PPS Arctic Norway activities, progress and results

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PPS Arctic Norway 2009
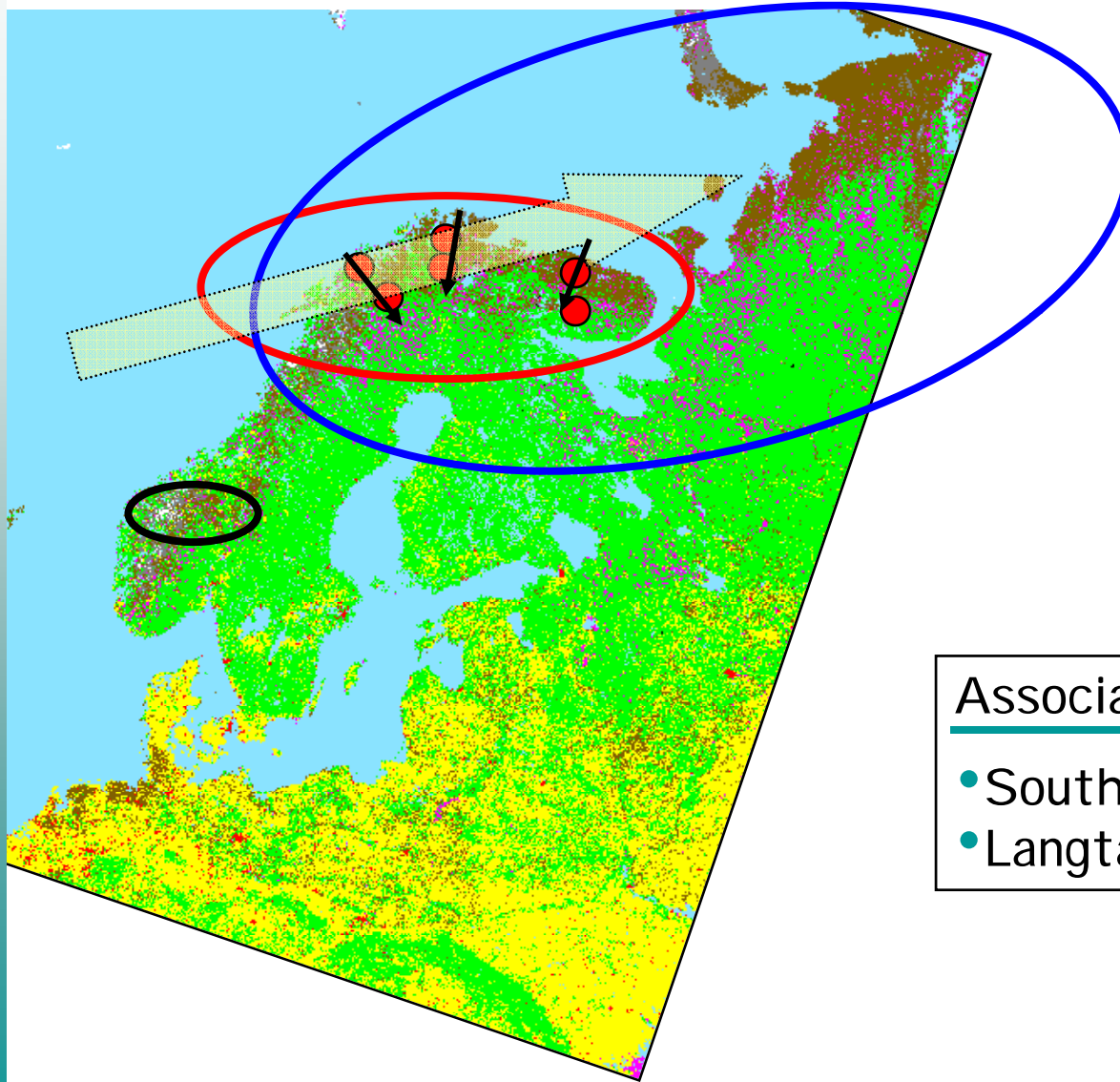
- Themes represented
  - Natural science: Remote sensing & Forest-tundra ecology
- Geographical region and sites
- Status of included projects
  - funding situation
  - students
  - some preliminary results
- Thoughts for the future

