

Chapter 20 Orders Megaloptera and Neuroptera

Order Megaloptera

The alderflies and dobsonflies have aquatic larvae. They include about 200 species worldwide. New and Theischinger (1992) have summarized the published information on Megaloptera, but information on taxa from Indochina is not available. A key to genera of megalopteran larvae from China is available in Yang & Yang (1994) but it is incomplete and does not fit the Indochina species. Here we provide a key to the families and subfamilies of Indochina megalopterans. Two families are commonly found: Sialidae and Corydalidae. They have campodeiform larvae, and feed on various animals in streams and rivers. The well-developed mandibles and lateral abdominal gills make them resemble a small centipede. Sialid larvae have seven pairs of lateral abdominal gills, and the apical abdominal segment lacks prolegs but has a long terminal filament. They burrow into fine sediments. Corydalid larvae have eight pairs of lateral abdominal gills, and the apical abdominal segment has two pairs of clawed prolegs and no long terminal filament. They usually sit beneath cobbles in undisturbed or less disturbed streams.

Order Neuroptera

Most neuropteran larvae are terrestrial insects, but worldwide, three families are known to be aquatic. Only the spongillafly, family Sisyridae, are common. No specimens of spongillafly larvae were found in this study. However, the larvae are campodeiform and the mouthparts are modified to be a 'sucking tube' for piercing and sucking out cytoplasm from sponge cells.

KEY TO FAMILIES AND SUBFAMILIES OF MEGALOPTERA OF INDOCHINA

- 1 Abdominal segments I-VIII with 2 segmented lateral filaments; abdominal segment IX with 2 anal prolegs, each with pair of apical claws (Fig. 1)..... CORYDALIDAE ...2
- 1' Abdominal segments I-VII with 4-5 segmented lateral filaments; abdominal segment IX without prolegs and apical claws (Fig. 2)SIALIDAE

- 2 Larvae with ventral gill tufts (Fig. 1) CORYDALINAE
- 2' Larvae without ventral gill tufts CHAULIODINAE

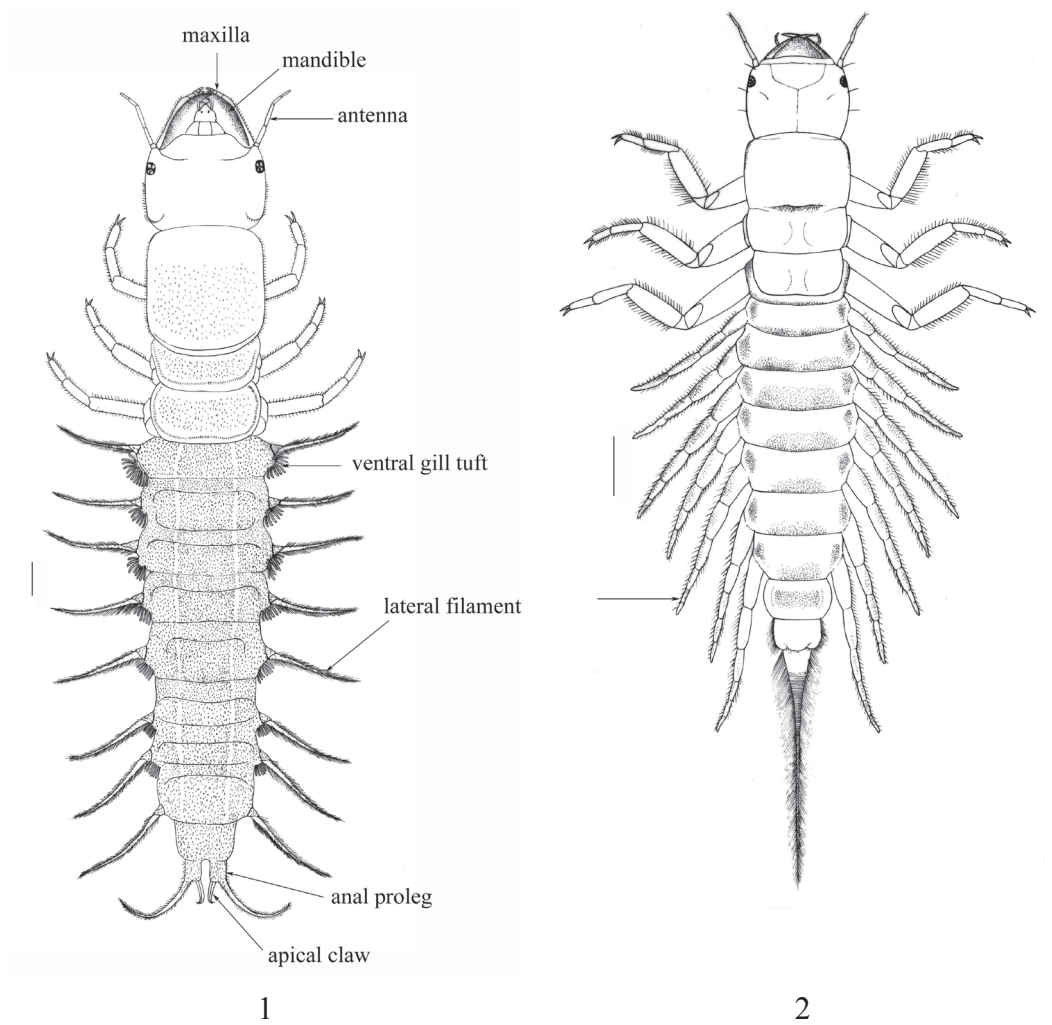


Fig. 1-2 1. Dorsal view of larva of *Protohermes* sp. (Corydalidae); 2. Dorsal view of *Sialis* sp. larva (Sialidae).
Scale = 1 mm.