

CONTRIBUTIONS TO THE KNOWLEDGE OF ROMANIAN SPIDER FAUNA. STEPS TOWARDS AN UPDATED CHECKLIST

LIVIU AUREL MOSCALIUC

Abstract. In the present article, three spider species are presented as new faunistic elements for Romania: *Oecobius maculatus* Simon, 1870, *Agelena orientalis* C. L. Koch, 1837 and *Scotolathys simplex* Simon, 1884. Out of the three, *O. maculatus*, by its presence, also raises the count of the spider families known to occur in this territory to 36. *O. maculatus* appears to be, in Romania, an anthropic-dependent element. *A. orientalis* is a relatively widespread species, rather difficult to distinguish from its sibling species *A. labyrinthica*, and because of this frequently mislabeled in collections. *S. simplex* is a rarer Mediterranean element found in Dobruja, close to the Black Sea coast. A case is made in support of an updated Romanian spider checklist.

Résumé. Dans le présent article trois espèces d'araignées sont présentées comme de nouveaux éléments faunistiques pour la Roumanie: *Oecobius maculatus* Simon, 1870, *Agelena orientalis* C. L. Koch, 1837 et *Scotolathys simplex* Simon, 1884. Sur les trois, *O. maculatus*, par sa présence, soulève également le nombre de familles d'araignées connues pour se produire dans ce territoire à 36. *O. maculatus* semble être, en Roumanie, un élément anthropique-dépendant. *A. orientalis* est une espèce relativement répandue, assez difficiles à distinguer de son frère espèces *A. labyrinthica*, et à cause de cela souvent mal étiquetés dans les collections. *S. simplex* est un élément rare Méditerranée trouvé dans la Dobroudja, près de la côte de la mer Noire. Un cas est fait en faveur d'une liste mise à jour d'araignée de Roumanie.

Key words: first records, spiders, fauna, Romania.

INTRODUCTION

In Romania, a detailed analysis of arachnological studies history was made by Dumitrescu (1981). The first list of the spider species in Romania was published by Fuhn & Oltean (1970). The most recent checklist of the fauna was published by Weiss & Petrișor (1999) and it was updated and published online by Weiss & Urák (2000) registering 972 species. Since then the checklist has not been updated, although several more taxa have been found to be present in Romania's natural and anthropic habitats or as wrongly identified species in existing collections, and reported in various articles: *Robertus mediterraneus* Eskov, 1987 (Knoflach & Thaler, 2000); *Pardosa oreophila* Simon, 1937 (Urák, 2001); *Gnaphosa nigerima* L. Koch, 1887, *Centromerus levitarsis* (Simon, 1884) (Galle & Urák, 2001); *Notioscopus sarcinatus* (O. P.-Cambridge, 1872), *Haplodrassus moderatus* (Kulczynski, 1897) (Galle & Urák, 2002); *Tapinocyboides pygmaeus* (Menge, 1869), *Cheiracanthium campestre* Lohmander, 1944, *Talavera thorelli* Kulczynski, 1981 (Urák, 2002); *Trichoncus hackmani* Millidge, 1955, *Collinsia distincta* (Simon, 1884) (Urák & Galle, 2003); *Gongyliidium vivum* (O. P.-Cambridge, 1885), *Helophora insignis* (Blackwall, 1841), *Midia midas* Simon, 1884 (Fetyko & Urák, 2004); *Segestria florentina* (Rossi, 1790), *Achaearana tabulata* Levi, 1980 (Urák, 2005); *Zelotes balcanicus* Deltshv, 2006 (Deltshv et al., 2006); *Euryopsis quinqueguttata* Thorell, 1875, (Duma, 2006 a); *Zodarion rubidium* Simon, 1914 (Duma, 2006 b); *Meioneta similis* (Kulczynski 1926) (Galle & Urák, 2006); *Bolyphantes index* (Thorell, 1856), *Ceratinella wideri* (Thorell, 1871) (Urák & Fetyko, 2006); *Pardosa saltans* Töpfer-Hofmann, 2000