Geographical region and sites

Associated projects

- Southern Norway
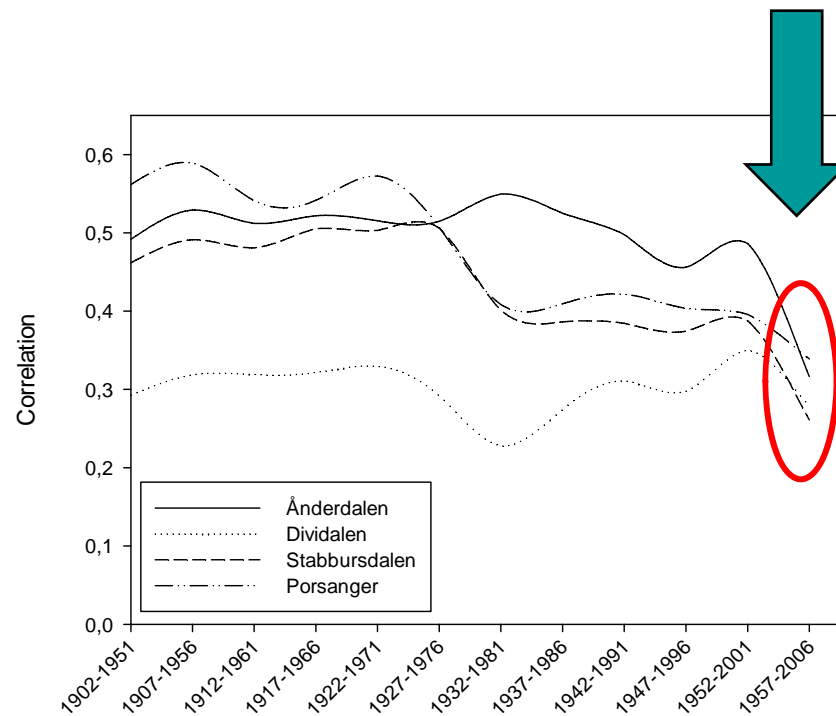- Langtang NP, Nepal

Status of included projects

- 2 MSc: (Theses May 2009)
  - Scots pine radial growth responses to climate variability and change since the Little Ice Age (2 articles)
  - Tree recruitment at and beyond the treeline - potential for tree cover change (2 articles)

- 1 PhD: (Thesis Feb 2011)
  - Structure, dynamics, and regeneration capacity of the forest-tundra transition zone (5 articles)

- Postdoc:
  - Analyzing changes of the northern forest line: multi-temporal and multi-resolution approach and testing of methods

- Additional: (2 submitted, 3 in prep)
  - Remote sensing, Role of disturbance, Phenology
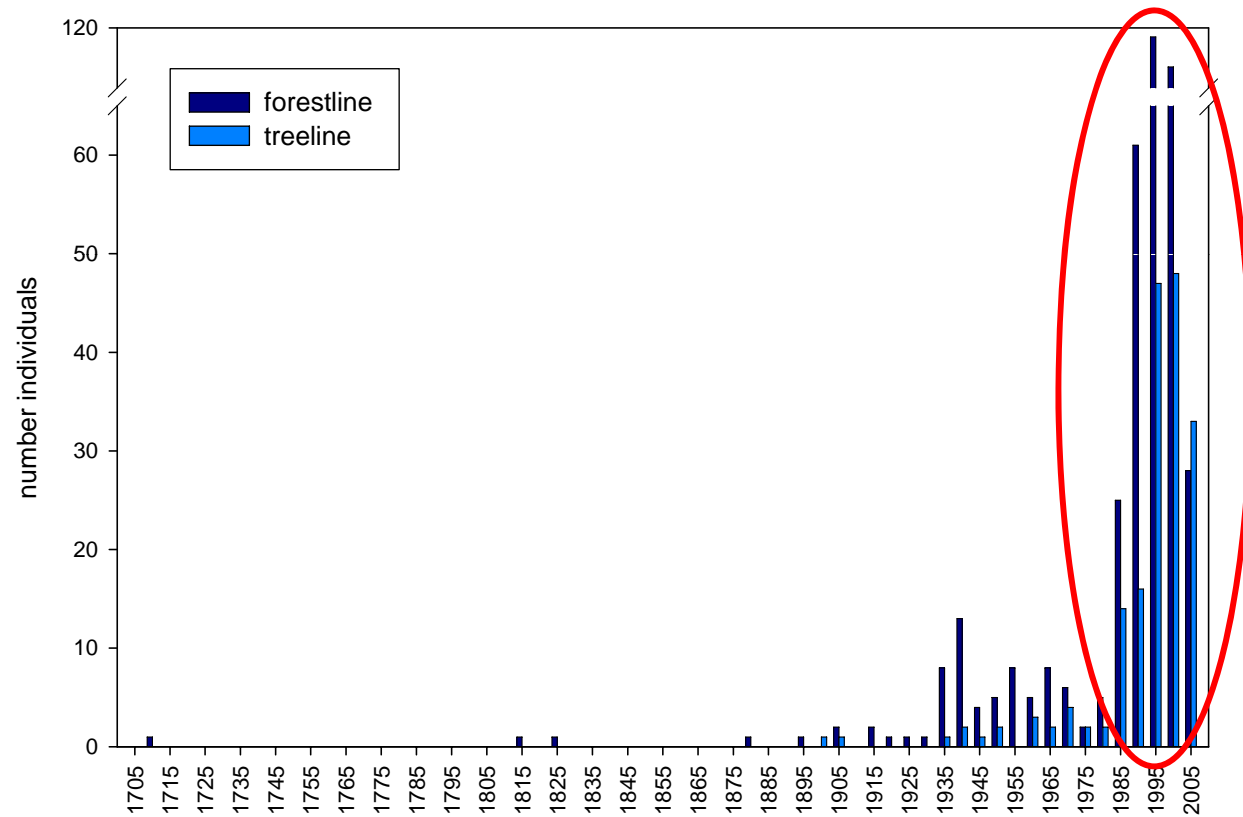
Preliminary results

