

## The *Helicopsyche* (*Feropsyche*) (Insecta, Trichoptera, Helicopsy- chidae) from Barro Colorado Island, Panama

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### Abstract

*Helicopsyche woldai* sp.n. and *Helicopsyche fridae* sp.n. are described from Barro Colorado Island, Panama. Five *Helicopsyche* species are now known from the island. The *Helicopsyche* material was collected continuously in two separate periods covering seven years. The flight activities at weekly basis correlated with rainfall fluctuations shows that flight activities increased immediately after a period of increased rainfall.

**Key words:** Trichoptera, Helicopsychidae, *Helicopsyche fridae* sp.n., *Helicopsyche woldai* sp.n., Barro Colorado Island, Panama, flight activity

### Introduction

The Barro Colorado Island is a small island within the Panama Canal area, at approximately 9°09'N and 79°51'W, and covering approximately 15 km<sup>2</sup>. The island was formed when isolated from the surrounding land between 1910-1914 when the water level increased by nearly 35 as the Chagras River was dammed. The highest point on Barro Colorado Island is about 137 meters above the lake and located centrally on the island. The island is covered by lowland rainforest with numerous streams draining the hillsides. The climate is tropical, and the island receives about 2600 mm rain a year, but with seasonal fluctuation involving a distinct dry period between January and April (Dietrich *et al.* 1996).

About 53 of the approximately 182 Trichoptera species recorded from Panama (Flint *et al.* 1999) are considered endemic. The first records from Barro Colorado Island were given by Denning (1966) who described *Wormaldia arcopa* Denning (Philopotamidae), and *Oecetis falicia* Denning (Leptoceridae). The Trichoptera fauna of the island is incompletely known, and only about 28 species have so far been recorded (Aguila 1992; Blahník