(Adam, 2007); *Pellenes seriatus* (Thorell, 1875) (Duma 2007 a); *Pseudeuophrys lanigera* (Simon, 1871) (Duma, 2007 b); *Dysdera dubrovninnii* Deeleman-Reinhold, 1988 (Rezac et al., 2008); *Philodromus ruficapillus* Simon, 1885 (Duma, 2008 a); *Theridion uhligi* Martin, 1974 (Duma, 2008 b); *Rugathodes bellicosus* (Simon, 1873), *Glyphesis servulus* (Simon, 1881), *Incestophantes frigidus* (Simon, 1884), *Gnaphosa badia* (L. Koch, 1866) (Nitzu et al., 2008); *Harpactea alexandrae* Lazarov, 2006, *Mecopisthes peusi* Wunderlich, 1972, *Sintula retroversus* (O. P.-Cambridge, 1875), *Zodarion thoni* Nosek, 1905, *Trachyzelotes malkini* Platnick & Murphy, 1984, *Neaetha membrosa* (Simon, 1868), *Talavera krocha* Logunov & Kronestedt, 2003 (De Spigelaere & Bosmans, 2009); *Theridion italiense* Wunderlich 1995 (Duma, 2009); *Improphantes improbulus* (Simon, 1929) (Nae, 2010); *Scutpelecopsis loricata* Duma & Tanasevitch, 2011 (Duma & Tanasevitch, 2011); *Theridiosoma gemmosum* (L. Koch, 1877), *Uloborus plumipes* Lucas, 1846 (Duma, 2012); *Spermophora senoculata* (Duges, 1836), *Xysticus laetus* Thorell, 1875, *Trochosa hispanica* Simon, 1870 (Moscaliuc, 2012); *Pholcus ponticus* Thorell, 1875, *Pisaura novicia* (L. Koch, 1878) (Fedoriak & Moscaliuc, in press); *Pardosa maisa* Hippa & Mannila, 1982 (Sas-Kovacz et al., 2013). Not all the new records are given in the above list, for some species the bibliographical data were not available, ex. *Zelotes tenuis* (L. Koch, 1866) or *Zodarion morosum* Denis, 1935.

There are also species that seem to have been overlooked in the 2000 list: *Cybaeus tetricus* (C. L. Koch, 1839) (Bădescu et al., 1998); *Palliduphantes milleri* (Starega, 1972) (Pekar et al., 1999); *Palliduphantes insignis* (O. P.-Cambridge, 1913), *Drassodes cupreus* (Blackwall, 1834), *Zelotes aeneus* (Simon, 1878) (Urák & Fetyko, 2006 – missing from the checklist but not mentioned as new in this paper).

The listing above was considered necessary as a number of these species, although published as present, ex. *Trichoncus hackmani* Millidge, 1955, *Collinsia distincta* (Simon, 1884) (Urák & Galle, 2003), were not also registered in international reference databases as Fauna Europaea (Heldsingen, 2013) since.

The present paper does not deal with the (expected) changes that occurred, in time, in the Romanian faunistic list like replacements of genus names (eg. *Lessertiella dobrogica* Dumitrescu & Miller, 1962 is now *Caviphantes dobrogicus* (Dumitrescu & Miller, 1962)), subspecies to species status changes (eg. the initially described *Lycosa roscai* Roewer, 1951 was recorded in Weiss & Urák, 2000 as *Pardosa cribrata roscai* (Roewer, 1951) and is now recognized as *Pardosa roscai* (Roewer, 1951)) or other such instances that do not influence the actual list, the species remaining by all accounts already recorded.

Given the amount of new records and also the numerous taxonomic status changes that have occurred (Platnick, 2013) since 2000, a new Romanian checklist seems necessary.

Here we present another three newly recorded species for Romania (amongst which there is also the first record of the family Oecobiidae for the fauna).

