

Scientific heritage of Alexandru Roşca: publications, spider collection, described species

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Abstract: The scientific heritage of the Romanian arachnologist Alexandru Roşca (publications, spider collection, and described species) was surveyed. For almost 40 years Alexandru Roşca studied the spiders from territories that are now parts of Romania, Ukraine, Bulgaria, and Moldova. Despite political repression, Roşca made a significant contribution to the study of the spiders of Romania and bordering countries, reflected in his 19 papers including the Ph.D. thesis. A complete list of Roşca's papers is presented. The 'Alexandru Roşca' spider collection is deposited in the Grigore Antipa National Museum of Natural History (Bucharest, Romania). According to the register it includes 596 species (1526 specimens) of spiders. Part of the collection was revised by different scientists and later by the present authors. During the period 1931–1939, Roşca described 13 spider species. To date, five species names have been synonymised. We propose that six species should be treated as **nomina dubia** because of their poor descriptions and lack of availability of types and/or other specimens. For two of Roşca's species, *Pardosa roscai* (Roewer, 1951) and *Tetragnatha reimoseri* (Roşca, 1939), data and figures are presented and information on them is updated.

Keywords: *Pardosa roscai*, Romania, spider collection, *Tetragnatha reimoseri*

The analysis of historical data (including literature data and collections) is important for obtaining complete information on spider diversity and composition, for defining habitat preferences of species, for estimating faunal change due to human impacts on habitats and climate change and thus for nature conservation management (Helsdingen 2000, Aakra 2009, Fedoriak et al. 2012, Komposch 2015). The Romanian spider fauna is relatively well studied. The first list of Romanian spiders was published by Fuhn & Oltean (1970). Dumitrescu (1979) published the 'Bibliographia Arachnologica Romanica', which included a list of more than 300 papers on both Romanian and foreign arachnids written by Romanian authors as well as the contributions of foreign specialists on Romanian arachnological material. The detailed analysis of the history of arachnological studies in Romania was published soon after (Dumitrescu 1981). The most recent checklist of the fauna was published by Weiss & Petrişor (1999) and it was updated and published online by Weiss & Urák (2000) who presented 972 species. Since then a number of additional species were recorded for Romania (Moscaliuc 2013).

An important contribution to spider fauna studies in Romania and adjacent countries was made during the period 1930–1968 by the Romanian arachnologist Alexandru Roşca. However, complete information about his publications, described species, material deposited in the 'Alexandru Roşca' collection in the Grigore Antipa National Museum of Natural History (Bucharest, Romania) as well as an analysis of his records for the territories that are now parts of Romania, Ukraine, Bulgaria and Moldova is still lacking.

Alexandru Roşca's life (2.10.1895–7.8.1969) was significantly influenced by historical events during the 20th century. He survived two world wars, overcame cancellation of his

scientific degree and dismissal from the University (October 16, 1947) and was later rehabilitated (January 29, 1964). Despite these hardships, he made a significant contribution to the study of the spiders of Romania and bordering countries.

The aim of the present study is to provide a complete list of Roşca's arachnological publications and to provide information about the current status of his collection and the described spider species.

Material and methods

We obtained information about the scientific heritage of Alexandru Roşca from the publications and documents stored in the libraries of Chernivtsi National University (Chernivtsi, Ukraine), the Vernadsky National Library (Kyiv, Ukraine), the National Library of Belarus (Minsk, Belarus), the Mihai Eminescu Central University Library (Iaşi, Romania), the Scientific Library of the Grigore Antipa National Museum of Natural History (Bucharest, Romania) as well as in Roşca-Toderăş family archive.

We digitalised the register of the 'Alexandru Roşca' collection deposited in the Grigore Antipa National Museum of Natural History. The complete and unchanged data from the original register dating back to 1972 are available (Fedoriak 2015: pp. 144-161). It provides the following data: name of the taxa (596 species in 21 families), number of specimens per species, locality (mostly names of settlements), and the date of collecting. Until recently the material had no inventory numbers. The revision of different parts of the collection was done by different arachnologists who rearranged specimens in glass tubes and placed them in plastic jars with 70% alcohol (Petrişor 1999, Fedoriak & Moscaliuc 2013). The rest of the collection is in the same condition as it was received and requires reorganization and verification.

