

FIRST RECORD FOR *ZODARION MOROSUM* (ARANEAE,  
ZODARIIDAE), *LESSERTINELLA KULCZYNSKII* (ARANEAE,  
LINYPHIIDAE) AND RECONFIRMATION  
OF *PALLIDUPHANTES MILLERI* (ARANEAE, LINYPHIIDAE)  
IN THE ROMANIAN FAUNA

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*Abstract.* *Zodarion morosum* and *Lessertinella kulczynskii* are recorded for the first time in Romanian fauna. The species *Palliduphantes milleri* is reconfirmed. The new illustrations contribute to a better knowledge regarding morphological characterization of the species. The currently known distribution of this species in Romania is also given.

*Keywords:* *Zodarion morosum*, *Lessertinella kulczynskii*, new record, *Palliduphantes milleri*, reconfirmation, Romania.

## 1. INTRODUCTION

More than 1000 species of spiders have been recorded up to present in the fauna of Romania. In this article we add two more species: *Zodarion morosum*, Denis, 1935 and *Lessertinella kulczynskii* (Lessert, 1909).

The species *Zodarion morosum* (Zodariidae) although it has been identified in several countries in Southeast Europe: North Macedonia (KOMNENOV, M., 2014), Albania (BLICK T, 2018; NAUMOVA ET ALL., 2016b), Greece (BOSMAN R, 2009), Bulgaria (BLAGOEV ET ALL., 2018), Turkey (European part) (DEMIRCAN N, TOPÇU A, 2016), Ukraina (KOVBLIYUK M M, 2003c; POLCHANINOVA ET ALL., 2021) and Russia (European part, Caucassus) (PONOMAREV AV, 2022; OTTO S, 2022) in Romania it was not found until now. We found this species in the, in the Măcin Mountains, Dobrogea.

Until now, in the Romanian fauna only one species belonging to the genus *Lessertinella* was recorded, namely *Lessertinella carpatica* described by INGMAR WEISS in 1979. We found a second species of this genus, *Lessertinella kulczynskii*, a species known until now only from Central and West Europe.

*Palliduphantes milleri* (Starega, 1972). was reported as being in the fauna of Romania by BALOGH & LOKSA (1947) as *Lepthyphantes montanus*. After the description of *Palliduphantes milleri* (Starega, 1972), Pekár, S., Svatoň, J. & THOMKA, V. (1999), based on comparative material sampled from Slovakia, concluded that the specimens found by BALOGH & LOKSA (1947) from Răstolița and Remeți, from N-W of Romania, belong, in fact, to *Lepthyphantes milleri* and not to *L. montanus*. Up to present *L. milleri* was known for the Romanian fauna based only by specimens recorded by BALOGH & LOKSA (1947). By finding two females belonging to this species in the Mociar forest, Mures County, we reconfirm the presence of *L. milleri* in the Romaniaan fauna. Recently, we found this species in the small cave on Solovan Hill (Sighetul Marmăției, Maramureș County), (two males and one female).

## 2. MATERIAL AND METHOD

The species specimens were collected from different places of Romania, using different capture methods. *Zodarion morosum* and *Lessertinella kulczynskii* were captured using pitfall traps, while both individuals of the species *Palliduphantes milleri* were captured directly from litter, using tweezers.

The specimens were preserved in 70 % ethylic alcohol, examined and determined using a Zeiss Stemi 2000 stereomicroscope. The drawing for *Lessertinella kulczynskii* was made an Olympus CH2 microscope with drawing attachment. For the identification we used the identification keys from the site: <https://araneae.nmbe.ch/>. Nomenclature follows World Spider Catalog, 2023. Measurements are given in millimetres.

The studied spiders were deposited in the collection of “Emil Racovitza” Institute of Speleology, Bucharest.

