



## Three new *Helicopsyche* from Laos (Trichoptera: Helicopsychidae)

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### Abstract

Three new species, *Helicopsyche pathoumthongi*, *Helicopsyche vongsombathi*, and *Helicopsyche laoensis*, are described and illustrated based on material collected in northern Laos from April–May, 2005. With *Helicopsyche antikleia* Malicky, 1997, originally described from Laos, and the discovery of a single male of the widespread Oriental species *Helicopsyche angusta* (Ulmer, 1951) the Laotian *Helicopsyche* fauna now contains 5 recorded species.

**Key words:** Trichoptera, Helicopsychidae, *Helicopsyche*, new species, Laos

### Introduction

The family Helicopsychidae is a moderately large taxon with nearly 230 extant species described worldwide. Nearly a quarter of the species are known from the Oriental Region, and the highest diversity of the 60 Oriental species was recorded from northern India by Schmid (1993). Previous to this report, only 1 species, *Helicopsyche antikleia* Malicky, 1997, was known from Laos. This species was described from 2 males collected by P. Schwendinger at the Tad Lo Waterfalls in the southern part of Salavan Province in 1996. Interestingly, the male genitalia of that species have a general similarity with those of the European species, especially due to the general shape of the dorsal gonocoxite branch, and the deeply incised gonocoxite with about equally long primary and secondary branches. Among other characters, the species is separated from the European *Helicopsyche* by the absence of the long, inner branches of the gonocoxite. *Helicopsyche antikleia* is unique in the family by the presence of a pair of very long, slender, and tubular branches originating from the base of segment X. The 3 new species described herein were collected by T. Malm, B. Viklund, and N. Jönsson (Swedish Museum of Natural History) from northern Luang Namtha Province situated near the border of China and Myanmar (Fig. 1). The material was collected in a light trap situated close to water courses.

The localities providing these samples were of markedly different natures. Tong Om is a small village between the town of Luang Namtha and the Luang Namtha Airport. Here the traps were placed in close vicinity to a pond and old rice fields. Specimens may have come from the nearby Namtha River. Lakkhamai Village lies 20 km north of Luang Namtha where the traps were placed close to Nam Leung stream in the village area. The Nam Leung is moderately fast flowing with riffles and pools, featuring a mixed stone and sand bottom.

### Material and methods

The specimens were collected into about 80% alcohol in the field and stored in 80% alcohol at about –20°C in the Swedish Museum of Natural History. In the laboratory, the right wings and entire abdomens were sepa-