

Fire behaviour and effects in white-spruce aspen forests

Lead by: John Spence

Theme: Fire Science

Status: Continuing

Start: 1999

Participants

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- Pete Bothwell
- Bill De Groot
- Jason Edwards
- Chris McGuinty

Background

The CFS is currently developing and validating a fire effects module to complement the current Fire Weather Index (FWI and Fire Behavior Prediction (FBP) Systems of the Canadian Forest Fire Danger Rating System (CFFDRS). This requires the collection of fire weather, fire behavior, postfire mortality and recruitment data for major Canadian tree species. The EMEND project will provide the opportunity to collect valuable fire behavior and fire effects data in support of CFS fire research initiatives.

Objectives

1) To collect data on fire spread, fuel consumption and fire intensity in white spruce, aspen and mixedwood stands.

Key Results

A fire weather station has been set up at the EMEND site. The weather station records the local weather conditions and data are used by ASRD staff to establish fire weather indices and burning conditions. To date, 5 compartments have been treated with fire. Compartment 926 (CDOM) was burned on August 4, 1999; compartment 943 (ADOM) was burned on April 26, 2000; compartment 937 was burned on June 30, 2004; and compartments 883 and 891 were treated on May 18, 2006. Postfire sampling of surface fuel consumption and postfire photographs have been taken in the burn compartments.