



Northern Silviculture Committee

AGM and conference announce

by Alan Wiensczyk, *Ecosystems and Stand Management Extension Specialist*

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The Northern Silviculture Committee (NSC) celebrated its annual general meeting with the news they have achieved non-profit charitable status. The announcement came during the January 15–17, 2007 meeting and conference, called “Silviculture science and the translation to evaluation and forest stewardship plans,” which attracted over 250 natural resource professionals to Prince George. The purpose of the society is: “As a non-partisan organization to promote co-operation, understanding and improvement in the application of silvicultural practices at the field level.”

Bruce Rogers (BC Ministry of Forests and Range—MOFR) started the conference with a presentation on the mortality of Douglas-fir leave trees in the Sub-Boreal Spruce (SBS) zone of central British Columbia. Based on his research, he recommended retaining untouched clumps of forest if the management objective is to maximize the survival of Douglas-fir leave trees or retaining single-dispersed trees if the objective includes recruiting large-size standing-dead and downed deadwood soon after harvest. For more information on this topic, see page five of *LINK*.

Mike Jull (Aleza Lake Research Forest) followed with a talk on the challenges and opportunities in BC’s Interior spruce–balsam ecosystems which, due to the current mountain pine beetle infestation in lodgepole pine stands, will form the majority of mid-age and mature forest types for many decades to come. These stand types are very productive in terms of timber and biological diversity, but present a number of integrated resource management challenges (e.g., mountain caribou in the Engelmann Spruce–Subalpine Fir [ESSF] zone). As such, managing these systems will be different and potentially more complex than it has been in the past, but will also provide many opportunities for the innovative forest manager.

The next presentation, by **Wendy Bergerud** (MOFR), dealt with free-growing surveys. Two of her key messages were: 1) that the purpose of the current free-growing assessment methodology is to make a decision, NOT to estimate the density of the stratum, and 2) stocking standards currently measure free-growing density—not total density. Bergerud referred participants to other sources, in particular Land Management Handbook 50, available at <http://www.for.gov.bc.ca/hfd/pubs/Docs/Lmh/Lmh50.htm>

Chris Hawkins (University of Northern British Columbia) followed with a presentation on the results of a 19-year study on the efficacy and cost of brushing treatments in the Sub-Boreal Spruce wet, cool sub-zone. He found that leaving a broadleaf component on the site (aspen and birch) reduced the incidence of white pine weevil (WPW) on the regenerating conifers and only had a minimal impact on conifer seedling growth. He concluded that brushing was not a good investment in these stands and that there is a need to look at more mixed species stands and assess the impact of silvicultural treatments on future forest health, diversity, and value.

In a similar vein, **Suzanne Simard** (University of British Columbia—UBC) summarized her observations of 20 years of research into the effects of managing vegetation on reforestation success and biodiversity in the BC Interior. She presented information on brushing options used on a variety of different vegetation complexes and noted that even when brushing treatments were applied, they were either too variable, too light, or didn’t alleviate the limiting factors affecting conifer seedling growth. She concluded that we must work to ensure that prescriptions for brushing are science-based as opposed to legislation-based. She referred people to her Web site for links to current publications on the results of these studies: <http://farpoint.forestry.ubc.ca/FP/?ssimard>

Crown shyness refers to the empty space between the crowns of trees. This space is not related to gaps created by tree fall, but is thought to be caused by the resulting loss of foliage and buds as crowns collide and create friction during wind storms. **Vic Lieffers** (University of Alberta) described an experiment in which a group of trees were tied together to prevent crown friction and to determine if crown shyness can be reversed in older stands. They found that, indeed, crown shyness could be reduced and hypothesized that this may have relevance when planning stand-thinning treatments in older stands. For more details on the crown shyness study, see: http://article.pubs.nrc-cnrc.gc.ca/ppv/RPView-Doc?_handler_=HandleInitialGet&journal=cjfr&volume=36&calyLang=eng&articleFile=x06-107.pdf

