

# Impacts of current and future climate change.

## Ch 5.2.2. Impacts on the environment: Terrestrial ecosystems

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One chapter still missing, much editing needed.

Checking the overlaps.

Recognizing non-Fennoscandian literature

Many thanks for the internal review. It was very useful.

# Content

## Background

Geographical conditions in the drainage area

Coastal zone and shorelines of the Baltic Sea

Ecosystems and climate change:

- Archipelago Sea as a particularly sensitive coast ecosystem
- Agricultural ecosystems
- Forest ecosystems and forestry
- Plant communities
- Scandinavian mountain ecosystems

# Unique coastal ecosystems

Coastal Geography Group (Åbo Akademi, Univ. of Turku)

General geographical background:

- Geographical conditions in the drainage area
- Coastal zone and shorelines of the Baltic Sea
- Archipelago Sea as a particularly sensitive coast type

# Impacts of current and future climate change on terrestrial ecosystems on Baltic Sea basin

- Climate change effects on Baltic bird communities:
- Coastal birds and seabirds as a part of Baltic ecosystems

What is new?

- Interaction between marine and terrestrial ecosystems
- The role of invasive species
- How climate change affects on native and invasive species.

# Agricultural ecosystems on Baltic Sea basin

- Climate change and plant production and protection
- What is new?
  - Climate change driven invasions of alien species to agricultural ecosystems.
  - Impact of alien species on agricultural ecosystems.

# Forest ecosystems in the Baltic Sea Basin

- Forest resources
- Sensitivity of the main tree species to climate change
- Impact of climate change on forest growth and stocking

# Forest ecosystems

- What is new?
  - updated scenarios of climate change on forest ecosystems.
  - climatic change adaptive forest management.

Overlap between chapter socio-economic impacts:  
agriculture and forestry.

- Climate related changes in plant communities
- What is new?
  - Comparison between natural and managed forests.

# Conclusions and summary

- Much literature accumulated since BACCI

# What is missing?

- Peatland ecosystems?
- Unique land uplift ecosystems, especially on coastal areas of the Gulf of Bothnia
- Eastern Karelian large lake ecosystems?

