



Tour for Public Members, July 13th, 2007

EMEND

Ecosystem Management Emulating Natural Disturbance

Members of two public advisory committees were invited to tour the world's largest and most comprehensive forest research project; right in their backyard.

EMEND "Ecosystem Management by Emulating Natural Disturbances" is a forest ecology research site located near Sulphur Lake in the Peace River region.



The tour on July 13, 2007 included Peace River Pulp Division public advisory committee members and High Level Forests Public Advisory Committee members.



Derek Sidders with the Canadian Forest Service gave an overview of the research design & lead the tour through silviculture treatments and retention blocks.



Dr. John Spence, University of Alberta introduced the tour group to the history and research impact of EMEND.

EMEND, in its 9th year, was designed through the collaborative efforts of the forest industry, government and research organizations. University of Alberta and Canadian Forest Service are the primary research organizations. Peace River Pulp Division and CANFOR are the primary industry funders.



Colin Bergeron started work with the EMEND core crew in 2001 and now is completing his PhD on Beetles and EMEND landscape ecology.

Industry partners have contributed over \$4 million to EMEND over the past 10 years. There is considerable planning value within EMEND research for retention planning and harvesting.

The knowledge that is gained from the EMEND research project will be used to help define an ecological approach that can be used by forest companies in their future management scenarios.

EMEND research objectives are to:

- ❑ Determine which forest harvest and regenerative practices best maintain biotic communities, spatial patterns of forest structure, and functional ecosystem integrity in comparison with mixed-wood landscapes that have originated through wildfire and other inherent natural disturbances.
- ❑ To employ economic and social analyses to evaluate these practices in terms of economic viability, sustainability and social acceptability.



Adoption of the "natural disturbance" paradigm for boreal forest management has led away from the extensive clear-cutting and toward retention of unharvested residuals to leave structure on the landscape. Sustainable management depends on linking harvest methods to forest regeneration procedures to promote holistic and ecologically-sensitive silviculture.

The tour featured "impromptu" presentations by student researchers. Dr. Spence facilitated overviews of various student research projects.



Erma Diaz is a student from Mexico. She is studying mites and nutrient cycling. EMEND has an international flavour with students such as Jamie Pinzon from Colombia who is studying ground dwelling spiders.

Other student presenters included:

- Evan Esch, Ground Dwelling Beetles
- Suzanne Abele, Gastropods & Briophytes
- Charlene Wood, Course Woody Debris
- Chris Penzelly, Bumble Bees

Harvesting treatments were installed in 1998 of 10%; 20%; 50% and 70% retention. The levels of retention "emulate" the skips created by wildfire as it moves across the landscape. EMEND will inform forest companies of the economic and biological tradeoffs of leaving various rate of retention.

EMEND is designed to cover a full rotation of the forest; or 80-100 years in the boreal region. Dr. Spence noted the foresight made by the forest companies in conceiving of such a long term study. Frank Oberle had the original vision for the project. Mr. Oberle was a forester with Daishowa-Marubeni International Ltd., and is currently M.L.A. representing the Peace River constituency.



Researchers studying the biota of EMEND are challenged to make connections between localized information (stand level) to the overall landscape level. This includes "looking up" for information on birds and other species.

The tour was organized by Jason Edwards, Camp Coordinator & Hugh Seaton of the Boreal Forest Research Centre. Tim Vinge with the Boreal Centre will be producing a multi-media of the tour. You can request a copy of the multi-media by contacting:

Boreal Forest Research Centre
(780) 618-2623 (Debbie) or 618-2602 (Hugh)