

The hunter-flies of Armenia

I. Some species of the genus *Limnophora* Robineau-Desvoidy, with the description of a new species

(Insecta, Diptera: Muscidae)

Adrian C. Pont, Nikita Vikhrev, Doreen Werner

Abstract. New field observations on adult behaviour and predation in *Limnophora riparia* (Fallén) and *Limnophora patellifera* (Villeneuve) in Armenia are given. The adults of the little-known *L. patellifera*, and a new species, *Limnophora femoriseta* sp. n. from Armenia and Turkey, are described. All three species discussed here are new records for Armenia.

Key words. Hunter-flies, Muscidae, *Limnophora*, Armenia, Turkey, predation.

Introduction

Species of the subfamily Coenosiinae of the family Muscidae are known as hunter-flies, or sometimes killer-flies, because of their activities as aggressive and effective predators of other small insects, in particular of blackflies (Simuliidae), mosquitoes (Culicidae), and a variety of garden and greenhouse pests (aphids, white flies, Agromyzidae, Chloropidae). The subfamily is divided into two tribes, the Coenosiini and the Limnophorini. A general review of predation by species of the Limnophorini has been given by WERNER & PONT (2006a), and the present paper offers some new observations on courtship and predatory behaviour and also describes a new species of the genus *Limnophora* Robineau-Desvoidy, 1830 from Armenia and Turkey.

The genus *Limnophora* contains some 350 species worldwide and is found in all zoogeographic regions, though poorly developed in North America and absent from New Zealand. The vast majority of species are associated with aquatic habitats and are predaceous in the adult and larval stages (WERNER & PONT 2006a).

The genus has been conventionally divided into three groups on the basis of the Palaearctic fauna, which in the past have sometimes been treated as subgenera or even as genera: *Calliophrys* Kowarz, 1893, *Pseudolimnophora* Strobl, 1893, and *Limnophora* s. str. The species of the *Calliophrys* group are associated with fast-flowing streams and torrents: adults rest on and hunt from stones and boulders in or alongside the water, whilst larvae are fully aquatic and live among mosses and other dense submerged vegetation. The European *L. riparia* (Fallén) is well known as a predator of Simuliidae (WERNER & PONT 2003).

During fieldwork in Armenia in 2005, and more recently in Turkey and Armenia in 2010, we collected several species of the *Calliophrys* group, and here we are describing one new species, *L. femoriseta* and are redescribing the little known species *L. patellifera* (Villeneuve). Because of the dominant presence of these flies in riverine habitats and their feeding