- The influence of climate is seen strongly at all sites – but response due to differences in regional land use pattern needs further analyses

- Responses differ between different climate regions: coastal vs. continental; west vs. east; and according to the dominant tree species

- Examples of advancing, retreating and stationary treeline zones across studied sites
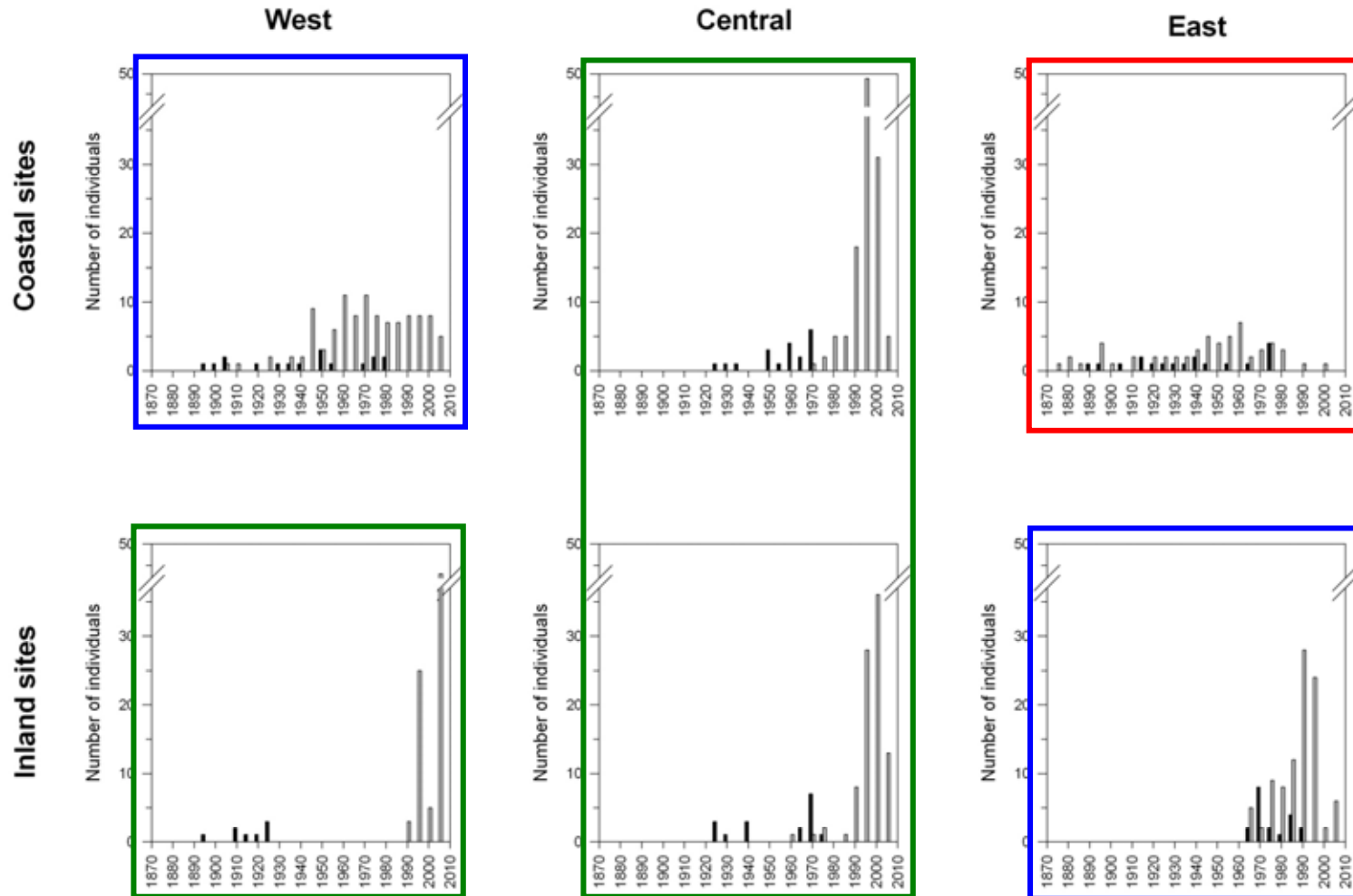
Preliminary results

Change in diameter growth correlation to summer temperatures (June-August). MSc project. Dovärn *et al.* in prep

Preliminary results

Age structure of Scots Pine at forest line and treeline, Coastal North-Western Norway, n=596. Mathisen *et al.* in prep.

Preliminary results

Age structure of birch: treeline markers (black bars) and saplings beyond treeline (open bars). MSc project, Aune *et al*. in prep

Thoughts for the future

- Current funding - 2010
- New skilled young scientists
- Further development of the bilateral collaboration with Russia – focus on eastern areas
- Use IPY data for circumpolar analyses - postdoc
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