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Generic review of Hydropsychinae, with description of *Schmidopsyche*, new genus, 3 new genus clusters, 8 new species groups, 4 new species clades, 12 new species clusters and 62 new species from the Oriental and Afrotropical regions (Trichoptera: Hydropsychidae)

J. OLÁH & K.A. JOHANSON



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Abstract

The taxonomy of the genera of Hydropsychinae is revised. The following genera are synonymized: *Hydatomanicus* Ulmer, 1951 and *Hydatopsyche* Ulmer, 1926 are synonymized with *Hydromanicus* Brauer, 1865; *Streptopsyche* Ross & Unzicker, 1977 is synonymized with *Calosopsyche* Ross & Unzicker, 1977; *Symphitopsyche* Ulmer, 1907, *Mexipsyche* Ross & Unzicker, 1977, *Ceratopsyche* Ross & Unzicker, 1977 and *Herbertorossia* Ulmer, 1957 are synonymized with *Hydropsyche* Pictet, 1834; and *Plectropsyche* Ross, 1947 is synonymized with *Cheumatopsyche* Wallengren, 1891. A new genus, *Schmidopsyche* Oláh & Schefter, new genus is established and the single species in the genus, *S. rossi* Oláh & Schefter, new species is described and illustrated, based on material collected by Schmid in Sikkim in 1959. The additional 61 new species are described and illustrated: India: *Hydromanicus krsamgin* Oláh & Barnard, new species; *H. sacso* Oláh & Johanson, new species; *H. naraik* Oláh & Barnard, new species; *H. palnis* Oláh & Barnard, new species; *H. topali* Oláh & Johanson, new species; *Hydropsyche januha* Oláh & Barnard, new species; *H. kamenga* Oláh & Schefter, new species; *H. mizora* Oláh & Schefter, new species; *H. narayana* Oláh & Johanson, new species; *H. khasigiri* Oláh & Barnard, new species; *H. igunapali* Oláh & Schefter, new species; *H. kangra* Oláh & Barnard, new species; *H. kiogupa* Oláh & Schefter, new species; *H. minutanga* Oláh & Johanson, new species; *H. tritiyaha* Oláh & Barnard, new species; *H. ekaropa* Oláh & Schefter, new species; *H. yathetima* Oláh & Schefter, new species; *H. keralana* Oláh & Barnard, new species; *H. semkala* Oláh & Johanson, new species; *H. shillonga* Oláh & Barnard, new species; *Cheumatopsyche barakambra* Oláh & Johanson, new species; *C. mariannae* Oláh & Johanson, new species; *C. sandrae* Oláh & Johanson, new species; *Potamyia assamana* Oláh & Schefter, new species. Vietnam: *Hydromanicus demden* Oláh & Johanson, new species; and *Hydropsyche soinha* Oláh & Johanson, new species (also from Malaysia); *H. tanung* Oláh & Johanson, new species; *H. lomdom* Oláh & Johanson, new species; *H. sangbung* Oláh & Johanson, new species; *H. keoda* Oláh & Johanson, new species; *H. xenga* Oláh & Johanson, new species; and *Cheumatopsyche simayorum* Oláh & Johanson, new species. Malaysia: *Hydropsyche gekilara* Oláh & Barnard, new species; *H. tanua* Oláh & Barnard, new species; and *H. namea* Oláh & Barnard, new species. Philippines: *Hydropsyche meyi* Oláh & Johanson, new species; *Cheumatopsyche anonima* Oláh & Johanson, new species; *C. kuranishii* Oláh & Johanson, new species; and *C. montapo* Oláh & Johanson, new species. Papua New Guinea: *Hydropsyche flintorum* Oláh & Johanson, new species; and *H. carolae* Oláh & Johanson, new species. Tibet: *Hydropsyche gyantsana* Oláh & Barnard, new species. Nepal: *Hydropsyche nepalarawa* Oláh & Johanson, new species; and *Cheumatopsyche chitawana* Oláh & Johanson, new species. China: *Hydropsyche chengdu* Oláh & Barnard, new species; and *Cheumatopsyche yangmorseorum* Oláh & Johanson, new species. Iran: *Hydropsyche masula* Oláh & Johanson, new species. New Caledonia: *Orthopsyche anulmika* Oláh & Johanson, new species. Japan: *Cheumatopsyche okinawana* Oláh & Johanson, new species; and *C. tanidai* Oláh & Johanson, new species. Taiwan: *Cheumatopsyche davisi* Oláh & Johanson, new species; and *C. tungpa* Oláh & Johanson, new species. Sri Lanka: *Cheumatopsyche hasalaka* Oláh & Johanson, new species. South Africa: *Cheumatopsyche krugerana* Oláh & Johanson, new species. Madagascar: *Cheumatopsyche mafana* Oláh & Johanson, new species; *C. nondra* Oláh & Johanson, new species; *C. tiokalamkita* Oláh & Johanson, new species; *C. fianara* Oláh & Johanson, new species; *C. masiposa* Oláh & Johanson, new species; *C. ranoma* Oláh & Johanson, new species; and *C. rantsoa* Oláh & Johanson, new species. The following species are synonymized: *Hydropsyche kawamura* Tsuda, 1940 is synonymized with *H. kozhantschikovi* Martynov, 1924, *Hydropsyche belos* Malicky & Chantaramongkol, 2000 is synonymized with *H. klimai* Mey, 1999, *Hydropsyche taiwanensis* Mey, 1997 is synonymized with *H. spinata* Kobayashi, 1987, and *Cheumatopsyche copiosa* Kimmins, 1956 is synonymized with *C. columnata* Martynov, 1935. Recognized genera are divided into previously established and new species groups, defined by shared diagnostic characters. All Oriental species of *Hydropsyche* Pictet and *Hydromanicus* Brauer are grouped into different levels of species groups based on similar morphology in male genitalia.

Key words: Trichoptera, Hydropsychidae, Hydropsychinae, taxonomic revision, new species, *Schmidopsyche*, new genus

Introduction

This revised taxonomy is primarily based upon a revised understanding of characters in the genitalia, especially the phallus. We basically follow the genital character nomenclature already established and standardised for *Potamyia*, *Orthopsyche*, *Caledopsyche*, *Abacaria* and *Cheumatopsyche* (Malicky 1997a, Nielsen