



Title	General Trends in Finnish Forest Biodiversity
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A photograph of a dense forest with tall, straight trees and a mossy forest floor. The trees are mostly deciduous with bare branches, suggesting a late autumn or winter setting. The ground is covered in a thick layer of green moss and fallen leaves. Sunlight filters through the canopy, creating dappled light on the forest floor.

# GENERAL TRENDS IN FINNISH FOREST BIODIVERSITY

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# THE BIG QUESTION: HOW IS NATURE DOING?

General interest – overview

Moral obligation to know our impact

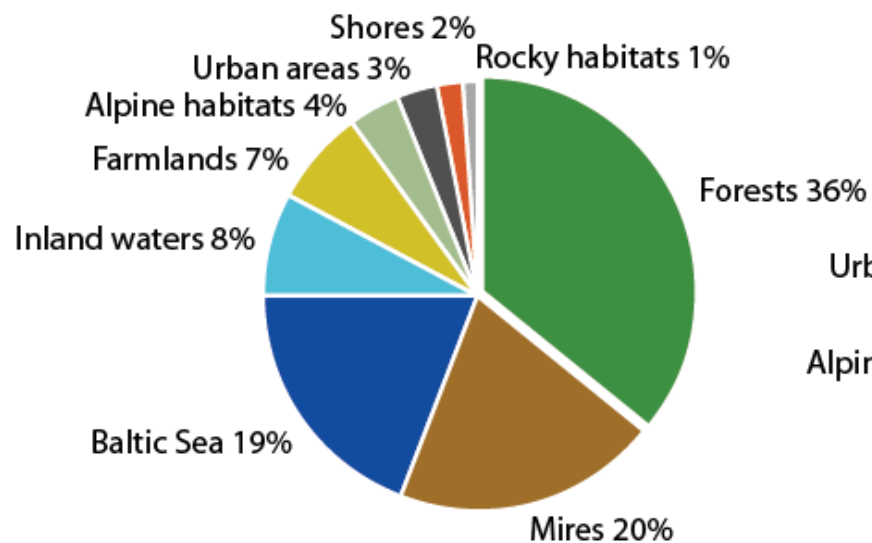
Global, EU and national level political goals

Practical data needs

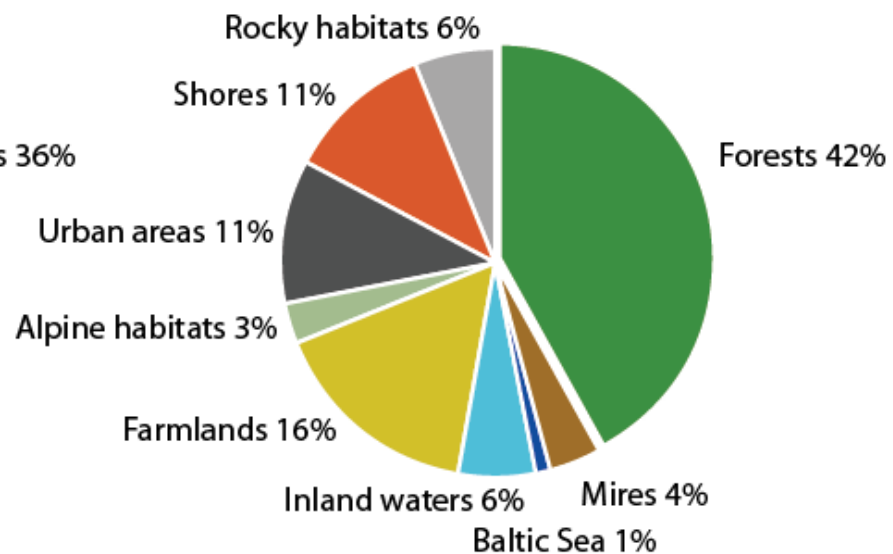
- e.g. Fourth National Report to the United Nations Convention on Biological Diversity



