

Catalogue of the woodlice (Isopoda: Oniscidea) in Miller's collection in the Department of Zoology, National Museum, Prague*

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*Received 24 August 2018; accepted 26 October 2018
Published 27 December 2018*

Abstract. The present catalogue lists a total of 125 specimens of 18 species in the isopod collection of the Czech arachnologist František Miller (1902–1983) housed in the National Museum in Prague. The material was collected between 1932 and 1969 in the former Czechoslovakia and Yugoslavia.

Key words. Isopoda, crustaceological collection, František Miller, Bohemia, Moravia, Slovakia, former Yugoslavia.

INTRODUCTION

Professor František Miller (Fig. 1) was a famous Czech arachnologist. He was born in Kročehlavy near Kladno on 27 January 1902. After graduating at the Faculty of Science of Charles University in Prague, he taught in secondary schools in Štubníanske Teplice (today Turčianske Teplice) and Žilina in Slovakia, and Jindřichův Hradec in the Czech Republic. Then, he became a director of the secondary school in the small Czech town, Soběslav. In 1947, he habilitated at the University of Agriculture in Brno and worked there until his death (14 January 1983).

During his fruitful life (65 published papers), František Miller studied mainly spiders (Buchar 1997). As formalin pitfall traps are the most frequently used method for collecting spiders, Miller's material also contains other soil or epigeic invertebrates, including terrestrial isopods. The majority of this material was collected in the surroundings of Miller's places of work. His large private collection was purchased by the National Museum in Prague, from Miller's widow Jarmila Millerová in 1983 and deposited in the Department of Zoology of this Museum under accession numbers 100/83 and 103/83 (Kůrka 1994, 1996, 1997, 1998, 2000, 2001, 2003, 2004a, b, Dolejš & Kůrka 2013, Kocourek & Dolejš 2016, Štáhlavský & Dolejš 2019). Additional material from Miller's collection was transferred from the Faculty of Science, Charles University (Prague) in 2006. Beside spiders, the collection also contains unsorted material of other invertebrates collected along with the spiders: Harvestmen, pseudoscorpions, mites, centipedes, millipedes, isopods etc. In this paper, we present a review of the woodlice (Isopoda, Oniscidea) in Miller's collection. It contains 125 specimens of at least 18 species belonging to ten families. The collection contains historical records for 15 localities of particular value for faunistic purposes.

The National Museum also has the private collections of the isopodologists Walter Černý (1905–1975) (Veselovský 1976), Marie Flasarová (1934–2000) (Buchar & Flasar 2000, Buchar

* This paper is dedicated to Professor Jaroslav Smrž, the first author's teacher of soil biology, who passed away suddenly on 11 August 2018.

2001) and Zdeněk Frankenberger (1892–1966) (Flasarová & Flasar 1966). Frankenberger's collection includes the type material of Balkan isopods. In addition to material from former Czechoslovakia (including the south-eastern part of what is currently Ukraine), the isopod collection in the National Museum contains also historical material from various, mostly European countries. Most of the material is from the Balkan Peninsula. Recent material was collected by expeditions from the Department of Entomology of the National Museum to the Dominican Republic, New Zealand, Puerto Rico and South Africa. The collection of František Miller is thus an important part of a series of collections that have belonged to distinguished collectors.

In addition to the specimens listed below, Miller's collection contains eight specimens for which there is no data, all of which are registered as P6d-342/2006. They include *Armadillidium vulgare* (Latreille, 1804) (2 ♂♂), *Oniscus asellus* Linnaeus, 1758 (1 ♂), *Porcellio scaber* Latreille, 1804 (1 ♀), *Porcellio spinicornis* Say, 1818 (1 ♀) and *Trachelipus rathkii* (Brandt, 1833) (2 ♂♂, 1 ♀).

MATERIAL AND METHODS

All of the isopods are stored in 80% ethanol. Almost all of them (with the exceptions given below) were sexed and identified by the first author and revised by the second author, using the keys of Frankenberger (1954) and Malinková (2009), unless otherwise stated. The nomenclature and arrangement of families follow Séchet & Noël (2015). Species within the families are sorted alphabetically.



Fig. 1. Professor RNDr. František Miller, DrSc. (1902–1983).