We collected information on the results of previous revisions of the 'Alexandru Roşca' collection. These results are available in different forms:

- published data (Braun 1982, Urak & Weiss 1997, Petrişor 1999, Fedoriak & Moscaliuc 2013);
- notes in the register of the 'Alexandru Roşca' collection;
- additional labels which were added to Salticidae specimens by I. E. Fuhn.

Photographs were taken by Liviu A. Moscaliuc using a Leica 205C stereomicroscope with a mounted Canon EOS 60D camera and were processed with 'Windows 10 Photos'

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and various photo stacking software packages. The pictured specimens are part of the arachnological collections of Department of Zoology, Institute of Biology, Siedlce University of Natural Sciences and Humanities (Poland), Grigore Antipa National Museum of Natural History (MNINGA, Romania) and C. Deltchev's private collection (Bulgaria).

Results

According to the register of the 'Alexandru Roşca' collection deposited in the Grigore Antipa National Museum of Natural History (Bucharest, Romania), the first spider material was collected in May 1928; the last material was collected in May 1966. For almost 40 years he studied spiders in the territories that are now parts of Romania, Ukraine, Bulgaria and Moldova.

Roşca also studied spiders from different regions of Romania. In general, he provided data on spiders per study region as follows: Bucovina in six publications including his thesis (Roşca 1930, 1935, 1936a, 1936b, 1937b, 1938a), Moldova in five publications (Roşca 1937a, 1938c, 1946a, 1946b, 1968), Transylvania in three publications (Roşca 1932, 1958, 1959), Dobrogea in two publications (Roşca 1938b, 1939), Bessarabia in one paper (Roşca 1940).

Two of Roşca's publications are not faunistic. One of them concerns the interpretation of the notion of "biotope" and provides information about biotope preferences of some spider species (Roşca 1943). The second one deals with the silk collar that can be found around some of the burrows dug by *Hogna vultuosa* [= *Geolycosa vultuosa* (C.L. Koch, 1838)]. This silk collar, as Roşca noted, is used to protect the spiderlings in their first stages of life (until pigmented) against debris and powerful sunlight (Roşca 1947).

Roşca and his family managed to save the collection of spiders. According to the certificate #1582 dating back to 26.7.1972, the Grigore Antipa National Museum of Natural History acquired the collection of 1526 specimens representing 596 Araneae species sold by Olivia Toderaş (Alexandru Roşca's daughter). The collection came in handmade cardboard boxes containing glass vials with rubber covers and was accompanied by the register. Until now only a part of the collection has been reorganized and verified (Tab. 1).

Currently 506 specimens from the collection have been verified (some of them twice by different arachnologists), 296 are under the process of verification and 724 require reorganization and verification (Tab. 1).

During the period 1931–1939, Roşca described 13 spider species from the territories that now are parts of Romania, Ukraine and Bulgaria. So far no type material was found in 'Alexandru Roşca' collection.

To date, five species names have been synonymised: *Aranea multipunctata* Roşca, 1935 [= *Larinioides ixobolus* (Thorell, 1873)]; *Theridium botezati* Roşca, 1935 [= *Phylloneta impressa* (L. Koch, 1881)]; *Coelotes intermedius* Roşca, 1935 [= *Inermocoelotes falciger* (Kulczyński, 1897)]; *Arctosa turbida* Roşca, 1935 [= *Arctosa stigmata* (Thorell, 1875)]; *Acantholycosa trajani* Roşca, 1939 [= *Pardosa nebulosa* (Thorell, 1872)].

Six of Roşca's species are here considered doubtful:

Ceratinella marci Roşca, 1932: the description of this species was based only on one specimen. The description of size and colour/tegument sculpture as well as the habitat in which it was collected is rather indicative for several other species within

this genus. The epigyne is represented very schematically and looks similar to *C. brevipes*, *C. wideri* and *C. scabrosa*.

