

**A NEW SPECIES AND NEW RECORDS OF THE GENUS
HARPACTEA BRISTOWE, 1939 (ARANEAE, DYSDERIDAE)
FROM THE BALKAN PENINSULA**

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New data about spiders collected in the Balkan Peninsula are presented. A new species *Harpactea bistra* n. sp. is described from Mt. Bistra in Macedonia. *Harpactea simovi* Deltsev & Lazarov, 2018, recently described from north-western Bulgaria, is recorded from Serbia for the first time. The detailed descriptions and illustrations of the two species are provided.

Key words: Taxonomy, description, spider, MSS, Stara Planina Mts., Mt. Bistra

INTRODUCTION

Harpactea Bristowe, 1939 is a large genus with almost 200 valid species, which are mainly distributed in the Mediterranean region. Of these, 52 are known from the Balkan Peninsula (World Spider Catalog 2024). Most *Harpactea* species are very locally distributed. It is therefore not surprising that collecting in remote and isolated mountains can lead to the discovery of new and undescribed species of the above-mentioned genus.

While examining spider material from the Balkan Peninsula, I noticed two interesting species. A male specimen of the genus *Harpactea* from Mt. Bistra in Macedonia belonged to a species new to science. The second species, *Harpactea simovi* Deltšev & Lazarov, 2018, recently described from northwestern Bulgaria, has not been previously recorded for the spider fauna of Serbia.

The goal of this paper is to provide a detailed description of both species.

MATERIAL AND METHODS

The specimens were examined, measured and illustrated using a WILD M5 stereomicroscope with micrometer eyepiece equipped with a DigiRetina 16M digital camera. Photographs were taken in an alcohol-filled Petri dish with sand at the bottom. The digital images were stacked with CombineZP and edited using Adobe Photoshop CS6 software.

All measurements are given in *mm*. The descriptions of the male palp refer to the left one. The lengths of the leg segments were measured on the lateral side. The taxonomic nomenclature follows the World Spider Catalog (2024). The type material will be deposited in the Natural History Museum in Vienna (NHMW) and the remaining material in the author's private collection (CMK).

The following abbreviations are used in the text: Ta: tarsus, Mt: metatarsus, Ti: tibia, Pa: patella, Fe: femur, Cx: coxa, d: dorsal, pd: prodorsal, rd: retrodorsal, pl: prolateral, rl: retrolateral, v: ventral, pv: proventral, rv: retroventral, AME: anterior median eyes, PME: posterior median eyes, PLE: posterior lateral eyes, MSS: mesovoid shallow substratum, BUL: Bulgaria, MAK: Macedonia, SER: Serbia.

RESULTS

Family **Dysderidae** C. L. Koch, 1837

Genus *Harpactea* Bristowe, 1939

Harpactea bistra Komnenov, n. sp. (Fig. 1)

Holotype: ♂ (NHMW), Macedonia, Mt. Bistra, Mavrovo National Park, Careva Češma spring, 1640 *m* a.s.l., beech forest, leaf litter sifting, 06.05.2010, leg. M. Komnenov.

Etymology. The species name refers to the type locality; noun in apposition.

Diagnosis. *Harpactea bistra* n. sp. is a distinctive species, easily recognized by the transverse embolar base in relation to the tegulum and the finch-like conductor in retrolateral view (Fig. 1b).

Description. Male (holotype). Total length 6.40, carapace 2.48 long, 1.92 wide. Cephalic region 1.12 wide. Abdomen 3.24 long, 1.56 wide. Eye sizes and interdistance: AME 0.16, PME 0.12, PLE 0.12, AME-AME 0.04,

