

**CHALCOLESTES PARVIDENS (ARTOBOLEVSKI) AND SOMATOCHLORA MERIDIONALIS NIELSEN IN BULGARIA (ZYGOPTERA: LESTIDAE; ANISOPTERA: CORDULIIDAE)**

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**Abstract** – The 2 spp. are for the first time reported from Bulgaria. The records are mapped and briefly discussed.

**Introduction**

So far 65 odonate species were reported from Bulgaria (BESHOVSKI & GASTAROV, 1997). However, the fauna is still inadequately explored, and a few more species are still expected. In the present note, *Chalcolestes parvidens* and *Somatochlora meridionalis* are added to the list, bringing the status of the Bulgarian fauna up to the 67 species mark.

***Chalcolestes parvidens***

So far only *C. v. viridis* was reported from Bulgaria (BESHOVSKI, 1994); the known records are listed in Table I. This might be due to the fact that adult material was mainly collected prior to the *parvidens* description by ARTOBOLEVSKI (1929). The more recently collected material mainly consists of larvae, hence the separation of the 2 taxa was not possible. DONATH (1987) and BESHOVSKI & MARINOV (1993) did not note the “infraspecific” status of their “*viridis*” specimens. The examination of some fresh material has shown that most specimens are referable to *parvidens*, a few only to *viridis*.

Recent investigations, based mainly on electrophoretic studies, have produced

evidence in favour of an independent species status of the 2 taxa (COBOLLI et al., 1994). Their co-occurrence in Italy was discussed by UTZERI et al. (1994, 1995) and DELL’ANNA et al. (1996).

In Bulgaria, *C. parvidens* appears widespread (cf. Fig. 1), while *C. viridis* is known only from 2 localities (cf. Tab. I). At Achtopol the 2 species probably co-occur.

Considering the *C. viridis* range, presented by LOHMANN (1993), more records of this species are to be expected in Bulgaria.

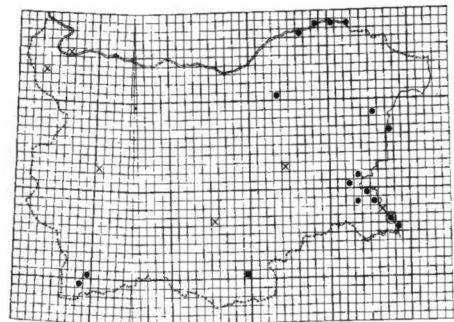


Fig. 1. Distribution of *C. parvidens* (Art.) and *C. viridis* (Vander L.) in Bulgaria. — ● *C. parvidens*; — ■ *C. viridis*; — × sp. (not revised); — ○ the 2 species possibly co-occurring]

*Somatochlora meridionalis*

BESHOVSKI (1994) lists for Bulgaria both *S. m. metallica* and *S. metallica meridionalis*. The former inhabits lakes in the mountains, while the latter is found near the Black Sea coast. After SCHMIDT (1957), most authors refer to these taxa as independent species (e.g. TERZANI, 1990; KOTARAC & BEDJANIČ, 1994; SEIDENBUSCH, 1996). KIAUTA & KIAUTA (1995) have described their karyotypes, and shed some light on the origin of the 2 species. Their distribution in Bulgaria is shown in Figure 2, and the records are reviewed in Table II.

Both species are rare in Bulgaria. As it seems

from Figure 2, *S. metallica* is restricted to the lakes of the Rila, Pirin and the Rodopi ranges, and *S. meridionalis* to the southeastern Black Sea coast. It is expected, however, systematic surveys of the south Bulgarian Izvorska, Ropotamo and Karaatcka rivers will provide many additional records.

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**References** – ARTOBOLEVSKI, G., 1929,

Table I – Review of records of *Chalcolestes parvidens* (Art.) and *C. viridis* (Vander L.) in Bulgaria