Diplocephalus subrufus Roşca, 1935 [= *Diplocephalus alpinus subrufus* Roşca, 1935] was described based on a male and a female. It was given subspecific status as *Diplocephalus connectens subrufus* (Drensky 1939). Drensky noted that he had not examined the specimens. Roşca stated that the difference between his species and *D. connectens* was the lack of a sulcus between the anterior median and posterior median eyes, thus his species has a single peaked conical head region compared to a double pointed head region of *D. connectens*. But the description and the figures do not allow us to distinguish it from other possibly related species.

Walckenaera fusca Roşca, 1935 is a species described by Roşca based on one female only. In the description the author

Tab. 1: Information on the revised material from 'Alexandru Roşca' spider collection (Family names and data as in original)

Family	Species	Specimens	Notes
Araneidae	50	183	Requires reorganization and verification
Gnaphosidae	39	71	Requires reorganization and verification
Xysticidae	82	296	Under the process of verification
Theridionidae	40	104	Verified by Fedoriak & Moscaliuc (2013)
Hahniidae	2	3	Requires reorganization and verification
Lycosidae	61	165	Verified by Petrişor (1999). This part of the collection contains 12 specimens of Pisauridae which were also verified by Fedoriak & Moscaliuc (2013)
Argyronetidae	1	2	Verified by Petrişor (1999)
Sicariidae	1	4	Requires reorganization and verification
Zoridae	2	11	Requires reorganization and verification
Dysderidae	8	10	Verified by Petrişor (1999)
Linyphiidae	43	105	Requires reorganization and verification
Micryphantidae	96	149	Requires reorganization and verification
Clubionidae	56	124	Requires reorganization and verification
Salticidae	49	138	Verified by Fuhn & Gherasim (1995) and recently by Moscaliuc & Fedoriak (2015)
Dictynidae	27	73	Requires reorganization and verification
Pholcidae	2	15	Verified by Fedoriak & Moscaliuc (2013)
Mimetidae	2	2	Verified by Fedoriak & Moscaliuc (2013)
Eresidae	1	1	Require reorganization and verification
Oxyopidae	2	12	Verified by Fedoriak & Moscaliuc (2013)
Agelenidae	23	34	Verified by Petrişor (1999)
Tetragnathidae	9	24	Verified by Petrişor (1999)
Totals	596	1526	

differentiated it from *W. obtusa* Blackwall, 1836 by variations in epigyne morphology. However, the latter species has an epigyne morphology (with a trapezoidal plate in the middle) that is quite different from Roşca's description of an inverted arch-like epigyne opening.

Centromerus crinitus Roşca, 1935 is another species that Roşca described on based on one female only and compared it with *C. similis* [= *Centromerus sellarius* (Simon, 1884)]. However, the provided figure is rather a conundrum and of no help for any comparison.

For *Tarentula strandi* Roşca, 1936 and *Tarentula roeweri* Roşca, 1937 both sexes were described and illustrated. They were recognized and placed within the genus *Alopecosa* by Fuhn & Niculescu-Burlacu (1971). However, the authors mentioned that they searched for them but found no specimens at the type locality.

We propose that these six species should be designated **nomina dubia** because of their poor descriptions and the unavailability of types or other specimens.

Two of Roşca's species are valid and information on them is updated: *Eucta reimoseri* Roşca, 1939 [= *Tetragnatha reimoseri* (Roşca, 1939)] and *Lycosa maculata* Roşca, 1939 [= *Pardosa roscai* (Roewer, 1951)].

Pardosa roscai (Roewer, 1951) (Fig. 1)

Illustrated material. BULGARIA: 1♂1♀, Shabla town (43.53794°N, 28.53523°E), Tuzlata place, 28.6.1993, leg. & det. C. Deltshv.

