

Faunistic spider collections in the Museum für Naturkunde Berlin: The collection of Erich Hesse

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Abstract: The ‘Hesse collection’ of spiders (Araneae) and harvestmen (Opiliones) in the Museum für Naturkunde Berlin is documented. Biographical notes on Erich Hesse – a former arachnid curator at the museum (1921–1940) – are provided. The ‘Hesse collection’ was actually put together by other workers, and can be broadly divided into two parts. One comes from Bielinek (= Bellinchen) on the Polish side of the Oder Valley (West Pomerania); now part of the ‘Unteres Odertal’ National Park. This Bielinek material includes notable records of *Heriaeus oblongus* Simon, 1918 and *Gibbaranea ullrichi* (Hahn, 1835). The other part of the collection comes from Colbitz-Letzlinger Heide in Saxony-Anhalt, Germany. Notable here are *Pistius truncatus* (Pallas, 1772) and *Philodromus buchari* Kubcová, 2004; the latter representing the first record of this species for Saxony-Anhalt.

Key words: Bielinek, Colbitz-Letzlinger Heide, Germany, Poland

The arachnological section of the Museum für Naturkunde Berlin houses a number of, primarily regional, ‘special collections’ [Sondersammlungen] which are not integrated into the main systematic collection due to their focus on a particular set of localities and/or individuals. These may prove to be of some value for, e.g., regional faunistic studies, and as part of what we hope will be a series of papers documenting these special collections, we begin by focusing on material assembled by the former Berlin curator, Erich Hesse. These specimens were collected during the 1930s from Bielinek in western Poland and Colbitz-Letzlinger Heide in the state of Saxony-Anhalt in Germany.

Material and Methods

The ‘Hesse collection’ comprises ca. 200 jars, all containing material in 70 % alcohol. It is currently housed separately from the main collection. The original jars were rather small, and all specimens were recently transferred into borosilicate vials held in larger ‘twist-off’ jars as part of a wider KUR project (Program for the Conservation and Restoration of Mobile Cultural Objects). At the same time repository numbers – using our traditional acronym ZMB for ‘Zoologisches

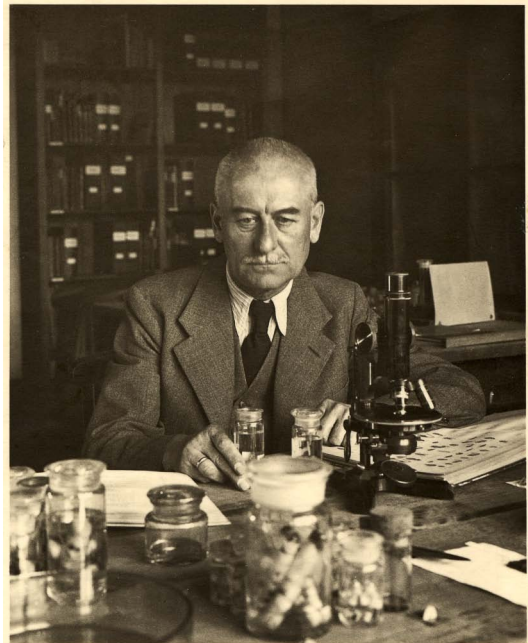


Fig. 1: Portrait of Erich Hesse (1874–1945?), arachnid curator in Berlin from 1921–1940. Image courtesy of the Museum für Naturkunde Berlin, Historische Bild- u. Schriftgutsammlungen (Sigel: MfN, HBSB). Bestand: Zool. Mus. Signatur: B I/1069.

Museum Berlin’ – were formally assigned. Identities of individual specimens were, where necessary, checked by KHK and the jars were re-labelled accordingly. Only taxa which could be placed with confidence at species level are included in the results (Tab. 1 and 2). Additional lots are present in the collection, but consist of juveniles and/or specimens in poor condi-

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tion which cannot be placed beyond the family or genus (see also below). Species names are derived from the latest version of the Platnick Catalog (PLATNICK 2012) and the updated nomenclature was adopted for the new labels. The sequence of taxa used in Tab. 1 and 2 also follows PLATNICK (2012).

