



## ***Helicopsyche agnetae*, new species (Trichoptera, Helicopsychidae) described from Hong Kong**

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### **Abstract**

*Helicopsyche agnetae*, new species, is described and figured based on material collected in Hong Kong in May 2005. With this record two species of the family Helicopsychidae are known from China. The two Chinese species are probably sister species sharing several uniquely derived synapomorphies, and are separated from each other by features in the genitalia.

**Key words:** Trichoptera, Helicopsychidae, *Helicopsyche agnetae*, new species, China, Hong Kong

### **Introduction**

The family Helicopsychidae is characterized by the dextrally coiled larval cases made from small stones glued together with silk. The relatively small adults have the abdominal sternite 2-4 reticulated and a ventral process on sternum VI. The males usually have 2-segmented maxillary palps. Modifications in male maxillary palp segment number occurs in the Oriental species, and Schmid (1993) described the genus *Cochliophylax* for the assumed primitive Helicopsychidae with 5 maxillary palp segments in the male. Johanson (1998) demonstrated that 5-segmented maxillary palps were secondarily developed in the monophyletic Oriental species group of the subgenus *Helicopsyche*. Species with 2 and 3 maxillary palp segments also occur in this group. Two-segmented maxillary palps are present in all *Helicopsyche* species from the other faunal regions. Helicopsychidae has a cosmopolitan distribution pattern, with highest diversity in tropical and sub-tropical areas (Johanson 1998). The diversity decreases dramatically at higher latitudes. The Oriental Helicopsychidae fauna is diverse with 60 species recorded from the region, mostly from the central eastern and south-eastern parts. The Japanese *Helicopsyche yamadai* Iwata 1927, described from larval stage only, and *Helicopsyche coreana* Mey 1991 from North Korea are both Palaearctic in distribution. Johanson (1998) indicated that *H. coreana* should be separated from the Oriental species in the subgenus *Galeopsyche* Johanson 1998. However, the placement of *H. coreana* remains uncertain. The northernmost Oriental *Helicopsyche* (*Helicopsyche*) species is *H. zhejiangensis* Yang & Johanson 2004, known from from Mt. Gutian (Zhejiang Province) at 29.2°N. This new Hong Kong species is apparently closely related to *H. zhejiangensis*.

### **Materials and Methods**

The Helicopsychidae have been known from Hong Kong since Dudgeon (1987) reported an undetermined