



EIROPAS REGIONĀLĀS  
ATTĪSTĪBAS FONDS



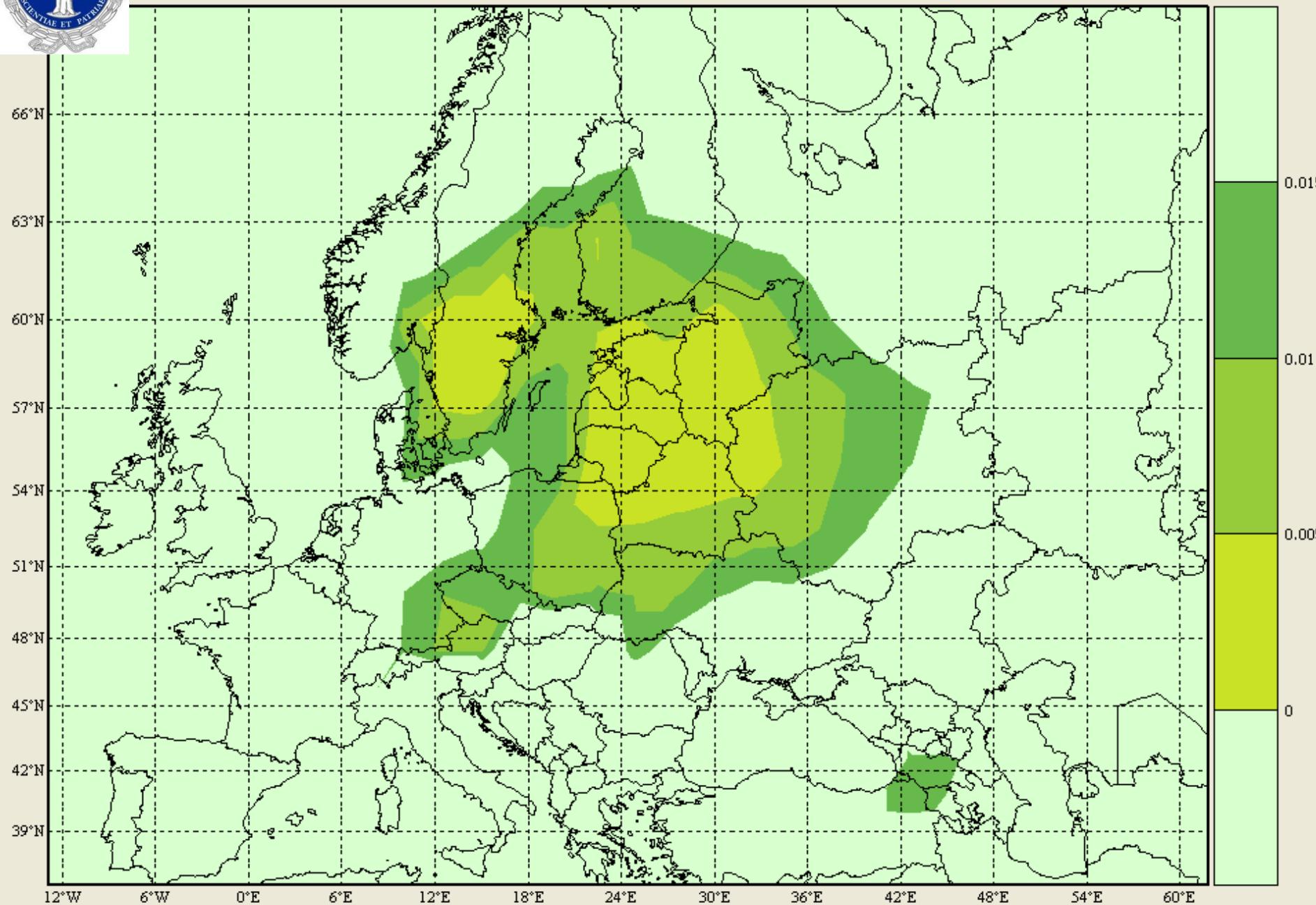