Erich Hesse

Following GEBHARDT (1972) and HACKETHAL (1985), Erich Hesse (Fig. 1) was born in Leipzig in 1874, where he also studied, receiving his doctorate in 1899. From 1909–1911 he held an assistant position at the Imperial Biological Institute for Agriculture and Forestry [Kaiserliche Biologische Anstalt für Land- und Forstwirtschaft] in Berlin-Dahlem. In 1911 he became a scientific assistant [‘wissenschaftlicher Hilfsarbeiter’] in the ornithology collection of the Museum für Naturkunde Berlin (MfN) – then under its older name Zoologisches Museum Berlin – where he worked under Anton Reichenow (1847–1941). From 1916–1918 Hesse returned to Leipzig as curator of zoology at the university museum, before coming back to Berlin in October 1918 as curator, first of the exhibition material [Schausammlung], and subsequently from April 1921 the arachnid collection (PAPPENHEIM 1928). Here, he evidently replaced Friedrich Dahl as curator. Hesse remained in the museum until his own retirement in 1940, but does not seem to have been formally replaced as curator during the war years; the next incumbent being Alfred Kästner from 1946 onwards. Hesse’s tenure as curator is poorly documented and his eventual fate is unknown; he is simply listed as ‘missing’ as of spring 1945. No correspondence from his time as curator survives and – perhaps for political reasons following the war – even the relevant page of the original loan book was at some stage physically cut out; such that the recorded loans jump from Dahl’s last entry in 1921 to Kästner’s first in 1948.

Although holding the arachnid curatorship for nearly 20 years, Hesse was essentially an ornithologist. GEBHARDT (1972) cites him as an expert on birds from the lakes and moorlands around Berlin and in 1916, together with Reichenow, he produced a complete list of the birds of Germany (HESSE & REICHENOW 1916). Other papers in this field include HESSE (1907, 1913, 1915). As late as 1933 he was still doing ornithological work, producing a new version of A. Voigt’s ‘Exkursionsbuch zum Studium der Vogelstimmen’ [Excursion book for the study of birdsong]. It is not entirely clear why he was appointed

to the arachnid curatorship and/or why a recognised arachnologist was not appointed as Dahl’s successor. The impression from PAPPENHEIM (1928: 4–5) is of a major staff turnover in the museum around 1921, involving numerous retirements and new appointments. According to GEBHARDT (1972), Hesse had hoped to receive the ornithology curatorship on Reichenow’s retirement [also in 1921], but instead this post went to Erwin Stresemann (1889–1972) who went on to become one of the most highly regarded ornithologists in Germany.

Despite these circumstances, Hesse was appointed professor in April 1924 (cf. PAPPENHEIM 1928) and as well as continuing to publish on birds he also began working on other groups such as flies, molluscs, amphibians and mammals; typically with a focus on the local Brandenburg fauna. Eventually Hesse also produced a handful of faunistic papers on spiders (HESSE 1935, 1936, 1937, 1939a, 1939b, 1940, 1941). These concentrated primarily on two localities: Bellinchen (= Bielinek, West Pomerania, Poland) in the Oder valley and Colbitz-Letzlinger Heide in Saxony-Anhalt, Germany; although it is clear from the literature that he did not actually collect the material himself (see below). During the time of Hesse’s curatorship, PAPPENHEIM (1928, p. 22) recorded a major reordering of the arachnid collection as having taken place in the 1920s. This may have been associated with the spider collection moving into a new extension of the museum building which was built between 1914 and 1917.

The spider *Ishania hessei* (Chamberlin & Ivie, 1936) (Araneae: Zodariidae), the camel spiders *Ceroma hessei* Roewer, 1933 (Solifugae: Ceromidae) and *Eremobates hessei* (Roewer, 1934) (Solifugae: Eremobatidae), and the polydesmid millipede *Polydesmus hessei* Verhoeff, 1931 (Diplopoda: Polydesmida: Polydesmidae) were all named after Erich Hesse.

