WORKSHOP PROCEEDINGS
2001-4

sustainable forest management network

réseau sur la gestion durable des forêts

Biodiversity Workshop

January 12-13, 2001

Guelph, Ontario

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Summary Document from SFMN Biodiversity Workshop held January 12-13, 2001 in Guelph, Ontario

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On January 12-13, 2001, a group of researchers and industry partners interested in biodiversity in the boreal forest met for an initial organizational meeting in Guelph, Ontario. The principal objectives of the workshop were: 1) to become familiar with current research activities of group members, and 2) to discuss the potential for developing common approaches to assessing biodiversity in Canada's forested zones. Workshop participants were selected based on their common interest in biodiversity issues and on their potential to explore and develop linkages among SFMN working groups across the country. Researchers and industry partners from Alberta, Ontario, Quebec, and New Brunswick attended.

Ten participants presented overviews of their NCE research activities on the first day of the workshop. The breadth of the research presented by the speakers was considerable, but it clearly centred on key biodiversity issues, such as examining single species approaches to indicator/umbrella species, problems in monitoring rare species, using historical data to interpret current land base and species status, and developing common empirical relationships between multi-species assemblages and human disturbance across the boreal forest in Canada.

Stan Boutin, leader of the Alberta biodiversity group, presented a conceptual model for developing an index of biodiversity for use in the forested regions of Canada by the forestry sector, and he invited the group to consider the potential for making this the focus for future collaborative work among all the SFMN biodiversity groups. His model, adapted from Karr and Chu (1997)[1], was based on 1) defining relationships between several measures of biodiversity (spanning a diversity of taxa) and variation in human disturbance, and 2) developing a single index of biodiversity from these relationships.

Much of the discussion during day two of the workshop centred around the assessment of biodiversity in general, and on the development of a group vision in particular. Two key points emerged. There was general agreement that the metrics of biodiversity that should be explored are those that incorporate both taxa richness (or composition) and functional relationships. Secondly, while participants agreed on a common goal to investigate and understand relationships between metrics of biodiversity and human change, participants were generally unwilling to commit to a common approach to quantifying biodiversity (i.e., as a single index). Rather, it was felt that researchers should explore alternate approaches to the problem at this stage in order to facilitate a open, comparative approach during development of a workable model. Workshop participants made a significant advance when they unanimously committed to the following vision statement:

> "The biodiversity group will commit to identify, measure and explore relationships among a series of common variables (reflecting biodiversity composition and function metrics) across a range of human disturbances (including reference conditions) with the intent of using that common database to evaluate alternative protocols for assessing forest biodiversity."

The vison statement was qualified by stating that:

Relationships of interest will include:

1. Biodiversity metrics and diversity of broader biota
2. Biodiversity metrics and human disturbance
3. Biodiversity metrics and variables related to ecosystem function

Lastly, the group indicated that it would be committed to the following deliverables:

1. Provide scientific input to evaluate what indicators should be used for certification
2. Produce a suite of indicators with known relationships to human disturbance for managers

The workshop concluded with the participants committing to a preliminary assessment of the feasability of investigating relationships between metrics of biodiversity and human disturbances in their study areas, to be discussed at length at their next workshop in mid-September, 2001.

[1]Karr, J. R., and Chu, E. W. 1997. Biological monitoring and assessment: using multimetric indexes effectively. EPA 235-R97-001. University of Washington, Seattle.

Workshop personnel

In attendance: Jim Baker* (OMNR), Stan Boutin* (U of A), Mark Dale* (U of A), Marcel Darveau* (Laval), Elston Dzus (Alberta Pacific Forest Industries), John Fryxell* (U of G), Susan Hannon* (U of A), Michelle Herzog (U of G), Richard Moses (U of A), Tom Nudds* (U of G), Fiona Schmiegelow* (U of A), John Spence* (U of A), Kari Stuart-Smith (Tembec Industries), Marc-Andre Villard* (UMoncton), Carolyn Whittaker (UBC).

Unable to attend: A representative of Abitibi-Consolidated Inc., Margaret Donnelly (Louisiana Pacific), Peter Etheridge (J. D. Irving Ltd.), Daniel Farr (representing Alberta Forest Biodiversity Monitoring Program), Dennis Gignac (U of A), Luigi Morgantini (Weyerheuser), Rob Rempel (OMNR), Jens Roland (U of A), Arturo Sanchez (U of A), Jim Schaefer (Trent University), Ian Thompson (Canadian Forest Service).

*speaker