## 3. NEW RECORDED SPECIES

Family ZODARIIDAE Thorell, 1881

*Zodarion* Walckenaer, 1826

*Zodarion morosum* Denis, 1935

*Material examined*: 31 specimens (10♂♂, 4♀♀, 21.05.2019; 10♂♂, 7♀♀, 21.06.2019; 7♂♂, 21.05.2019) from Măcin Mountains, Dobrogea, 303 m altitude, using pit fall traps. Coordinate: N 45°14' 19,1" / E 28°12' 11,8" Legit Eugen Nitzu and Ionuț Popa.

*Diagnosis*: Males of this species are easily recognised by the shape of the tibial apophysis, and by the very large median apophysis; females are distinguished

by the shallow posteromedian incision of the epigyne, and by the small, widely separated spermathecae (according to BOSMANS, 2009).

*Colour:* Male (Fig. 1). Prosoma brown to dark brown, with lighter spots in colouring; legs pale yellowish, with coxae yellowish whitish brown and femora I-IV dark brown; abdomen dark brown, darker in colour than the prosoma; the colours of the female (Fig. 2) is paler than that of the male, with Fe I–II darker in colour than Fe III-IV.

The main characters of this material are consistent with those described by BOSMANS, 2009.

*Male.* Palp (Figs.3-4): Tibial apophysis with very wide base, subterminally suddenly narrowing, terminally rounded; tegulum protruding, in ventral view wider than long; median apophysis very wide, with distinct groove; embolar base at basal part of bulb, with the embolus filiform, mostly covered by the tegulum and median apophysis.

Epigyne with no exterior sclerotisations; posterior margin with obtuse median incision; Vulva (Figs. 5-6): Incision giving entrance to a rectangular pouch; spermathecae with several lobes.

Dimensions: Male. Total length: 3.38 mm. Cephalotorax (prosoma): length 1.6 mm, width 1.12 mm. Abdomen: length 1.78 mm, width 1.16 mm.

The legs measurements are shown in Table 1.

*Table 1*  
The legs measurements (mm) of the *Zodarion morosum* male

Leg	Femora	Patella	Tibia	Metatarsus	Tarsus	Total
I	1.48	0.52	1.58	1.56	1.04	6.18
II	1.34	0.48	1.12	1.4	0.88	5.22
III	1.26	0.5	1.14	1.46	0.88	5.24
IV	1.92	0.6	1.8	2.38	1.02	7.72

Palp: Femora 0.72 mm, patella 0.2 mm, tibia 0.36 mm.

*Female.* Dimensions: Total length: 5.6 mm. Cephalotorax (prosoma): length 2 mm, width 1.32 mm. Abdomen: length 3.6 mm, width 2.16 mm.

The legs measurements are shown in Table 2.

*Table 2*  
The legs measurements (mm) of the *Zodarion morosum* female

Leg	Femora	Patella	Tibia	Metatarsus	Tarsus	Total
I	1.64	0.62	1.56	1.7	1.18	6.7
II	1.52	0.58	1.3	1.66	1	6.06
III	1.58	0.64	1.32	1.78	0.88	6.2
IV	2.46	0.68	2.12	2.5	1.08	8.84



*Fig. 1 – Zodarion morosum* Denis, 1935, male – habitus.



*Fig. 2 – Zodarion morosum* Denis, 1935, female – habitus.



Fig. 3 – *Zodarium morosum* Denis, 1935, male palp – ventral view, Scale lines=0.1 mm.



Fig. 4 – *Zodarium morosum* Denis, 1935, male palp – lateral view, Scale lines=0.1 mm.



Fig. 5 – *Zodarion morosum* Denis, 1935, female, epigyne, Scale lines=0.1 mm.



Fig. 6 – *Zodarion morosum* Denis, 1935, female, vulva, Scale lines=0.1 mm.

Family LINYPHIIDAE Blackwall, 1859

*Lessertinella* Denis, 1947

*Lessertinella kulczynskii* (Lessert, 1909)

*Material examined:* 1 specimen (1♂, 16.07.2014) – Pârâul lui Berbece, Leaota Mountains, 1060 m altitude, crystalline shale. Coordinate: N 45°22' 18,1"/ E 25°15'57,2" Legit Leonard Dorobăț.

