



# FRI CircumBoreal Program

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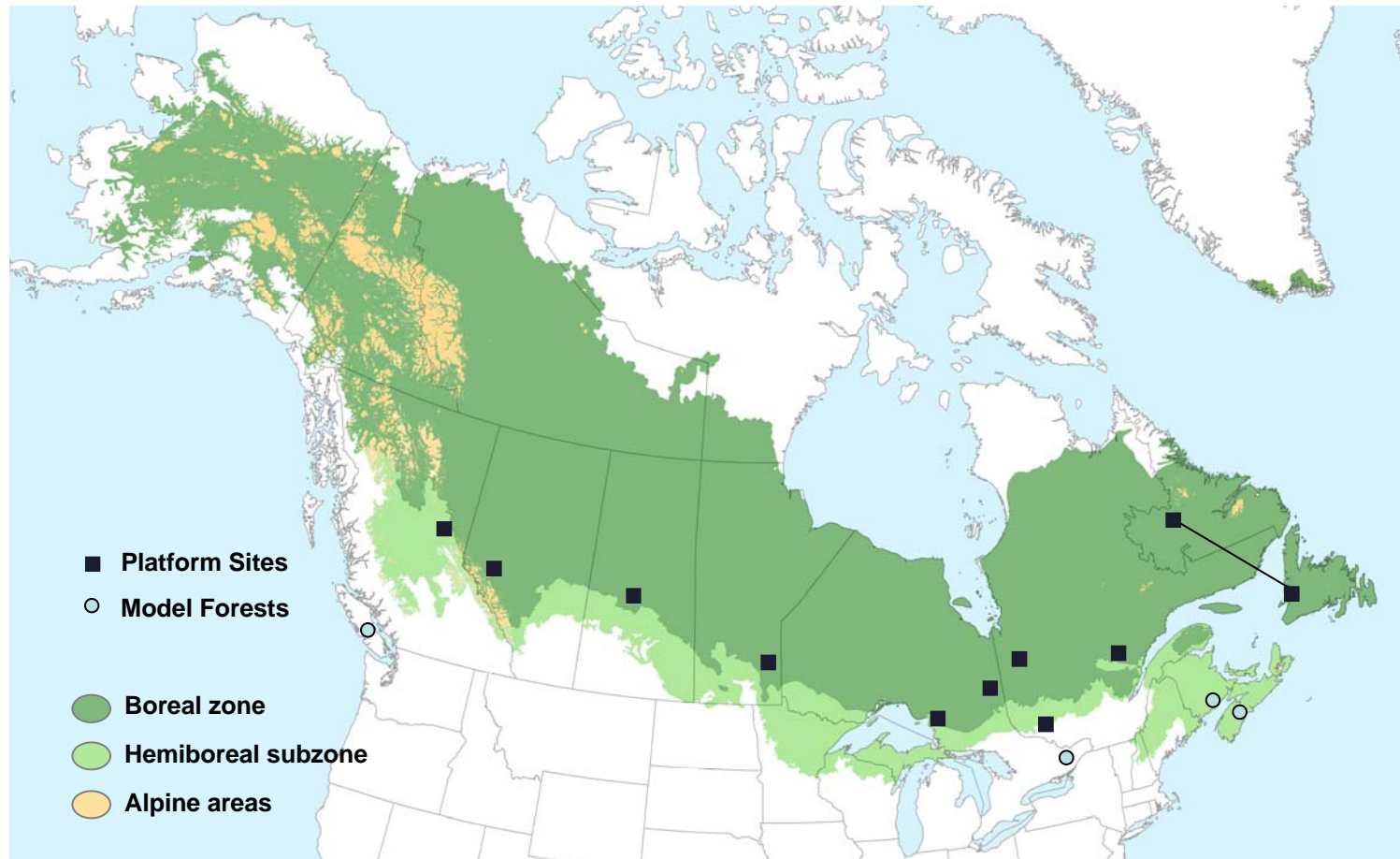


# IMFN CircumBoreal Initiative

## Background

- ◆ International Model Forest Network (1992)
- ◆ 50 sites in 7 countries
- ◆ Add value to site level work of Boreal based model forests
- ◆ Each face similar issues in pursuit of sustainable management of forest landscapes
- ◆ Working together concept accepted 2007