Other examined specimens. ITALY: fragments (the material is macerated probably due to a poor preservative) (MNINGA inv.nr. ARA 252/1), Toscana, Pisa (43.72284°N, 10.40169°E), 7.6.1958, det. C. Sterghiu. ROMANIA: 2♂♂ (MNINGA inv.nr. ARA 330/1), Grindul Caraorman (45.07746°N, 29.37816°E), 5.5.1967, det. C. Sterghiu; 7♀♀ (MNINGA inv. nr. ARA 330/12), same location, 6.5.1967, det. C. Sterghiu; 4♀♀ (MNINGA inv.nr. ARA 330/13), same location, sand dune, 6.5.1967, det. C. Sterghiu; 14♀♀ (MNINGA inv.nr. ARA 330/15), same location, 5.5.1967, det. C. Sterghiu; 26♀♀ (MNINGA inv.nr. ARA 330/16), same location, 5.5.1967, det. C. Sterghiu; 7♀♀ (MNINGA inv.nr. ARA 330/2), same location, 5.5.1967, det. C. Sterghiu; 1♀ (MNINGA inv. nr. ARA 330/3), same location, 1.5.1957, det. C. Sterghiu; 5♀♀ (MNINGA inv.nr. ARA 330/5), same location, *Juncus* meadow, 5.5.1967, leg. I. Fuhn, det. C. Sterghiu; 2♀♀ 1 subadult ♂ (MNINGA inv.nr. ARA 330/10), same location, 30.4.1957, leg. I. Fuhn, det. C. Sterghiu; 1♀ (MNINGA inv. nr. ARA 330/4), Ciupercenii Noi (43.90768°N, 22.94809°E), 7.05.1973, leg. I. Fuhn, det. C. Sterghiu; 1♀ (MNINGA inv. nr. ARA 330/14), same location, 9.5.1963, leg. I. Fuhn, det. C. Sterghiu; 1♀ (MNINGA inv.nr. ARA 330/11), Ciupercenii Vechi (43.94231°N, 22.89760°E), 7.5.1963, det. C. Sterghiu; 2♀♀ (MNINGA inv.nr. ARA 330/6), Murighiol-Sărături (45.03371°N, 29.15407°E), 10.6.1967, det. C. Sterghiu; 6♀♀ 2 subadult ♂♂ (MNINGA inv.nr. ARA 330/7), Gârla Împuţită (45.09243°N, 29.65179°E), Black Sea shore, 14.10.1970, det. C. Sterghiu; 6♀♀ 1 subadult ♂ (MNINGA inv.nr. ARA 330/9), same location, 14.10.1970, leg. I. Fuhn, det. C. Sterghiu; 4♀♀ 2 subadult ♂♂ (MNINGA inv.nr. ARA 330/8), Sulină cemetery (45.15029°N, 29.67073°E), 16.10.1970, leg. I. Fuhn, det. C. Sterghiu; 1♀ (MNINGA inv.nr. ARA 526/52), Caracal (44.11574°N, 24.34246°E), 7.5.1958, leg. A. Cohen,