DATE	PLACE	UTM grid	ADULT	LARVAE	REFERENCE
NOT REVISED MATERIALS (originally published as <i>Leestes</i> (or <i>Chalcolestes</i> ) <i>viridis</i> )					
June	Siven	MH-42	1	-	KLAPALEK, 1912
May-August	German monastery - Losen mountain	GN-02	-	-	PETKOV, 1921
June	Dede Agatch	-	-	-	
25-X-1957	Parvomai	LG-56	2	-	Plovdiv Natural History Museum
26-VI-1963	Davolaka R	NG-67	-	9	BESHOSKI, 1964b
-	Swamp near Varbe-Belogradchik region	FP-33	-	+	BESHOSKI, 1968
-	Orosko swamp - overflows	FP-65	-	+	
-	Karaatckia R.	NG-67	-	+	
10-16-VII-1987	Mitshuna	NG-67	-	-	DONATH, 1987
	Neitnarka camping	NG-76	-	-	
<i>CHALCOLESTES PARVIDENS</i>					
05-X-1973	Sandanski - Pirin mountain	FM-90	2	-	this paper
18-VIII-1987	Achtopol	NG-76	2	-	this paper
19-VIII-1987	Varvara	NG-76	1	-	this paper
17-X-1990	Atanasovsko lake reserve	NH-31	1	-	this paper
24-IX-1991	Oak forest on the way to Sibstar R. mouth	NG-85	1	-	this paper
16-X-1991	Srebarna	NJ-08	1	-	BESHOSKI & MARINOV, 1993
06-X-1992			1	-	
08-XI-1992	Malak Prestavetz	MJ-88	1	-	this paper
02-VII-1994	Nova Cherna fish farms	MJ-67	2	-	this paper
20-10-VII-1994	Resezetz	KH-59	1	-	this paper
26-VIII-1994	Small river near Achtopol	NG-76	8	-	this paper
26-VIII-1994	Ropotamo R. - bridge on the main road	NG-58	5	-	this paper
04-IX-1994	Swamp near the town of Silistra	NJ-28	1	-	this paper
06-IX-1995	Kamtcha R. mouth	NH-76	2	-	this paper
08-IX-1995	Pobitite kamani near Varva	NH-58	many	-	this paper
21-X-1995	Hut "Strandga" - R. Ormanli	NG-49	1	-	this paper
24-VII-1996	Arcutino	NE-58	7	-	this paper
03-VIII-1996	Krashevovt - Izvoraka R.	NG-38	2	-	this paper
05-VIII-1996	Vaya fish farms near Burgas	NI-20	1	-	this paper
28-VII-1997	Fish farms near Rupite	PL-89	many	-	this paper
05-VIII-1997	Ormanli	NG-49	3	-	this paper
05-VIII-1997	Tcheganse strole bay	NG-49	3	-	this paper
08-VIII-1997	Popovo	MJ-30	4	-	this paper
<i>CHALCOLESTES VIRIDIS</i>					
20-VIII-1987	Achtopol	NG-76	1	-	this paper
03-VIII-1997	Arda R. near Stadan kladenetz	LG-90	5	-	this paper

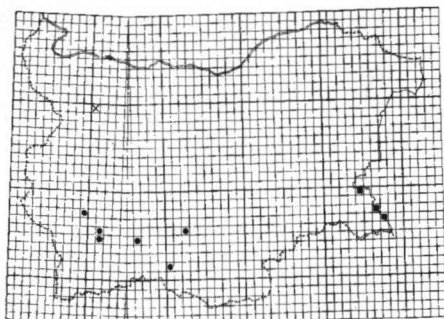


Fig. 2. Distribution of *Somatochlora metallica* (Vander L.) and *S. meridionalis* Nielsen in Bulgaria. - [● *S. metallica*; - ■ *S. meridionalis*; - × species not identified]

*Bull. Soc. Naturalistes Amis Nat. Crimé* 11: 139-150; - BESHOVSKI, V., 1960, *Izv. zool. Inst., Sofia* 9: 451-453; - 1964a, *Odonata, Fauna Bulg.* 23: 1-372; - 1964b, *Izv. zool. Inst., Sofia* 17: 109-124; - 1968, *ibidem* 24: 5-27; - BESHOVSKI, V. & V. GASTAROV, 1997, *Ent. Z., Essen* 107(7): 309-310; - BESHOVSKI, V. & M. MARINOV, 1993, *Proc. 2nd natn. scient. Conf. Ent., Sofia*, pp. 9-13; - COBOLLI, M., E. DE MATTHAEIS, C. UTZERI & L. DELL'ANNA, 1994, *Atti 17 Congr. naz. ital. Ent.*, pp.

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Table II - Review of records of *Somatochlora metallica* (Vander L.) and *S. meridionalis* Nielsen in Bulgaria

DATE	PLACE	UTM grid	ADULT	LARVAE	REFERENCE
NOT REVISED MATERIALS (originally published as <i>Somatochlora metallica</i> )					
June, 1923	Vratsa	GN-09	-	-	NEDELKOV, 1923
<b>SOMATOCHLORA METALLICA</b>					
11-VIII-1954	Ribnoto ezero	GM-15	-	-	BESHOVSKI, 1960
17-VIII-1954	Belitchkite močuri	GM-14	-	-	
04-VII-1950	Iakoruda - Ribnoto ezero	GM-15	-	1	BESHOVSKI, 1964b
02-X-1957	Batak	KG-64	-	3	
05-IX-1956	I Smoliansko lake	LG-01	-	1	BESHOVSKI, 1968
19-V-1962			-	1	
-	Asenovgrad	LG-25	-	+	
-	II Smoliansko lake	LG-01	-	+	
-	Mandrata - Rila	?	-	+	
10-VIII-1965	Malka Vata lake - Rila mountain	?	1	-	this paper
14-VIII-1994	Hut "Sedemte ezera" - Rila mountain	FM-97	1	-	this paper
<b>SOMATOCHLORA MERIDIONALIS</b>					
13-VII-1987	Achtopol	NG-76	-	-	DONATH, 1987
17-VII-1987	Nestinarika camping	NG-76	-	-	
15-VII-1987	Mitchevur	NG-67	-	-	
16-20-VII-1987	Kitea	NG-67	-	-	
17-VII-1987	Karatchika R.	NG-67	-	-	this paper
18-VIII-1987	Achtopol	NG-76	2	-	this paper
09-VIII-1990	Achtopol	NG-76	2	-	this paper
05-VIII-1997	Hut "Strandža" - R. Otmanli	NG-49	2	-	this paper