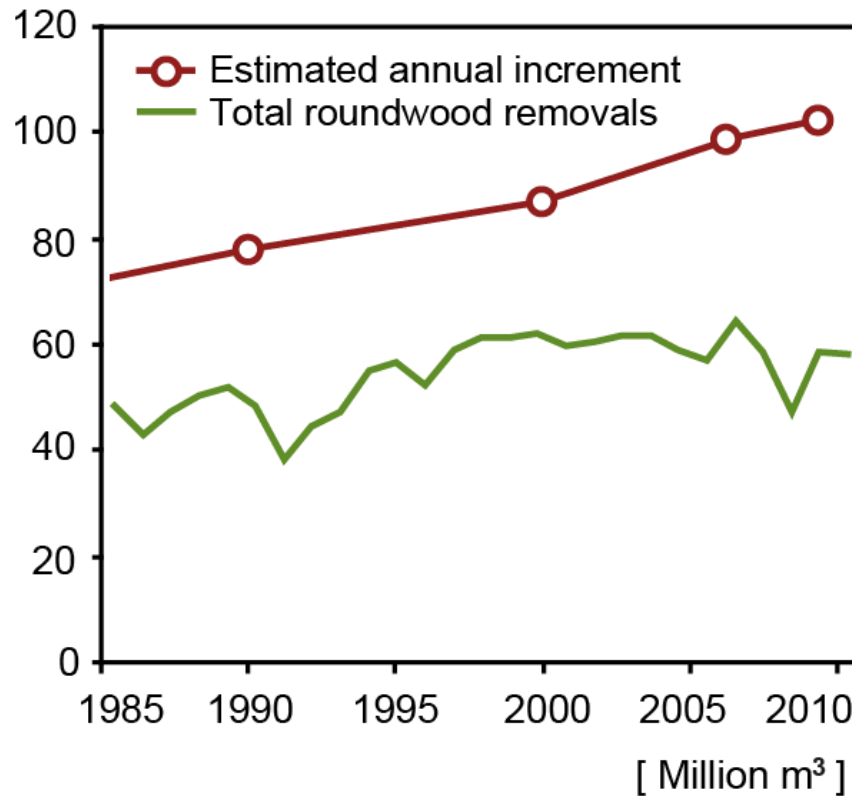
**TOTAL SURFACE AREA (420 000 KM<sup>2</sup>)**



