

Understanding saproxylic beetles: new records of Tetratomidae, Melandryidae, Synchronoidae, and Scraphiidae from the Maritime Provinces of Canada (Coleoptera: Tenebrionoidea)

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Abstract

New species records for Tetratomidae, Melandryidae, Synchronoidae, and Scraphiidae from the Maritime Provinces of Canada are given. Known bionomics of these saproxylic species are summarized and new bionomic observations are provided. Twenty-five species are newly recorded from Nova Scotia, 10 from Prince Edward Island, and three from New Brunswick. Thirty-seven species are now known from the region, a substantial increase from the 23 species known hitherto. Range extensions for 19 species are noted. The composition of the region's fauna is briefly discussed, focusing on a disparity in the collection efforts between provinces, and also on island faunas. Finally the fauna is examined in the context of a developing knowledge of saproxylic beetles in Nova Scotia, along with potential concerns about the impact that forest management practices.

Key words: Coleoptera, Tetratomidae, Melandryidae, Synchronoidae, Scraphiidae, Maritime Provinces, New Brunswick, Nova Scotia, Prince Edward Island, Canada, biodiversity, saproxylic, new records

Introduction

The Tetratomidae, Melandryidae, Synchronoidae, and Scraphiidae (all members of the Tenebrionoidea), are a diverse assemblage of saproxylic beetles found in many forested communities. Historically they have a complicated systematic history having, at times, all been considered within the family Melandryidae (e.g., Downie and Arnett 1996) although recent treatments (Nikitsky 1998; Pollock 2002a, 2002b; Young 2002; Young and Pollock 2002) have placed them in separate families. The classification presented below in the