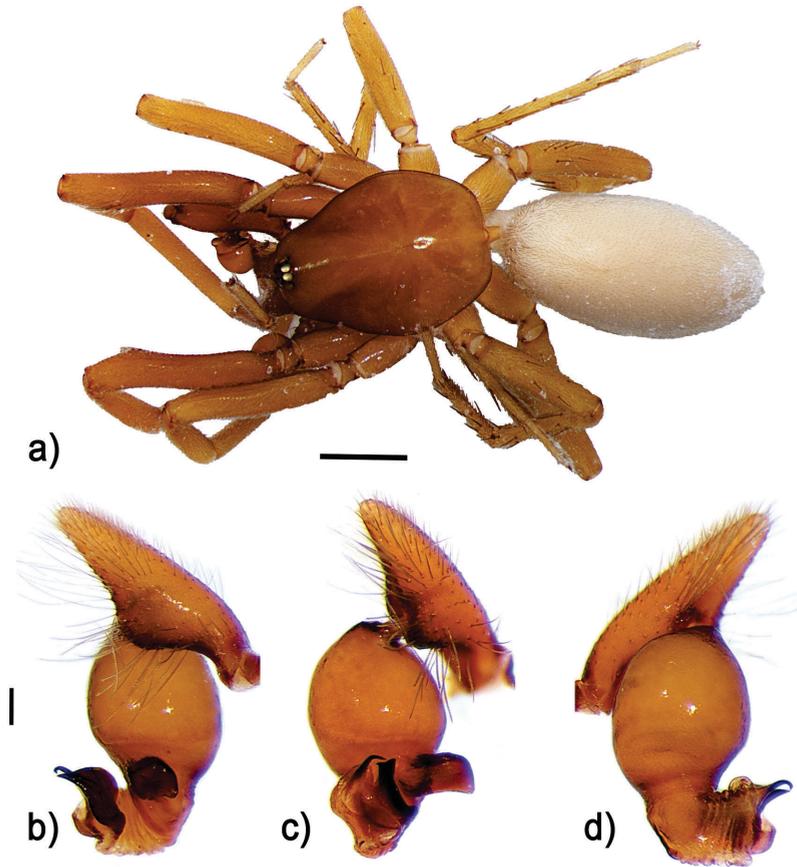


Fig.1. – *Harpactea bistra* n. sp., male holotype (NHMW). a) habitus, dorsal view; b) left palp, retrolateral view; c) same, ventral view; d) same, prolateral view. Scale bars: 1 mm (a); 0.1 mm (b–d).

AME-PLE 0.0, PME-PME 0.0, PME-PLE 0.0. Distance between AME smaller than their diameter. Clypeus 0.08 long. Chelicerae 0.96 long, 0.36 wide. Retromargin with two small teeth, one in middle part, another at base. Promargin with two teeth of equal size, close together, at base of groove, larger than those of retromargin. Labium more than twice as long as wide. Sternum 1.72 long, 1.32 wide, with sparse long brown hairs

towards margin. Carapace, maxillae, labium and sternum orange-brown. Legs orange. Abdomen whitish-gray. Dimensions and spination of legs are given in Tables 1 and 2. Palp as in Fig. 1(b–d). Tarsus in lateral view triangular; tegulum spindle-shaped, longer than wide, running transversely in membranous extension, from which apical part the embolic division emerges; median apophysis large and rectangular, in direction following embolus, arising at point where tegulum continues transversely; embolus more or less oblique to tegulum, long and slender, curved in apical part; conductor in retrolateral view finch-like, wider than long, parallel to embolus.

Female unknown.

Table 1. – Leg measurements of *Harpactea bistra* n. sp. (male holotype).

	Fe	Pa	Ti	Mt	Ta	Total
I	2.16	1.48	1.84	1.76	0.68	7.92
II	1.92	1.28	1.72	1.68	0.64	7.88
III	1.80	0.84	1.24	1.64	0.52	6.04
IV	2.36	1.12	1.96	2.36	0.64	8.44

Table 2. – Leg spination of *Harpactea bistra* n. sp. (male holotype).

	d	pd	rd	pl	rl	v	Pv	rv	Total
Cx III	–	–	–	–	–	–	–	–	–
Cx IV	–	–	–	–	–	–	–	–	–
Fe I	–	–	–	4–5	–	–	–	–	4–5
Fe II	–	–	–	3–4	–	–	–	–	3–4
Fe III	–	3	3	–	–	–	–	–	6
Fe IV	2–3	0–1	2	–	–	–	–	–	4–6
Pa III	–	–	–	–	–	–	–	–	–
Pa IV	–	–	–	–	–	–	–	–	–
Tb I	–	–	–	–	–	–	–	–	–
Tb II	–	–	–	–	–	–	–	–	–
Tb III	–	3	2	2	2	2	1	1	13
Tb IV	–	3	3	2	2	2	3	3	18
Mt I	–	–	–	–	–	–	–	–	–
Mt II	–	–	–	–	–	–	–	–	–
Mt III	–	3–4	3	–	–	–	2	2	10–11
Mt IV	–	5	4	–	–	–	4	3–4	16–17

Distribution. Only known from the type locality. Probably Macedonian endemic.

Natural history. A single male specimen of *Harpactea bistra* **n. sp.** was collected in a beech forest near the Careva Češma spring by sifting leaf litter (Fig. 2). Currently, the type locality is heavily degraded and the habitat is severely destroyed by a sheepfold that was recently built in the beech forest near the spring.



Fig. 2. – A beech forest above the Careva Češma spring in the Mavrovo National Park, the type locality of *Harpactea bistra* **n. sp.** (photo: D. Melovski, 11.11.2023).

Harpactea simovi Deltshv & Lazarov, 2018 (Fig. 3)

Material examined: 1 ♂ (CMK), Serbia, Stara Planina Mts., Tupavica waterfall, village of Dojkinci, MSS traps, 06.07.2020-03.06.2021, leg. D. Antić & D. Stojanović.