**WELL-KNOWN SPECIES (N = 19 962)**



# BACKGROUND: FOREST USE

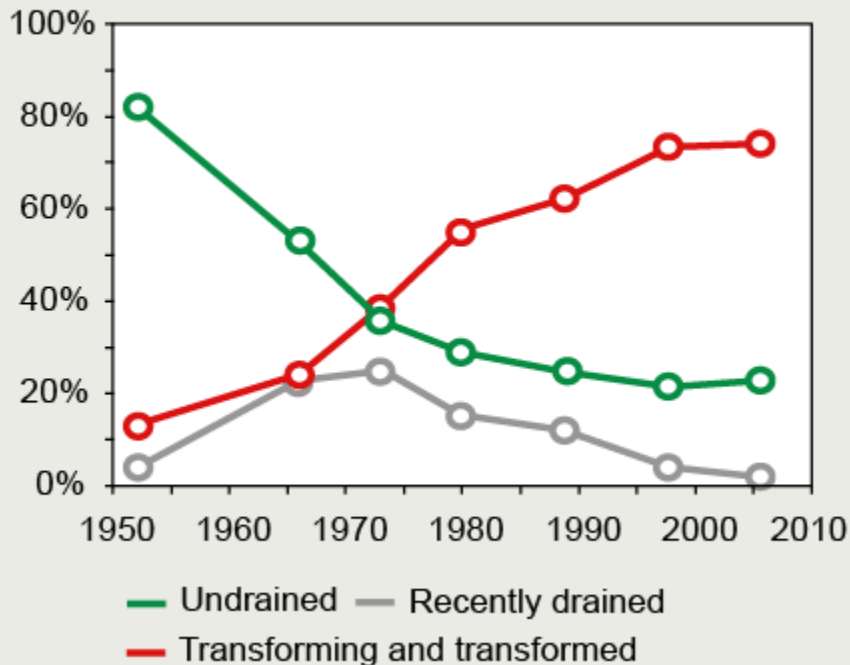


CUTTINGS CLEARLY LESS THAN GROWING STOCK INCREMENT

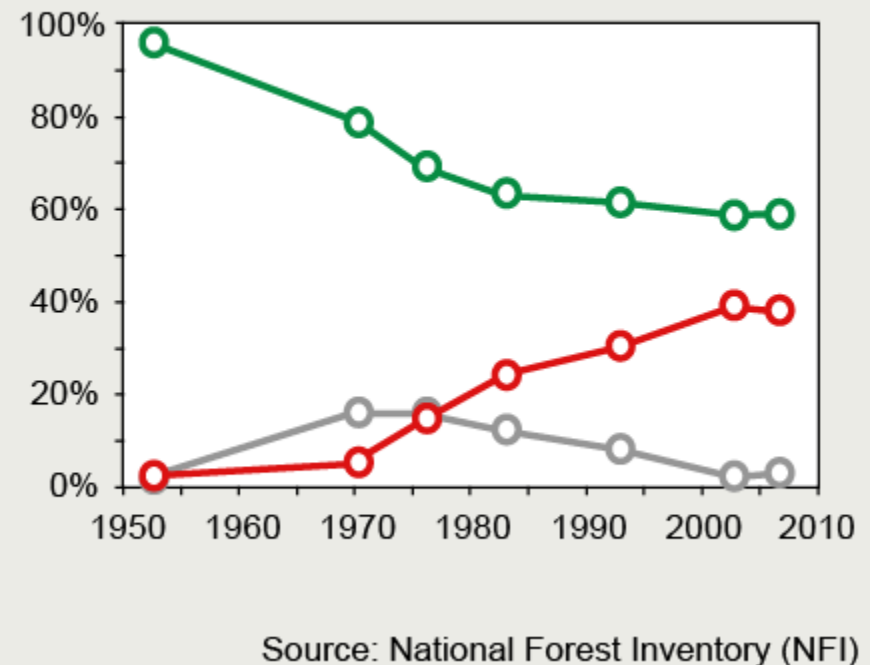
>> FINNISH FORESTRY IS SUSTAINABLE(?)