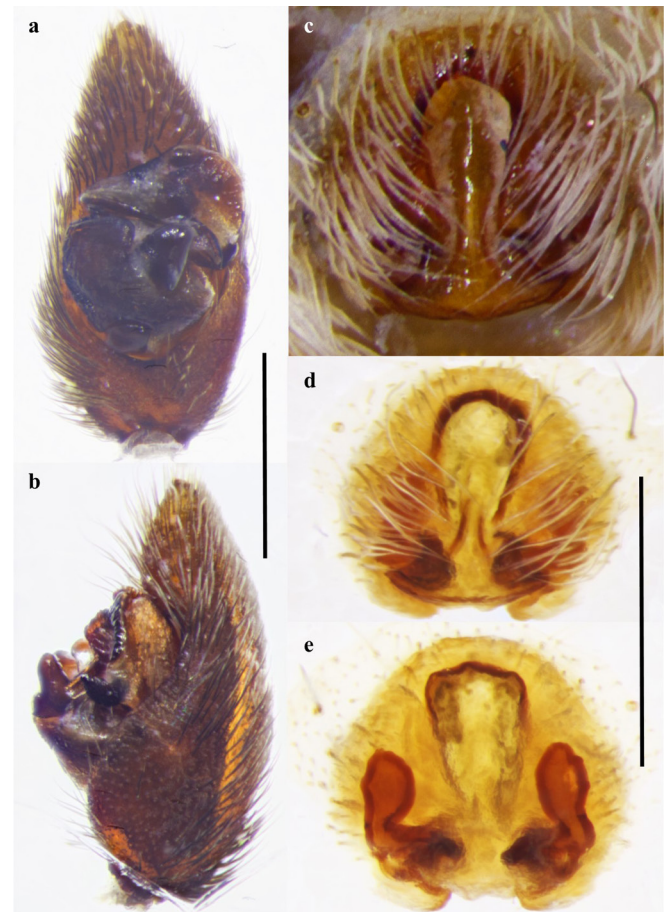


Fig. 1: *Pardosa roscai* (Roewer, 1951). Male and female from Shabla town, Bulgaria: Right pedipalp: **a.** Ventral; **b.** Lateral; **c.** Epigyne (not cleared); **d.** Epigyne (cleared); **e.** Vulva. Scale bars 0.5 mm

det. I. Fuhn; 1♀ (MNINGA inv.nr. ARA 526/33), location and date unknown, leg. P. Banarescu.

Diagnosis. Distinguished from its congeners by the morphology of the genitalia. **Male.** Prosoma dorsum dark brown, darker region inside the eye field. Light median band, irregular in shape. Discontinued lateral bands with faint radial pattern. Palpus dark brown covered with dark hairs. Apical part of the back of the palp covered with a dense field of lighter and shorter setae. Conductor bifurcated, terminal apophysis with an acute, sclerotized end. Long horizontal and tapered embolus (Fig. 1a). **Female.** Similar colouration pattern of prosoma as for the male, different only in the shade of brown which is lighter and slightly reddish. Epigyne with an upturned T shaped septum and double outward facing sclerotized copulatory pockets at the base. Covered with white setae (Fig. 1c-e). **Distribution.** Turkey, Bulgaria, Romania (World Spider Catalog 2016, Helsdingen 2015).

Tetragnatha reimoseri (Roşca, 1939) (Figs 2-3)

Illustrated material. POLAND: 1♂ 1♀, Siedlce Ponds (52.19298°N, 22.29157°E), Siedlce, rushes, sweeping with a net, 27.6.2005, leg. & det. I. Hajdamowicz; ROMANIA: 1♂ 1♀ (MNINGA inv.nr. 40002, tube 37), Caraorman (45.08673°N, 29.39596°E), 11.8.1967, leg. X. Palade, det. M. Vasiliu.

Other examined specimens. POLAND: 1♀, Siedlce Ponds (52.19298°N, 22.29157°E), Siedlce, rushes, sweeping with a net, 8.6.2006, leg. & det. M. Oleszczuk; 1♂, same locality,

27.5.2000, leg. & det. P. Jastrzębski; 1♀, same locality, 8.6.2006, leg. & det. P. Jastrzębski. ROMANIA: 1♀ (MNINGA inv. nr. 40002, tube 32), Periprava (45.39962°N, 29.54424°E), 15.9.1966, leg. & det. M. Vasiliu; 2♀♀ 1 subadult ♂ (MNINGA inv. nr. 40002, tube 38), same location, 24.7.1958, leg. A. Cohen, det. M. Vasiliu; 1♀ (MNINGA inv. nr. 40002, tube 39), same location, 27.6.1967, leg. & det. M. Vasiliu; 3 subadult ♀♀ (MNINGA inv. nr. 40002, tube 40), same location, 12.10.1966, leg. X. Palade, det. M. Vasiliu; 1 subadult ♂ (MNINGA inv. nr. 40002, tube 33), Corciovata lake (45.23538°N, 29.28529°E), 29.3.1967, leg. Ș. Torcea, det. M. Vasiliu; 2♀♀ 1 subadult ♂ (MNINGA inv. nr. 40002, tube 34), Caraorman (45.08673°N, 29.39596°E), 8.4.1967, leg. X. Palade, det. M. Vasiliu; 1♂ 7♀♀ (MNINGA inv. nr. 40002, tube 37), same location, 11.8.1967, leg. X. Palade, det. M. Vasiliu; 1 subadult ♂ (MNINGA inv. nr. 40002, tube 35), Crișan (45.18005°N, 29.35145°E), 24.9.1967, leg. I. Paina, det. M. Vasiliu; 7♀♀ 1 subadult ♂ (MNINGA inv. nr. 40002, tube 36), Roșca canal (45.36027°N, 29.39929°E), 9.9.1967, leg. I. Paina, det. M. Vasiliu; 1 subadult ♂ (MNINGA inv. nr. ARA 579, tube 4), Danube Delta, 30.6.1956, det. C. Sterghiu.