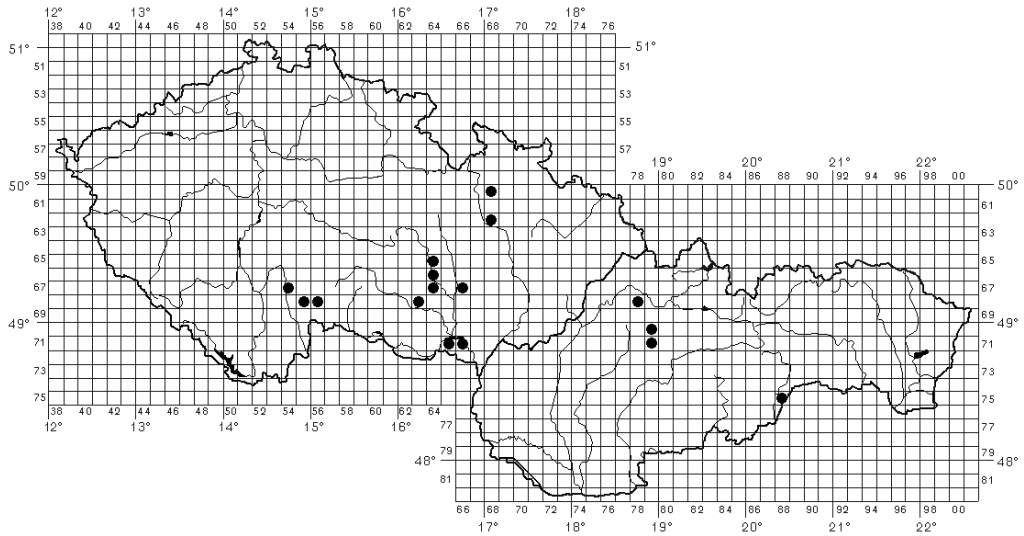


Fig. 2. Map showing the localities in Czechia (left) and Slovakia (right) where Miller collected woodlice. Note that the majority of the woodlice come from Miller's places of work.

The data are arranged as follows: locality – (number of the mapping grid square) – date of collection – number and sex of specimens – (inventory number of the National Museum).

Within Czechia, the historical regions Bohemia and Moravia are recognized following Kment (2009). The geographic position of localities (Fig. 2) is defined in terms of grid squares after Buchar (1982) and, in the case of Czech settlements, after Pruner & Míka (1996). The exact place where the woodlice were collected in former Yugoslavia is unknown. However, after checking the date against the data in other databases (namely those of harvestmen), it is possible that the material was collected by the ornithologist D. Rucner who also collected many invertebrates in Croatia.

Images of selected specimens were made using an Olympus SZX16 stereomicroscope equipped with an Infinity 2 camera and a motor focusing CB-ZM.

SYSTEMATIC LIST

Ligiidae Brandt, 1833

Ligia italica Fabricius, 1798

MATERIAL. Former Yugoslavia (Croatia?): 27 June – 25 July 1969, 1 ♀, det. K. Tajovský (P6E 4866) (Fig. 3).

Ligidium hypnorum (Cuvier, 1792)

MATERIAL. Czechia: Bohemia, Jindřichův Hradec (6855–6856), 1941, 2 ♂♂ (P6E 4865) (Fig. 4).

Trichoniscidae Sars, 1899

Hyloniscus riparius (Koch, 1838)

MATERIAL. Slovakia: Žilina-Turie (6878), May 1937, 2 ♀♀ (P6E 4867) (Fig. 5).

***Trichoniscus pusillus* Brandt, 1833**

MATERIAL. **Czechia:** Moravia, Jeseníky Mts., Skříttek (6068), July 1949, 1 ♀ (P6E 4868).

Platyarthridae Verhoeff, 1949

***Platyarthrus hoffmannseggii* Brandt, 1833**

MATERIAL. **Czechia:** Moravia, Doubravík (6564) 15 April 1948 34 specimens (P6E 4869). **Slovakia:** Turčianske Teplice (7179), 20 May 1932, 1 ♀ (P6E 4870).

Oniscidae Latreille, 1802

***Oniscus asellus* Linnaeus, 1758**

MATERIAL. **Czechia:** Moravia, Mladečské jeskyně Caves (6268), 26 March 1943, 3 ♂♂, 1 ♀ (P6E 4871) (Fig. 6).

Philosciidae Kinahan, 1851

***Lepidoniscus minutus* (Koch, 1838)**

MATERIAL. **Czechia:** Moravia, Mohelno (6863), 1941, 2 ♂♂, det. K. Tajovský (P6E 4886/1) (Fig. 7).

Trachelipodidae Strouhal, 1953

***Porcellium conspersum* (Koch, 1841)**

MATERIAL. **Czechia:** Moravia, Jeseníky Mts., Skříttek (6068), July 1949, 2 ♀♀ (P6E 4872); Moravia, Jeseníky Mts. (?), 15 June, 1 ♀ (P6E 4873).

***Trachelipus nodulosus* (Koch, 1838)**

MATERIAL. **Czechia:** Moravia, Mohelno (6863), 1941, 12 ♂♂, 14 ♀♀ (P6E 4874), 10 April 1943, 1 ♂, 1 ♀ (P6E 4875); Moravia, Tišnov, Květnice Hill (6664), 7 August 1961, 1 ♀ (P6E 4876).