# OBJECTION NO. 1: MIRE DRAINAGE

**A) Southern Finland**



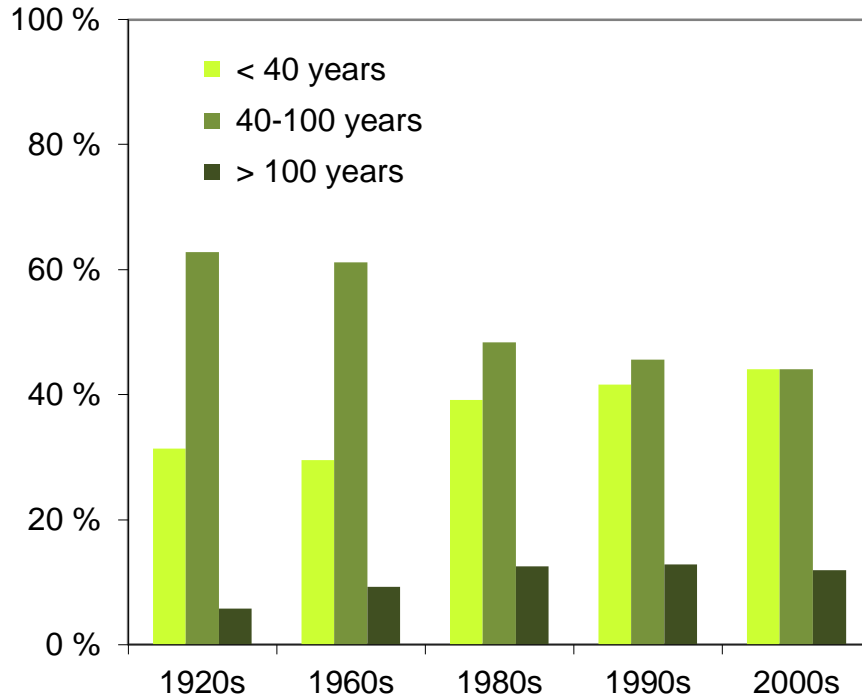
**B) Northern Finland**



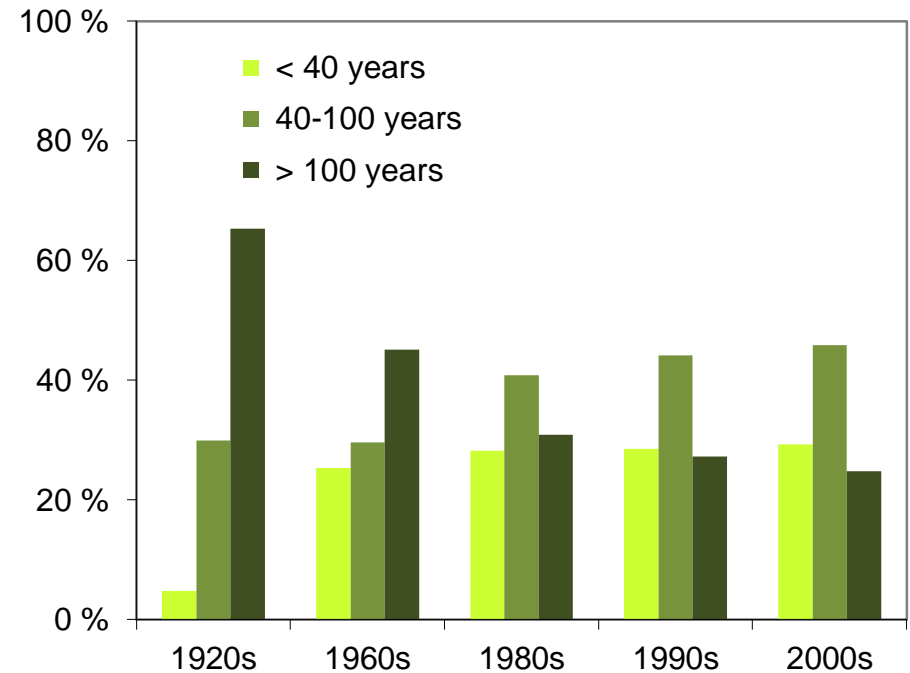
MUCH OF THE GROWTH OF GROWTH IS  
DUE TO THE DRAINING OF PEATLANDS

# OBJECTION NO. 2: AGE STRUCTURE

A) Southern Finland

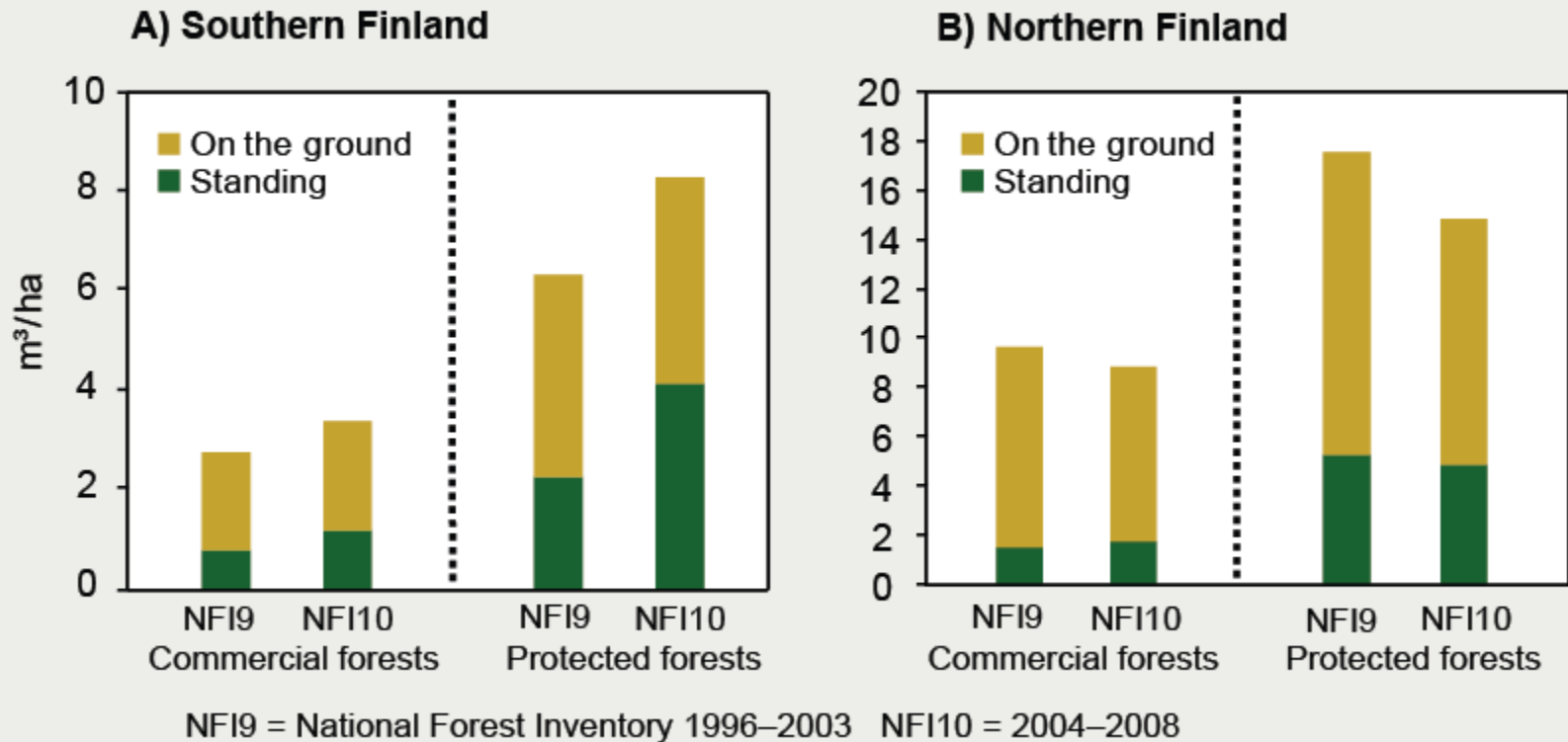


B) Northern Finland



YOUNG FORESTS GROW FAST

# GREATEST SINGLE STRUCTURAL CHANGE: DEAD WOOD



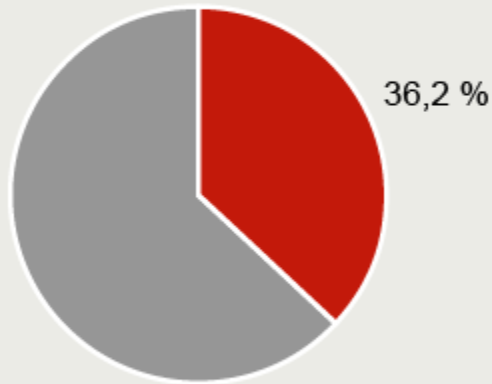
Source: Finnish Forest Research Institute

Minimum level required by many endangered species  $\approx 30 \text{ m}^3/\text{ha}$   
4 000—5 000 species depend on dead wood



