# Effects of forest management on stand structural variability and microclimate

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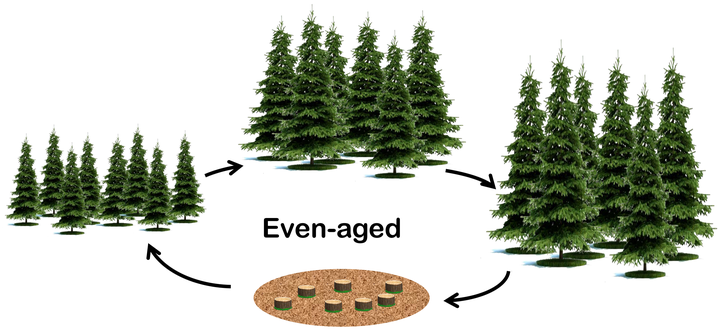
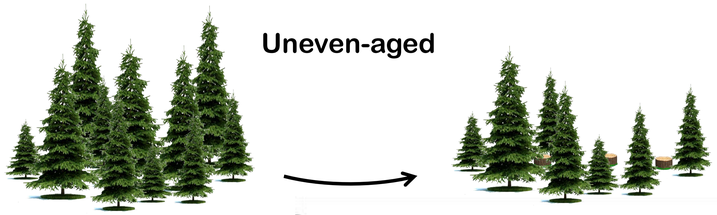
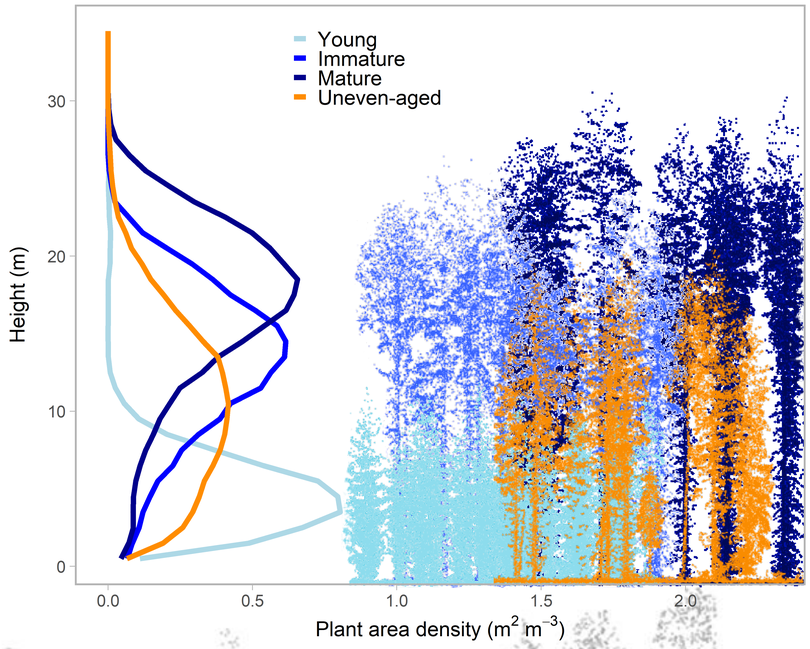
Forest management legislation in Finland changed in 2014, making continuous cover forestry (uneven-aged) an alternative to traditional rotation forestry (even-aged).

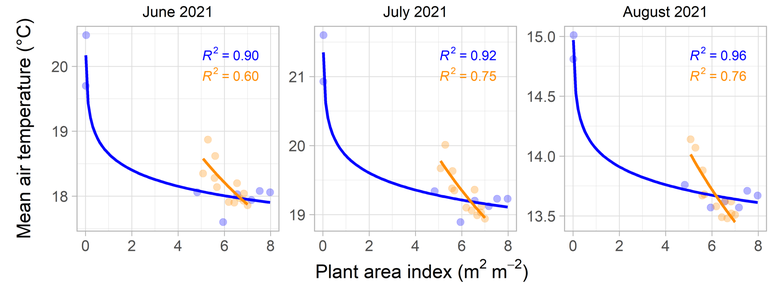


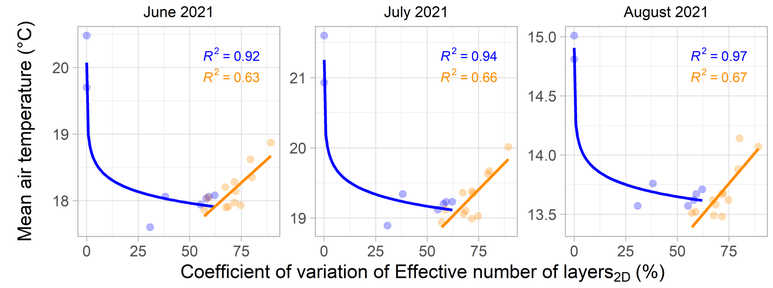

Different management types create distinct three-dimensional structures: uneven-aged forests have a more even vertical distribution of tree material, whereas structures in even-aged forests change with time.




Microclimate temperatures in even-aged stands are mainly controlled by tree material density.



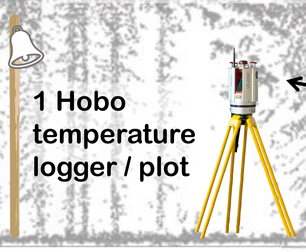

In uneven-aged stands, structural heterogeneity increases air temperatures, likely due to the presence of gaps and short trees.




We also found, for example, that spatial resolution affects how well we are able to describe different management types. **Read more about these results** in Aalto, I., Aalto, J., Hancock, S., Valkonen, S. & Maeda, E.E. 2023. Quantifying the impact of management on the three-dimensional structure of boreal forests, Forest Ecology and Management, 535, 120885.

## What we did:

20 plots in total:
- 8 even-aged
- 12 uneven-aged




Forest structure and temperature dynamics change as forests grow, are harvested and replanted. In uneven-aged forests, there is more structural and microclimate variability compared to even-aged forests, which may lead to more diverse habitats.

Abstract:

Candidate for the best poster:

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