Diagnosis. Distinguished from its congeners by the morphology of the genitalia and the unmistakable shape of the abdomen, with the spinnerets placed at about two thirds of its length, marking the beginning of a “tail” (compare with data by Wunderlich (2011: p. 213 & 217) for *Tetragnatha isidis* (Simon, 1880)). General yellow grey colouration, marble abdomen. Powerful prognathous chelicerae (Figs 2-3) with long bifurcated dorsal tooth on the male chelicera (Fig. 3b-d). **Distribution.** Austria, Belgium, Germany, Hungary, Italy, Netherlands, Poland and Romania (World Spider Catalog 2016, Helsdingen 2015). Ukraine and Belarus are excluded because misidentifications were reported by Polchaninova & Prokopenko (2013) and Ivanov (2013b).

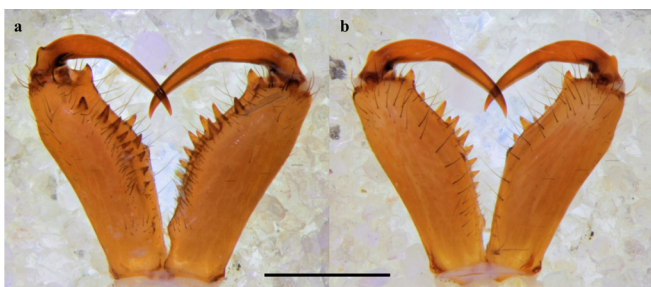


Fig. 2: *Tetragnatha reimoseri* (Roșca, 1939). Female from Siedlce Ponds, Poland. Chelicera; **a.** Ventral; **b.** Dorsal. Scale bar – 1 mm

Discussion

The biographical information and some data about Roșca's collection and publications are available in a few literature sources written in Romanian (Bonnet 1945, Dumitrescu 1979, Bejinariu & Istrate 1998, Ardelean et al. 2000, Vasiliu 2001, Satco 2004, Bejinariu 2005). However, the information is often incomplete or erroneous. In particular, Bejinariu (2005) mentioned that the collection of spiders was obtained by the Grigore Antipa National Museum of Natural History in 1970, whereas this occurred in 1972. Some literary sources mention Roșca to be the author of 13 or 15 published works, but in fact 19 of his papers were published. We present all Roșca's papers chronologically in the references with the author's family name as in

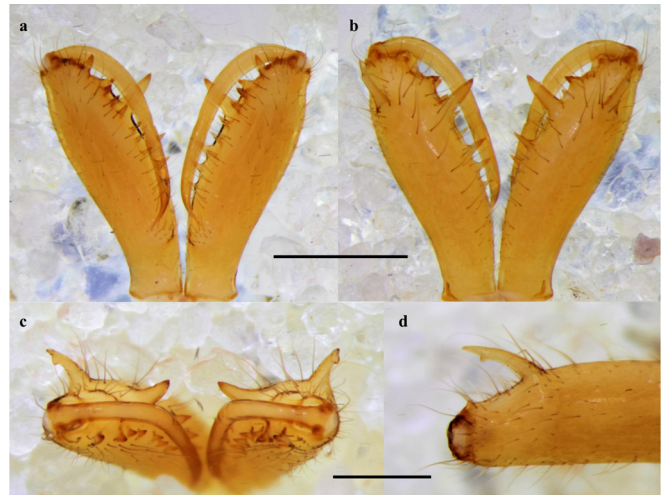


Fig. 3: *Tetragnatha reimoseri* (Roșca, 1939). Male from Caraorman, Romania. Chelicerae; **a.** Ventral; **b.** Dorsal; **c.** Frontal; **d.** Bifurcated dorsal tooth. Scale bar – 1 mm/0.5 mm

the original works. Roșca did not complete his ‘Romania Spider Catalog’.