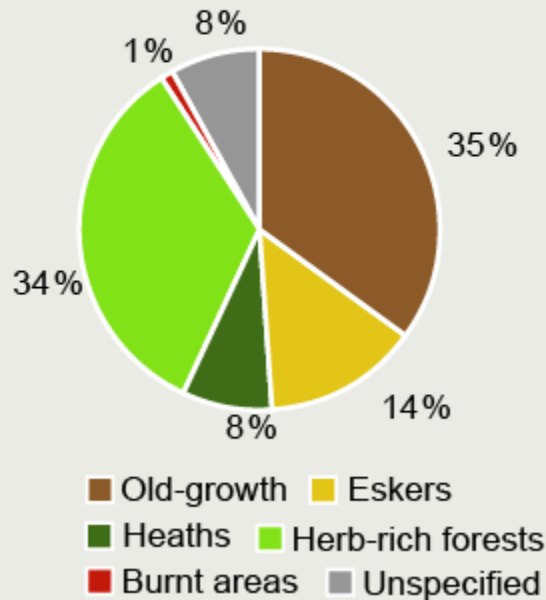
# CONSEQUENCES: THREATENED SPECIES

**A) Share of forest species of all threatened species in year 2010**

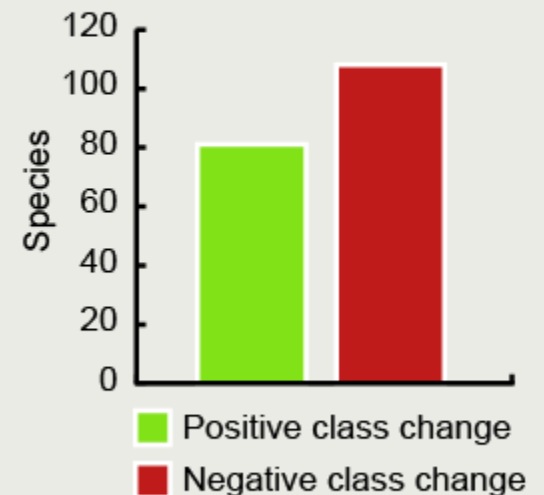


Source: Finnish Environment Institute

**B) Threatened forest species by primary habitat in year 2010**



**C) Trends in threatened forest species 2000–2010**



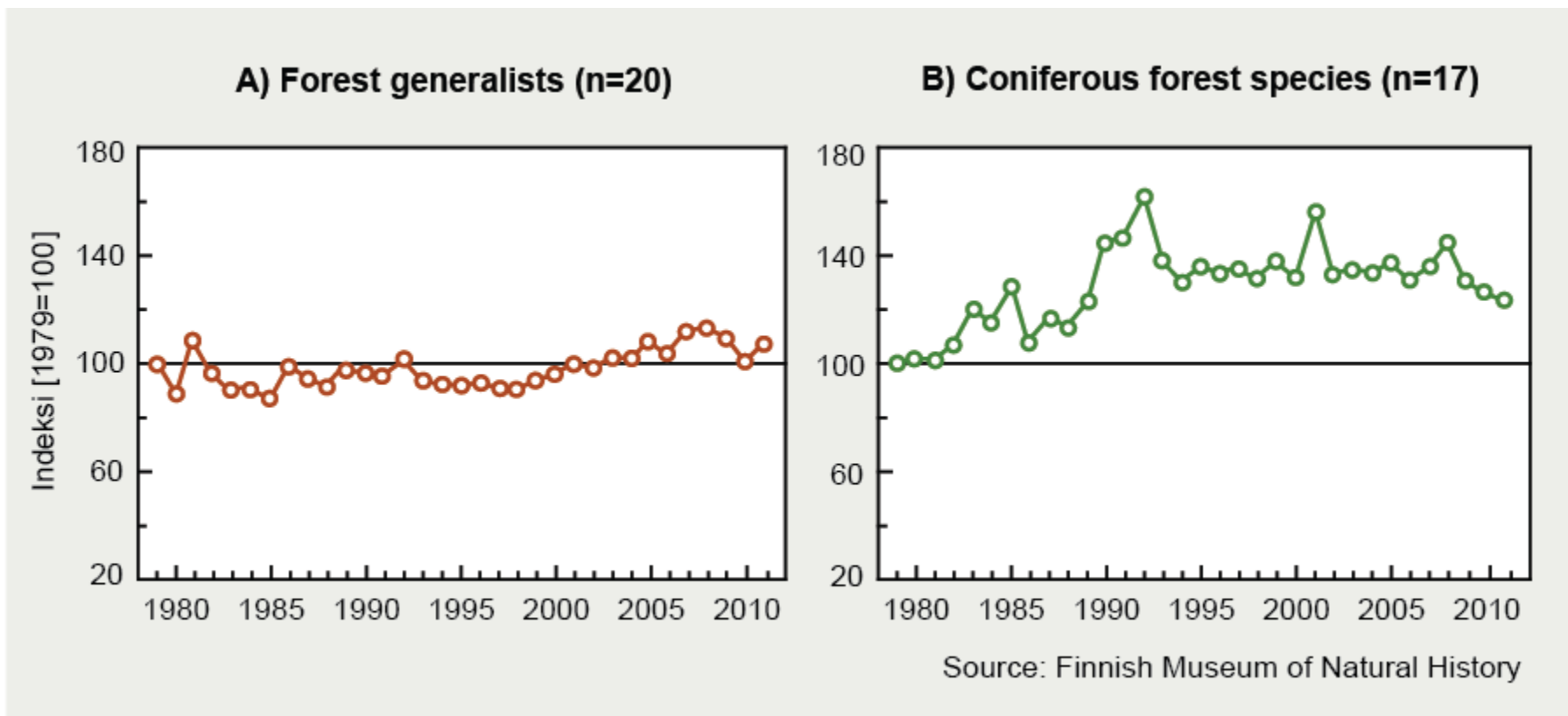


