

AMÉNAGEMENT ÉCOSYSTÉMIQUE EN FORÊT BORÉALE

Sous la direction de SYLVIE GAUTHIER, MARIE-ANDRÉE VAILLANCOURT, ALAIN LEDUC, LOUIS DE GRANDPRÉ, DANIEL KNEESHAW, HUBERT MORIN, PIERRE DRAPEAU ET YVES BERGERON

Aménagement forestier écosystémique: Approche d'aménagement qui vise à maintenir des écosystèmes sains et résilients en misant sur une diminution des écarts entre les paysages naturels et ceux qui sont aménagés afin d'assurer, à long terme, le maintien des multiples fonctions de l'écosystème et, par conséquent, de conserver les bénéfices sociaux et économiques que l'on en retire.

Voilà la définition de l'aménagement forestier écosystémique proposée dans cet ouvrage, qui offre une synthèse des principaux concepts écologiques appuyant cette approche. Il présente une revue des grands régimes de perturbations qui façonnent la dynamique naturelle de la forêt boréale et des exemples provenant de différentes régions du Centre et de l'Est du Canada. Plusieurs projets de mise en œuvre de stratégies d'aménagement écosystémique illustrent des enjeux de la foresterie actuelle et les solutions que cette nouvelle approche peut apporter. En somme, la dynamique forestière dans son ensemble peut servir de guide à l'aménagement forestier. Une planification des interventions inspirée de la forêt facilitera la conciliation entre la récolte ligneuse et les intérêts des multiples utilisateurs de la forêt.



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FOREST ECOSYSTEM MANAGEMENT:
A management approach that aims to maintain healthy and resilient forest ecosystems by focusing on a reduction of differences between natural and managed landscapes to ensure long-term maintenance of ecosystem functions and thereby retain the social and economic benefits they provide to society.

That is the definition of forest ecosystem management proposed in this book, which provides a summary of key ecological concepts supporting this approach. The book includes a review of major disturbance

regimes that shape the natural dynamics of the boreal forest and gives examples from different Canadian boreal regions. Several projects implementing the forest ecosystem management approach are presented to illustrate the challenges created by current forestry practices and the solutions that this new approach can provide. In short, knowledge and understanding of forest dynamics can serve as a guide for forest management. Planning interventions based on natural dynamics can facilitate reconciliation between forest harvesting needs and the interests of other forest users.

SUMMARY

■ FOREST ECOSYSTEM MANAGEMENT:

AN APPROACH INSPIRED BY NATURAL DISTURBANCES

Forest Ecosystem Management: Origins and Foundations

How Can Natural Disturbances Be a Guide for Forest Ecosystem Management?

Fire Frequency and Forest Management Based on Natural Disturbances

■ SPATIO-TEMPORAL VARIATIONS OF DISTURBANCE REGIMES

Climate, Weather and Forest Fires

Management Solutions to Face Climate Change: The Example of Forest Fires

Spatial Structure of Forest Stands and Remnants under Fire and Timber Harvesting Regimes

Spruce Budworm Outbreak Regimes in Eastern North America

Forest Tent Caterpillar Outbreak Dynamics from Manitoba to New Brunswick

Applying Knowledge of Natural Disturbance Regimes to Develop Forestry Practices Inspired by Nature in the Southern Region of the Gaspé Peninsula

Towards an Ecosystem Approach to Managing the Boreal Forest in the North Shore Region: Disturbance Regime and Natural Forest Dynamics

Ecosystem Management of Québec's Northern Clay Belt Spruce Forest: Managing the Forest... and Especially the Soils

Forest Dynamics of the Duck Mountain Provincial Forest, Manitoba, and the Implications for Forest Management

■ FOREST ECOSYSTEM MANAGEMENT IMPLEMENTATION

Silviculture in a Context of Forest Ecosystem Management in Boreal and Southern Boreal Forests

An Adaptive Framework for Monitoring Ecosystem Management in the Boreal Black Spruce Forest

Silvicultural and Ecological Evaluation of Partial Harvest in the Boreal Forest on the Clay Belt, Québec

Modelling Complex Stands and the Effects of Silvicultural Treatments

Scenario Planning and Operational Practices within a Sustainable Forest Management Plan: An Approach Developed by LP Canada, Manitoba

Forest Ecosystem Management in the Boreal Mixedwood Forest of Western Québec: An Example from the Lake Duparquet Forest

Project Tembec: Towards the Implementation of a Forest Management Strategy Based on the Natural Disturbance Dynamics of the Northern Abitibi Region

Old-Forest Conservation Strategies in Wet-Trench Forests of the Upper Fraser River Watershed, British Columbia

Perspectives

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