It is worth mentioning that there are no type specimens of Roșca's species in the collection but only specimens of two species that were synonymised. There is no Roșca's material in the collection of the Brukenthal National Museum in Sibiu (Romania) (Weiss 1998). Olivia Toderas (Alexandru Roșca's daughter) convinced us that spiders collected by her father can be found nowadays only in the Grigore Antipa National Museum of Natural History. Neither Roșca nor other members of his family gave specimens to any other person or institution. So we presume that the rest of Roșca's material was lost or destroyed when the family moved.

At the end of 20th century specimens from the ‘Alexandru Roșca' spider collection were verified by different arachnologists (Braun 1982, Fuhn & Gherasim 1995, Urak & Weiss 1997, Petrișor 1999, Fedoriak & Moscaliuc 2013).

Braun (1982) analysed species described by Bösenberg, mainly from Germany. He stated that ‘of 40 species ... only two are valid (*Theridium bertkai* = *Theridium boesenbergi*, *Hypomma fulvum* = *Enidia fulva*), 17 are synonyms, 15 seem to be synonymous and 6 are doubtful’ (Braun 1982). A number of the 38 nominal species were reported from the Balkan Peninsula. For his revision Braun also analysed specimens assigned to Bösenberg's species from the ‘Alexandru Roșca' spider collection. He mentioned, that out of 14 verified samples 4 were ‘mixta composita’, 12 species were wrongly identified and 2 species were identified correctly (Braun 1982). In the same paper Braun cited some critical comments by Drensky (1939) on species described by Roșca. According to Drensky, Roșca had insufficient access to literature on spiders of Romania and neighbouring countries, especially the Balkans and therefore made some mistakes. Urak & Weiss (1997) recorded the Linyphiidae species *Silometopus reussi* (Thorell, 1871) registered as *Tapinocyba pygmaea* (Blackwall, 1834) in the ‘Alexandru Roșca' spider collection. One could come to the wrong conclusion that the collection has a low scientific value with regard to the above mentioned criticism.

Nevertheless, later Petrișor (1999) verified 200 specimens which belonged to Lycosidae, Argyronetidae, Dysderidae, Agelenidae and Tetragnathidae according to the ‘Alexandru

Roşca' collection. Her analysis revealed 11 cases of misidentification and some cases of wrongly used nomenclature (Petrişor 1999). For instance, *Zygiella* species were mentioned by Petrişor (1999) to be found within Tetragnathidae and *Pisaura* species within Lycosidae. We recently verified the Pisauridae and found 1 ♂, 3 ♀♀ of *Pisaura novicia* (L. Koch, 1878) not previously recorded for Romania. They were recorded as *Pisaura listeri* (Scopoli, 1763) by Roşca and as *Pisaura mirabilis* (Clerck, 1757) by Petrişor (Fedoriak & Moscaliuc 2013).

In the introduction of the Salticidae Fauna of Romania (Fuhn & Gherasim 1995) the authors mention that the spider collections of Grigore Antipa Museum were studied for Salticidae. The cited locations for species derived either from literature (including Roşca's publications) or as original and/or verified data (where the studied collections are mentioned including Roşca's collection). No critical analysis of the data from the collections was made. By re-checking the 'Alexandru Roşca' collection we found out that Fuhn added his own labels to some of the vials with the new or corrected species names. By studying his labels in comparison with the original ones we can draw the following conclusions: Dr. Fuhn relabelled some of the wrongly identified specimens and also those vials that contained more specimens and more species than stated in the original register of the 'Alexandru Roşca' collection. He managed to correct a majority of the initial labelling errors but at the same time he made erroneous identifications of species and even genera (Moscaliuc & Fedoriak 2015).