*"The development of 81 species living primarily in forests has been positive. Half of these are beetles. Many of the beetle species have benefited from retention trees left standing in clear-cut areas, especially aspens."*





# BREEDING BIRDS



In general:

- birds seem to have adapted to changes in forest structure
- residents and short-distance migrants are faring better than long-distance migrants

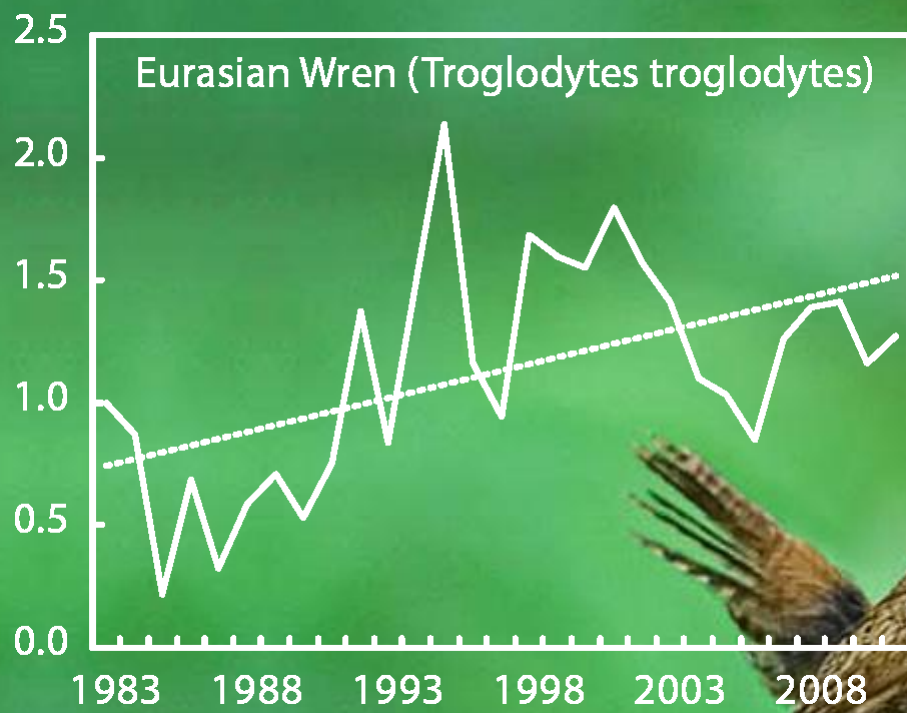
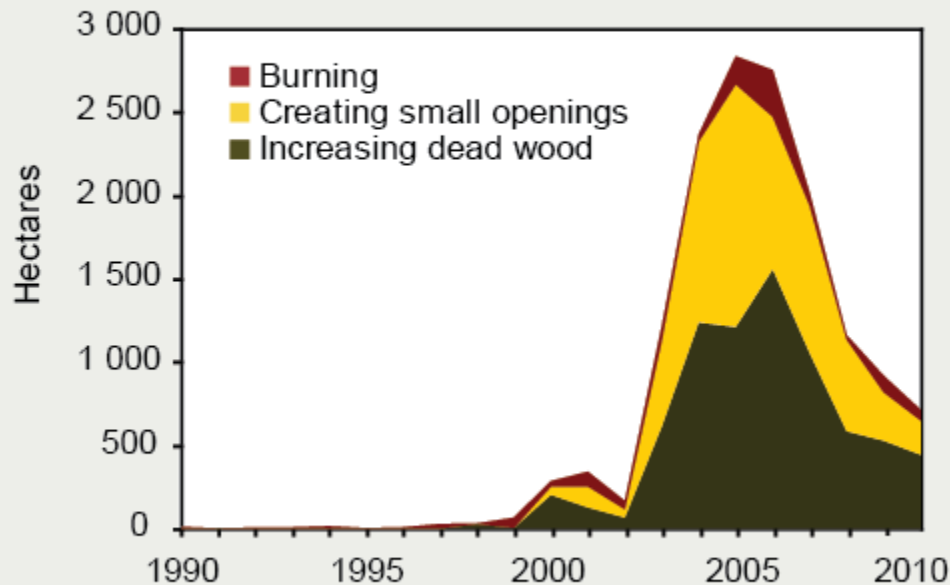


