

Supplement to the check list of spiders of the Czech Republic

Jan BUCHAR

Katedra zoologie, Přírodovědecká fakulta, Univerzita Karlova, Viničná 7, 128 44 Praha 2, Czech Republic.

Key words: check list, Czech Republic, spiders, distribution, thermophilous species.

ABSTRACT

The spider checklist for the Czech Republic contains 781 species (one of them with two subspecies). In comparison to the last published check list ten species are added and four are omitted. The zoogeographical distribution of thermophilous species is discussed.

INTRODUCTION

During the last 50 years our knowledge of the Czech spider fauna has increased considerably and the check list comprises 781 species. In order to establish an illustration of the present state of arachnological knowledge, it is necessary to describe briefly our history of spider research and the zoogeographical distribution of thermophilous species.

HISTORY AND DISTRIBUTION RECORDS

The arachnological activity in our country can be divided into two periods (Tab. 1). In The first period (1985-1995) one person (J. Buchar) had the dominant position (similar to Nosek in the last century and Miller in the first half of the twentieth century). After 1985 a new generation of arachnologists appeared or increased scientific activity (V. Růžička, M. Antuš, I. Chvátalová, P. Kasal, Z. Majkus, J. Svatoň, F. Zbytek) and contributed to the knowledge of spiders remarkably.

Two papers providing the list of new records from Czech Republic have been published so far. The first (Buchar 1992) deals with the Bohemian spiders studied 1951 to 1985 (Bohemia is the western part of the Czech Republic). The second paper (Buchar *et al.* 1995) concerns the spider fauna of the entire Czech Republic and contains 773 species (one of them with two subspecific names). Since 1992, 96 species have been added to the Czech list and they may be divided into 3 groups:

1) 7 species collected in Bohemia before 1951: *Dipoena erythropus* (Sim.), *Entelecara obscura* Miller, *Frontinellina frutetorum* (C. L. K.), *Micrargus georgescuae* Millidge, *Tetragnatha striata* L. K., *Urozelotes rusticus* (L. K.), *Xysticus kempeleni* Thor.,

2) 22 species collected in Bohemia after 1951-1985: *Alopecosa pinetorum* (Thor.), *Argiope bruennichi* (Scop.), *Bathyphantes simillimus buchari* Růžička, *Chryso conigerum* (Sim.), *Comaroma simoni* Bertk., *Hypsocephalus dahli* (Less.), *Jacksonella falconeri* (Jacks.), *Latithorax faustus* (O. P.-C.), *Dipoena inornata* (O. P.-C.), *Enoplognatha caricis* (Fick.), *Erigone jaegeri* Baehr, *Gnaphosa lapponum* (L. K.), *Hahnia montana* (Black.), *Maro thaleri* Saaristo, *Micrargus apertus* (O. P.-C.), *Savignia frontata* (Black.), *Scotina celans* (Black.), *Scytodes thoracica* (Latr.), *Sisicus apertus* (Holm), *Theridion hemerobium* Sim, *Trogloneta granulum* Sim., *Wubanoides uralensis* (Pakhorukov),

3) 67 species have been collected in Moravia only.

Tab. 1. Czech arachnologists' activity and new spider species records in the two past periods.

Period	Number of new species	Per annum	Part of arachnologists in the discovery
1951 - 1985	186	5.3	Buchar 70 %, Martínek 5 %
1986 - 1996	29	2.9	Růžička 34 %, Buchar 24 %, Kůrka 20 %

NEW CZECH SPECIES

In addition to the list provided by Buchar *et al.* (1995), 10 further species have been recorded (4 of them from Moravia only) (Tab. 2). Four other species have been omitted as a result of taxonomic research (Tab. 3). *Lepthyphantes tripartitus* Miller *et* Svatoň is also included as erroneously omitted before.

Tab. 2. Ten new species absent in the check list by (Buchar *et al.* 1995), four of them (3, 6, 9, 10) have been recorded from Moravia only.