Results and Discussion

Bielinek (= Bellinchen)

Bielinek – formally known under the German name Bellinchen – lies on the Polish side of the river Oder in Western Pomerania (52.9302 N, 14.16001 E, 71 m asl). It has long been used as a study area by biologists and treated as an area of nature protection. It is currently part of the German/Polish ‘Nationalpark Unteres Odertal’ <<http://www.nationalpark-unteres-odertal.de>>. Note that it is important not to confuse Bellinchen/Bielinek, which is directly on the river Oder, with the similar sounding Berlinchen/Barlinek

which is also in West Pomerania, but further to the east. The Bielinek arachnid material in the Berlin museum was collected in at least three phases by H. Engel (1935) (HESSE 1936), numerous collectors (HESSE 1937) and by G. Frenzel and H. Hedicke (1937–38). Standard collecting methods such as sweep nets, beating, hand collection, etc. were used. The original collecting area comprised various habitats, including clay pits, wooded areas, wetlands, and most importantly, dry sloping grasslands with pontic steppe vegetation. The material was formally studied by HESSE (1939a).

Our present re-investigation of the ZMB material from both Bielinek and Colbitz-Letzlinger Heide revealed two problems. First, Hesse attempted to identify even very young juveniles to species level. His proposed names for these immature specimens have largely had to be rejected here, since we could not confirm the species identity of these vouchers. Second, the poor condition of some individual specimens prevented us from confirming their proposed identification. Taking these limitations into account, 92 spider species, plus four harvestmen, dating from the 1930s could unequivocally be documented from Bielinek in the Hesse collection (Tab. 1). By comparison, Hesse (1939) recognised 138 spider species and six harvestmen. It should be noted that this fairly large discrepancy includes material now apparently missing from the collection.

Of particular note are two spider records – *Heriaeus oblongus* Simon, 1918 and *Gibbaranea ulrichi* (Hahn, 1835) – both of which are very rare for Central Europe. Both species prefer open, warm–dry habitats, such as those which were previously quite widespread (cf. ZUMPT 1931) in the ‘Steppenheide’ near the river Oder at Bielinek. STAREGA et al. (2002) placed *H. oblongus* in the category ‘endangered’ for the Red List of Poland’s spiders. Twenty-eight individuals of this species were caught at Bielinek between 1936 and 1938.

Colbitz-Letzlinger Heide

The second part of the Hesse collection comes from the ‘Waldstation’ at Colbitz-Letzlinger Heide (52.35011 N, 11.61072 E, 96 m asl). It was collected in 1936/37, again by H. Engel. This field station near Magdeburg in the modern state of Saxony-Anhalt belonged to the Department of Forestry Protection of the Prussian Experimental Institute for Forestry in Eberswalde [Außenstelle der Abteilung für Waldschutz der Preußischen Versuchsanstalt für

Waldwirtschaft Eberswalde]. The biotope includes pine forest and mixed stands of pine and oak. The focus of the study was spiders (and other animals) from the tree crowns (ENGEL 1941). The collection method used was to fell a series of conifers and remove their branches over a large sheet. Specimens were then collected by hand or from subsequent laboratory study of the remaining branches. A preliminary account of this work was published by HESSE (1939b), with a more detailed report by HESSE (1940). Even taking into account changes in nomenclature, it should be noted that the published data does not match exactly what is in the collection. For example, HESSE (1939b) discussed a record of *Araneus saevus* L. Koch, 1872 [as *A. zimmermanni*], but this species could not be found as voucher specimen(s) within either the Hesse collection, or misplaced within the main systematic collection.

Cataloguing and re-identification of the specimens actually present in the Berlin museum yielded unequivocal records of 67 species of spider, plus one harvestman, collected in the 1930s at Colbitz-Letzlinger Heide (Tab. 2). By comparison, HESSE (1940) recognised 89 spider species and two harvestmen. As expected from the study method used, the faunal records are primarily of arboricolous species – including a couple of rarities. For example, the crab spider *Pistius truncatus* (Pallas, 1772) was first recorded again from Saxony-Anhalt over 70 years later (KIELHORN 2011). Among the specimens originally labelled as *Philodromus aureolus* (Clerck, 1757) two females could be re-identified here as *P. buchari* Kubcová, 2004. This is the only record so far of this running crab spider species from the state of Saxony-Anhalt.