**Diagnosis:** Males of this species are recognized by the shape of cymbium, paracymbium and the median apophysis. Embolus are long and band-shaped, oriented in the form of a spiral; epigyne with large groove, entrance ducts very long and spirally twisted.

**Colour:** Male. Prosoma (Cephalotorax) yellow brownish with blackish pattern; sternum and opisthosoma blackish; prosoma without modifications.

The male of *L. kulczynskii* largely corresponds to *L. carpatica* in terms of size, colour and chaetotaxy but there are also clear differences regarding the shape of the palpus. In *L. kulczynskii* the cymbium is shorter and less rounded distally, the tibial apophysis is closer to the base of the cymbium. The paracymbium is oriented differently, with the terminal branches more rounded, the embolus less long than in *L. carpatica*, with the loops aligned differently compared to the last. The median apophysis is longer and does not have a triangular shape as in *L. carpatica*. For identification we used the description of THALER, 1972 and WEISS, 1979.

**Dimensions:** Male (Fig.7). Total length: 1.712 mm. Cephalotorax: length 0.787 mm, width 0.612 mm. Abdomen: length 0.925 mm, width 0.625 mm.

The legs measurements are shown in Table 3.

Table 3  
The legs measurements (mm) of the *Lessertinella kulczynskii* male

Leg	Femora	Patella	Tibia	Metatarsus	Tarsus	Total
I	0.6375	0.2125	0.5375	0.4625	0.3265	2.176
II	0.5875	0.2	0.475	0.4	0.325	1.987
III	0.4625	0.2	0.35	0.3625	0.275	1.65
IV	0.6	0.2	0.55	0.45	0.3125	2.112

Palp (Fig. 8–9–10). Femora 0.33 mm, patella 0.125 mm, tibia 0.125 mm. TmI: 0.35.



Fig. 7 – *Lessertinella kulczynskii* (Lessert, 1909), male – habitus.





Fig. 8 – *Lessertinella kulczynskii* (Lessert, 1909), male – palp – prolateral view, Scale lines=0.1 mm



Fig. 9 – *Lessertinella kulczynskii* (Lessert, 1909), male – palp – retrolateral view, Scale lines=0.1 mm





Fig. 10 – *Lessertinella kulczynskii* (Lessert, 1909), male – palp – apical- prolateral view, Scale lines=0.1 mm

Family LINYPHIIDAE Blackwall, 1859  
*Palliduphantes* Saaristo & Tanasevitch, 2001  
***Palliduphantes milleri* (Starega, 1972)**

*Material examined*: 2 specimens (2♀♀, 21.07.2008) – Mociar Forest, secular oak forest, near to Reghin City, Mureş County, in litter 400 m. Coordinate: N 45°45' 13"/ E 24°49' 13". Legit Augustin Nae.

*Diagnosis*: Males distinguished from *L. montanus* by shorter distal lateral tooth on the lamella characteristica and by two short teeth on ventral edge of paracymbium; females by base of scape being about same width as lateral lobes at same level, and much narrower than widely divergent distal lobes, and by lateral lobes being straight-sided (according PEKÁR S, SVATOŇ J, THOMKA V., 1999).

*Colour*: The colour mostly corresponds to that described by STAREGA, 1972. Prosoma (Cephalothorax) light yellow-grey. Sternum yellow-grey. The legs are whitish-brown, uniformly coloured, without spots or darker rings. Abdomen greyish-whitish on the back with a washed and indistinct whitish pattern.

Epigyne and vulva as in figs. 12–15.



Fig. 11 – *Palliduphantes milleri* (Starega, 1972), female, habitus.

