Record Nr. UNINA9910785745003321

Autore Perera Ajith H

Titolo Emulating natural forest landscape disturbances : concepts and

applications / / Ajith H. Perera, Michael G. Weber, Lisa J. Buse

Pubbl/distr/stampa New York, : Columbia University Press, 2007

Descrizione fisica 1 online resource (352 pages) : illustrations

Altri autori (Persone) BuseLisa J <1962-> (Lisa Jean)

WeberMichael G (Forester)

Disciplina 634.92

Soggetti Ecological disturbances - Canada

Ecological disturbances - United States

Forest ecology - Canada Forest ecology - United States Forest management - Canada Forest management - United States

Lingua di pubblicazione Inglese

Formato Materiale a stampa

Livello bibliografico Monografia

Nota di contenuto Contents; Contributors; List of Figures and Tables; Preface;

Acknowledgments; PART I Concepts; 1 Emulating Natural Disturbance in Forest Management: An Overview; 2 Emulating Natural Forest

Disturbance: What Does This Mean?; 3 The Ecological and Genetic Basis

for Emulating Natural Disturbances in Forest Management: Theory Guiding Practice; 4 Characterizing Natural Forest Disturbance Regimes: Concepts and Approaches; 5 Predicting Fire Regimes at Multiple Scales; 6 Predicting Forest Insect Disturbance Regimes for Use in Emulating

Natural Disturbance

PART II Applications: Understanding Forest Disturbances; 7 Empirical Approaches to Modeling Wildland Fire in the Pacific Northwest Region of the United States; 8 Simulating Forest Fire Regimes in the Foothills of the Canadian Rocky Mountains; 9 Spatial Simulation of Broad-Scale Fire Regimes as a Tool for Emulating Natural Forest Landscape Disturbance; 10 Simulating the Effects of Forest Fire and Timber Harvesting on the Hardwood Species of Central Missouri; 11 Using Insect-Caused Patterns

of Disturbance in Northern New Brunswick to Inform Forest

## Management

12 Using Criteria Based on the Natural Fire Regime to Evaluate Forest Management in the Oregon Coast Range of the United States; 13 Using a Decision to Support System to Estimate Departures of Present Forest Landscape Patterns from Historical Reference Conditions; 14 Changes in Tree Species Composition from Pre-European Settlement to Present: A Case Study of the Temagami Forest, Ontario; PART III Applications: Perspectives, Practices, and Policy; 15 A Conservation Perspective on Emulating Natural Disturbance in the Management of Boreal Forests in Ontario

16 Consequences of Emulating Natural Forest Disturbance: A Canadian Forest Industry Perspective; 17 An Economic Perspective on Emulation Forestry and a Case Study on Woodland Caribou-Wood Production Trade-Offs in Northern Ontario; 18 Developing Forest Management Strategies Based on Fire Regimes in Northwestern Quebec; 19 Emulating Natural Forest Disturbance: Applications for Silvicultural Systems in the Northern Great Lakes Region of the United States; 20 Emulating Natural Forest Disturbance in the Wildland-Urban Interface of the Greater Yellowstone Ecosystem of the United States 21 Emulating Natural Forest Disturbance: From Policy to Practical Guidance in Ontario; PART IV Conclusion; 22 Emulating Natural Forest Landscape Disturbances: A Synthesis; References; Index

## Sommario/riassunto

What is a natural forest disturbance? How well do we understand natural forest disturbances and how might we emulate them in forest management? What role does emulation play in forest management? Representing a range of geographic perspectives from across Canada and the United States, this book looks at the escalating public debate on the viability of natural disturbance emulation for sustaining forest landscapes from the perspective of policymakers, forestry professionals, academics, and conservationists.