REVIEW OF *LEUCORRHINIA* RECORDS IN CROATIA AND IN OTHER SUCCESSOR STATES OF THE FORMER YUGOSLAVIA (ANISOPTERA: LIBELLULIDAE)

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Abstract · · A commented review is given of the hitherto known regional records of *L. caudalis*, *L. dubia* and *L. pectoralis*. The Balkan localities of *caudalis* and *dubiă* represent the southern limit of their geographic range.

Introduction

The genus *Leucorrhinia* is represented in Europe by five species, at least three of which occur within the territories of the former Yugoslavia. Although some of the records were published several decades ago, they seem to have escaped the notice of most of the recent reviewers of the European odonate fauna (e.g. ASKEW, 1988), probably largely due to the inadequate accessibility of the respective periodicals. It seems opportune, therefore, to relate the known evidence in the present note.

From the biogeographic point of view, all *Leucorrhinia* records from this part of Europe are of considerable interest. The Balkan localities of *L. caudalis* and *L. dubia* represent the southern limit of their range.

As highly sensitive habitat specialists, most of the ca 12 members of this genus, worldwide, are of particular importance in habitat quality assessment. Their habitats in Europe are becoming rare. Consequently, according to VAN

Table I — Records of *Leucorrhinia* species within the territories of the former Yugoslavia — [B&H: Bosnia and Herzegovina, — CRO: Croatia, — MAC: Macedonia, — MNG: Montenegro, — SER: Serbia, — SLO: Slovenia]

Locality	Date	Reference
caudalis		
Lonjsko Polje/CRO	26-IV-1990, 31-V-1988 28-VI-1988, 30-VI-1988	SCHNEIDER-JACOBY, 1990
	9-V-1990, 15-V-1990 15-VI-1991	this paper
Apatin/SER	no date	UJHELYI, 1957
dubia		
Pokljuka Plateau/SLO	VIII	KIAUTA, 1961, 1962
Daićsko Lake (Mt Golija/SER	25-VI-1986, 12-VII-1988 25-VIII-1983	ADAMOVIĆ, 1990
Mlinski Potok (Durmitor Range)/MNG	no date	ADAMOVIĆ, 1990
Semolj (Mt Sinjajevina/MNG	no date	ADAMOVIĆ, 1990
pectoralis		
Lonjsko Polje/CRO	13-V-1990, 15-VI-1991	this paper
Mirkovci/CRO	18-VI-1901	KOČA, 1925
Osijek district/CRO	IV/V	RÖSSLER, 1900
Račinovci/CRO	VI	KOČA, 1925
Derventa/B&H	no date	ADAMOVIĆ, 1948
Vlasina/SER	20-VI-1947, 29-VI-1947	ADAMOVIĆ, 1949
Prespa Lake/MAC	26-VI-1974	KARAMAN, 1985

TOL & VERDONK (1988), *L. caudalis* is among the 13 most endangered European dragonflies, *L. pectoralis* is among the 22 vulnerable odonate species in Europe, while *L. dubia* is considered among the 14 locally threatened European dragonflies.

Review of records

In Table I are given the hitherto published records, supplemented with some previously unpublished evidence. The localities are listed per country, countries from North to South. The sole locality cited from Slovenia lies within the (Central European) eastern Alps, all other localities are situated within the Balkan region.

The following are some general annotations on the three species.

L. caudalis (Charp.). — The first evidence on its occurrence within the former Yugoslavia comes from UJHELYI (1957); Apatin is a small town on the Danube, Vojvodina province, in Serbia. In 1988, a good resident population was discovered in two mesotrophic backwater localities in the "Lonjsko Polje" nature reserve, in the Posavina lowlands of central Croatia (cf. SCHNEIDER-JACOBY & FRANKOVIĆ, 1990). The population was described and discussed in detail by SCHNEIDER-JACOBY (1990). The discovery of this apparently stable population is of considerable interest, indicating the high quality of the local habitat, and extending the known range of the species southwards.

L. dubia (Vander L.) — Its occurrence in the Slovenian Alps (KIAUTA, 1961, 1962) falls within the general range, but the records from Serbia and Montenegro (ADAMOVIĆ, 1990) extend the southern limit of its distribution very significantly. *L. dubia* is a spring species, therefore the late seasonal records of adults (August) are certainly noteworthy, and can perhaps but partly be explained in terms of the (relatively moderate) altitude of the localities (ca 1200 m in Slovenia, over 1500 m in Serbia).

L. pectoralis (Charp.) — This is the commonest regional species, reaching as far South as Turkey. Within the territories considered, it is known from 7 localities. In the "Lonjsko Polje" nature reserve it co-occurs with *L. caudalis* (D. Albers, pers. comm., 1990).

In their preliminary note on the odonate community composition in the montane habitats of Yugoslavia, ADAMOVIĆ & ANDJUS (1988) are listing *L. rubicunda* (L.) as an element of the Yugoslav fauna. Since no locality data were published, nor any other regional records are known to us, the species has to be omitted from the present review.

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