Conclusions

Our review of the Hesse collection raises a couple of interesting points. On the one hand it demonstrates that it is sometimes necessary to reconfirm published faunistic data; particularly in cases where the author was not a recognised specialist for the relevant group. Hesse’s identifications based on juveniles here are a case in point. Perhaps more important is the fact that museums can – and do – act as repositories for voucher specimens deriving from historical ecological studies, and that the original material is still available for (re) study. The data can be checked and compared directly with modern faunistic studies in these geographical regions, offering here a historical perspective on faunal compositions dating back more than seventy years. In the specific case of Colbitz-Letzlinger Heide we

have data from a (then) highly innovative method of collecting animals from tree crowns. Arboricolous spiders are less accessible than those living closer to the

ground which can be collected by sweeping or pitfalls and have, in recent years, become a particular focus of faunistic studies (e.g. GOSSNER 2004, BLICK 2011).

Tab. 1: Species list from the Bielinek (= Bellinchen) part of the Hesse collection

Taxa	Repository number
Araneae	
Mimetidae (2)	
<i>Ero aphana</i> (Walckenaer, 1802)	ZMB 32663
<i>Ero furcata</i> (Villers, 1789)	ZMB 32664
Eresidae (1)	
<i>Eresus kollari</i> Rossi, 1846	ZMB 32536
Theridiidae (7)	
<i>Dipoena braccata</i> (C. L. Koch, 1841)	ZMB 32659
<i>Enoplognatha latimana</i> Hippa & Oksala, 1982	ZMB 48500
<i>Enoplognatha ovata</i> (Clerck, 1757)	ZMB 32657
<i>Episinus angulatus</i> (Blackwall, 1836)	ZMB 32658
<i>Neottiura bimaculata</i> (Linnaeus, 1767)	ZMB 32660
<i>Phylloneta impressa</i> (L. Koch, 1881)	ZMB 32661
<i>Theridion varians</i> Hahn, 1833	ZMB 32662
Linyphiidae (11)	
<i>Anguliphantes angulipalpis</i> (Westring, 1851)	ZMB 34708
<i>Bathyphantes nigrinus</i> (Westring, 1851)	ZMB 34707
<i>Diplocephalus picinus</i> (Blackwall, 1841)	ZMB 34679
<i>Dismodicus elevatus</i> (C.L. Koch, 1838)	ZMB 34678
<i>Erigone atra</i> Blackwall, 1833	ZMB 34677
<i>Gongylidium rufipes</i> (Linnaeus, 1758)	ZMB 34680–34683
<i>Linyphia hortensis</i> Sundevall, 1830	ZMB 34684–34691
<i>Linyphia triangularis</i> (Clerck, 1757)	ZMB 34693–34706
<i>Microlinyphia pusilla</i> (Sundevall, 1830)	ZMB 34692, 34710
<i>Microneta viaria</i> (Blackwall, 1841)	ZMB 34676
<i>Tenuiphantes flavipes</i> (Blackwall, 1854)	ZMB 34709
Tetragnathidae (6)	
<i>Pachygnatha clercki</i> Sundevall, 1823	ZMB 34722
<i>Pachygnatha listeri</i> Sundevall, 1830	ZMB 34723–34725
<i>Metellina mengei</i> (Blackwall, 1870)	ZMB 34712, 34713, 34715, 34717–34721
<i>Tetragnatha extensa</i> (Linnaeus, 1758)	ZMB 34726, 34729
<i>Tetragnatha montana</i> Simon, 1874	ZMB 34731–34749
<i>Tetragnatha nigrita</i> Lendl, 1886	ZMB 34730
Araneidae (16)	
<i>Agalenatea redii</i> (Scopoli, 1763)	ZMB 34790
<i>Araneus alsine</i> (Walckenaer, 1802)	ZMB 34753
<i>Araneus angulatus</i> Clerck, 1757	ZMB 34754
<i>Araneus diadematus</i> Clerck, 1757	ZMB 34755–34758
<i>Araneus quadratus</i> Clerck, 1757	ZMB 34760–34763
<i>Araneus sturmi</i> (Hahn, 1831)	ZMB 34791
<i>Argiope bruennichi</i> (Scopoli, 1772)	ZMB 34779–34783
<i>Araniella cucurbitina</i> (Clerck, 1757)	ZMB 34768, 34770–34774, 34776, 34777
<i>Cyclosa oculata</i> (Walckenaer, 1802)	ZMB 34792
<i>Gibbaranea bituberculata</i> (Walckenaer, 1802)	ZMB 34784–34788
<i>Gibbaranea ullrichi</i> (Hahn, 1835)	ZMB 34789
<i>Larinioides ixobolus</i> (Thorell, 1873)	ZMB 34793
<i>Larinioides sclopetarius</i> (Clerck, 1757)	ZMB 34765–34767
<i>Mangora acalypha</i> (Walckenaer, 1802)	ZMB 34796–34804

