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**Revision of the Oriental and Afrotropical species of
Cheumatopsyche Wallengren (Hydropsychidae, Trichoptera)**

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Revision of the Oriental and Afrotropical species of *Cheumatopsyche* Wallengren (Hydropsychidae, Trichoptera)

JÁNOS OLÁH¹, KJELL ARNE JOHANSON² & PETER C. BARNARD³

¹Department of Environmental Management, Tessedik College. Residential address: I. kk. 10, H-5540 Szarvas, Hungary.

E-mail: saker@szarvasnet.hu

²Swedish Museum of Natural History, Entomology Department, Box 50007, S-10405 Stockholm, Sweden.

E-mail: kjell.arne.johanson@nrm.se

³Department of Entomology, The Natural History Museum, Cromwell Road, London SW7 5BD, UK. E-mail: p.barnard@nhm.ac.uk

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Abstract

The Oriental and Afrotropical species of the caddisfly genus *Cheumatopsyche* are revised. The following species are described as new: *C. abhugna*, *C. acuminata*, *C. agha*, *C. agnetae*, *C. akisena*, *C. ambala*, *C. ambodivoa*, *C. ambohima*, *C. amdakaramaya*, *C. ampanga*, *C. andohahela*, *C. asaha*, *C. ayopa*, *C. balaromta*, *C. bidikala*, *C. bohakayi*, *C. bolosa*, *C. brazzana*, *C. camerunica*, *C. chirapali*, *C. doan*, *C. ecsedii*, *C. ekona*, *C. engor*, *C. fahara*, *C. galumata*, *C. hoasena*, *C. imatso*, *C. joariva*, *C. junolahi*, *C. kala*, *C. kim*, *C. kindamba*, *C. kumasa*, *C. kysonia*, *C. lolo*, *C. mahakaya*, *C. malmi*, *C. mandrara*, *C. mendolonga*, *C. meo*, *C. namha*, *C. nohondoan*, *C. oktedit*, *C. padaha*, *C. pali*, *C. parafra*, *C. quadrifasciata*, *C. ranomafana*, *C. rienga*, *C. rineta*, *C. sambava*, *C. saplaca*, *C. septa*, *C. sipitanga*, *C. songbua*, *C. songda*, *C. suswanad*, *C. tanana*, *C. timgulile*, *C. usambara*, *C. vacoana*, and *C. zao*. The following species are re-described based on examination of the holotypes: *C. brevilineata* (Iwata, 1927), *C. brunnea* Jacquemart, 1961, *C. chihonana* Kobayashi, 1987, *C. chinensis* (Martynov, 1930), *C. curvata* Martynov, 1935, *C. flavosulphurea* Mey, 1998, *C. galloisi* (Matsumura, 1931), *C. gibbsi* Statzner, 1984, *C. infascia* Martynov, 1934, *C. opposita* (Banks, 1931), *C. pulverulenta* Gibbs, 1973, *C. sagitta* Kobayashi, 1987, *C. taipeiana* Kobayashi, 1987, and *C. uchidai* Kobayashi, 1987. *Cheumatopsyche congolana* nom. n. is suggested replacing the junior secondary homonym *C. bimaculata* (Jacquemart, 1966) and *C. jacquemarti* nom. n. is suggested replacing the junior secondary homonym *C. brunnea* (Jacquemart, 1963). The following synonyms are established: *C. rhodesiana* (Jacquemart) is a new synonym of *C. afra* (Mosely), *C. daurensis* Ivanov is a new synonym of *C. brevilineata* (Iwata), *C. striata* Jacquemart is a new synonym of *C. sexfasciata* (Ulmer), and *C. banksi* Mosely is a new synonym of *C. chinensis* (Martynov). In addition, new species records are presented for 28 species. Due to the lack of available material 29 species remain *incertae sedis*. Keys and a pictorial atlas are presented for quick identification of the species groups. In the description of new species a standardised genital terminology scheme is established. For rapid species determination a pictorial atlas is included for all species having a definite forewing membrane pattern.

Key words: Trichoptera, Hydropsychidae, Hydropsychinae, *Cheumatopsyche*, Oriental Region, Afrotropical Region, revision, new species

Introduction

The hydropsychine genus *Cheumatopsyche* includes around 250 described species, that inhabit running water and are known from all biogeographical regions except the Neotropics. In diversity this is the second largest genus among the hydropsychines after *Hydropsyche sensu stricto*. However, by biomass *Cheumatopsyche* is the dominant genus in the order Trichoptera, reaching maximal larval population densities of between 1,000 and 30,000 (Hynes 1975, Petr 1970, Statzner 1982, 1984; Botosaneanu *et al.* 1990) with up to 250,000 individuals per square metre (Gibbs 1973). The filter-feeding activity of this large biomass of animals potentially remove huge amounts of suspended solids from all kinds of running freshwaters, and might help to maintain their purification capacity.

In this paper, we survey the Oriental and Afrotropical species of this ecologically important genus and establish species group names for those previously described as well as the 64 species described here. Because adequate descriptions and drawings are available for many species, at least for those in the Oriental Region (Malicky 1997, Mey 1992, 1995, 1996, 1997, 1998a, 1998b, 1999, 2003, 2004), these species are not re-described here, but instead listed together with information about type localities and are classified in the newly established species groups. In addition, poorly described species with available type material are re-described with new drawings of the genitalia based on the types. A more detailed taxonomic revision of the species groups is planned for the future, when the *Cheumatopsyche* fauna of the area is considered better known and particularly when the inadequately described species can be re-examined.

Genital terminology used in species description

In Trichoptera lineages with many homoplasies it is difficult to detect true homologies, and the origin of the 3