

A review of the family Dysderidae (Araneae) in Bulgaria: faunistic and zoogeographical analysis

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Abstract

The family Dysderidae is represented in Bulgaria by 28 species, included in 4 genera (*Dasumia* 3, *Dysdera* 12, *Dysderocrates* 1, *Harpactea* 12). Two species (*Dysdera enguriensis* and *Harpactea apolinea*) are new for the Bulgarian spider fauna. According to their current distribution the established 28 species can be classified in 8 zoogeographic categories.

Key words: Dysderid fauna, Strandzha Mountains, Balkan endemics

INTRODUCTION

The dysderid fauna of Bulgaria is comparatively well studied. Drensky (1911, 1913, 1915, 1921, 1932, 1936, 1938, 1955) and Jurinitsch & Drensky (1917) reported 14 species. More recent publications (Deltshev 1967, 1976, 1993, 1996, 1997, 1998, 2000; Deltshev & Blagoev 1992, 1997; Dimitrov 1997, 1999; Deeleman-Reinhold & Deeleman 1988; Lazarov 1998; Dimitrov & Lazarov 1999; Lazarov et al. 2001; Popov et al. 2000; Beron 1994; Gueorguiev & Beron 1962; Blagoev et al. 2001; Tzonev & Lazarov 2001; Dimitrov & Lazarov 2002) are the result of intensive faunistic research after 1967.

MATERIAL AND STUDY AREA

The material treated herein can be divided into two parts. The first part comprises the original collections made in 1993 – 2001 during a field survey realized on the territories of SGS, OP, SPW and S in Bulgaria. The second part is the critical incorporation of all available literature records concerning the distribution of dysderid spiders in Bulgaria.

RESULTS

The family Dysderidae is represented in Bulgaria by 28 species, belonging to 4 genera (*Dasumia* 3, *Dysdera* 12, *Dysderocrates* 1, *Harpactea* 12). Two species (*Dysdera enguriensis* and *Harpactea apolinea*) are new to the Bulgarian spider fauna. The species *Dasumia amoena*, *Dasumia canestrinii*, *Dysdera ninnii*, *Dysderocrates egregius* were known only from single localities.

Some interesting new faunistic records are: *Dysdera enguriensis* – hitherto known only from Turkey. The material has been collected in Strandzha Mountain.

Harpactea apolinea – hitherto known only from Greece. The material has been collected in Strandzha Mountain.

For the species *Dysdera richteri* and *Dysdera taurica* new data are established – Shumensko Plato and Strandzha Mountain.

Based on the faunistic data in Table 1 and Fig. 1 it can be concluded that most of the species inhabit the lowlands of South and mainly Southeast Bulgaria. The greatest number of the Dysderidae species has been established in the S, RDW, RDE, BN and BS of Bulgaria. They prefer lowland and lower parts of the moun-

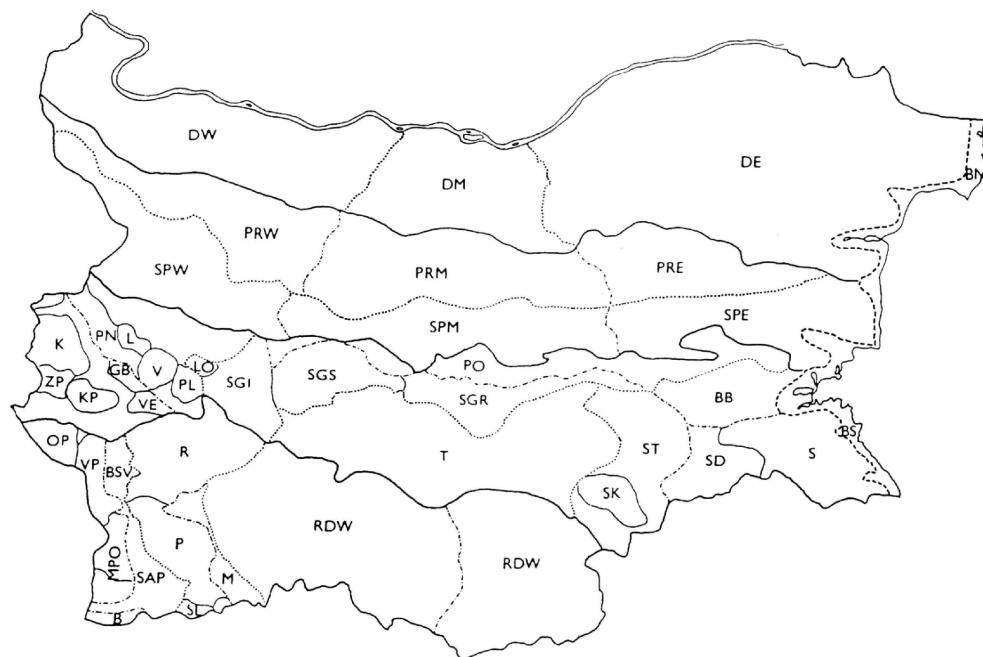


Fig. 1. The geographical regions and districts of Bulgaria.