Taxa	Repository number
<i>Neoscona adianta</i> (Walckenaer, 1802)	ZMB 34805–34807
<i>Singa nitidula</i> C. L. Koch, 1844	ZMB 34794
Lycosidae (6)	
<i>Arctosa cinerea</i> (Fabricius, 1777)	ZMB 34810
<i>Alopecosa cuneata</i> (Clerck, 1757)	ZMB 34809
<i>Piratula hygrophila</i> (Thorell, 1872)	ZMB 34826–34829
<i>Pardosa saltans</i> Töpfer-Hofmann, 2000	ZMB 34811, 34825
<i>Trochosa ruricola</i> (De Geer, 1778)	ZMB 48501
<i>Trochosa terricola</i> Thorell, 1856	ZMB 34814
Agelenidae (2)	
<i>Agelena labyrinthica</i> (Clerck, 1757)	ZMB 34823
<i>Tegenaria atrica</i> C.L. Koch, 1843	ZMB 34830–34831
Cybaeidae (1)	
<i>Argyroneta aquatica</i> (Clerck, 1757)	ZMB 34750–34751
Hahniidae (1)	
<i>Antistea elegans</i> (Blackwall, 1841)	ZMB 34834
Dictynidae	
<i>Dictyna arundinacea</i> (Linnaeus, 1758)	ZMB 34835–34837
Miturgidae (1)	
<i>Cheiracanthium oncognathum</i> Thorell, 1871	ZMB 32665
Anyphaenidae (1)	
<i>Anyphaena accentuata</i> (Walckenaer, 1802)	ZMB 34838–34842
Liocranidae (1)	
<i>Scotina celans</i> (Blackwall, 1841)	ZMB 34843
Clubionidae (3)	
<i>Clubiona pallidula</i> (Clerck, 1757)	ZMB 32668
<i>Clubiona neglecta</i> O.P.-Cambridge, 1862	ZMB 32666
<i>Clubiona terrestris</i> Westring, 1851	ZMB 32669
Gnaphosidae (6)	
<i>Drassodes lapidosus</i> (Walckenaer, 1802)	ZMB 34845
<i>Gnaphosa lugubris</i> (C.L. Koch, 1839)	ZMB 34847
<i>Haplodrassus silvestris</i> (Blackwall, 1833)	ZMB 34846
<i>Trachyzelotes pedestris</i> (C.L. Koch, 1837)	ZMB 34848
<i>Zelotes longipes</i> (L. Koch, 1866)	ZMB 34850
<i>Zelotes subterraneus</i> (C.L. Koch, 1833)	ZMB 34849
Philodromidae (6)	
<i>Philodromus cespitum</i> (Walckenaer, 1802)	ZMB 34854, 34856–34858
<i>Philodromus collinus</i> C.L. Koch, 1835	ZMB 34851
<i>Philodromus dispar</i> Walckenaer, 1826	ZMB 34860–34867
<i>Philodromus emarginatus</i> (Schrank, 1803)	ZMB 34859
<i>Tibellus oblongus</i> (Walckenaer, 1802)	ZMB 34870–34877, 34879–34881, 34883–34885
<i>Thanatus arenarius</i> L. Koch, 1872	ZMB 34868–34869
Thomisidae (5)	
<i>Diaea dorsata</i> (Fabricius, 1777)	ZMB 34887
<i>Heriaeus oblongus</i> Simon, 1918	ZMB 34890
<i>Misumena vatia</i> (Clerck, 1757)	ZMB 34891–34897
<i>Pistius truncatus</i> (Pallas, 1772)	ZMB 34888
<i>Synema globosum</i> (Fabricius, 1775)	ZMB 34889
Salticidae (15)	
<i>Asianellus festivus</i> (C.L. Koch, 1834)	ZMB 34929–34932
<i>Ballus chalybeius</i> (Walckenaer, 1802)	ZMB 34898–34899
<i>Evarcha arcuata</i> (Clerck, 1757)	ZMB 34905
<i>Evarcha falcata</i> (Clerck, 1757)	ZMB 34900–34904, 34906–349012, 34914
<i>Evarcha laetabunda</i> (C.L. Koch, 1846)	ZMB 34918
<i>Heliophanus auratus</i> C.L. Koch, 1835	ZMB 34915, 34927, 34928

