

Data on the arachnofauna (Arachnida: Araneae) of Moldova

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Rezumat

Date despre fauna de păianjeni (Arachnida: Araneae) din Moldova

Lucrarea de față prezintă datele faunistice obținute în urma unei expediții de cercetare organizate de către Universitatea Babeș-Bolyai și Universitatea Sapientia din Cluj-Napoca (România), Universitatea Szeged și Muzeul de Istorie Naturală din Budapesta (Ungaria), în perioada 06 - 10 iunie 2006. Materialul arahnologic a fost colectat cu fileul entomologic și direct cu mâna sau penseta. Au fost capturate 685 exemplare de aranee, 302 juvenili și 383 adulți (148 masculi și 235 femele). Cu ajutorul unor variante chei de determinare au fost identificate 96 specii din 17 familii. Dintre aceste specii, *Nigma puella* (SIMON, 1870) este semnalată pentru a doua oară în fauna României, prima dată fiind semnalată din Dobrogea. Lista de specii este prezentată, împreună cu datele de colectare, aspecte legate de exigența lor ecologică și răspândirea geografică.

Abstract

A brief review of the arachnological studies of Moldova is given. 96 species of 17 families were collected. Several rare species were identified, *Nigma puella* (SIMON, 1870) is the second record to the Romanian fauna.

Key words: spider, faunistics, Moldova

Introduction

The first notes on spiderfauna of Moldova were given by BECKER at the end of the 19th century (1878, 1879a, 1879b, 1881), the spider were collected by MONTANDON. In 1906 SCRIBAN publishes a list of species of Moldova, the material was identified by SIMON.

HUZUM carried out arachnological studies in the southern part of Moldova. Besides the list of species he published the description of habitats where the spiders were collected and he also describes the habitus of a few species (Huzum 1936, 1937).

Roșca (1936) summarises the species lists of the formal studies. He

enumerates 82 species of 48 genera and 16 families. Between 1937 and 1968 he publishes several comprehensive studies on the Moldovean spiderfauna (ROȘCA 1937, 1938, 1946, 1968).

WEISS and his colleagues studied the epigaeic spiderfauna of the “Codrul Secular Slătioara” Natural Reservation and the Botanical Garden of Iași and found new species to the fauna of Moldova (WEISS & SÂRBU 1977, WEISS et al. 1979, WEISS & VARVARA 1983).

Material and Methods

This paper presents spider faunistical data obtained by a joint expedition of Babeș-Bolyai University, Sapientia University, University of Szeged and Hungarian Natural History Museum, between June 06 - 10 2006.

To collect spiders we used sweeping net and we sampled directly by hand (ground and plant search, turning rocks and sifting of leaf litter). All materials were preserved in 70° ethylic alcohol and identified under the stereoscopic microscope.

The species were identified with the use of various keys (LOKSA 1969, 1972, FUHN & NICULESCU-BURLACU 1985, STERGHIU 1985, HEIMER & NENTWIG 1991, ROBERTS 1985, 1987, FUHN & GHERASIM 1995) and were classified taxonomically according to the world spider catalogue by PLATNICK (2008).

Results and discussion

We collected 685 specimens, 302 juveniles and 383 adults (148 males and 235 females) belonging to 96 species of 17 families. The list of species is given below with habitat preferences after BUCHAR & RUZICKA (2002), FUHN & NICULESCU-BURLACU (1985), STERGHIU (1985), HEIMER & NENTWIG (1991), FUHN & GHERASIM (1995).

List of species:

Fam. Dysderidae

Harpactea saeva HERMAN, 1879 – Mădărjac (2♂). It occurs on the soil of oak wood forests, in Eastern Europe.

Fam. Theridiidae

Achaearanea lunata (CLERCK, 1757) – Șișcani, forest (4♀). This spider lives among the lower vegetation of dry and semi-humid forests, Palearctic

Anelosimus vittatus (C.L. KOCH, 1836) – Mădărjac (2♂). It lives on bushes and orchards, European.

Dipoena melanogaster (C.L. KOCH, 1837) – Șișcani, forest (1♂, 1♀). This xerotherm species lives on trees, bushes and in oak-hornbeam forests, European.

