Course Outline & Background

3-day Short Course

Natural Disturbance Approaches to Land Management Planning

Background

Interest in natural disturbance (ND) patterns has grown at a rapid pace over the last 10 years within all of Canada. New research results on natural disturbance patterns or processes are quickly absorbed by an ever-broadening audience of forest landscape managers, planners, regulators, scientists, and the public. And although the work is far from complete, a substantial collection of natural disturbance knowledge has been complied.

The attraction to natural disturbance emulation strategies is understandable. Such knowledge can potentially be used as ecologically-defendable "coarse filters" to help objectively guide forest management decision-making. Consider the prospect of choosing and managing towards a landscape design that is not only described in familiar and direct terms of vegetation structure and composition, but is (at least theoretically) based on a form of ecological integrity.

We have also observed some remarkable convergences between natural patterns and sustainable forest management (SFM) objectives. For example, natural patterns demonstrate a logical and positive link to fire threat mitigation, large mammal habitat, avian habitat, aesthetics, access planning, old growth management, and even harvesting costs. This list alone represents a tremendous opportunity. Furthermore, natural patterns are by their very nature variable, thus allowing for the flexibility to accommodate, as opposed to compete with, other management objectives.

However, despite its potential, using natural disturbance patterns to help forest land management is still a fragile proposal. There is broad agreement by forest and other land managers that the concept of using natural patterns to guide management decisions is a good idea. However, there is a significant gap on how, where, when, and even if natural patterns should be applied in land management decision-making. This disparity could potentially affect the quality of forest, park, or other land management activities as they relate to the ultimate goal of SFM. For example, small differences in levels of understanding, perception, or the meaning of natural disturbance terms can lead to dissagreements, prolonged approval process, and the rejection of what might be progressive plans. These in turn lead to the erosion of trust, decreased likelihood of achieving innovative objectives, and the adoption of more conventional rules.

Such are the growing pains of any new idea. Everyone, without exception, is struggling with practical ND integration issues today. The solution for other jurisdictions has been to develop prescriptive "guidelines" that mandate the details of how, what, and where to harvest. However, this solution does not always allow for exploration and experimentation, or necessarily a true understanding of the value of coarse-filter knowledge. It removes the need for looking for creative, viable solutions, and natural patterns become yet another set of variables thrown into the planning melting pot.

We strongly support a more flexible approach to moving forward with ND integration. However, we suggest at this point that the answers lay less in science than they do education and communication (based on sound science). By exposing everyone to the same basic general level of knowledge about natural range of variation (NRV), we are better able to build a universal foundation of understanding and language. Education is one of the critical first steps towards the successful integration of any new ideas. The flexible learn-as-you-go method that we have adopted by default may work over time, but at the risk of not realizing the full potential of natural disturbance decision-making systems (whatever that may be). The worst-case scenario is that it becomes another fad because the communication gap cannot be overcome.

The course will cover the basics, including nomenclature, the theoretical underpinnings, examples of comparisons with current practices, different models of integrating it, an overview of research challenges, and research output interpretation. Furthermore, the challenging nature of NRV knowledge is such that the course will emphasize learning by doing through hands-on exercises. We intend this course for virtually all levels and types of decision-makers and regulators to allow them to create, discuss, debate, and resolve planning integration issues *together* relating to natural patterns.

Dr. David Andison,
Course Director

Course Goal

To develop a common and basic understanding about the application of natural disturbance patterns as it relates to forest land management planning and monitoring among land management professionals.

Day 1 Establish conceptual framework
Day 2 Real-life examples
Day 3 Design natural disturbance management scenarios

Course Workbook - Table of Contents

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