IEGULDĪJUMS TAVĀ NĀKOTNĒ

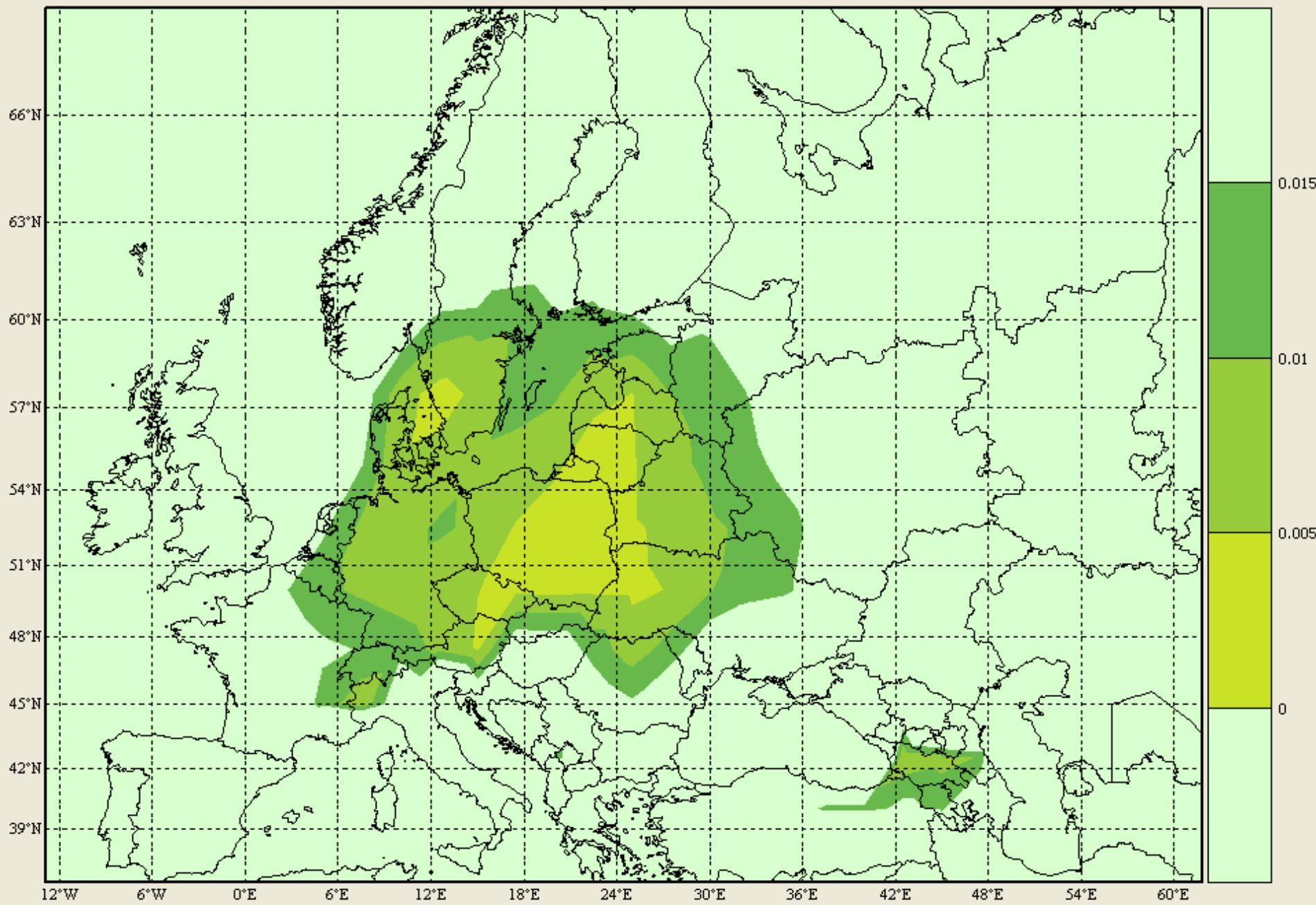


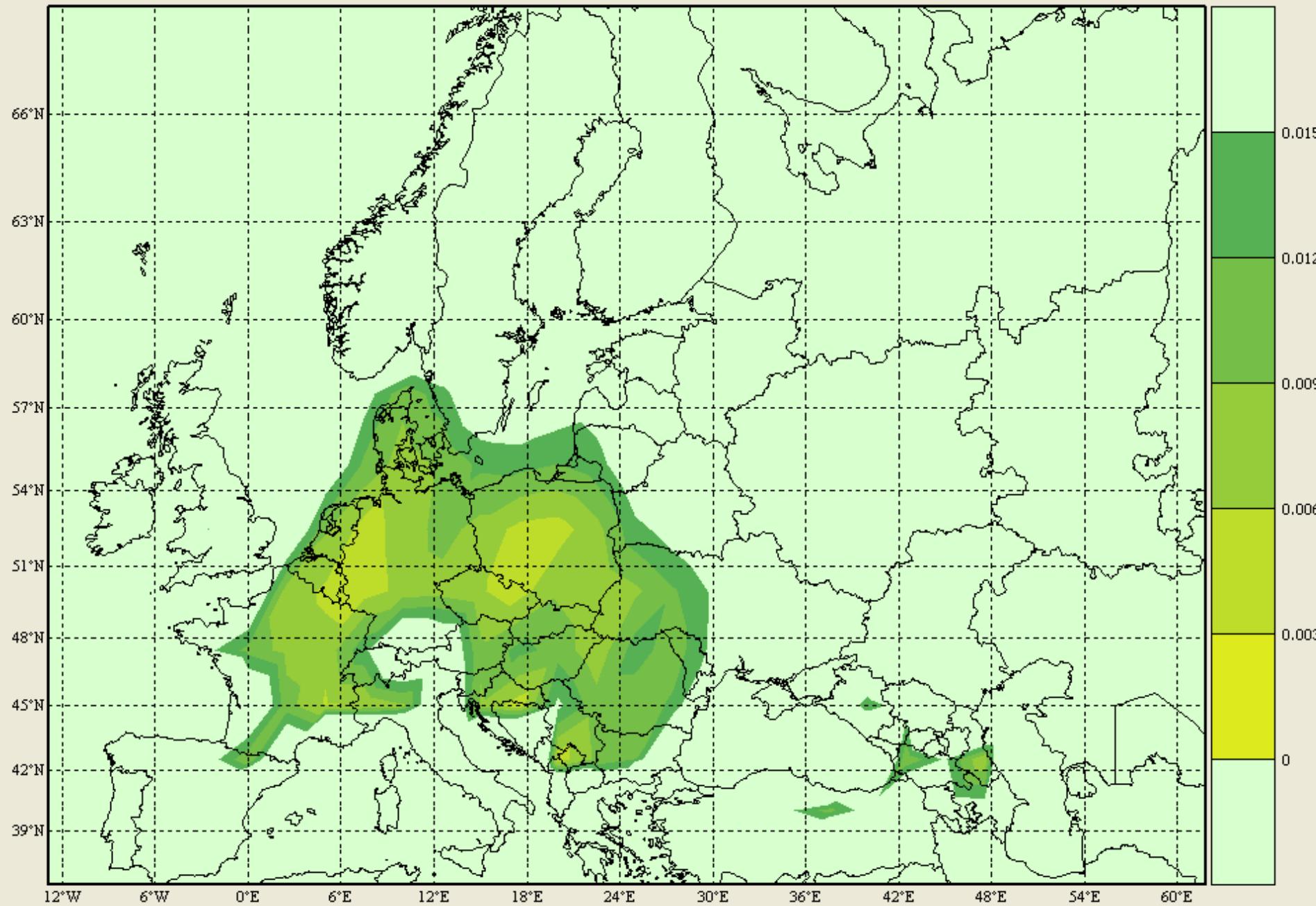