Taxa	Repository number
<i>Heliophanus cupreus</i> (Walckenaer, 1802)	ZMB 34916, 34924
<i>Heliophanus flavipes</i> (Hahn, 1832)	ZMB 34925, 34926
<i>Marpissa muscosa</i> (Clerck, 1757)	ZMB 34919
<i>Marpissa radiata</i> (Grube, 1859)	ZMB 34920
<i>Myrmarachne formicaria</i> (De Geer, 1778)	ZMB 34921
<i>Salticus cingulatus</i> (Panzer, 1797)	ZMB 34913
<i>Salticus scenicus</i> (Clerck, 1757)	ZMB 34933–34935
<i>Synageles bilarulus</i> (C.L. Koch, 1846)	ZMB 34939–34941
<i>Yllenus arenarius</i> Menge, 1868	ZMB 34923
Opiliones	
Phalangiidae (2)	
<i>Lacinius horridus</i> (Panzer, 1794)	ZMB 34947
<i>Rilaena triangularis</i> (Herbst, 1799)	ZMB 34942–39446
Sclerosomatidae (2)	
<i>Leiobunum blackwalli</i> Meade 1861	ZMB 34948
<i>Leiobunum rotundum</i> (Latreille, 1798)	ZMB 34949

Tab. 2: Species list from the Colbitz-Letzlinger Heide part of the Hesse collection

Taxa	Repository number
Araneae	
Segestriidae (1)	
<i>Segestria senoculata</i> (Linneaus, 1758)	ZMB 32576
Dysderidae (1)	
<i>Harpactea hombergi</i> (Scopoli, 1763)	ZMB 32577
Uloboridae (1)	
<i>Hyptiotes paradoxus</i> (C.L. Koch, 1834)	ZMB 32578
Theridiidae (8)	
<i>Anelosimus vittatus</i> (C.L. Koch, 1836)	ZMB 32585
<i>Dipoena melanogaster</i> (C.L. Koch, 1837)	ZMB 32584
<i>Enoplognatha ovata</i> (Clerck, 1757)	ZMB 32583
<i>Paidiscura pallens</i> (Blackwall, 1834)	ZMB 32582
<i>Parasteatoda lunata</i> (Clerck, 1757)	ZMB 32586
<i>Platnickina tincta</i> (Walckenaer, 1802)	ZMB 32580
<i>Theridion pinastris</i> L. Koch, 1872	ZMB 32581
<i>Theridion varians</i> Hahn, 1833	ZMB 32579
Linyphiidae (10)	
<i>Abacoproeces saltuum</i> (L. Koch, 1872)	ZMB 32587
<i>Dismodicus bifrons</i> (Blackwall, 1841)	ZMB 32588
<i>Drapetisca socialis</i> (Sundevall, 1833)	ZMB 32589
<i>Entelecara congenera</i> (O. P.-Cambridge, 1879)	ZMB 32590
<i>Erigone atra</i> Blackwall, 1833	ZMB 32591
<i>Erigone dentipalpis</i> (Wider, 1834)	ZMB 32592
<i>Gonatium rubens</i> (Blackwall, 1833)	ZMB 32594
<i>Hypomma bituberculatum</i> (Wider, 1834)	ZMB 32593
<i>Linyphia triangularis</i> (Clerck, 1757)	ZMB 32595
<i>Moebelia penicillata</i> (Westring, 1851)	ZMB 48502
Tetragnathidae (4)	
<i>Metellina mengei</i> (Blackwall, 1870)	ZMB 48504
<i>Metellina segmentata</i> (Clerck, 1757)	ZMB 32596
<i>Tetragnatha obtusa</i> (C.L. Koch, 1837)	ZMB 32598, 32599
<i>Tetragnatha pinicola</i> (L. Koch, 1870)	ZMB 32600
Araneidae (11)	
<i>Araneus alsine</i> (Walckenaer, 1802)	ZMB 32601
<i>Araneus diadematus</i> Clerck, 1757	ZMB 32602