# Scope of the Boreal in Canada



# CircumBoreal Forest Distribution



## World Forest Area

- Boreal Forests 16.6 mil. km<sup>2</sup>
- Other Forests 33.2 mil. km<sup>2</sup>

## Canada's Boreal

- 310 million ha (77% of Canada's total forest area)
- 30% of world's Boreal Forest (993 million ha)

Share similar issues

# Common Issues in Boreal Forests

- ◆ Biodiversity, SAR
- ◆ Climate change
- ◆ Economic development in mining, forestry, oil and gas
- ◆ Loss of forests to insect, disease, fire
- ◆ Human demand



# We understand that.....

The challenge of addressing issues is to understand them on a global scale

- ◆ IMFN saw opportunity to enhance site level work of model forests
  - ◆ Consensus reached to establish CircumBoreal Initiative
  - ◆ Scope: CircumBoreal biome between 45-75° Latitude
  - ◆ Countries involved: Canada, Russia, Sweden; invitation extended to Norway, Finland & United States
  - ◆ MF act as platform sites for conducting research and monitoring, and linking to forest management
  - ◆ Mechanism to collaborate, share information amongst researches, practitioners, and policy makers

# IMFN CircumBoreal Initiative

## Mission

*International leader at providing science based knowledge, information and experience exchange for policy makers, practitioners, and communities who must respond and adapt to changes affecting the boreal landscape*



# IMFN CircumBoreal Initiative

## Intended Impacts

- ◆ Linking institutes and research capacity → global assessment of vulnerabilities
- ◆ Efficiencies in addressing change
- ◆ Coordinated network to accelerate learning
- ◆ Local / global networks for knowledge transfer
- ◆ Common frameworks for credible reporting
- ◆ Network of demonstration sites



# IMFN CircumBoreal Initiative

## Broad Areas of Concern

- ◆ Vulnerability of Boreal Forest Ecosystems and Human Systems
  - ◆ Climate
  - ◆ Invasive species
  - ◆ Change in traditional land use
  - ◆ Forest fires
- ◆ Resilience of Boreal Forest Ecosystems and Human Systems
  - ◆ Effectiveness of ecosystems, biodiversity, EG&S
  - ◆ (Cumulative) Impact reduction
  - ◆ Adaptation & sustainability of human communities
  - ◆ Carbon, water, climate change, markets
  - ◆ Wildlife

# IMFN CircumBoreal Initiative

Finding common ground defined by policy drivers

FRI's Program Response

- ◆ **Alberta – Scandinavian Brown Bear Project**
  - ◆ *Issue*: Building and stabilizing bear populations in complex, developing landscapes; expanding the value of knowledge
  
- ◆ **Climate Change – Social Vulnerability Project**
  - ◆ *Issue*: Social vulnerability of Boreal communities to climate change. Community response to changes in ecosystem capacity to supply environmental goods and services.

# Alberta-Scandinavian Brown Bear Project

## Project Team Leads

- ◆ Gord Stenhouse, Program Lead  
Foothills Research Institute,  
Grizzly Bear Research Program
- ◆ Jon Swenson, Professor,  
Department of Ecology and  
Natural Resource Management,  
Norwegian University of Life  
Sciences, As, Norway