Enoplognatha ovata (CLERCK, 1757) – Mădărjac forest (3♂, 1♀, 6 juv.), Șișcani (9 juv.), Brăhășoaia (1 juv.), inundation area of river Prut (13♂, 21 juv.). It is abundant in light forest habitats on bushes and herbs, Palearctic.

Enoplognatha thoracica (HAHN, 1833) – Brăhășoaia, forest (1♂). This species is frequent in dry open and forest habitats, Holarctic.

Neottiura bimaculata (LINNAEUS, 1767) – Brăhășoaia (1♂), inundation area of river Prut (1♂). It occurs in mainly dry open forests and grasslands, Holarctic.

Robertus arundineti (O.P.-CAMBRIDGE, 1871) - Inundation area of river Prut (1♀). This spider lives in dry open habitats, Palearctic.

Simitidion simile (C.L. KOCH, 1836) – Trifești old field (1♀). It lives on sand dunes and rock steppes, Holarctic.

Theridion tinctum (WALCKENAER, 1802) – Mădărijac, forest (1♀). It occurs in several types of partly shaded and shaded habitats, Holarctic.

Theridion varians HAHN, 1833 – Șișcani (1♀), Mădărijac (1♀), Inundation area of river Prut (2♀). Abundant in semi-humid habitats, Holarctic.

Fam. Linyphiidae

Araeoncus humilis (BLACKWALL, 1841) – Iași pasture (1♀), Brăhășoaia (2♀). This species mainly occurs in wetlands among moss and grass, European.

Diplostyla concolor (WIDER, 1834) – Brăhășoaia, forest (1♀), Icușeni (1♀). It is very abundant in many types of humid forests, Holarctic.

Erigone dentipalpis (WIDER, 1834) – Icușeni (4♂, 2♀), Brăhășoaia (2♂), Inundation area of river Prut (1♂). It is abundant in nearly all types of open habitats, Holarctic.

Erigonoplus globipes (L.KOCH, 1872) – Iași, pasture (1♀). Rare in dry, open grasslands, European.

Linyphia hortensis SUNDEVALL, 1830 – Șișcani, forest (4♀), Brăhășoaia, forest (1♀), Inundation area of river Prut (1♀). This species lives on bushes in forests. Palearctic.

Meioneta rurestris (C.L. KOCH, 1836) – Cilibiu, forest (1♀), Mădărijac, forest (1♀), Iași, pasture (1♀), Icușeni (1♀), Brăhășoaia, old field (2♂, 3♀). This species lives in every type of grasslands, Palearctic.

Microlinyphia pusilla (SUNDEVALL, 1830) – Mădărijac (1♀), Iași, pasture (1♀). This spider lives in semi-humid, open habitats, Holarctic.

Neriene radiate (WALCKENAER, 1842) – Șișcani, forest (2♂). It lives on shrubs in forests, Holarctic.

Oedothorax apicatus (BLACKWALL, 1850) – Bicaz (1♀). It occurs at ground level on disturbed open habitats, fields, inundation area, Palearctic.

Oedothorax gibbosus (BLACKWALL, 1841) – Brăhășoaia (1♀). It lives in very humid grassland habitats, Palearctic.

Pityohyphantes phrygrianus (C.L. KOCH, 1836) – Bicaz (1♀). This species is abundant on spruce trees and juniper bushes Holarctic.

Porrhomma pallidum JACKSON, 1913 – Brăhășoaia (1♀). It occurs in cold habitats mainly under stones, Palearctic.

Tenuiphantes flavipes (BLACKWALL, 1854) – Șișcani (1♀). It lives in deciduous shaded forests in leaf litter, European.

Fam. Tetragnathidae

Pachygnatha degeeri SUNDEVALL, 1830 – Brăhășoaia, old field (1 juv.).

In open habitats on ground level, Palearctic.

Tetragnatha extensa (LINNAEUS, 1758) – Iași, pasture (6♂, 9♀, 4 juv.), Sucevița (9♀), Barboși (1♂, 1♀), Trifești old field (2♂), Brăhășoaia, old field (2♀, juv 1). Abundant on river and pond banks and in wet meadows, Holarctic.

Tetragnatha montana SIMON, 1874 – Inundation area of river Prut (1♀). Abundant on herb vegetation on river banks and in wet meadows, Palearctic.