More species will be reported in the near future, discovered as wrongly identified specimens in various collections (Fedoriak & Moscaliuc, in press) and we have also reason to suspect that more will be found in nature.

MATERIAL AND METHODS

The results of this paper come from the author's regular field work concerning the spider collection of "Grigore Antipa" National Museum of Natural History from București (Bucharest). The specimens were identified using available keys

(www.araneae.unibe.ch) and varied published articles, detailed in the diagnosis and discussions paragraphs of the next chapter. The photographs were taken using a Leica 205C stereomicroscope with a mounted Canon EOS 70D camera. Some mild improvements were applied using Adobe Photoshop software.

RESULTS AND DISCUSSIONS

Family Oecobiidae Blackwall, 1862

Genus *Oecobius* Lucas, 1846

Oecobius maculatus Simon, 1870

O. kahmanni Kritscher, 1966: 289.

(Fig. 1)

Material examined: 1 adult ♀, 6 juveniles; București, 44°27'11.06" N, 26°5'4.39" E; found inside a building, collected from webs, on the 31st of May and 22nd of August; leg. Liviu Moscaliuc, deposited in the collection of "Grigore Antipa" National Museum of Natural History, București.

Diagnosis: female total length 2.31 mm; members of the family Oecobiidae are easily recognized (among others) by a large anal tubercle with a conspicuous fringe of setae (Jocqué & Dippenaar-Schoeman, 2007). Carapace subcircular, clypeus gently protruding, orange brown with paired right/left marginal dusky regions and a dark marginal line. Eye region dark. Legs pale yellow with dark annulation-like pattern. Opisthosoma oval elongate, tapering to rear, with paired brown patches and an almost hourglass like shaped cardiac mark.

European distribution: Austria; Switzerland; Spain; France/Mainland, Corsica; Greece/North Aegean Isl., Dodecanese Isl., Mainland, Crete; Italy/Mainland, Sardinia, Sicily; Malta; Portugal/Mainland (Helsdingen, 2013).

Remarks. The female was identified based on the comparison of the epigyne structure with drawing/photographs from Kaya et al., 2007; the structure of the vulva was compared to the drawing of Baum, 1980; even though Baum's drawing of the vulva is highly accurate, showing clearly, for instance, the kidney shape of the

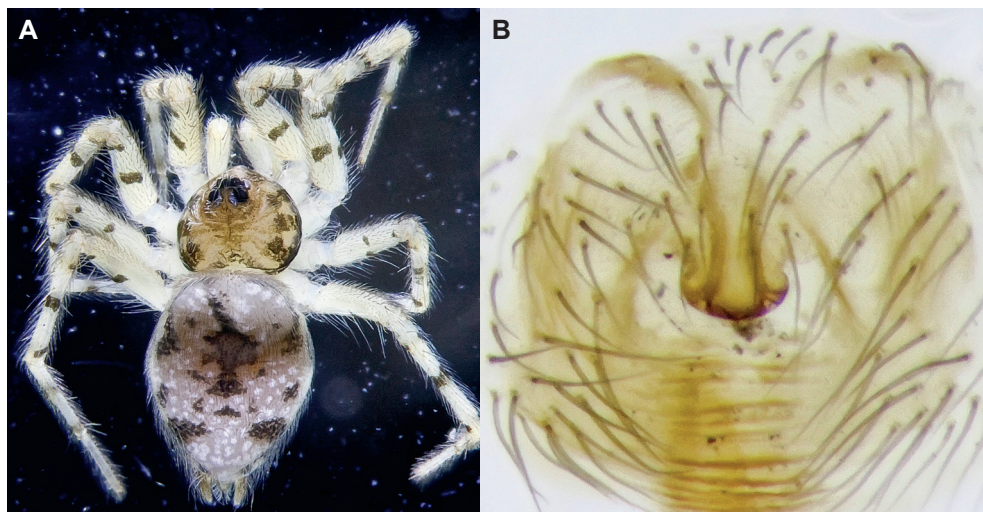


Fig. 1 - *Oecobius maculatus* Simon, 1870, female: A, general aspect; B, detail of the epigyne.

