OCCURRENCE OF *CHALCOLESTES VIRIDIS PARVIDENS* (ARTOBOLEVSKI, 1929) IN SOUTHERN EUROPE (ZYGOPTERA: LESTIDAE)*

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Abstract – The presence of *C. v. parvidens* was established in southern Italy (Campania) and Greece (Andros). On the basis of earlier literature records, this ssp. is thought to inhabit the Balkan and most of peninsular Italy. The correct type locality of *C. viridis* (Vander L., 1825) is given and problems in homonymy are discussed. *Chalcolestes* Kennedy, 1920 is considered to be a well-defined genus.

Introduction

A new "eastern race or subspecies" of *Chalcolestes viridis* (Vander Linden, 1825) was first recognized by MORTON (1922) on the basis of several specimens from West Turkey. But he refused to create a new subspecies, because some material from Ostia (nr Rome, Italy) resembled the Asiatic form, thus being "a disturbing factor, and I leave he matter as it is until more abundant material is forthcoming, especially from Italy and the Balkan countries" [cit.]. Seven years later ARTOBOLEVSKI (1929) designated this form as a new subspecies, *C. v. parvidens* (type locality: Kikjenjeiz, S Crimea, Ukraine), which today is accepted as a well-known south-eastern vicariant of *C. v. viridis*, inhabiting the Near East from Iran (between the Caspian Sea and the Elburz Mts; cf. SCHMIDT, 1954) through the Caucasian area and the Levant (DUMONT, 1991) up to Turkey. There is a remark in SCHNEIDER

* Results of the SIO/IUCN expedition to southern Italy and Greece 1992, No. 1.

(1986) calling attention to Dr G. Lehmann (in litt.), who compared samples from Ravenna (Italy) with material of ssp. *parvidens* from Syria and ssp. *viridis* from the Tirol (Austria). Lehmann concluded that his Italian specimens should be placed into *parvidens*, although he never published his results.

Observations and results

During the "SIO/IUCN expedition to southern Italy and Greece 1992" we collected *C. viridis parvidens* at the beginning of its flight season at the following localities:

(1) June 18, 1992, Sele River nr Pte Sele, E of Battipaglia, Campania, Italy, 1 ♂.

(2) June 28, 1992, Rivulet in Katakilos, Andros, Cyclades, Greece, 4 ♂, 2 ♀.

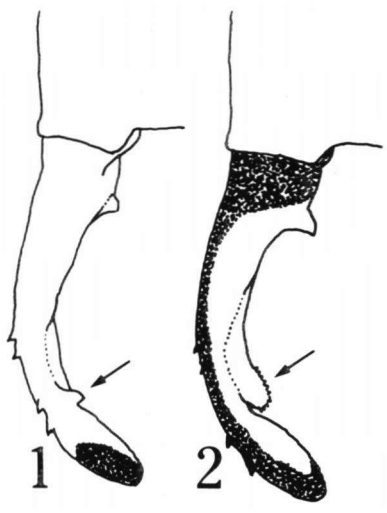
These new observations, together with the statements of YAZICIOĞLU (1982) from Thrace (Turkey), MORTON (1922) and Lehmann (*in* SCHNEIDER, 1986) show that the range of the eastern subspecies probably extends in the West through the balkans to peninsular Italy. It definitely does not occur in Sicily (MORTON, 1922) and Corsica (coll. m.), and its distribution in northern Italy and the countries of eastern Adriatic remains unclear until more abundant material becomes available.

In the East, *parvidens* ranges as far as Behshar, Gorgan prov., Iran, 36°42'N, 53°36'E, 1 ♂ subad., coll. NMB ("Grasplatz, leg. Aellen, Sept. 14, 1948", misidentified by SCHMIDT [1954] as *Lestes barbarus* [Fabr.]).

C. v. parvidens can easily be distinguished from the nominate ssp. by colour and shape of the male cerci (Figs 1-2). In *parvidens* the cerci are whitish yellow with a black spot at the apex; the subapical tooth is only weakly developed and lacks spines on its inner rim. In *viridis* the cerci are often deep yellow or greyish, not only their tips but also the outer sides being more extensively coloured with black; the subapical tooth is well developed, bearing some short spines on its inner rim which are variable in number. Other differences mentioned in the literature must be confirmed when sufficient material becomes available.

Discussion

The genus *Chalcolestes* Kennedy, 1920 is not only well defined by venational characters (cf. SCHMIDT, 1966), but also by its unstalked larval prementum. This symplesiomorphic structure is shared with other archaic Lestidae, i.e. the Sympecmatinae, whereas a stalked prementum (synapomorphy) is characteristic only for the "eulestine" genera (partly being ranked into subgenera), i.e. *Lestes*, *Xerolestes*, and others. *Chalcolestes* remains a monotypical genus, since PINHEY (1980) erected the new (sub)genus *Pseudochalcolestes* for *C. silvaticus* Schmidt, 1951, and *Lestes auripennis* Fraser, 1955, both from Madagascar. The larval stages of these species are still unknown.



Figs 1-2. *Chalcolestes viridis*, left ♂ cercus: (1) *C. v. parvidens* (Artobolevski); – (2) *C. v. viridis* (Vander L.). – [Arrow indicates the subapical tooth].

The type locality of *C. viridis* is Brussels, Belgium (nec Bologna, Italy: CONCI & NIELSEN, 1956; PINHEY, 1980; ASKEW, 1988). The specific name *Agrion viridis* Vander Linden, 1825 is preoccupied by *Agrion viridis* Vander L., 1820. This senior homonym has been synonymized with *Agrion barbara* Fabricius, 1798 as early as 1823 by Vander Linden himself. Since those early days, *A. viridis* Vander L., 1820 has never been used for the species which has consistently been named *barbara*. The name *A. viridis* Vander L., 1820 is maintained in this paper. The author will

apply to the International Commission on Zoological Nomenclature to suppress the senior homonym *A. viridis* Vander L., 1820, as this name has not been used more than 170 years.

C. v. parvidens is a Caspian faunal element. The northernmost place where *parvidens* has been hitherto captured in Italy is a locality N of Ravenna (cf. above).

The nominate ssp. *viridis* is an atlantomediterranean faunal element, inhabiting North Africa, Spain, France, Corsica, (Sardinia?), Sicily, central and eastern Europe, as far as Poland, Belorussia and Ukraine (excl. Crimea). Its distributional limits S of the Alps are completely unknown.

Acknowledgements – I am grateful to Professor Dr OTTO KRAUS, the President of the International Commission on Zoological Nomenclature, for his prompt help in nomenclatural questions, and to Professor Dr BASTIAAN KIAUTA for important references to the type locality.

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Received September 5, 1992