

Threshold effects of dispersed green tree retention harvesting on understory plant communities in the mixedwood forests at EMEND.

Lead by: [Ashley Craig](#)

Theme: [Vegetation](#)

Status: Completed

Start: 2006

End: 2008

Participants

- [Ashley Craig](#)
- [Ellen Macdonald](#)

Background

This project examines the relationship between the amount of residual and the response of understory plant communities. Understory vegetation plays a variety of key roles in forest ecosystems, including nutrient cycling and forest productivity, mediation of microclimate, and the provision of a food source and habitat for a diversity of other biota. This research will contribute to our further understanding of the response of understory plant communities to the harvesting treatments at EMEND. It will also provide results that can be compared with those being obtained for other biotic groups.

Objectives

The objectives of this study are twofold. First, we will determine whether there is a threshold level of harvesting after which there is a significantly different response of the understory vegetation communities.

Regardless of threshold levels this study will describe the changes in understory responses at six levels of retention harvesting. Second, we will examine the effects of the machine corridors on the understory plant community; an area that has not been extensively study. Any implications of the effects of variable retention harvesting must include the effects of the machine corridors.

Key Results

Using this data we plan to construct models of threshold understory response to harvesting (for a variety of response variables related to the understory plant community) and then, with permission, use the core vegetation data (collected in 2004) as an independent data set to test/verify those models.