



Morphological characterization of new populations of the copepod *Eurytemora velox* (Lilljeborg, 1853) (Calanoida, Temoridae) found in Austria and Hungary

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Abstract

The calanoid copepod *Eurytemora velox* (Lilljeborg, 1853) was found in the backwater system of the Danube River upstream of Vienna (km 1948) in 1994. Since that time, the species has invaded the side arms of the river between kms 1897 and 1988, as confirmed by findings from 10 different localities. In Hungary, the species has been known since 1992. In the present article, we report 15 new sites in the westernmost part of this country.

A brief diagnosis of the morphology of male and female of the Austrian specimens is presented, including detailed illustrations of the structures used in this paper for taxonomic analysis. Females show morphological variability mainly on the structure of the fifth leg pair. Right and left legs frequently have a different spinulation pattern. Males show less morphological variability, particularly in the structure of the basis and the distal section of exopod 2 of the fifth left leg. Morphological variation within *E. velox* was determined by comparing specimens from Austria, Hungary and Rumania. The geographic distribution of the species in the Palearctic region, Austria and Hungary is presented.

Introduction

During faunistic and ecological studies of several backwater bodies of the Danube River in Austria and Hungary between 1993 and 1997, specimens of *Eurytemora velox* were found in several samples. This species was collected for the first time in Hungary in 1991 (Forró & Gulyás, 1992) and in Slovakia in the same year (Vranovsky, 1994). The latter author already suggested the likelihood of an extension of the distribution of the species to the Austrian section of the Danube River.

The genus *Eurytemora* Giesbrecht, 1881 is represented by 21 species (Heron & Damkaer, 1976; Dussart & Defaye, 1983; Stepanova, 1995). The western palearctic region is inhabited by four representatives: *E. affinis* (Poppe, 1880), *E. lacustris* (Poppe,

1887), *E. grimmi* (G.O. Sars, 1897) and *E. velox* (Lilljeborg, 1853). Two additional species, *E. hirundoides* (Nordquist, 1888) and *E. hirundo* Giesbrecht, 1881, are now considered to be synonyms of *E. affinis* (Bush & Brenning, 1992). The Rumanian Danube delta is inhabited by *E. velox*, *E. affinis* and *E. lacustris* (Damian-Georgescu, 1966). *E. grimmi* is known only from the Caspian Sea (Sars, 1897) and the Southern Bug River in the Ukraine (Kiefer, 1978). The mention of the presence of *E. grimmi* for the plains of the Danube (Dussart & Defaye, op. cit.) is probably an error for this region. We did not find it in the river or in its backwaters in Austria or Hungary during this study. It is also not mentioned by Damian-Georgescu (op. cit.) as occurring in the delta. *Eurytemora velox* is the second species of the family Temoridae found in Austria; the other being *Heterocope saliens* (Lillje-