# AB-Scand. Brown Bear Project

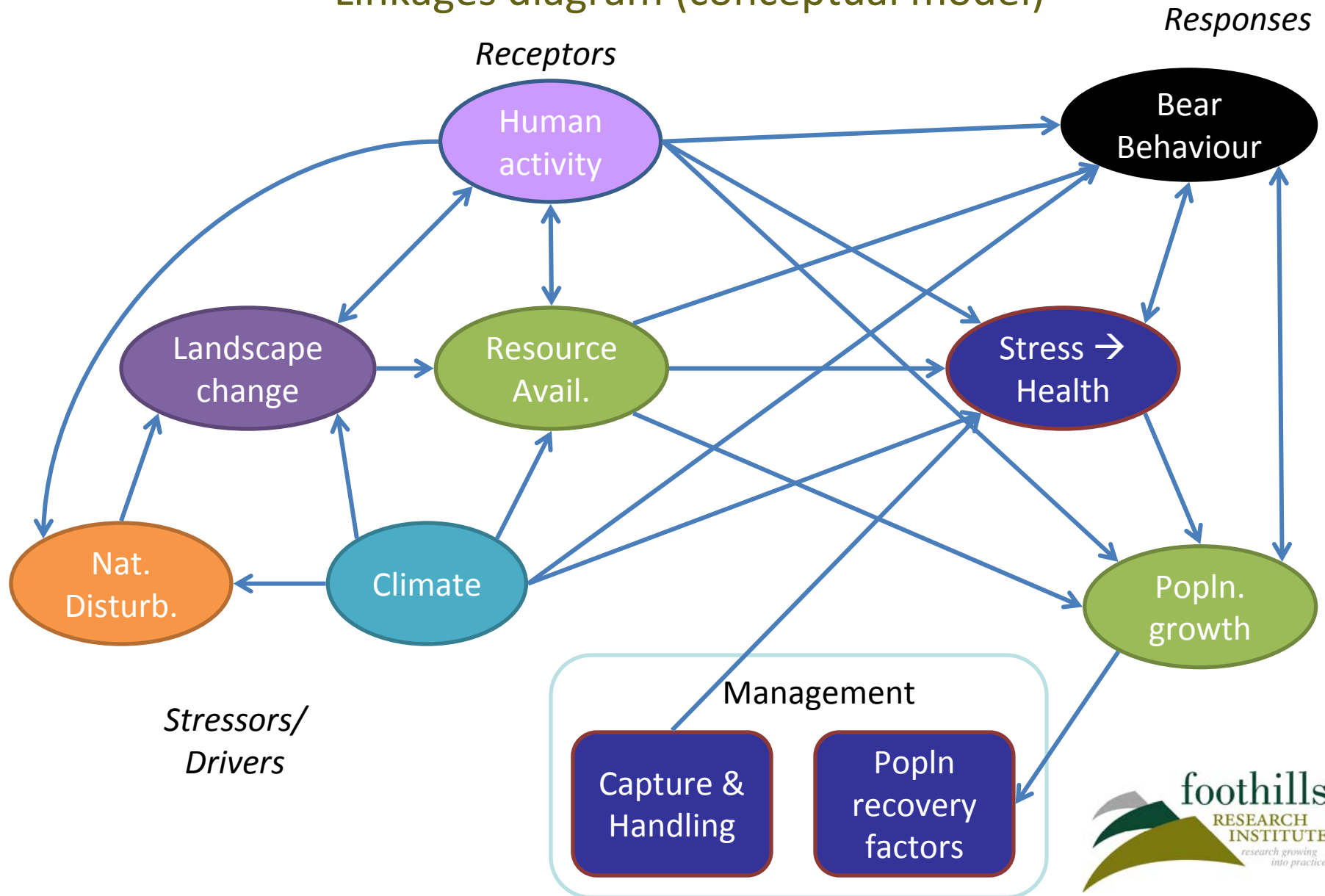
## Working relationship – MOU

## Basics goals – comparative studies

- ◆ Sharing knowledge, understanding
- ◆ Stress regimens, health, productivity in the face of landscape activity
- ◆ Factors of dispersal, recovery
- ◆ Spatially explicit models re: dispersal
- ◆ Mapping land cover, forestry information and relate to behaviour
- ◆ Outreach

# Alberta-Scandinavian Brown Bear Collaboration

## Linkages diagram (conceptual model)



# Climate Change – Social Vulnerability Project

## Intent of project

- ◆ Boreal forests are in a state of flux as a result of climate change
- ◆ Impact on communities is uncertain
- ◆ “impacts are heavily influenced by social system’s sensitivity and adaptive capacity”
- ◆ Research will “enhance our capacity for successful adaptation”
- ◆ Social sensitivity and adaptive capacity (vulnerability analysis)

# Climate Change – Social Vulnerability Project

## Approach

- ◆ Interviews, working with selected communities
- ◆ Development of scenarios to assist in visualizing possible outcomes and response strategies
- ◆ Inclusion of impact of change on the flow of environmental goods and services
- ◆ Link with similar Scandinavian communities for comparative purposes

## Status

- ◆ framing ideas; working towards implementing

# CircumBoreal Program – Summary

- ◆ Interesting concept – provincial & international relevance
- ◆ Opportunity for FRI to lead in specific areas
- ◆ Satisfies one of Institute's goals of extending its influence beyond its boundaries
- ◆ Continues to be based on the premise of scientific excellence through partnerships, rigorous evaluation and analysis
- ◆ Intent on providing solutions, informing decisions and supporting policy development

**Follow progress of projects through  
FRI Enotes**