Diagnosis. *Harpactea simovi* appears to be most similar to *Harpactea lazarovi* Deltshv, 2011 and *H. stoevi* Deltshv & Lazarov, 2018, but can be separated from them by the non-bifurcated, curved, rectangular median apophysis, which is bifurcated in *H. lazarovi* and *H. stoevi*. Another distinction from *H. stoevi* is the presence of the curved embolus in the former species, which is straight in *H. stoevi*.

Description. Total length 3.84, carapace 2.20 long, 1.64 wide. Cephalic region 0.76 wide. Abdomen 2.84 long, 1.28 wide. Eye sizes and interdistances: AME 0.1, PME 0.1, PLE 0.1, AME-AME 0.04, AME-PLE 0.0, PME-PME 0.0, PME-PLE 0.0. Distance between AME smaller than their diameter. Clypeus 0.04 long. Chelicerae 0.96 long, 0.36 wide. Retro-

margin with two small teeth, one in middle part, another at base. Promargin with two teeth of equal size, close together, at base of groove, larger than those of retromargin. Labium more than twice as long as wide. Sternum 1.40 long, 1.12 wide, with sparse long brown hairs towards margin. Carapace, maxillae, labium and sternum orange-brown. Legs orange. Abdomen whitish-gray. Leg measurements and leg spination are given in Tables 3 and 4. Palp as in Fig. 3. Tarsus in lateral view triangular; tegulum pear-shaped, in prolateral view anteriorly with pronounced, bulge-like expansion, posteriorly evenly rounded and facing palpal tibia; median apophysis large, curved, rectangular, emerging from anterior side of tegulum; conductor slender, straight, ca. twice as small as median apophysis; embolus larger than conductor, claw-shaped, curved and tapering, proximal part, where embolus originates, much wider, anteriorly forming small triangular accessory apophysis with a blunt tip; at the base of the embolar base there is another, tiny accessory apophysis tapering apically.

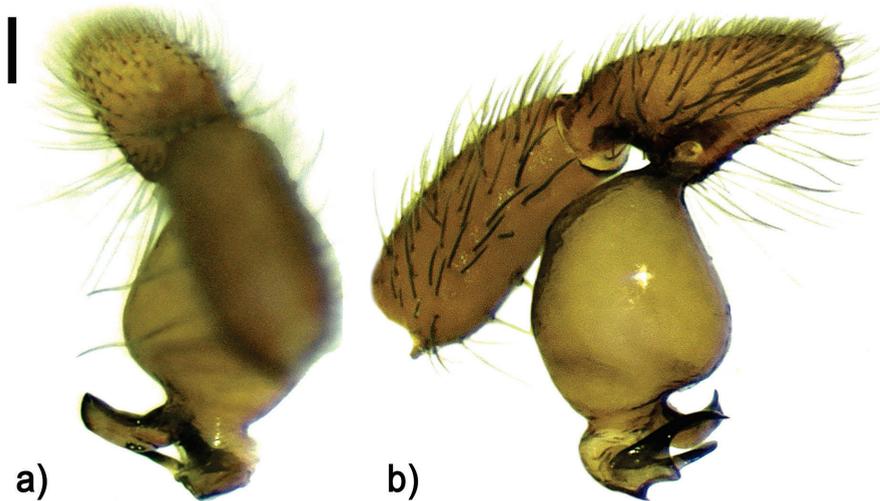


Fig. 3. – *Harpactea simovi*, male (CMK). 6 left palp, retrolateral view; 7 same, prolateral view. Scale bar: 0.1 mm.

Distribution. Endemic to Western Stara Planina (Balkan) Mts. (SE-Serbia, NW-Bulgaria).

Natural history. There is no information on the ecology of this species in the original description. In fact, Deltshv & Lazarov (2018) provide confusing and incomplete data on the method of its collection in Bulgaria. In the Introduction, the authors state: “*In this article, we describe two new species of the genus Harpactea Bristowe, 1939 collected from the superficial underground compartment close to a cave entrances in the West*

Stara Planina Mts. and from a cave in the East Stara Planina Mts.”. In the Materials and Methods, it is only stated that “*The spider material was collected by hand and by underground traps*”, without giving any further data about the duration of the trapping (date of setting the traps, period of collecting/replacing the traps, etc.). In the Results, on the other hand, only the exact collection dates are given: “*Mecha Dupka Cave, ... 09.07.2013*”. The retention of the exact date logically suggests that the material was collected by hand. However, since I already have experience in analyzing spider material from pitfall traps with incomplete dating, I believe that *H. simovi* was collected with underground MSS traps. Probably Deltshv & Lazarov (2018) simply gave the last date, namely the date of collection, i.e., the date of replacement of the traps.

