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Axinotarsus pulicarius (F.) (Coleoptera: Melyridae: Malachiinae), a soft-winged flower beetle new to North America

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Abstract

Axinotarsus pulicarius (F.), a soft-winged flower beetle native to the Palearctic Region, is newly reported from North America. More than 100 specimens were swept from vegetation, mostly from flower heads of velvetgrass, *Holcus lanatus* L., in Delta (Tsawwassen), British Columbia, Canada, in 2010 and 2011. This is the first record of the genus and species in the New World.

Key words: Cleroidea, adventive species, British Columbia, description, diagnosis, distribution, new record

Introduction

Permanent settlement by Europeans in the early 17th century initiated major changes in the insect fauna of eastern Canada (Turnbull 1979; Morris 1983). Entomologists began to record adventive insects in Canada by the early 19th century (Majka & Klimaszewski 2008b). Studies by Brown (1940) and Lindroth (1957) stimulated research on immigrant insects (Majka & Klimaszewski 2008a), including detection, documentation of spread, analysis of pathways of entry, and assessment of economic and ecosystem consequences of their establishment. Comprehensive treatments of adventive species of certain Canadian taxa have appeared recently (e.g., Heteroptera: Scudder & Foottit 2006; Coleoptera: Klimaszewski et al. 2010). Direct introduction of adventive insects has occurred largely via major shipping ports such as Halifax, Nova Scotia, and St. John's, Newfoundland, in Atlantic Canada and Vancouver and Victoria, British Columbia, in the Pacific Northwest (Langor et al. 2009). Although British Columbia was not settled by Europeans until the first half of the 19th century (Turnbull 1979), the province has the largest number of non-native arthropods associated with woody plants in Canada (Langor et al. 2009). If a list of all non-native insect species were compiled for each Canadian province, British Columbia would rank at or near the top.

During recent detection surveys for immigrant arthropods in the Pacific Northwest, we collected a Palearctic melyrid, *Axinotarsus pulicarius* (F.), in the greater Vancouver, BC, area. Here we give the first records of this beetle for North America, provide a diagnosis and description to facilitate its recognition in the Nearctic fauna, and review key literature on biology in its native range.

Material and methods

In June of 2010, we collected adults of *A. pulicarius* by sweeping grasses and forbs along the shoreline near the Tsawwassen Ferry Terminal (part of the BC Ferry system), a major transportation facility in the municipality of Delta, British Columbia, approximately 35 km south of Vancouver. The site is a 3-km long man-made causeway off

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