***Trachelipus rathkii* (Brandt, 1833)**

MATERIAL. **Czechia:** Bohemia, Dráčov (6754), 30 April, 1 ♂ (P6E 4877); Bohemia, Jindřichův Hradec (6855–6856), 17 June 1940, 1 ♂, 1 ♀ (P6E 4878), 1941, 3 ♂♂, 2 ♀♀ (P6E 4879); Moravia, Mohelno (6863), 1941, 1 ♂ (P6E 4880). **Slovakia:** Turčianske Teplice (7179), 20 May 1932, 1 ♂, 2 ♀♀ (P6E 4881).

***Trachelipus ratzeburgii* (Brandt, 1833)**

MATERIAL. **Czechia:** Bohemia, Dráčov (6754), 30 April, 1 ♀ (P6E 4882); Moravia, Hády (6766), 18 September 1948, 1 ♀ (P6E 4883).

Cylisticidae Verhoeff, 1949

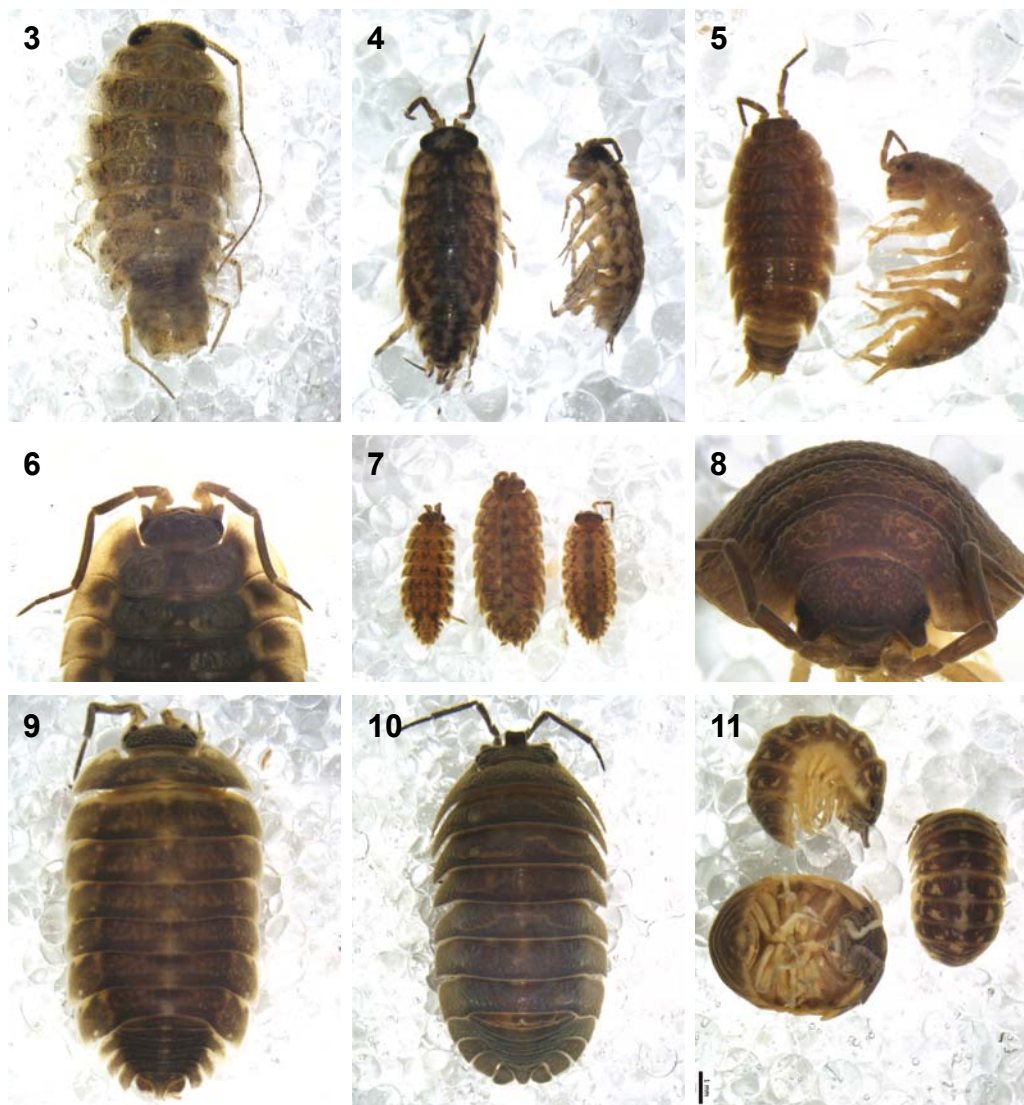
***Cylisticus convexus* (De Geer, 1778)**

MATERIAL. **Czechia:** Moravia, Mladečské jeskyně Caves (6268), 26 March 1943, 1 ♀, 1 J (P6E 4884); Moravia, Mohelno (6863), 1941, 3 ♀♀ (P6E 4885).