Tetragnatha nigrita LENDL, 1886 – Cilibiu, forest (1♀). Occures on bushes near rivers and ponds, European.

Tetragnatha pinicola L. KOCH, 1870 – Mădărjac forest (1♀). It lives on vegetation in various open forest habitats, Palearctic.

Tetragnatha striata L. KOCH, 1862 – Icușeni (1♀). Rare on the water facing side of reed, European.

Zygiella atrica (C.L. Koch, 1845) – Bicaz (1♀). It occurs in very dry, partly shaded habitats on shrubs, European.

Fam. Araneidae

Araniella cucurbitina (CLERCK, 1757) – Mădărjac (1♂, 1♀), Grozești (1♂), Inundation area of river Prut (2♂). This species is very abundant in several types of habitats, Palearctic.

Cyclosa conica (PALLAS, 1772) – Șișcani, forest (1♂), Sucevița (1♂). Frequent on bushes and lower trees, Holarctic.

Cyclosa oculata (WALCKENAER, 1802) – Icușeni (1 juv.), Valea lui David (1♂, 1♀). It is rare in wet meadows, Palearctic.

Hypsosinga pygmaea (SUNDEVALL, 1831) – Iași, pasture (7♀), Valea lui David (1♀), Brăhășoaia (2♀). It occures in many types of open habitats, Holarctic.

Larinoides cornutus (CLERCK, 1757) – Brăhășoaia old field (1♂). This species lives mainly on reed and marsh vegetation near ponds, Holarctic.

Larinoides folium (SCHRANK, 1803) – Iași, pasture (2♂, 2♀, 5 juv.), Trifești old field (1♂), Brăhășoaia old field (1♀). It occures on herb vegetation near lakes, Palearctic.

Mangora acalypha (WALCKENAER, 1802) – Mădărjac, forest (5♂, 10♀, 8 juv.), Cilibiu forest (1 juv.), Șișcani forest (1 juv.), Icușeni (1 juv.), Trifești old field (2♂, 4♀), Barboși (2 juv.), Brăhășoaia forest (1♂, 1♀), Brăhășoaia, old field (1♀), Valea lui David (2♀), Inundation area of river Prut (4♂). Very abundant on vegetation in open habitats, Palearctic.

Neoscona adianta (WALCKENAER, 1802) – Sucevița (1♀). It is usually found on bushes, European.

Singa hamata (CLERCK, 1757) – Iași, pasture (1♂), Barboși, wet pasture (1♂, 1♀), Icușeni (1♀), Trifești (2♀, 2 juv.). It lives in wet meadows and other wetlands, Palearctic.

Singa nitidula C.L. KOCH, 1845 – Iași, pasture (1♀). It occurs on the vegetation of riverbanks, Palearctic.

Fam. Lycosidae

Alopecosa trabalis (CLERCK, 1757) – Bicaz (1♂). In xerothermic habitats, forest-steppes and on mountains, Palearctic.

Alopecosa accentuata (LATREILLE, 1817) – Trifești old field (1♀). It occurs on sandy grasslands, forest steppes, Palearctic.

Alopecosa sulzeri (PAVESI, 1873) – Sucevița (1♀). It lives in very dry grasslands, forest clearings, European.

Aulonia albimana (WALCKENAER, 1805) – Mădărjac, forest (1♂). It lives in dry, open habitats in moss and under stones, European.

Pardosa agrestis (WESTRING, 1861) - Iași, pasture (1♂, 3♀), Barboși field margin (4♂, 11♀), Trifești, old field (1♂), Brăhășoaia old field (1♂). This species lives in agricultural fields, grasslands, Palearctic.

Pardosa alacris (C.L. KOCH, 1833) – Cilibiu, forest (1♂, 4♀), Mădărjac, forest (1♂, 2♀), Șișcani, forest (1♂, 1♀, 2 juv.), Grozești (1♀), Huși forest (1♂, 2 juv.), Trifești old field (4♀), Brăhășoaia (1♂). Forest species, lives on the leaf litter, European.

Pardosa amentata (CLERCK, 1757) – Mădărjac forest (4♀), Bicaz (1♂, 5♀), Barboși wet meadow (1♂, 6♀). It occurs on wetlands, most typically on river banks, European.