Taxa	Repository number
<i>Araneus quadratus</i> Clerck, 1757	ZMB 32603
<i>Araneus sturmi</i> (Hahn, 1831)	ZMB 32604
<i>Araniella curcurbitina</i> (Clerck, 1757)	ZMB 32606
<i>Cercidia prominens</i> (Westring, 1851)	ZMB 32608
<i>Cyclosa conica</i> (Pallas, 1772)	ZMB 32609
<i>Gibbaranea gibbosa</i> (Walckenaer, 1802)	ZMB 32610
<i>Mangora acalypha</i> (Walckenaer, 1802)	ZMB 32611
<i>Neoscona adianta</i> (Walckenaer, 1802)	ZMB 32612
<i>Zilla diodia</i> (Walckenaer, 1802)	ZMB 32613
Pisauridae (1)	
<i>Pisaura mirabilis</i> (Clerck, 1757)	ZMB 32616
Zoridae (1)	
<i>Zora spinimana</i> (Sundevall, 1833)	ZMB 32633, 32634
Agelenidae (1)	
<i>Agelena labyrinthica</i> (Clerck, 1757)	ZMB 32617
Dictynidae (2)	
<i>Dictyna pusilla</i> Thorell, 1856	ZMB 32619, 32620
<i>Nigma flavescens</i> (Walckenaer, 1830)	ZMB 32621
Anyphaenidae (1)	
<i>Anyphaena accentuata</i> (Walckenaer, 1802)	ZMB 32622
Liocranidae (1)	
<i>Agroeca brunnea</i> (Blackwall, 1833)	ZMB 32623
Clubionidae (5)	
<i>Clubiona brevipes</i> Blackwall, 1841	ZMB 32624
<i>Clubiona caerulescens</i> L. Koch, 1867	ZMB 32625
<i>Clubiona comta</i> C.L. Koch, 1839	ZMB 32626
<i>Clubiona subsultans</i> Thorell, 1875	ZMB 32628
<i>Clubiona terrestris</i> Westring, 1851	ZMB 32629
Gnaphosidae (3)	
<i>Haplodrassus cognatus</i> (Westring, 1861)	ZMB 32630
<i>Micaria pulicaria</i> (Sundevall, 1831)	ZMB 32631
<i>Zelotes clivicola</i> (L. Koch, 1870)	ZMB 32632
Philodromidae (4)	
<i>Philodromus aureolus</i> (Clerck, 1757)	ZMB 32635
<i>Philodromus buchari</i> Kubcová, 2004	ZMB 48503
<i>Philodromus collinus</i> C.L. Koch, 1835	ZMB 32636
<i>Philodromus margaritatus</i> (Clerck, 1757)	ZMB 32638
Thomisidae (4)	
<i>Coriarachne depressa</i> (C.L. Koch, 1837)	ZMB 32639
<i>Diaea dorsata</i> (Fabricius, 1777)	ZMB 32640
<i>Pistius truncatus</i> (Pallas, 1772)	ZMB 32641
<i>Synema globosum</i> (Fabricius, 1775)	ZMB 32642
Salticidae (8)	
<i>Ballus chalybeius</i> (Walckenaer, 1802)	ZMB 32645
<i>Dendryphantès rudis</i> (Sundevall, 1833)	ZMB 32646, 32647
<i>Euophrys frontalis</i> (Walckenaer, 1802)	ZMB 32651
<i>Evarcha falcata</i> (Clerck, 1757)	ZMB 32648, 32649
<i>Heliophanus dubius</i> C.L. Koch, 1835	ZMB 32652
<i>Marpissa muscosa</i> (Clerck, 1757)	ZMB 32653
<i>Pseudeuophrys erratica</i> (Walckenaer, 1826)	ZMB 32650
<i>Salticus zebraneus</i> (C.L. Koch, 1837)	ZMB 32654
Opiliones	
Phalangiidae (1)	
<i>Lacinius horridus</i> (Panzer, 1794)	ZMB 32643

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