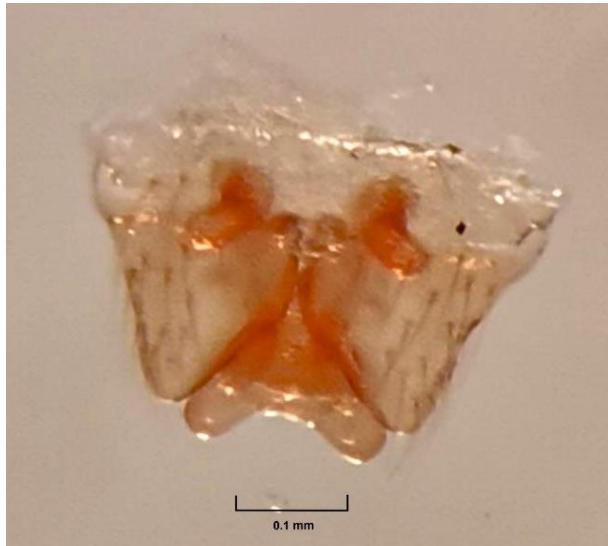


Fig. 12 – *Palliduphantes milleri* (Starega, 1972), epigyne, ventral view, Scale lines=0.1 mm.

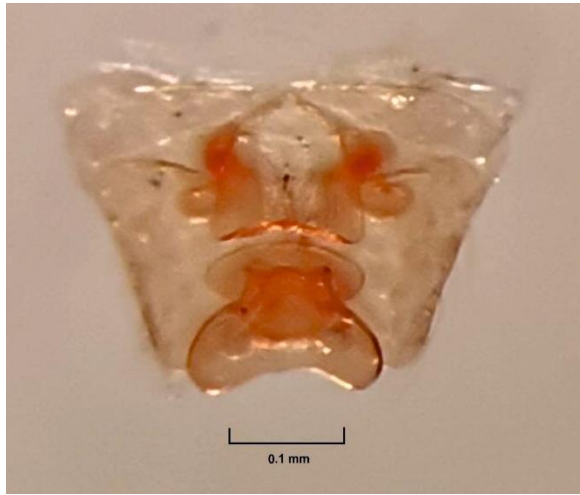


Fig. 13 – *Palliduphantes milleri* (Starega, 1972), epigyne, dorsal view, Scale lines=0.1 mm.

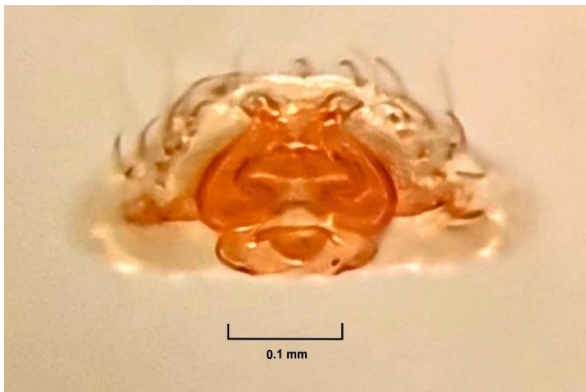


Fig. 14 – *Palliduphantes milleri* (Starega, 1972), epigyne, front view, Scale lines=0.1 mm.

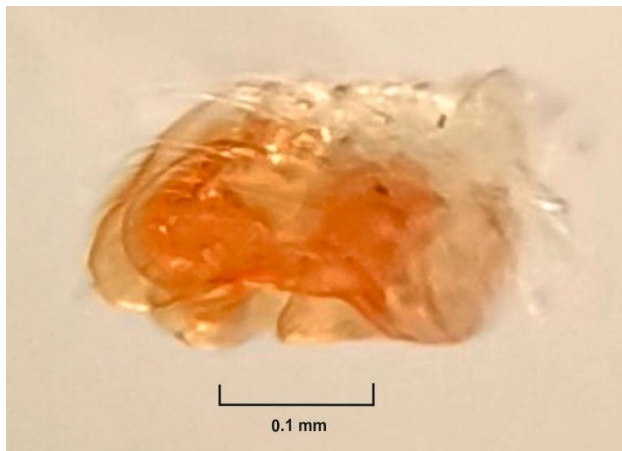


Fig. 15 – *Palliduphantes milleri* (Starega, 1972), epigyne, lateral view, Scale lines=0.1 mm.

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