Table 3. – Leg measurements of *Harpactea simovi*.

	Fe	Pa	Ti	Mt	Ta	Total
I	1.96	1.20	1.60	1.56	0.56	6.88
II	1.76	1.16	1.52	1.44	0.56	6.44
III	1.48	0.72	1.12	1.36	0.56	5.24
IV	1.96	0.72	1.72	2.04	0.64	7.08

Table 4. – Leg spination of *Harpactea simovi*.

	d	pd	rd	pl	rl	v	pv	rv	Total
Cx III	–	–	–	–	–	–	–	–	–
Cx IV	–	–	–	–	–	–	–	–	–
Fe I	–	–	–	4–5	–	–	–	–	4–5
Fe II	–	–	–	3	–	–	–	–	3
Fe III	–	3	3	–	–	–	–	–	6
Fe IV	2	0–1	1–3	–	–	–	–	–	3–6
Pa III	–	–	–	–	–	–	–	–	–
Pa IV	–	–	–	–	–	–	–	–	–
Tb I	–	–	–	–	–	–	–	–	–
Tb II	–	–	–	–	–	–	–	–	–
Tb III	–	3	2	2	0–1	2	1	1	11–12
Tb IV	–	3	3	2	3	2	1	2	16
Mt I	–	–	–	–	–	–	–	–	–
Mt II	–	–	–	–	–	–	–	–	–
Mt III	–	3	3	–	–	–	4	2	12
Mt IV	–	5	4	–	–	–	4	4	17

In the Serbian part of the Stara Planina (Balkan) Mts. (Fig. 5), a single male specimen of *H. simovi* was collected in a beech forest with underground traps for the collection of mesovoid shallow substratum (MSS) fauna (Fig. 4). The 50–70 cm long MSS traps were buried 80 cm deep in the silicate soil. Stinky cheese mixed with sardines and propylene glycol were used as bait and fixative, respectively (D. Antić, personal communication).



Fig. 4. – Habitat preference of *Harpactea simovi* in the Stara Planina (Balkan) Mts. in Serbia with MSS trap placement (photo: D. Stojanović, 06.07.2020).



Fig. 5. – Distribution map of *Harpactea bistra* n. sp. (triangle) and *H. simovi* (circles).

DISCUSSION

The genus *Harpactea* appears to be very species-rich on the Balkan Peninsula. So far, 52 species are known, almost all endemic to this region (World Spider Catalog 2024). On the other hand, there are areas that are still poorly explored (e.g., Macedonia and Serbia).

To date, seven species of *Harpactea* are known from Macedonia: *H. bistra* n. sp., *H. bulgarica* Lazarov & Naumova, 2010, *H. mariae* Komnenov, 2014, *H. nausicaae* Brignoli, 1976, *H. saeva* (Herman, 1879), *H. samuili* Lazarov, 2006 and *H. srednagora* Dimitrov & Lazarov, 1999 (World Spider Catalog 2025). The revision of the old record of *H. lepida* from Macedonia by Drensky (1929) revealed that it is actually *Dasumia*

kusceri (Kratohvíl, 1935). The record of *Harpactea coccifera* Brignoli, 1984 from Macedonia by Ćurčić et al. (2004) is doubtful. Considering that *H. coccifera* is an endemic species of Crete and having in mind its great similarity in the shape of the male bulbos with *Harpactea nausicaae* it is certain that the record of *H. coccifera* from Macedonia represents a misidentification of *H. nausicaae*, a very common and wide spread species in the country.

In Serbia, the genus *Harpactea* is represented by six species: *H. complicata* Deltšev, 2011, *H. hombergi* (Scopoli, 1763), *H. lepida* (C. L. Koch, 1838), *H. rubicunda* (C. L. Koch, 1838), *H. saeva* and *H. tenuimboli* Deltšev, 2011 (World Spider Catalog 2024). For the species *H. hombergi* and *H. lepida* there are no confirmed recent records from Serbia, and most of the records could be misidentifications. The discovery of *H. simovi* in the Serbian part of the Stara Planina (Balkan) Mts. is a new record for the Serbian fauna.

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**НОВА ВРСТА И НОВИ НАЛАЗИ РОДА *HARPACTEA* BRISTOWE, 1939
(ARANEAE, DYSDERIDAE) СА БАЛКАНСКОГ ПОЛУОСТРВА**

МАРЈАН КОМНЕНОВ

РЕЗИМЕ

Приказани су нови подаци о пауковима прикупљеним на Балканском полуострву. Нова врста за науку *Harpactea bistra* n. sp. описана је са планине Бистра у Македонији. *Harpactea simovi* Deltshv & Lazarov, 2018, недавно описана из северозападне Бугарске, по први пут је забележена и у фауни Србије. За обе врсте приложени су детаљни описи и илустрације.