Pardosa hortensis (THORELL, 1872) – Brăhășoaia old field (1♀). Dry meadows, forest margins, Palearctic.

Pardosa palustris (LINNAEUS, 1758) – Mădărjac, forest (3♀). It lives on sunny, semi-humid grasslands, Holarctic.

Pardosa proxima (C.L. KOCH, 1847) – Brăhășoaia old field (1♀). Wet meadows, forest edges, field margins, European.

Pirata latitans (BLACKWALL, 1841) – Barboși wet meadow (6♀). It lives on riverbanks, peat bogs, European.

Trochosa terricola THORELL, 1856 – Inundation area of river Prut (1♂). It occurs on forest edges and open habitats, Holarctic.

Xerolycosa miniat (C.L. KOCH, 1834) – Sucevița (1♀). Sandy grasslands, Palearctic.

Xerolycosa nemoralis (WESTRING, 1861) – Iași pasture (1♀) Sucevița (1♀). It lives on warm, sunny habitats, in forest edges, Palearctic.

Fam. Pisauridae

Pisaura mirabilis (CLERCK, 1757) – Mădărjac, forest (1♀). This species is very abundant in mainly open dry and ruderal habitats, Palearctic.

Fam. Oxyopidae

Oxyopes lineatus LATREILLE, 1806 – Sucevița (1juv.). It lives on low vegetation and bushes, European.

Fam. Dictynidae

Dictyna arundinacea (LINNAEUS, 1758) – Mădărjac, forest (5♀, 1 juv.), Iași pasture (1♂, 1♀, 2 juv.). This xerothermic species lives on plants in dry open habitats, Holarctic.

Dictyna major MENGE, 1869 – Trifești, old field (1♀). It occurs on low vegetation in humid natural habitats, European.

Dictyna uncinata THORELL, 1856 – Cilibiu, forest (1♂), Icușeni (1♀), Grozești (1♀). It lives on trees mainly in orchards, Palearctic.

Nigma puella (SIMON, 1870) – Inundation area of river Prut (1♂). This spider occurs on bushes, European.

Fam. Amaurobidae

Callobius claustrarius (HAHN, 1833) – Bicaz (1♀). It lives in shaded, wet forests under stones and bark of trees, Palearctic.

Coelotes terrestris (WIDER, 1834) – Bicaz (2♀). Abundant in semi-humid forests at ground level and under stones, European.

Fam. Miturgidae

Cheiracanthium pennyi O.P.-CAMBRIDGE, 1873 – Iași, pasture (2♂, 1♀), Grozești (1♂), Sucevița (2♂), Trifești, old field (3♂, 1♀). It occurs on dry grasslands, forest steppes, European.

Fam. Clubionidae

Cheiracanthium punctorium (VILLERS, 1789) – Valea lui David (1♀). Lives in wet, natural meadows, Palearctic.

Clubiona brevipes BLACKWALL, 1841 – Cilibiu, forest (3♂). This thermophilous species occurs in warm oak wood forests on bushes and on bark of trees, European.

Fam. Gnaphosidae

Drassyllus villicus (THORELL, 1875) – Mădărjac, forest. (1♀). It lives in dry forest-steppes, rock-steppes, European.

Haplodrassus dalmatensis (L. KOCH, 1866) – Barboși (1♂). This rare thermophilous species occurs in natural rock-steppes, Palearctic.

Haplodrassus signifer (C.L. KOCH, 1839) – Brăhășoaia, old field (1♀). It lives in several dry and open habitat types, Holarctic.

Trachyzelotes pedestris (C.L. KOCH, 1837) – Huși, forest (1♀). It lives in meadows and forest, steppes among detritus and under stones, European.

Fam. Philodromidae

Philodromus aureolus (CLERCK, 1757) – Sucevița (1♂, 1♀), Barboși, wet meadow (1♂), Valea lui David (1♂, 1♀), Brăhășoaia (1♂), Cilibiu (1♀), Iași, pasture (1♀), Grozești (1♀). It lives on grasslands and forest edges, Palearctic.

Philodromus rufus WALCKENAER, 1825 – Cilibiu, forest (2♀), Barboși, wet meadow (1♂), inundation area of river Prut (2♀). This rare species lives on bushes at forest edges, Holarctic.