The next phase of the conference consisted of seven poster presentations. **Shannon Berch** (MOFR) spoke to participants about her work on the effects of organic matter (woody debris and forest floor) and soil compaction on stand-level diversity of soil collembolan in the SBS zone. **Craig DeLong** (MOFR) discussed the importance of maintaining a diversity



achievement of non-profit status

of deadwood habitats in managed stands while **Brad Seely** (UBC) provided information on a case study in the Quesnel Forest District that looked at using soil organic matter as a measure of ecosystem productivity in the SBS zone. Participants also learned about range reference areas (RFA) and their value in range research from **Laura Blonski** (MOFR). The use of Geographic Information Systems on harvesting navigation and realtime mapping for understory protection and mixedwood was the topic of a session led by **Rick Reynolds** (FERIC). **Alan Westhaver** (Jasper National Park) presented information on managing stands and landscapes to reduce fire risks (Fire Smart), while **Rod Poirier** (JRP Solutions) talked about the technical advancements of using PDAs in the field.

The second morning of the workshop focussed on the status of several of the effectiveness monitoring programs.

Stephane Dubé (MOFR) described results from two years of pilot testing on soil-effectiveness monitoring protocol and indicators. This protocol uses a combination of remote sensing and visual surveys. A total of six indicators, which reflect the status of the soil in harvested areas, are being monitored.

Richard Thompson (BC Ministry of Environment–MOE) followed with a provincial perspective on the stand-level biodiversity-effectiveness evaluation. He explained that the inter-relationship between landscape, stand, and fine filter levels of biodiversity make evaluation challenging. One of the main issues with the indicators associated with this value is finding the baseline data with which to compare results.

Norma Stromberg-Jones (MOFR) provided a District viewpoint on riparian management effectiveness evaluations. Staff from the Headwaters Forest District, with help from the Columbia District and the MOE, completed seven evaluations across 14 cutblocks. They reported that some of the protocol requirements were particularly onerous given the terrain in which they were operating (such as having to walk the entire stream reach four times) and suggested some modifications.

Peter Tschaplinski (MOFR) concluded the session by providing a summary of the riparian, stream, and fish-habitat condition assessments conducted for the 2005 resource stewardship monitoring program. In 2005, a total of 19 Forest Districts conducted assessments of 250 cutblock-associated streams, their riparian areas, and fish habitats to determine the

effectiveness of riparian management in maintaining fish value. These assessments found that 98 streams (39%) were properly functioning, 47 sites (19%) were functioning at high risk, and 33 (13%) were not properly functioning. For the latter two categories, the negative impacts to riparian habitat appear to be due to roads and crossings, with the main issue being fine sediments.

For information about the Forest and Range Evaluation Program (FREP), and the evaluation protocols, see <http://www.for.gov.bc.ca/hfp/frep/indicators/table.htm>

Ian Brown (MOFR) provided his insights on free-growing monitoring and how it fits in the big picture. He said that by using free-growing assessments primarily for determining whether a statutory obligation on a block-by-block basis is being met, we are not using this information as well as we could be. He felt that without consistent and comprehensive analysis of the trends, forest professionals may not react as needed to the forthcoming ecological changes (e.g., climate change).

Roberta Reader, LLB discussed her thoughts on the changes in roles under the *Forest and Range Practices Act (FRPA)*. She cautioned participants that with the freedom afforded by *FRPA* comes increased responsibility. She said that there is a large, complex world outside of the “known world” of statutory regimes and that tenure holders and professionals cannot rely solely on the legislation to tell them what is, or what is not, important in the context of forest management. The final arbiters of our success (or failure) as forest stewards are likely to be 1) science and 2) societal expectations, rather than compliance with *FRPA*.

Jim Snetsinger, Chief Forester (MOFR) wrapped up the conference with an update on Forest Stewardship Plan implementation. His message to participants was that we will need continual communication and dialogue between, and among, all stakeholders to ensure everyone understands the *FRPA* model and is working toward achieving its objectives and benefits. He identified the challenges and issues facing us in the areas of professional reliance and accountability, enforceable results, and/or strategies in forest stewardship plans, and consultation with First Nations and other stakeholders. He concluded that although a results-based regime is what we are aiming for, it will take some time and changes in operations to get there. 