



A new species of *Hydrobaenus* Fries, 1830 (Diptera, Chironomidae) from Algeria

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Abstract

Hydrobaenus olfa n. sp. from Algeria is described and illustrated as male, pupal exuviae and larva. The new species is assigned to the genus *Hydrobaenus* Fries, 1830 according to morphological characters observable in all the three stages, it is easily separated from all the other known species of the genus because of the high number of anal macrosetae on anal lobe of pupa; this character state is actually unknown within all the known species of the *Hydrobaenus* group, whereas it is observed in other genera within Orthoclaadiinae as in the genus *Prosilocerus* Kieffer, 1923. For this reason the description of the genus *Hydrobaenus* must be emended. This character gives additional evidence to the phylogenetic relationships between the primitive genera of Orthoclaadiinae.

Key words: Chironomidae, Orthoclaadiinae, *Hydrobaenus*, new species, taxonomy, Algeria

Introduction

The genus *Hydrobaenus* Fries, 1830 is Holarctic and contains at least 22 known species; at least 13 of them known as larvae and 14 as pupae (Cranston *et al.* 2007; Henson 1957; Hidetake *et al.* 2004; Holmgren 1869; Langton & Cobo 1992; Moubayed 1985; Sæther 1976, 1989; Wiederholm 1983, 1986, 1989). The larvae are known to inhabit the littoral zone of lakes, ponds, puddles, ditches, rivers and streams. At least some species aestivate forming a circular shaped canopy-like structure around the second instar larva (Hudson 1971; Sæther 1976) and appear to have only one generation a year with a very early emergence period. Most species probably mate on the substratum (Cranston *et al.* 2007).

Most species of *Hydrobaenus* are northern, but one Nearctic species reaches Florida and at least two Palaearctic species have been collected in the southern slopes of the Alps. *Hydrobaenus lugubris* Fries, 1830 was collected in many north Italian lakes and *H. distylus* (Potthast, 1914) in streams and rivers. *Hydrobaenus conformis* (Holmgren, 1869) is recorded from Algeria (Moubayed *et al.* 2007), *Hydrobaenus dentistylus* Moubayed, 1985 from Lebanon (Moubayed 1985) and *Hydrobaenus* Pe 1 Langton from Morocco (Langton 1991). All these Mediterranean records are from cold water localities. These evidences support that *Hydrobaenus* is cold stenothermal, preferring oligotrophic conditions.

In January 2004 larvae, pupal exuviae and pharate adults of a still undescribed *Hydrobaenus* species of the genus were collected in a pond in Algeria. The specimens were collected in winter in an area where oligotrophic waters prevail; the novelty in the ecological valence of the genus is the adaptation of this species to waters with high salinity (Zerguine *et al.* 2009).

Methods and terminology

Collections were carried out in several ponds in Algeria in January 2004. Larvae, pupal exuviae and pharate adults were fixed in 70% ethanol. Body parts were cleared with potassium hydroxide, dehydrated in acetic