Bilyjomyia, a new genus of the tribe Macropelopiini from the Holarctic (Diptera: Chironomidae)

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Abstract

The genus Bilyjomyia is erected for Apsectrotanypus algens (Coquillett, 1902) from western North America and B. fontana n. sp. from Japan. A generic diagnosis and a description are given for all life stages. Bilyjomyia algens is redescribed. All life stages of Bilyjomyia fontana are described and figured. The new genus shows affinities to Macropelopia Thienemann and Bethbilbeckia Fittkau et Murray in the immature stages. Bilyjomyia can be distinguished from all other known Macropelopiini by the following features: the reduced setation of T.IX and the restriction of these setae to the tergal posterior edge in the adult male; the aeropyles of the thoracic horn in the pupa; the labral sclerite and the position and form of the ventral cephalic setae in the larva. The distribution of Bilyjomyia indicates dispersal across the Bering Land Bridge, a pattern known in some other genera of Chironomidae and other orders of insects.

Key words: Diptera, Chironomidae, Tanypodinae, Macropelopiini, Bilyjomyia, new genus, new species

Introduction

Tanypus algens was described by Coquillett (1902) on the basis of a single female collected from Popof Island, Alaska, USA. Roback (1984) described the pupa from material collected from Kodiak Island, Alaska. Both islands lie just south of the Alaska Peninsula. Watson (1998) described the larval stage from specimens collected in Colorado, Montana and Washington, USA. He reviewed all life stages and concluded that the species did not belong to Apsectrotanypus Fittkau. The immatures appeared most closely related to those of Bethbilbeckia Fittkau et Murray and Macropelopia Thienemann, but the adult characters precluded placement in either genus. The larva has a small, but distinctive labral sclerite, a feature not previously reported in Macropelopiini. At the time, the author was unwilling to erect a new monotypic genus, and made no changes to the species placement.

Recently, the first author reared some Macropelopiini larvae collected from a spring in central Honshu, Japan, that proved to be an undescribed species close to Apsectrotanypus algens in all life stages. They share several distinctive characters that set them apart from other genera of Macropelopiini. Therefore, we feel it is necessary to erect a new genus for them.

Methods and terminology

Descriptions of coloration and morphological characters are based on slide-mounted specimens except when otherwise stated. Pupal coloration is taken from exuviae. Adult body length is measured from the anterior tip