Thanatus arenarius L. KOCH, 1872 – Valea lui David (1♀). It occurs in warm, sunny grasslands, Palearctic.

Tibellus oblongus (WALCKENAER, 1802) – Iași pasture (1♀), Grozești (1♀), Sucevița (3♀), Barboși wet meadow (1♂, 1♀, 3 juv.), Valea lui David (1♀), Brăhășoaia, old field (1♂, 2♀). It lives on the vegetation of sunny grasslands, Holarctic.

Fam. Thomisidae

Misumena vatia (CLERCK, 1757) – Mădărjac, forest (1♂, 1♀), Grozești

(2♂), Trifești old field (1♂), Brăhășoaia, forest (1♂, 1♀). Very abundant on the vegetation of open habitats, Holarctic.

Misumenops tricuspidatus (FABRICIUS, 1775) – Barboși, wet meadow (1♂, 1♀). It lives on several types of meadows, Palearctic.

Pistius truncatus (PALLAS, 1772) – Barboși, wet meadow (1♂). This species occurs on bushes and branches of trees in dry forests, Palearctic.

Synema globosum (FABRICIUS, 1775) – Mădărjac, forest (1♀), Barboși wet meadow (1♂, 1♀), Inundation area of river Prut (1♂). It is frequent on the vegetation of grasslands and forest edges, Palearctic.

Thomisus onustus WALCKENAER, 1806 - Valea lui David (4♂, 1♀), Sucevița (1juv), Icușeni (1♂), Brăhășoaia (1♂). It occurs only in warm, dry open habitats, Palearctic.

Xysticus cristatus (CLERCK, 1757) – Mădărjac, forest (2♀), Brăhășoaia, old field (1♀). It lives among the vegetation on meadows, and fields, Palearctic.

Xysticus kochi THORELL, 1872 – Mădărjac, forest (1♂), Barboși wet meadow (2♂), Brăhășoaia, old field (1♂), inundation area of river Prut (1♀). It occurs in several types of grasslands, Palearctic.

Xysticus ninnii THORELL, 1872 - Valea lui David (1♀). This species lives in very dry, warm forest-steppes, Palearctic.

Xysticus ulmi (HAHN, 1832) – Mădărjac, forest (1♂). It lives in wet meadows, pond margins, Palearctic.

Fam. Salticidae

Ballus chalybeius (WALCKENAER, 1802) – Inundation area of river Prut (1♀). This species lives in dry shaded forests on bushes, Palearctic.

Bianor aurocinctus (OHLERT, 1865) – Valea lui David (1♂). On short vegetation of meadows, Palearctic.

Evarcha arcuata (CLERCK, 1757) – Mădărjac, forest (1♂, 1♀), Grozești (1♂, 1♀), Trifești, old field (1♂), Barboși wet meadow (1♂, 1♀), Șișcani, forest (1♀), Brăhășoaia, forest (1♂), inundation area of river Prut (2♂). It lives on herbaceous vegetation on meadows, Palearctic.

Heliophanus cupreus (WALCKENAER, 1802) – Grozești (1♂, 2♀). Occurs in warm grassland and forest habitats, European.

Heliophanus flavipes (HAHN, 1832) – Mădărjac, forest (1♂), Sucevița (2♀), Trifești, old field (1♀), Brăhășoaia, forest (2♀), Valea lui David (1♀). This spider lives in dry, warm, open habitats, Palearctic.

Macaroeris nidicolens (WALCKENAER, 1802) – Barboși, wet meadow (1♂). This thermophilous species occurs on shrubs and forests, Palearctic.

Salticus cingulatus (PANZER, 1797) – Trifești, old field (1♀). On bark of trees and bushes of forest edges, Palearctic.

Sitticus penicillatus (SIMON, 1875) – Trifești, old field (1♂). It lives in warm grasslands and forest clearings, Palearctic.

Conclusions

The arachnological knowledge of the Romanian fauna is relatively poor. The last published catalogues of the Romanian spider fauna contains 973 species (WEISS & PETRIŞOR 1999, WEISS & URÁK 2000). During the five-day expedition we collected more than 10% of the species included in the fauna list. For *Nigma puella* this was the second record in Romania.

An extent collection in the region will probably provide further interesting data of the spider fauna of Moldova and the distribution pattern of species.

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