 26: 21-29 [in Czech, German summary]
- Majkus Z 1985 Príspevek k poznání arachnofauny (Araneida) Poodří [Beitrag zur Erkenntnis von Arachnofauna (Arachnoidea) im Oderland]. – *Acta Facultatis Paedagogicae Ostraviensis, Series E-14* 89 (1984): 29-39 [in Czech, German summary]
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- Majkus Z 1988a Ekologicko-faunistická charakteristika arachnocenóz vybraných ostravských hald [The composition of arachnocenoses of selected pit heaps in Ostrava]. Dissertation, Univ. J. A. Komenský, Bratislava. 339 pp. [in Czech]
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- Majkus Z 1993 Příspěvek k poznání pavoučí fauny (Araneae) Jeseníckého krasu [Beitrag zur Kenntnis der Spinnenfauna (Araneae) von Gesenke-Karst]. – Acta Facultatis Rerum Naturalium Universitatis Ostraviensis, Biologica – Ecologica 1: 113-133 [in Czech, German summary]
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Educational and other works (congress abstracts not included)

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- Malachová K, Majkus Z & Kantorek J 2001 Vybrané kapitoly z biologie člověka a školního zdravotnictví pro doplňkové pedagogické studium [Selected Chapters from Human Biology and School Medicine for Advanced Pedagogical Study]. Faculty of Education, University of Ostrava. 50 pp. [in Czech]
- Malachová K, Pečinka P, Kočárek P & Majkus Z 2006 Nové trendy v biologických oborech [New trends in biological branches]. Faculty of Science, University of Ostrava. 84 pp. [in Czech]

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Buchbesprechung / Book Review

Kůrka A, Řezáč M, Macek R & Dolanský J 2015 Pavouci České republiky [Spiders of the Czech Republic]. Academia, Praha. 623 pp., ISBN: 978-80-200-2384-1

130 × 200 mm, hardback, 360 CZK (14 EUR) & postage; Order: Nakladatelství Academia, Vodičkova 40, 110 00 Praha 1, Czech Republic; E-mail: eshop@academia.cz or expedice@academia.cz; <http://www.academia.cz/pavouci-ceske-republiky--kurka-antonin--academia--2015>

Spiders are a very popular group in the Czech Republic. This fact is confirmed by public interest in arachnological books like “V říši pavouků” [In the realm of spiders] (Baum 1938, Baum & Buchar 1973) or “Naši pavouci” [Our spiders] (Buchar & Kůrka 1998, 2001) which are completely sold out today. Now, we have a further book contributing to this series – the atlas “Pavouci České republiky” [Spiders of the Czech Republic]. The author team consists of two excellent Czech arachnologists, a well-known scientist and a professional photographer. Such an author constellation promises a high-quality result. During four years of preparation, this ambitious project arose aiming to bring a complex book covering the biology – and specifically an atlas – of all spider species living in the Czech Republic, including photographs of most of them.

The book is divided into general and systematic parts. In the former, readers are provided with information over 64 pages about spider morphology and biology. The morphology part comprises descriptions of the spider body and each organ system. Further chapters deal with spider venom and the most characteristic organs for spiders – the spinning apparatus. All are accompanied by original illustrations and as yet unpublished photographs. The next chapter describe ethology, from mating and moving to prey tactics. The authors also remembered to describe how spiders avoid their predators. The following chapter summarizes the ecology of spiders and their importance for bioindication – a topic that was established in the Czech Republic by Jan Buchar. The atlas thus contains a list of threatened biotopes and the spi-

der species inhabiting them. Furthermore, each spider species is characterised by the degree of vulnerability based on the current Czech Red List (Řezáč et al. 2015). The last chapter focuses on collecting and identifying spiders and contains an identification key for the families. It is worth mentioning that the key uses different morphological characters as compared to other keys commonly used today. It is thus not surprising that the effectiveness of the new key was almost immediately tested by students (Křištofová 2015, Křištofová et al. 2015).

The information mentioned in the general part of the atlas is precise and up to date. In addition, the text is easily readable and the chapter headings are often unusual, drawing the reader's attention, e.g. “Pavoucí kámasútra” [Spider Kama Sutra]. Only relevant data are provided so the reader is not overwhelmed by unnecessary facts. I can recommend the entire general part of the atlas not only as suitable reading material for amateurs, but also as a textbook for university students studying invertebrate zoology and/or arachnology.

The systematic part of the atlas is the bedrock of the book. At the beginning, the position of spiders in zoological systematics is introduced, followed by a chart with typical representatives of all 39 Czech families. Descriptions of families, genera and species occurring in the Czech Republic are then provided. The arrangement of the families more or less reflects the traditional system. Each family (except the Phrurolithidae that was established shortly before the book was printed) is characterised morphologically and basic biological data are provided. The number of species and their