Key to the species of Ptilomerinae (Hemiptera: Heteroptera: Gerridae) of Thailand and review of the fauna of the Tennaserim Mountain Range

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Abstract

Water striders of the subfamily Ptilomerinae (Hemiptera: Heteroptera: Gerridae) are commonly found in lotic habitats such as streams, rivers and waterfalls. Eight species representing four genera were recorded from the Tennaserim Mountain Range, including a new country record of Pleciobates tuberculatus Esaki from Thailand. This paper provides illustrations and ecological notes on Ptilomerinae in the Tennaserim Mountain Range in Thailand and a taxonomic key for identification of all species throughout Thailand.

Key words: Ptilomerinae, Gerridae, Tennaserim Mountain Range, Thailand

Introduction

The family Gerridae are semiaquatic true bugs commonly known as pond-skaters or water striders. In general, they are found on the water surfaces, marginal areas of aquatic systems, and vertical rock faces of waterfalls (Andersen 1982). Gerrids are predators, feeding on captured prey by piercing and sucking body fluid from them.

Seven of the eight subfamilies of Gerridae have been reported from Thailand (Chen et al. 2005, Vitheepradit 2008). The subfamily Ptilomerinae comprises more than 100 species representing 15 genera and is distributed from Pakistan eastward to New Guinea with the highest diversity in the Southeast Asian mainland (Chen et al. 2005, Zettel 2009). More specifically, 14 species representing 6 genera of this subfamily have been reported from Thailand (Chen & Zettel 1998, Chen & Nieser 2002, Vitheepradit & Sites 2007, Zettel 2009). The genera in Thailand include Pleciobates Esaki, Pleciogonus Chen, Nieser, & Wattanachaiyingcharoen, Ptilomera Amyot & Serville, Ptilomerella Zettel, Rheumatogonus Kirkaldy, and Rhyacobates Esaki. Members of Pleciobates, Pleciogonus, Ptilomera, and Rheumatogonus are widely distributed throughout the country, whereas members of Ptilomerella are known only from southern Thailand (Zettel 2009) and Rhyacobates only from northern Thailand (Vitheepradit 2008).

Although much taxonomic research on the Gerridae of Thailand has been conducted during the last several decades, which has resulted in numerous descriptions of new species (e.g., Polhemus 2001; Chen et al. 2002; Zettel 2002, 2009; Vitheepradit & Sites 2007), most of the studies focused on reviewing particular taxonomic groups or describing new species. As a result, faunistic studies on the water striders in extensive areas in Thailand are still lacking. Presented here are a taxonomic key to the species of Ptilomerinae of Thailand and faunistic assessment with ecological notes on the taxa of the Tennaserim Mountain Range in Thailand.

Material and methods

The study area focused on montane aquatic habitats (e.g., streams, waterfalls) of the Tennaserim Mountain Range in Thailand (Fig. 1). All totaled, 39 collections (Fig. 2) were made during various projects from April 2002 through
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