Microclimate Changes and White Spruce Seedling Response in Partial-Cut Mixedwoods

Lead by: Jim Stewart

Theme: White Spruce Regeneration

Status: Continuing

Start: 2000

Participants

- Rick Hurdle
- Travis Jones
- Derek Sidders
- Jim Stewart

Background

n/a

Objectives

1) To quantify the influence of overstory retention and site preparation on microenvironment. 2) To relate microenvironmental conditions to physiology and growth of white spruce seedlings.

Key Results

There was little difference in soil temperatures between the two forest types, or among the harvest retention treatments, except for the Cdom clearcut. There, soils were warmer due to increased radiation at ground level, due to the sparse regeneration compared to the Adom clearcuts. Soils were generally moist with little difference across the harvest and site preparation treatments, except for the mounds, which were drier in the

clearcuts and 50% retention compartments. Seedling height growth differed among forest types, harvest residual, and site preparation treatments. There was little difference in soil temperatures between the two forest types, or among the harvest retention treatments, except for the Cdom clearcut. There, soils were warmer due to increased radiation at ground level, due to the sparse regeneration compared to the Adom clearcuts. Soils were generally moist with little difference across the harvest and site preparation treatments, except for the mounds, which were drier in the clearcuts and 50% retention compartments. Seedling height growth differed among forest types, harvest residual, and site preparation treatments.