spermatheca and their ornamentation, his epigyne drawing doesn't seem to reflect the actual structures. The adult female was captured in May and no other individual was found. Later, in August, a close inspection of the office's walls (these species are sometimes known as wall-spiders) revealed many 5 mm or less typical nets from which juveniles were collected (6 in total). The nets were also found all through the Museum's hallways. The species is a southern European Mediterranean element that was more likely introduced in Romania, the circumstances of the finding suggesting a synanthropic aspect. The genus has around 79 worldwide species at least some of which had the ability to adapt to human modified environments and subsequently spread around with trade and human movements. Eight species are present in or around Europe.

Family Agelenidae C. L. Koch, 1837

Genus *Agelena* Walckenaer, 1805

Agelena orientalis C. L. Koch, 1837

A. gracilens taurica Thorell, 1875: 81.

A. syriaca C. L. Koch, 1843: 110.

(Fig. 2)

Material examined: 1 adult ♀; București, 44°24'10.71" N, 26°0'43.23" E; collected inside a building, on the 27th of August; leg. Liviu Moscaliuc, deposited in the collection of "Grigore Antipa" National Museum of Natural History, București (Bucharest).

Diagnosis: total length 11-14 mm; *A. orientalis* seems to be very similar to *A. labyrinthica*, with no obvious differences in coloration, measurements or spination, but they do have some good distinguishing features: the tip of the embolus and external/internal epygine structure (Kovblyuk & Kastrygina, 2011): the posterior edge of the epyginal fovea, the shape of the septum in the middle of the fovea, the shape and position of the receptaculum and its accessorial arm (see Kovblyuk & Kastrygina, 2011; fig. 2). The general coloration is brown-yellow with a varied degree of shading on the two sides of the carapace. The abdomen has a central longitudinal pattern made of a series of chevrons with their tip facing forward.

European distribution: Bulgaria; Greece/North Aegean Isl., Cyclades, Mainland; Italy/Mainland; Macedonia; South-European Russia; Ukraine (Helsdingen, 2013).

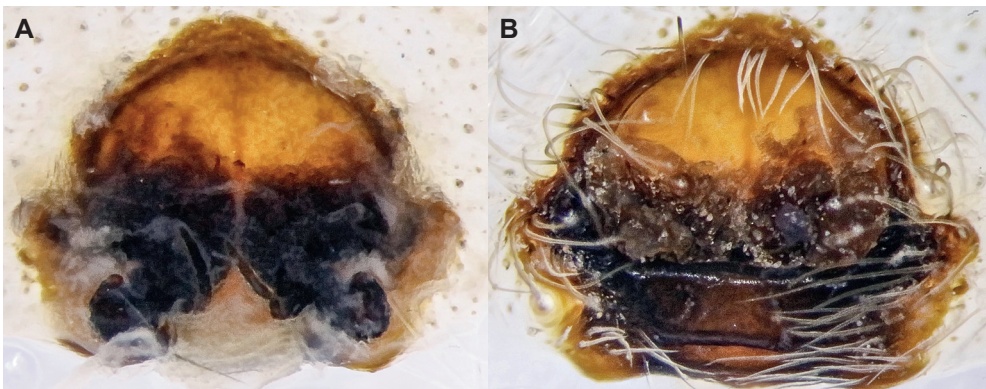


Fig. 2 - *Agelena orientalis* C. L. Koch, 1837, female genital structure: A, vulva; B, epigyne.

Remarks. The high possibility of confusion between the species prompted a quick inspection of specimens in the collection of “Grigore Antipa” National Museum of Natural History, with the result that individuals with quite different epigynes are labeled as *A. labyrinthica* (Clerck, 1757) (the exact number of records for the species in the collection will be published pending its revision).