1. <i>Centromerus unidentatus</i> Miller, 1958
2. <i>Cheiracanthium punctorium</i> (Villers, 1789)
3. <i>Clubiona juvenis</i> Simon, 1878
4. <i>Dicymbium brevisetosum</i> Locket, 1962
5. <i>Diplocephalus protuberans</i> (O. P.-Cambridge, 1875)
6. <i>Eris nidicolens</i> (Walckenaer, 1802)
7. <i>Pardosa saltans</i> Töpfer-Hofmann <i>et</i> Helversen, 1990
8. <i>Pocadicnemis juncea</i> Locket <i>et</i> Millidge, 1953
9. <i>Theridiosoma gemmosum</i> (L. Koch, 1877)
10. <i>Uloborus walckenaerius</i> (Latreille, 1806)

Tab. 3. Four omitted species from the Czech list as a result of taxonomic research. Further explanation is contained in the papers in [].

1. *Centromerus similis* Kulczyński, 1894 - [Thaler 1995, Weiss & Bauchness 1995]
2. *Pardosa agricola* (Thorell, 1856) - [in Miller 1947 the juvenile specimens are mentioned only]
3. *Porrhomma moderatum* Šilhavý, 1958 - [Platnick 1993]
4. *Trichoncus sordidus* Simon, 1884 - [in Miller 1971 the sole specimen is mentioned from Slovakia]

ZOOGEOGRAPHICAL DISTRIBUTION OF THERMOPHILOUS SPECIES

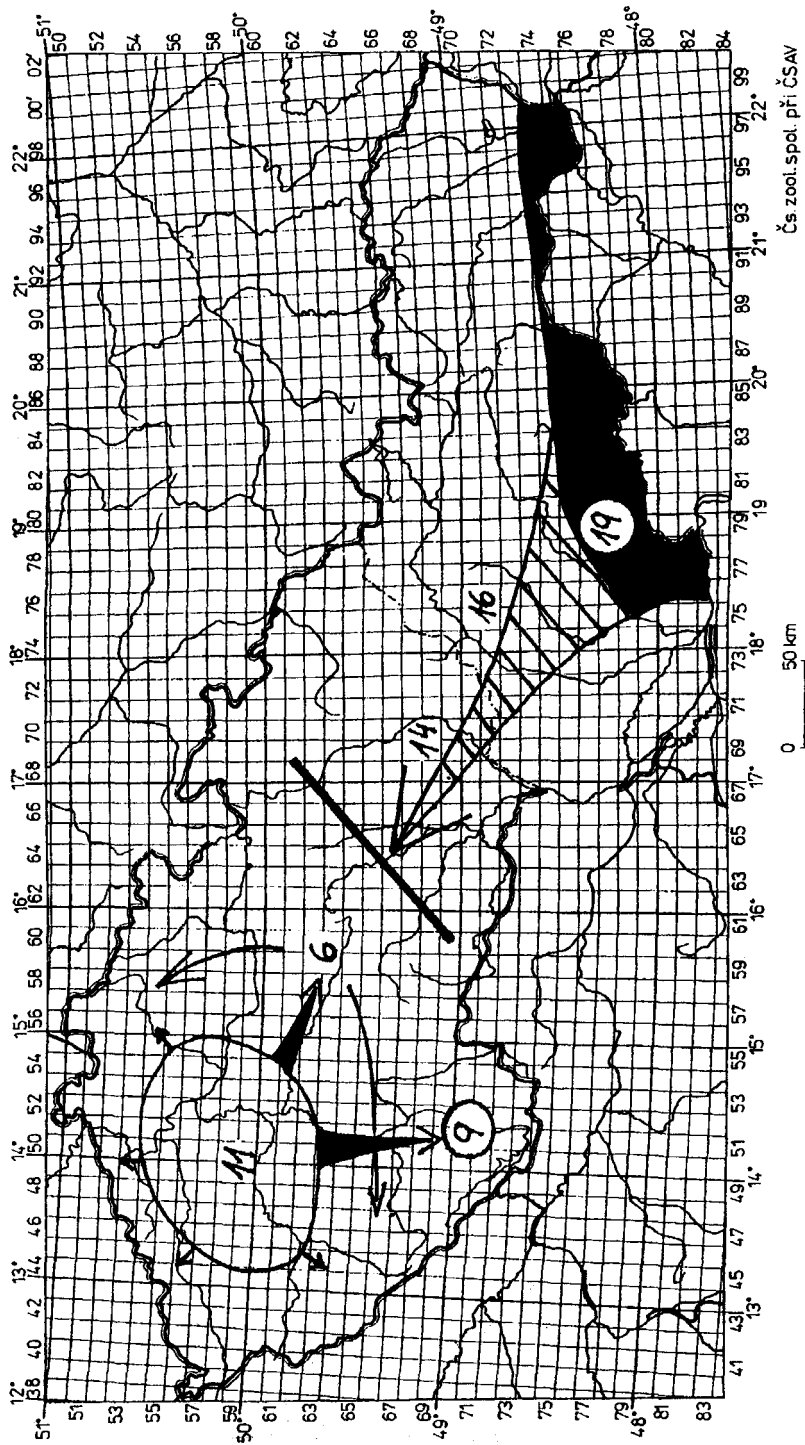
There are 71 species which have been recorded from Moravia only. Most of them (47) are thermophilous (Tab. 4). They live in the southern part of Moravia. Their northern limit of distribution is within Moravia. In addition, *Pardosa maisa* and *Theridiosoma