# Latvian perspective on forest adaptation to climate change

**Aris Jansons,  
Roberts Matisons, Una Neimane**

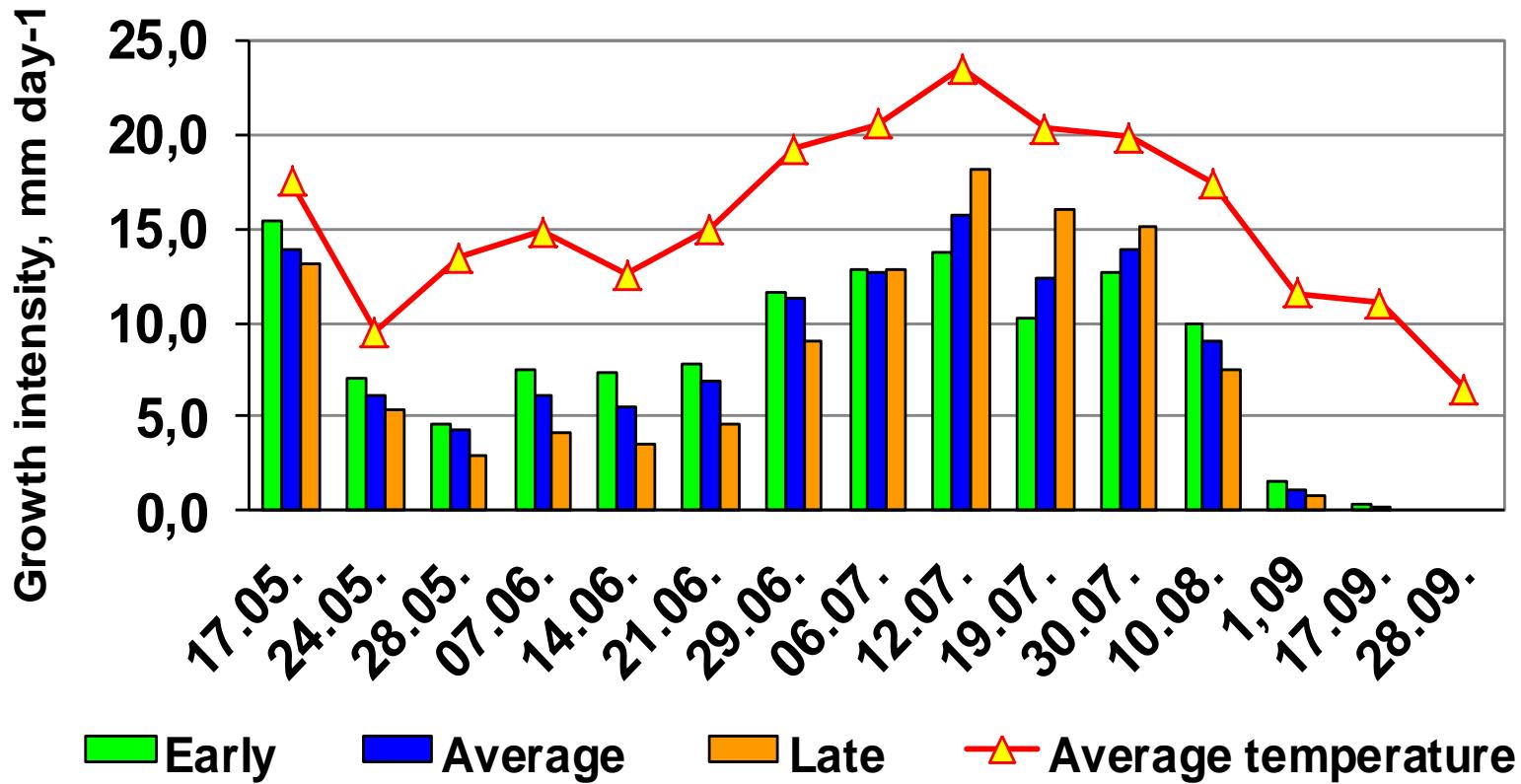
[aris.jansons@silava.lv](mailto