Family Dictynidae O. P.-Cambridge, 1871

Genus *Scotolathys* Simon, 1884

Scotolathys simplex Simon, 1884

(Fig. 3)

Material examined: 2 adult ♀♀; Hagieni forest, Constanța County, 43°47'53.03" N, 28°26'47.91" E; collected from under stones; leg. Liviu Moscaliuc, deposited in the collection of “Grigore Antipa” National Museum of Natural History, București.

Diagnosis: total length of the two specimens 1.29 mm/1.46 mm; small spiders with six eyes, pale carapace and light-brown abdomen.

European distribution: Bulgaria; France/Mainland; Greece/North Aegean Isl.; Portugal/Mainland; Ukraine (Helsdingen, 2013).

Habitat. In Romania, the species was found under stones, in a mainly *Quercus pedunculiflora* thermophilous forest patched with grassy communities built around *Poa pratensis angustifolia*, *Festuca valesiaca*, *Crysopogon gryllus* etc. established on rocky limestone hills (Șerbănescu et al., 1975).

Remarks. The identity of the specimens was verified using Marusik et al., 2009 article on the Crimean *Lathys* species that also describes the male of *S. simplex* and proves the validity of the genus *Scotolathys*. Epigyne structures and general appearance fit the description.

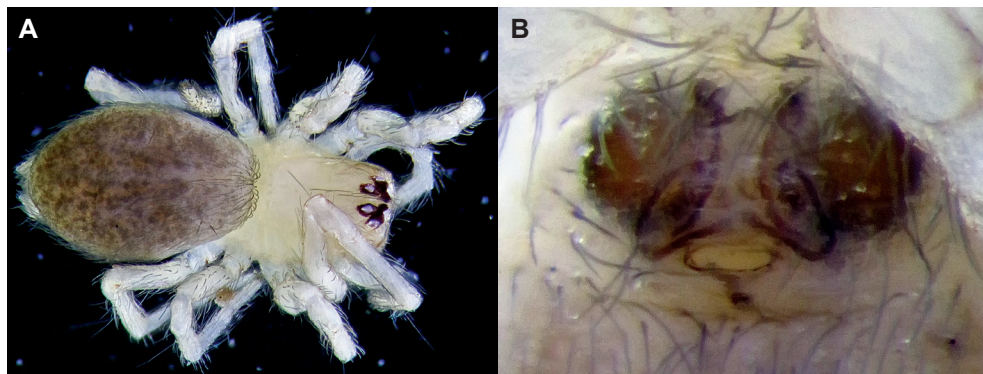


Fig. 3 - *Scotolathys simplex* Simon, 1884, female: A, general aspect; B, detail of the epigyne.

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CONTRIBUȚII LA CUNOAȘTEREA FAUNEI DE PĂIANJENI A ROMÂNIEI.
PAȘI SPRE O LISTĂ FAUNISTICĂ ADUSĂ LA ZI

REZUMAT

În articolul de față trei specii de păianjeni sunt prezentate ca elemente faunistice noi pentru România: *Oecobius maculatus* Simon, 1870, *Agelena orientalis* C. L. Koch, 1837 și *Scotolathys simplex* Simon, 1884. Din cele trei, *O. maculatus*, prin prezența sa, aduce la 36 numărul de familii de păianjeni cunoscute din acest teritoriu. *O. maculatus* pare a fi, în România, un element dependent antropic. *A. orientalis* este o specie relativ răspândită, destul de dificil de distins de specia soră *A. labyrinthica* și din cauza aceasta frecvent etichetată greșit în colecții. *S. simplex* este o specie mediteraneană rară, găsită în Dobrogea, în apropiere de coasta Mării Negre. Identificarea acestor taxoni ridică totalul numărului de specii prezente în România la aproximativ 1014 (în curs de revizuire).

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“Grigore Antipa” National Museum of Natural History
Șos. Kiseleff 1, 011341 Bucharest 2, Romania
e-mail: liviu.moscaliuc@antipa.ro