gemmosum* have similar distributional patterns in the Czech Republic, but the entire areas of these rare spiders are quite different (they occur in Scandinavia, *Theridiosoma gemmosum* has Holarctic distribution). The number of thermophilous species decreases from southern Slovakia, through southern Moravia to mid-Bohemia. We can demonstrate it on the situation of the thermophilous lycosids (Fig. 1). In southern Slovakia 19 such species occur, in southern Moravia 14 species occur. Eleven species occur in mid-Bohemia. Only, three to nine species spread to the periphery of Bohemia (above all *Alopecosa accentuata*, *A. trabalis*, *Xerolycosa miniata*, never *Alopecosa schmidti* and *A. cursor*). Therefore we can separate two groups of Czech thermophilous species. The first group is distributed in both territories, Moravia and Bohemia (Fig. 2, the discontinuous area appears as a typical distribution of Czech thermophilous species). Many of them are widespread in mid-Europe. The second group (Tab. 4) occurs in southern Moravia only (Mediterranean or Pannonian elements). 27 species are absent in Hänggi *et al.*, 1995. The other species (Tab. 4., Nos.: 1, 6, 11, 13, 14, 17, 18, 21, 22, 23, 31, 32, 34, 35, 36, 38, 42, 43, 45, 47) have there 1-24 (on the average 5) records, five (14, 17, 22, 23, 32) have been recorded from Pannonian territory only.

