

FIRST FINDING OF LARVAE OF *CHAOBORUS CRYSTALLINUS* (DIPTERA, CHAOBORIDAE) IN SERBIA. Ivana Živić¹ and Z. Marković². ¹Faculty of Biology, University of Belgrade, and ²Faculty of Agriculture, University of Belgrade, 11000 Belgrade, Serbia

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Larvae of the family Chaoboridae live in small clean bogs, lakes, and wells. They can be found near the surface of aquatic ecosystems, but also at considerable depths on the muddy bottoms of lakes and wells (M e l l a n b y, 1968). Certain species can live buried several centimeters in mud. Their dissemination is of a local nature. For most of their life cycle, the larvae are immobile, i.e., they rest in the water and obtain oxygen from it (M a c a n, 1960). The long cylindrical body (Fig. 1) is transparent or semi-transparent and of a white or yellowish color; the only easily distinguishable features are the black eyes on the

larvae, they tear it apart with their antennae). The larvae are carnivores and feed on tiny insects and crustaceans (M e l l a n b y, 1968). The antennae end with three to five long hairs. Behind the antennae are two bunches of long smooth hairs and a prelabral appendage (pa, Fig. 1). Located on the ventral side of the last abdominal segment is a tuft of hairs (R o s k o š n y, 1980), behind which are four well developed anal papillae (ap, Fig. 1). The pupa has developed tubes for breathing and a pair of flexible fins for swimming. The adults do not suck blood. The females lay their eggs on the water's surface in flat gelati-

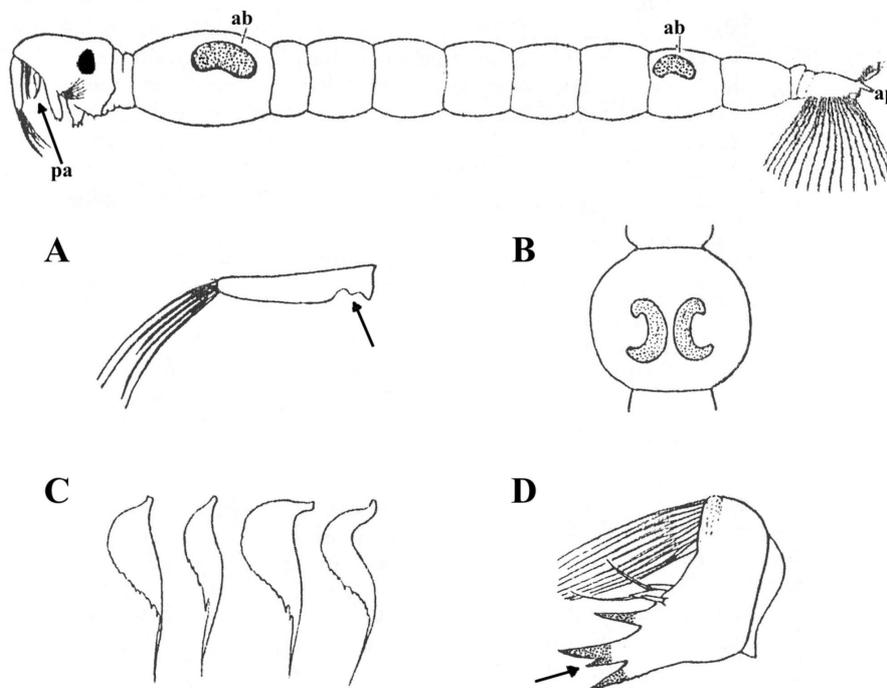


Fig. 1. Body of larva. A) Antennae; B) chest; C) expanded and toothed prelabral appendage; D) mandible. ab) Air bladder; pa) prelabral appendage; ap) anal papillae.

head and two pairs of air-filled hydrostatic organs (air sacs or bladders), one on each side of the body (ab, Fig. 1). One pair of air bags is in the thorax and the other on the seventh abdominal segment (R o s k o š n y, 1980). Also found on the head is a single pair of antennae (Fig. 1A), which are modified into organs for grasping and macerating prey (when food swims up to the

nous disks that can contain 100 spirally arranged eggs (M e l l a n b y, 1968).

During 2005, hydrobiological investigations were carried out once a month (from April to October) on a small stream (Šugavac) and in two wells on the "Radmilovac" Experiment Ground of Belgrade University's Faculty of Agriculture near

the city of Belgrade. Samples from the wells (6 m deep) were taken with a dredge having a catchment area of 87.55 cm². In the course of the investigations, the species *Chaoborus crystallinus* De Geer 1776 was found only in October: nine specimens on 30 October 2005 in Well 1 and one specimen on 30 October 2005 in Well 2, for a total of 10 specimens. Following identification and thorough checking of previously published data, it was established that these findings at the indicated localities on the "Radmilovac" Experiment Ground are the first for the entomofauna of Serbia.

Basic morphological features of the species *Chaoborus crystallinus* and discriminatory taxonomic characters are as follows: The larvae range from 10 to 13 mm in length. They have two pairs of air bladders (ab, Fig. 1) on the body. There is a

characteristic notch (arrow, Fig. 1A) at the base of the antennae. Viewed from the side, their chests are oval in shape (Fig. 1B). The prelabral appendages are expanded and toothed on the anterior edge, which is curved (Fig. 1C). The smallest tooth on the mandibles (arrow, Fig. 1D) does not lie midway between the two main teeth, and at least half of each main tooth is darkly pigmented (Fig. 1D). The anal papillae are sharpened.

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