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Description of the pupal exuviae of some species belonging to *Orthocladius* s. str. van der Wulp, 1874 (Diptera: Chironomidae: Orthocladiinae), with a new key to species of West Palaearctic region

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Abstract

Some species belonging to the subgenus *Orthocladius* s. str. van der Wulp, 1874 known to occur in the West Palaearctic region (in Italy in particular) are reconsidered according to evidence from pupal exuviae. Male genitalia and larval characters are excluded in the present study and will be examined in future research. *O. ticinoi* Rossaro & Prato, 1991 is restored to the original status. *O. marchetti* Rossaro & Prato, 1991 is confirmed as a valid species. *O. pinderi* Rossaro & Prato, 1991 is confirmed to be a junior synonym of *O. oblidens* (Walker, 1856). *O. pedestris* Kieffer, 1909 and *O. obumbratus* Johannsen, 1905 are analysed for their differences. Diagnostic characters used up to now to identify *Orthocladius* s. str. species at the pupal stage are reconsidered and criticised, and new information about their distribution and a key to pupal exuviae of the known West Palaearctic species are given.

Key words: Chironomidae, *Orthocladius*, taxonomy, key to species, pupal exuviae

Introduction

The genus *Orthocladius* van der Wulp, 1874 is widespread in the Holarctic region; about 100 names have been used to describe species (Ashe & Cranston 1990). A diagnosis of the genus in Cranston et al. (1989) divided it into 5 subgenera; 6 subgenera are known now, because Sæther et al. (2000) included *Symposiocladius* Cranston, 1982. The subgenus *Orthocladius* s. str. is common in freshwater and includes the largest number of species. Descriptions of adult males are found especially in Brundin (1947, 1956), in Pinder (1978), who provided a key to British adult males, and in Soponis (1977), who revised the Nearctic species, with descriptions of pupal exuviae and larvae. A first description of

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