CONCLUSIONS

A total of 10 species has been added to the Czech list since the publication by Buchar *et al.* (1995). At present, the check list contains 781 species. Many species are recorded from both parts of the Czech Republic - Bohemia and Moravia (with Silesia). 47 thermophilous species are known from South Moravia only. The areas of the rare thermophilous species, which occur in mid-Bohemia, have a conspicuous disjunctive form (for instance *Eresus niger*). These species belong to the mid-European thermophilous fauna. The thermophilous species from southern Moravia occur in the Pannonian fauna.

Tab. 4. Thermophilous species occurring South Moravia only.

1. *Dysdera ninnii* Can.
 2. *Uloborus walckenaerius* (Latr.)
 3. *Anelosimus aulicus* (C. L. K.)
 4. *Dipoena braccata* (C. L. K.)
 5. *Dipoena nigroreticulata* (Sim.)
 6. *Dipoena prona* (Menge)
 7. *Euryopsis acuminata* Pavesi
 8. *Euryopsis saukea* Levi
 9. *Theridion suaveolens* Sim.
 10. *Lepthyphantes nanus* Kulcz.
 11. *Meioneta simplicitarsis* (Sim.)
 12. *Metopobactrus ascitus* (Kulcz.)
 13. *Nerienne furtiva* (O. P.-C.)
 14. *Panamomops latifrons* Miller
 15. *Peponocranium praeceps* Miller
 16. *Theonina kratochvili* Miller et Weiss
 17. *Trichoncoides piscator* (Sim.)
 18. *Trichoncus hackmani* Millidge
 19. *Trichoncus pusillus* Miller
 20. *Gibbaranea ullrichi* (Hahn)
 21. *Alopecosa mariae* (Dahl)
 22. *Alopecosa solitaria* (Herm.)
 23. *Alopecosa striatipes* (C. L. K.)
 24. *Lycosa singoriensis* (Lax.)
 25. *Hahnia picta* Kulcz.
 26. *Archaeodictyna minutissima* (Miller)
 27. *Titanoeca schineri* L. K.
 28. *Titanoeca tristis* L. K.
 29. *Phrurolithus pullatus* Kulcz.
 30. *Cheiracanthium effossum* Herm.
 31. *Cheiracanthium montanum* L. K.
 32. *Clubiona juvenis* Sim.
 33. *Cryptodrassus pulchellus* Miller
 34. *Micaria guttulata* (C. L. K.)
 35. *Phaeoedus braccatus* (L. K.)
 36. *Zelotes atrocaeruleus* (Sim.)
 37. *Zelotes vinealis* (Kulcz.)
 38. *Thanatus pictus* L. K.
 39. *Tibellus vittatus* (Thor.)
 40. *Xysticus marmoratus* Thor.
 41. *Chalcoscirtus brevicymbialis* Wund.
 42. *Eris nidicolens* (Walck.)
 43. *Euophrys obsoleta* (Sim.)
 44. *Heliophanus pouzdranensis* Miller
 45. *Marpissa nivoyi* (Lucas)
 46. *Phlegra bresnieri* (Lucas)
 47. *Phlegra fuscipes* Kulcz.
-



1. *A. accentuata*, 2. *A. trabalis*, 3. *X. miniata*, 4. *A. figurata*, 5. *P. hortensis*, 6. *T. lutetiana*, 7. *T. robusta*, 8. *P. bifasciata*, 9. *A. sulzeri*, 10. *A. schmidtii*, 11. *A. cursor*, 12. *A. siriaticipes*, 13. *A. solitaria*, 14. *A. mariae*, 15. *L. radiata*, 16. *L. vultuosa*, 17. *L. signoriensis*, 18. *P. proxima*, 19. *P. nebulosa*.

Fig. 1. A decrease of the thermophilous ycosid species from South Slovakia through South Moravia to Mid Bohemia and to the peripherie of Bohemia.

