

The conservation value of wood chip residue piles for invertebrates.

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Theme: [Arthropod Diversity](#)

Status: Continuing

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Background

The retention of wood chip residue piles on a harvested landscape is a contentious issue in Alberta's forest. Alberta Timber Harvest Planning and Operation Ground Rules Framework for Renewal (section 7.3) states that when woody debris is retained on a harvested landscape it must be in such a distribution and amount as to: 1) minimize wildfire risk; 2) minimize productive landbase loss by limiting area lost for deciduous suckering; and 3) provide ecological benefit. The challenge facing land managers is to find the appropriate balance in achieving these objectives while meeting the requirements to retain structure that provide temporary refuges for biota to re-colonize the harvested landscape (section 7.4). However, making an informed decision on this matter is difficult because little is known about the conservation value of chip residue piles. This study is part of the "expanding EMEND to the operational landscape" study series.

Objectives

To test the effectiveness of wood chip residue piles in maintaining invertebrate biodiversity on a harvested boreal landscape.

Key Results

We found that these piles were soon colonized by invertebrates and that the number of species inhabiting these piles increased over time. These residue piles harbored a number of species that were absent from the assemblages utilizing the surrounding ground. Some of these species utilizing the piles were early seral species, while others associated with mature forest habitats