The geographical areas and their abbreviations used in the text are as follows: DW – Western Danubian plain; DM – Middle Danubian plain; DE – Eastern Danubian plain; PRW – Western Predbalkan; PRM – Middle Predbalkan; PRE – Eastern Predbalkan; SPW – Western Stara planina Mt.; SPM – Middle Stara planina Mt.; SPE – Eastern Stara planina Mt.; GB – Golo burdo Mt.; K – Kraishte; ZP – Zemenska planina Mt.; KP – Konyavska planina Mt.; SO – Sofia basin; L – Lyulin Mt.; V – Vitosha Mt.; PL – Plana Mt.; LO – Losenska planina Mt.; PO – Podbalkan basin; SGI – Ihtimanska Sredna gora Mt.; SGS – Sushtinska Sredna gora Mt.; SGR – Surnena Sredna gora Mt.; T – Trakia basin; ST – Sakar-Toundzha district; SK – Sakar Mt.; SD – Strandzha-Dervent district; S – Strandzha Mt.; BB – Bakadzhisko-Burgas district; OP – Osogovska planina Mt.; VP – Vlahina planina Mt.; MPO – Malashevsko-Ograzhden district; B – Belasitsa Mt.; BSW – Boboshevsko-Simitli valley; SAP – Sandansky-Petrich valley; R – Rila Mt.; P – Pirin Mt.; SL – Slavyanka Mt.; RDW – Western Rhodope Mt.; RDE – Eastern Rhodope Mt.; BN – Northern Black sea coast; BS – Southern Black sea coast.

tains, inhabiting xerothermic oak forest, mostly.

Species list and literature records of Bulgarian Dysderids

Dasumia Thorell, 1875

1. *Dasumia amoena* (Kulczynski, 1897)

Drensky 1936, 1938.

2. *Dasumia canestrinii* (L. Koch, 1876)

Drensky 1936, 1938.

3. *Dasumia kusceri* (Kratochvil, 1935)

Deltshev 1996; Tzonev & Lazarov 2001; Dimitrov & Lazarov 2002.

Dysdera Latreille, 1804

4. *Dysdera argaeica* Nosek, 1905

Drensky 1936, 1938.

5. *Dysdera crocota* C. L. Koch, 1838

Deeleman-Reinhold & Deeleman 1988; Deltshev 1967, 1976, 1997; Deltshev et al. 2000; Drensky 1913, 1915, 1932, 1936, 1938, 1955; Jurinitch & Drensky 1917; Pavesi 1876; Popov et al. 2000.

6. *Dysdera enguriensis* Deeleman-Reinhold, 1988*

New species for Bulgarian araneofauna (Strandzha Mt.).