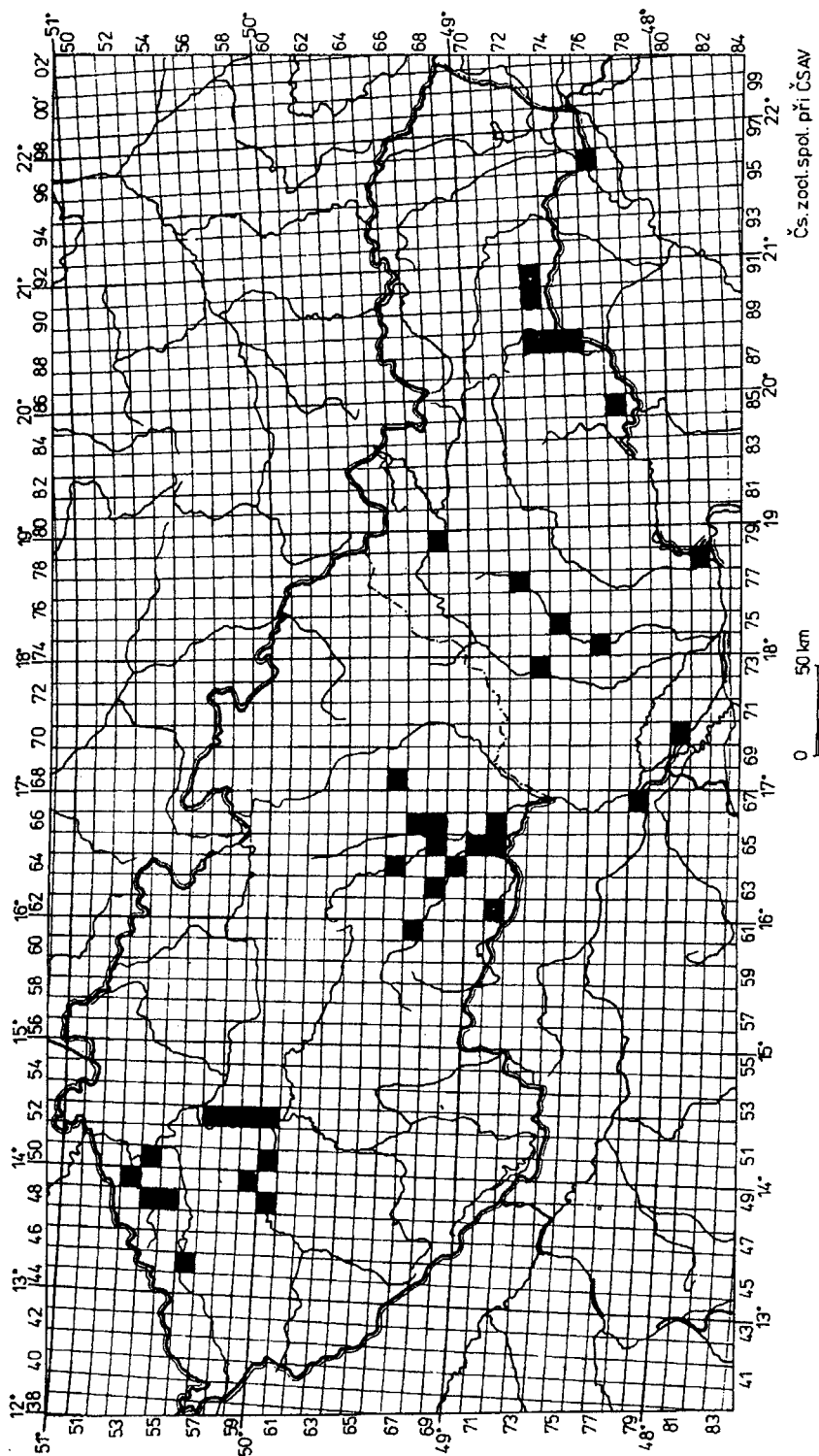


Fig. 2. Distribution of *Eresus cinnaberimus* in the Czech Republic and in Slovakia (after L. Nevoralova). The boundary between the republics: - - -

Acknowledgements

This research was supported by the Grant Agency of the Czech Republic (Project No. 206/96/0326).

REFERENCES

- Buchar J. 1992. Komentierte Artenliste der Spinnen Böhmens (Araneida). Acta Univ. Carol.-biol., **36**: 383-428.
- Buchar J., Ružička V. & Kůrka A. 1995. Check list of spiders of the Czech Republic. Proc. 15th Europ. Coll. Arachnol., České Budějovice, pp. 54-65.
- Hänggi A., Stöckli E. & Nentwig W. 1995. Lebensräume mitteleuropäischer Spinnen. Miscel. Faun. Helvetiae, **4**: 1-459.
- Miller F. 1947. Pavoucí zvířena hadcových stepí u Mohelna. Acta Soc. cogn. conserv. nat. Morav. Sil. fin., Brno, **7**: 1-107, Taf. I-XVI.
- Miller F. 1971. Řád Pavoucí - Araneida. In: Daniel M. & Černý V. (eds.), Klíč zvířeny ČSSR. IV. ČSAV, Praha, pp. 51-306.
- Nosek A. 1895. Seznam českých a moravských pavouku. (Verzeichniss der böhmischen und mährischen Spinnen). Věst. Král. české společ. nauk, Praha, 1895 (3): 1-56.
- Platnick N. I. 1993. Advances in Spider Taxonomy 1988-1991. With Synonymies and Transfers 1940-1980. N. Y. Ent. Soc., 846 pp.
- Thaler K. 1995. Spinnen (Araneida) mit Anhang über Weberknechte (Opiliones). Ergebnisse der wissenschaft. Unters. Schweiz. Nationalpark, **12**: 473-538.
- Weiss I. & Bauchhenss E. 1995. *Centromerus silvicola* und *C. sellarius* (*C. similis*) - eine nomenklatorische Richtigstellung. Arachnol. Mitt. **10**: 28-31.