Photo: Markus Varesvuo

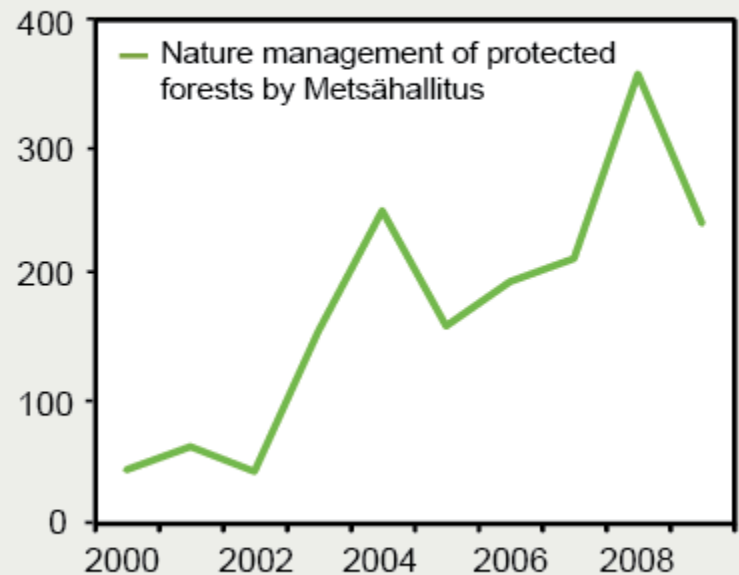


# RESTORATION

**A) Forest restoration in protected areas**



**B) Nature management in protected areas**

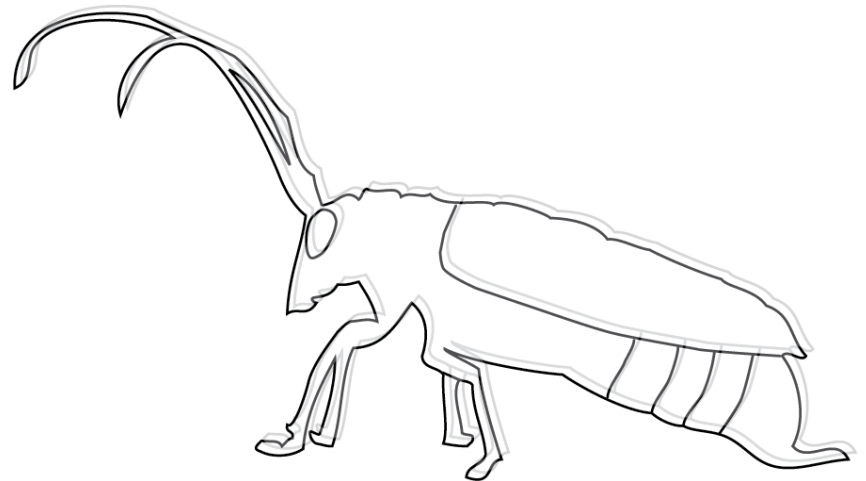


Source: Metsähallitus Natural Heritage Services

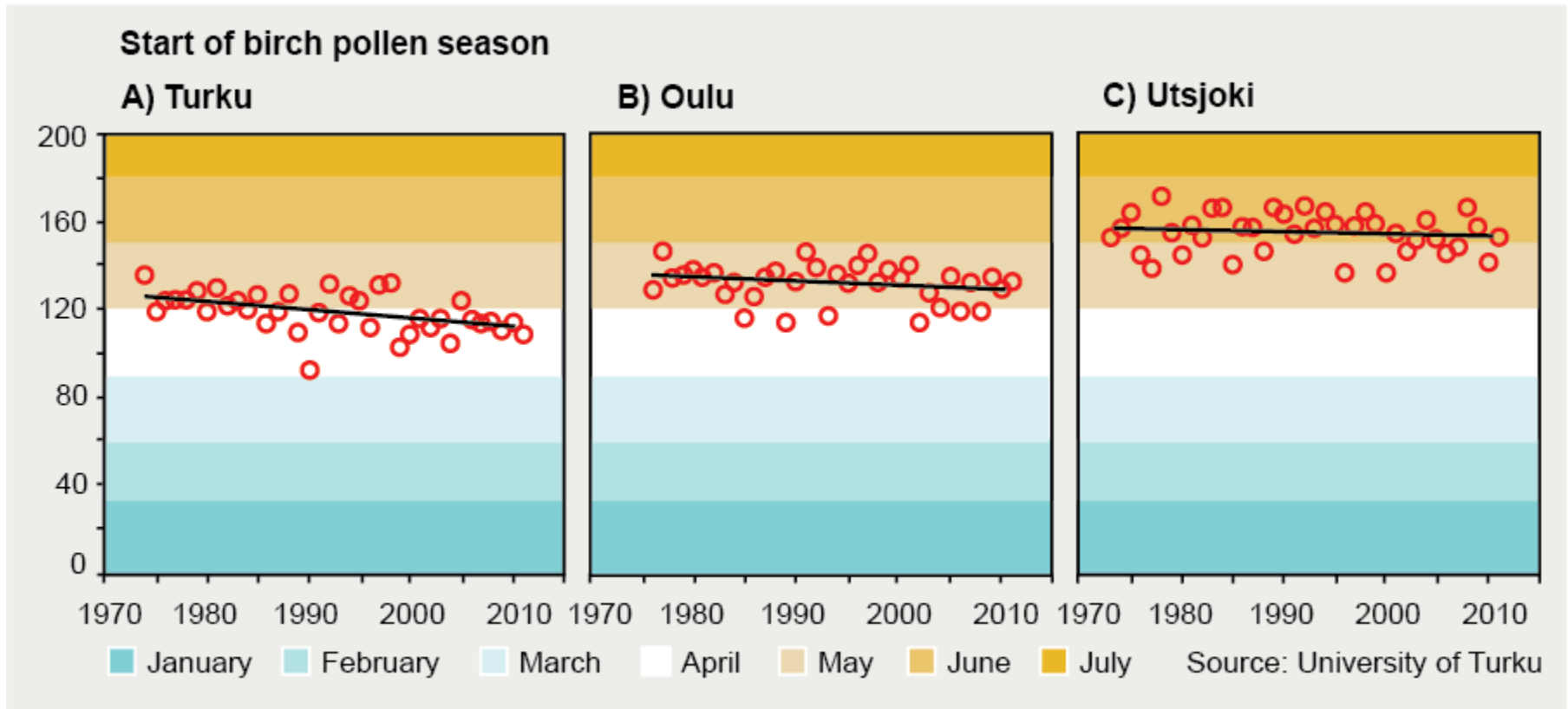
Important work, but scale of annual effort is small

# QUESTION MARKS: NO MONITORING

Beetles  
Saproxylic fungi  
Lichens  
Vascular plants



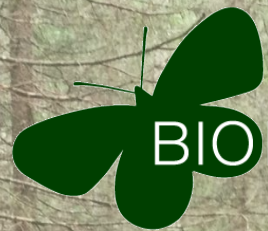
# QUESTION MARKS: CLIMATE CHANGE



Approximately two weeks earlier in the south,  
no change in the north



For more information,  
please visit



BIODIVERSITY.FI

THANK YOU – ありがとうございます。