7. *Dysdera erythrina* (Walckenaer, 1802)
Deltshev & Blagoev 1997; Deltshev et al. 2000;
Drensky 1911, 1913, 1921, 1932, 1936, 1938,
1955; Jurinitch & Drensky 1917.
8. *Dysdera hungarica* Kulczynski, 1897
Deeleman-Reinhold & Deeleman 1988; Delt-
shev 1976, 1997; Deltshev & Blagoev 1992;
Deltshev et al. 1993, 1998; Popov et al. 2000.
9. *Dysdera longirostris* Doblika, 1853
Deeleman-Reinhold & Deeleman 1988; Delt-
shev 1976; Deltshev & Blagoev 1998; Deltshev
et al. 1993, 1998, 2000; Dimitrov 1999; Drensky
1936; Lazarov 1998; Lazarov et al. 2001; Popov
et al. 2000; Tzonev & Lazarov 2001.
10. *Dysdera ninnii* Canestrini, 1868
Drensky 1936, 1938.
11. *Dysdera pectinata* Deeleman-Reinhold,
1988
Deltshev 1996.
12. *Dysdera punctata* C. L. Koch, 1838
Tzonev & Lazarov 2001.
13. *Dysdera richteri* Charitonov, 1956
Popov et al. 2000. Shumensko Plato – new da-
tum.
14. *Dysdera taurica* Charitonov, 1956
Lazarov et al. 2001; Popov et al. 2000. Shumen-
sko Plato – new datum.
15. *Dysdera westringi* O. P.-Cambridge, 1872
Deltshev 1976; Deltshev et al. 1993, 1998;
Drensky 1936, 1938.
- Dysderocrates* Deeleman-Reinhold & Deele-
man, 1988**
16. *Dysderocrates egregius* (Kulczynski, 1897)
Drensky 1936, 1938.
- Harpactea* Bristowe, 1939**
17. *Harpactea abantia* (Simon, 1884)
Popov et al. 2000.
18. *Harpactea apolinea* Brignoli, 1979*
New species for Bulgarian araneofauna
(Strandzha Mt).
19. *Harpactea babori* (Nosek, 1905)
Deltshev 1976; Deltshev et al. 1993, 1998, 2000;
Dimitrov 1999; Lazarov 1998; Lazarov et al.
2001; Popov et al. 2000; Blagoev et al. 2001.
20. *Harpactea deltshevi* Dimitrov & Lazarov,
1999
Dimitrov & Lazarov 1999; Lazarov et al. 2001.
21. *Harpactea doblikae* (Thorell, 1875)
Popov et al. 2000.
22. *Harpactea hombergi* (Scopoli, 1763)
Deltshev & Blagoev 1997; Drensky 1913, 1921,
1936, 1938, 1955; Jurinitch & Drensky 1917;
Tzonev & Lazarov 2001.
23. *Harpactea lepida* (C. L. Koch, 1838)
Beron 1994; Deltshev 1972, 1973, 1976, 1987;
Deltshev & Blagoev 1997; Deltshev et al. 2000;
Drensky 1911, 1921, 1931, 1936, 1938, 1955;
Guéorguiev & Beron 1962.
24. *Harpactea rubicunda* (C. L. Koch, 1838)
Deltshev 1976; Deltshev et al. 1993, 1998;
Dimitrov 1999; Drensky 1936, 1938; Lazarov et
al. 2001; Popov et al. 2000.; Tzonev & Lazarov
2001.
25. *Harpactea saeva* (Herman, 1879)
Deltshev & Blagoev 1992; Drensky 1913, 1932,
1938; Lazarov et al. 2001; Popov et al. 2000.;
Tzonev & Lazarov 2001.; Dimitrov & Lazarov
2002.
26. *Harpactea srednogora* Dimitrov & Lazarov,
1999
Dimitrov & Lazarov 1999; Lazarov et al. 2001.
27. *Harpactea strandjica* Dimitrov, 1997
Dimitrov 1997, 1999; Popov et al. 2000.
28. *Harpactea sturanyi* (Nosek, 1905)
Deltshev et al. 1993, 1998; Drensky 1936, 1938.

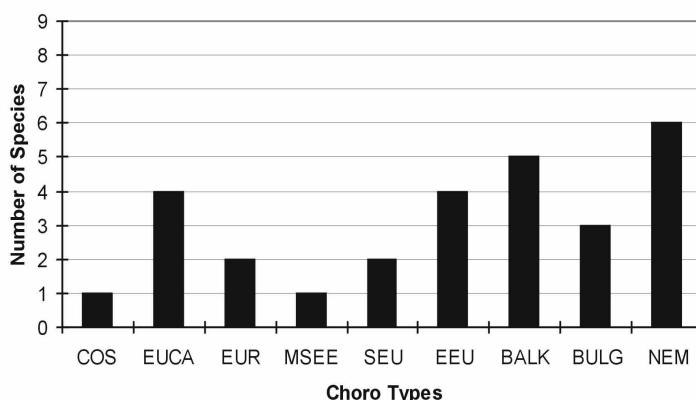
Zoogeographical Analysis

According to their current distribution the es-
tablished 28 species can be classified in 9 zo-
ogeographic categories (Table 1, Fig. 2). The
zoogeographic classification of the spiders in
Bulgaria has been prepared on the basis of
literature data reflecting their current distribu-
tion (Platnick 2002).

The group of endemics is the best repre-
sented. It includes 8 species (28.57%), of which
5 Balkan endemics (17.86%) and 3 Bulgarian
endemics (10.71%). The species: *Harpactea*
srednogora, *H. deltshevi* and *Harpactea*
strandjica are Bulgarian endemics with local
distribution. *Harpactea srednogora* and *H.*

Table I. Distribution of the family Dysderidae in Bulgaria.

