The Bryofauna of Remote Coastal Labrador: including a review of current Canadian records

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Abstract

Nematodes, tardigrades and bdelloid rotifers were identified from moss samples collected from sites near three remote towns in northern, coastal Labrador, Canada. Twenty-three nematode genera, 18 tardigrade species and six rotifer species were identified. All findings were new records for Labrador and many were new records for Canada including three nematode genera (Zeldia Thorne, Daptonema Cobb and Steineria Mikoletzky) and two species of rotifer (Macrotrachela punctata Murray and Macrotrachela aculata Murray). Canadian bryofaunal studies are reviewed and distributional patterns for Canadian taxa are discussed.

Key words: Nematoda, Tardigrada, Rotifera, range extensions

Introduction

Canadian bryophilous animals have received little ecological attention and initial surveys are lacking for many regions (Potter & McKeown, 2003). This study focused on three dominant groups of bryofauna, i.e., nematodes, tardigrades, and bdelloid rotifers (e.g., Kinchin, 1987, 1989, 1990) from Labrador. We first review studies of each group in Canada and then discuss the methods and results of a recent survey of bryofauna in Labrador.

The published literature on Canadian studies of soil and litter nematodes (Table 1) are mainly restricted to papers about economically important species, with a few detailing preliminary biological surveys or using nematodes as indicators of environmental impact e.g. British Columbia (Hayes et al., 1999; Panesar et al., 2000, 2001; Forge & Simard,