Information on the two remaining valid species described by Roşca is updated (see also results):

***Lycosa maculata* Roşca, 1939** [valid name *Pardosa roscai* (Roewer, 1951)]: the current name implies that the species was not described by Roşca, but in fact it was properly described by Roşca (1939) and only renamed by Roewer. Roşca provided a detailed description and, in our view, not very clear figures of the female and male copulatory organs. The taxonomic name was preoccupied by Hahn (1822) for *Lycosa maculata* (now *Arctosa maculata*). Because of the homonymy Roewer (1951) replaced the name with *Lycosa roscai*. Later it was reduced to the rank of subspecies as *Pardosa cribrata roscai* (Fuhn & Niculescu-Burlacu 1971) and was again elevated to a species by Bayram et al. (2009). The original material was collected by Roşca at several localities (Lipniţa, Medgidia and Gârliţa) on the territory of Romania, county of Constanta (Dobrogea region), as well as in the county of Durostor, which is now located on the territory of Bulgaria. Roşca mentioned the species as inhabiting wet meadows; mature specimens can be found in May (Roşca 1939). *P. roscai* is common in Bulgaria (Blagoev et al. 2016) and has recently been recorded abundantly in fields of genetically modified potatoes, treated with insecticide twice a season (Nedvěd et al. 2006). The species is recorded from localities along the Black Sea coast and its distribution is mostly limited to the Mediterranean basin (Elverici 2012).

***Eucta reimoseri* Roşca, 1939** [valid name *Tetragnatha reimoseri* (Roşca, 1939)] was named after the Austrian arachnologist Reimoser. Males and females were found by Roşca (1939) near the salt lakes Şabla and Duranculac, which are now in Bulgaria (previously belonging to the county of Constanta, Romania). Roşca's original description of *T. reimoseri* is very detailed, but the epigyne is depicted in a simplified manner and it is described as being similar to that of *Tetragnatha*

montana Simon, 1874; the chelicerae of the male are depicted from both sides. Several well illustrated descriptions are available for *T. reimoseri*. Crome (1954) and Wiehle (1963) (both sub *Eucta kaestneri*) supplied many detailed illustrations for both sexes. Vasiliu (1968) depicted only a female and pointed to the possibility of a synonymy between *Eucta isidis*, *E. reimoseri* and *E. kaestneri*. An insufficient amount of material was available to the author to verify this hypothesis. *T. reimoseri* is a rare species due to several reasons: limited range, specific habitat requirements and small size of local populations. This led to inclusion of this species as endangered in the Red Lists of Germany, Belgium and Poland (Platen et al. 1996, Maelfait et al. 1998, Starega et al. 2002). The known records are summarised by Hajdamowicz & Jastrzębski (2007). Later *T. reimoseri* was also recorded from Eastern Ukraine (Polchaninova 2009) and corrected to *T. isidis* by Polchaninova & Prokopenko (2013). *T. reimoseri* was similarly recorded for Belarus (Ivanov 2013a) and soon afterwards, due to misidentification, excluded from the 'The checklist of Belarusian spiders (Arachnida, Araneae)' by the same author (Ivanov 2013b). The records both from Ukraine and Belarus are listed by Mikhailov (2013), which is cited in the most commonly used sources on spider distribution in Europe (World Spider Catalog 2016, Helsdingen 2015). IJland & Helsdingen (2011) recorded the species from Italy and provided the information on *T. reimoseri* (indicating its junior synonyms) distribution. On the basis of scrupulous taxonomic remarks these authors drew the provisional conclusion that the European records of *Tetragnatha isidis* (Simon, 1880) and *T. reimoseri* (Roşca, 1939) concern one and the same species, for which the specific name *T. reimoseri* should be used (IJland & Helsdingen 2011: p. 23). Picard et al. (2014) published further analysis of the systematic position of *T. isidis* versus *T. reimoseri*.

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