Species	Districts	Zoog. cat.
1. <i>Dasumia amoena</i> (Kulczynski, 1897)	BN	EEU
2. <i>Dasumia canestrinii</i> (L. Koch, 1876)	L	SEU
3. <i>Dasumia kusceri</i> (Kratochvil, 1935)	OP, SPW	BALK
4. <i>Dysdera argaeica</i> Nosek, 1905	S	NEM
5. <i>Dysdera crocota</i> C.L. Koch, 1838	V, BN, BS, SPW, R, RDE, RDW, BS	COS
6. <i>Dysdera enguriensis</i> Deeleman-Reinhold, 1988*	S	NEM
7. <i>Dysdera erythrina</i> (Walckenaer, 1802)	KP, P, SPM, R, RDW, T, BN	EUCA
8. <i>Dysdera hungarica</i> Kulczynski, 1897	BN, BS, KP, R, SPM	EUCA
9. <i>Dysdera longirostris</i> Doblika, 1853	BN, BS, SPM, R, SGS, OP, P, S	EEU
10. <i>Dysdera ninnii</i> Canestrini, 1868	KP, L	SEU
11. <i>Dysdera pectinata</i> Deeleman-Reinhold, 1988	V	BALK
12. <i>Dysdera punctata</i> C.L. Koch, 1838	OP	NEM
13. <i>Dysdera richteri</i> Charitonov, 1956	BS, DE	EUCA
14. <i>Dysdera taurica</i> Charitonov, 1956	SGS, BS, DE	EEU
15. <i>Dysdera westringi</i> O. P.-Cambridge, 1872	BN, BS, SPM, B	NEM
16. <i>Dysderocrates egregius</i> (Kulczynski, 1897)	L	MSEE
17. <i>Harpactea abantia</i> (Simon, 1884)	BS	BALK
18. <i>Harpactea apolinea</i> Brignoli, 1979	S	BALK
19. <i>Harpactea babori</i> (Nosek, 1905)	BS, BN, SPM, S, SGS, SAP	NEM
20. <i>Harpactea deltshevi</i> Dimitrov & Lazarov, 1999	SGS	BULG
21. <i>Harpactea doblikae</i> (Thorell, 1875)	BS	NEM
22. <i>Harpactea hombergi</i> (Scopoli, 1763)	P, OP, RDW	EUR
23. <i>Harpactea lepida</i> (C.L. Koch, 1838)	BN, BS, P, SPM, T, RDW, SO, R	EUR
24. <i>Harpactea rubicunda</i> (C.L. Koch, 1838)	BN, BS, S, SPM, SGS, OP, K	EUCA
25. <i>Harpactea saeva</i> (Herman, 1879)	SGS, BSW, BN, BS, K, OP	EEU
26. <i>Harpactea srednogora</i> Dimitrov & Lazarov, 1999	SGS	BULG
27. <i>Harpactea strandjica</i> Dimitrov, 1997	S	BULG
28. <i>Harpactea sturanyi</i> (Nosek, 1905)	S	BALK

**Fig. 2.** Distribution of the Dysderids spiders in Bulgaria by zoogeographic categories. EEU - Eastern Europe, SEU - Southern Europe, BALK - Balkan endemic, BULG - Bulgarian endemics, COS - Cosmopolitan, NEM - North-Eastern-European-Mediterranean, EUR - European, MSEE- Middle-South-Eastern- European, EME - Eastern Mediterranean, EUCA - Europeo-Caucasian.

deltshevi have been found only in Sushtinska Sredna Gora Mountains, while *Harpactea strandjica* is known only from Strandzha Mountains so far. In the group of Balkan endemics, best represented is the species *Dasumia kusceri*. The species *Harpactea abantia* and *Harpactea apollinea* were known only from Greece. Finding of these species in Bulgaria shows that they have a wider range on the Balkan Peninsula. The high percentage of endemic species shows that the process of auto-genesis is considerable but the process of colonization mainly by Middle Asia species is stronger.

Characteristic is the group of North-Eastern-Europeo-Mediterranean (NEM), represented by 6 species (21.43%). Widespread in Bulgaria is the species *Harpactea babori*. Interesting record is the finding of *Dysdera enguriensis*, known till now only from Central Turkey. Its establishing in Bulgaria extends its range to the West.

The Europeo-Caucaian species (EUCA) are 4 (15.29%) and inhabit both lowlands and broadleaf forest. Widespread in Bulgaria are the species, *Harpactea rubicunda* and *Dysdera hungarica*.

The group of Eastern-European species (EEU) is also well represented by 4 species (15.29%). Widespread in Bulgaria are *Dysdera longirostris* and *Harpactea saeva* inhabiting both lowlands and mountains.

The Holoeuropean species (EUR) are 2 (7.14%) and inhabit both lowlands and mountains. Widespread in Bulgaria is the species, *Harpactea lepida*.

The group of Southern-Eastern European species (SEU) is also represented by 2 species (7.14%). Both species (*Dasumia canestrini* and *Dysdera ninnii*) are announced for Bulgarian araneofauna from Drensky (1936a, 1938), and are not confirmed so far.

The Cosmopolitan species (COS) and the Middle-Southeastern European species (MSEE), have the lowest occurrence in Bulgaria (1-3.57%).

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