

Harvesting effects on soil mesofauna and decomposition/nutrient cycling processes

Lead by: Zoë Lindo

Theme: Biodiversity

Status: Completed

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End: 2003

Participants

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- Suzanne Visser

Background

Acari and Collembola (mites and springtails) are the main components of the soil arthropod community. They are important in decomposition and nutrient cycling processes as they catalyse primary decomposition and regulate microbial populations, which influence carbon, nitrogen and phosphorus cycling (Behan-Pelletier and Newton 1999). Several studies have shown adverse effects on soil mesofauna and specifically oribatid mites due to logging practices (Vlug and Borden 1973, Seastedt and Crossley 1981). Reduced soil fauna activity may significantly affect available nutrient inputs, which are important to forest health and productivity.

Objectives

To determine the effects of different harvesting intensities on soil physical, chemical and biological characteristics, soil mesofauna (mites and springtails) and decomposition/nutrient cycling processes in coniferous and deciduous dominated stands of the boreal mixed-wood forest.

Key Results

n/a