Agnaridae Schmidt, 2003

Protracheoniscus politus (Koch, 1841)

MATERIAL. **Czechia:** Moravia, Mohelno (6863), 1941, 1 ♀ (P6E 4886/2) (Fig. 7).



Figs 3–11. Woodlice from Miller's collection. 3 – *Ligia italica*, ♀ (P6E 4866). 4 – *Ligidium hypnorum*, ♂♂ (P6E 4865). 5 – *Hyloniscus riparius*, ♀♀ (P6E 4867). 6 – *Oniscus asellus*, ♀ (P6E 4871). 7 – *Lepidoniscus minutus*, ♂♂, left and right (P6E 4886/1), *Protracheoniscus politus*, ♀, in the middle (P6E 4886/2). 8 – *Porcellio scaber*, ♀ (P6E 4887). 9 – *Porcellio* sp., ♀ (P6E 4894). 10 – *Armadillidium nasatum*, ♀ (P6E 4895). 11 – *Armadillidium versicolor*, ♀♀ (P6E 4896).

Porcellionidae Brandt et Ratzeburg, 1831

Porcellio scaber Latreille, 1804

MATERIAL. **Slovakia**: Gaderská dolina Valley, Mošovce (7079), 1934, 1 ♀ (P6E 4887) (Fig. 8).

Porcellio spinicornis Say, 1818

MATERIAL. **Czechia**: Bohemia, Dráčov (6754), 30 April, 1 ♂ (P6E 4888); Bohemia, Jindřichův Hradec (6855–6856), June 1940, 1 ♀ (P6E 4889); Moravia, Mohelno (6863), 1941, 1 ♂, 1 J (P6E 4890); Moravia, Pavlovské vrchy Hills (7165–7166), 1 June 1949, 1 ♀ (P6E 4891); Moravia, Tišnov, Květnice Hill (6664), 7 August 1961, 1 ♀ (P6E 4892). **Slovakia**, Gaderská dolina Valley, Mošovce (7079), 1934, 1 ♀ (P6E 4893).

Porcellio sp.

MATERIAL. **Former Yugoslavia (Croatia?)**: 27 June – 25 July 1969, 1 ♀ (P6E 4894) (Fig. 9).

Armadillidiidae Brandt, 1833

Armadillidium nasatum Budde-Lund, 1885

MATERIAL. **Former Yugoslavia (Croatia?)**: 27 June – 25 July 1969, 2 ♀♀, det. IHT (P6E 4895) (Fig. 10).

Armadillidium versicolor Stein, 1859

MATERIAL. **Slovakia**: Domica (7588), August 1948, 1 ♀, 2 JJ (P6E 4896) (Fig. 11).

Armadillidium vulgare (Latreille, 1804)

MATERIAL. **Czechia**: Moravia, Hády (6766), 18 September 1948, 1 ♂, 1 ♀, 1 J (P6E 4897); Moravia, Mohelno (6863), 1941, 1 ♂, 1 ♀ (P6E 4898); Moravia, Pavlovské vrchy Hills (7165–7166), 1 June 1949, 2 ♂♂, 1 ♀ (P6E 4899); Moravia, Říčky (6764), 27 June 1948, 1 ♂ (P6E 4900). **Slovakia**: Domica (7588), August 1948, 1 ♂ (P6E 4901). **Former Yugoslavia (Croatia?)**: 27 June – 25 July 1969, 2 ♀♀ (P6E 4902).

SUMMARY

Miller's collection of terrestrial isopods in the National Museum in Prague contains 18 species. This material was collected in Slovakia between 1932 and 1937 and in 1948, in Czechia in the years from 1940 to 1949 and 1961 and in Croatia (most probably) during the summer of 1969. Although Miller's collection evidently was not evaluated by Zdeněk Frankenberger during his work on his monograph on Czechoslovak woodlice (Frankenberger 1959), the above mentioned faunistic records perfectly fit and enrich current knowledge of the distribution of these species (Orsavová & Tuf 2018).

Acknowledgements

We thank Martin Šafra (preparator) and Kateřina Nováková (volunteer) for sorting the woodlice in the mixed samples. We also thank Karel Tajovský (České Budějovice) for identifying some of the specimens and valuable comments on this manuscript. This work was financially supported by the Ministry of Culture of the Czech Republic (DKRVO 2018/14, National Museum, 00023272) and partially by an internal grant of the Faculty of Science, Palacký University Olomouc (PrF_2018_020).

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