:aris.jansons@silava.lv)





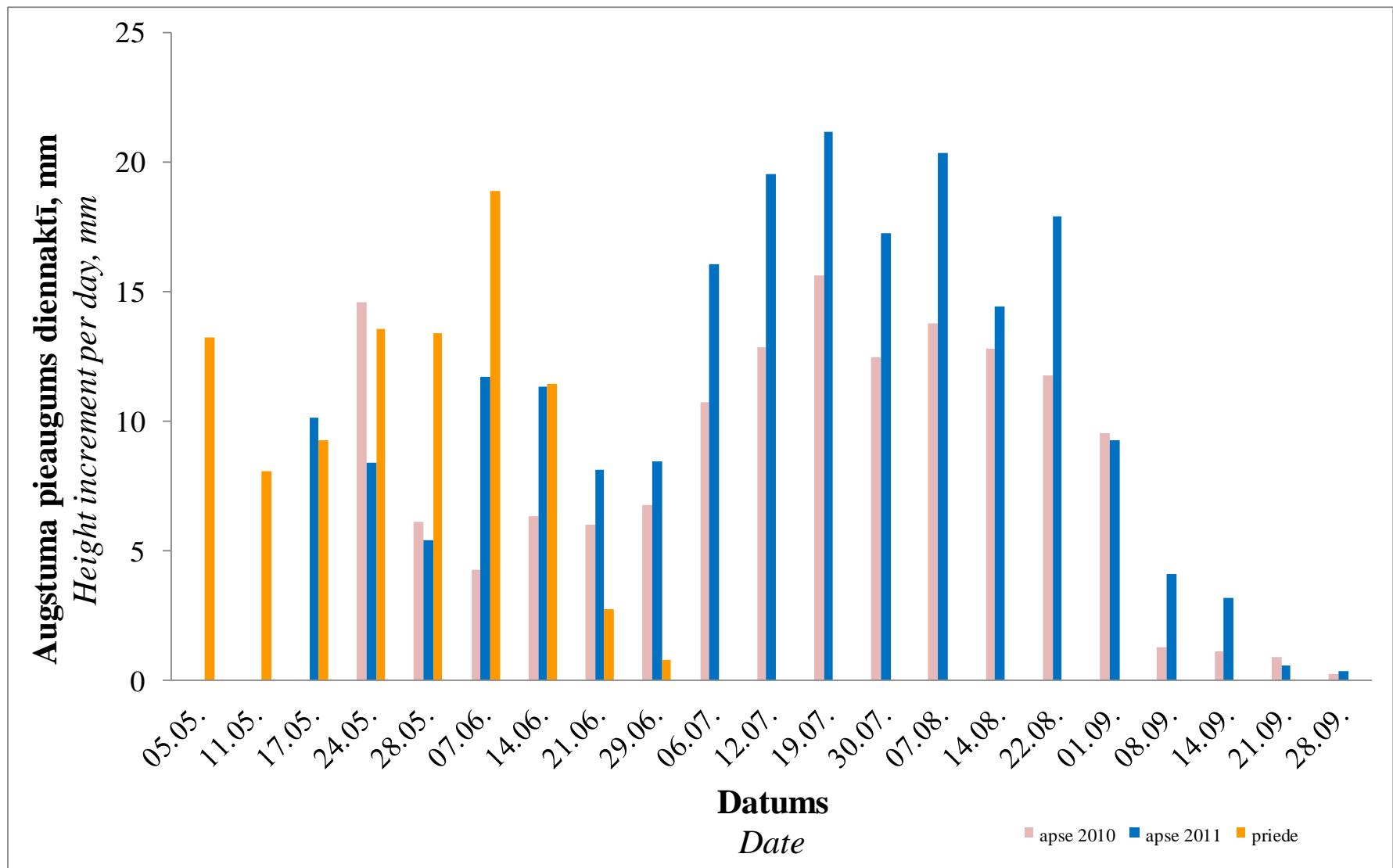


# Growth intensity



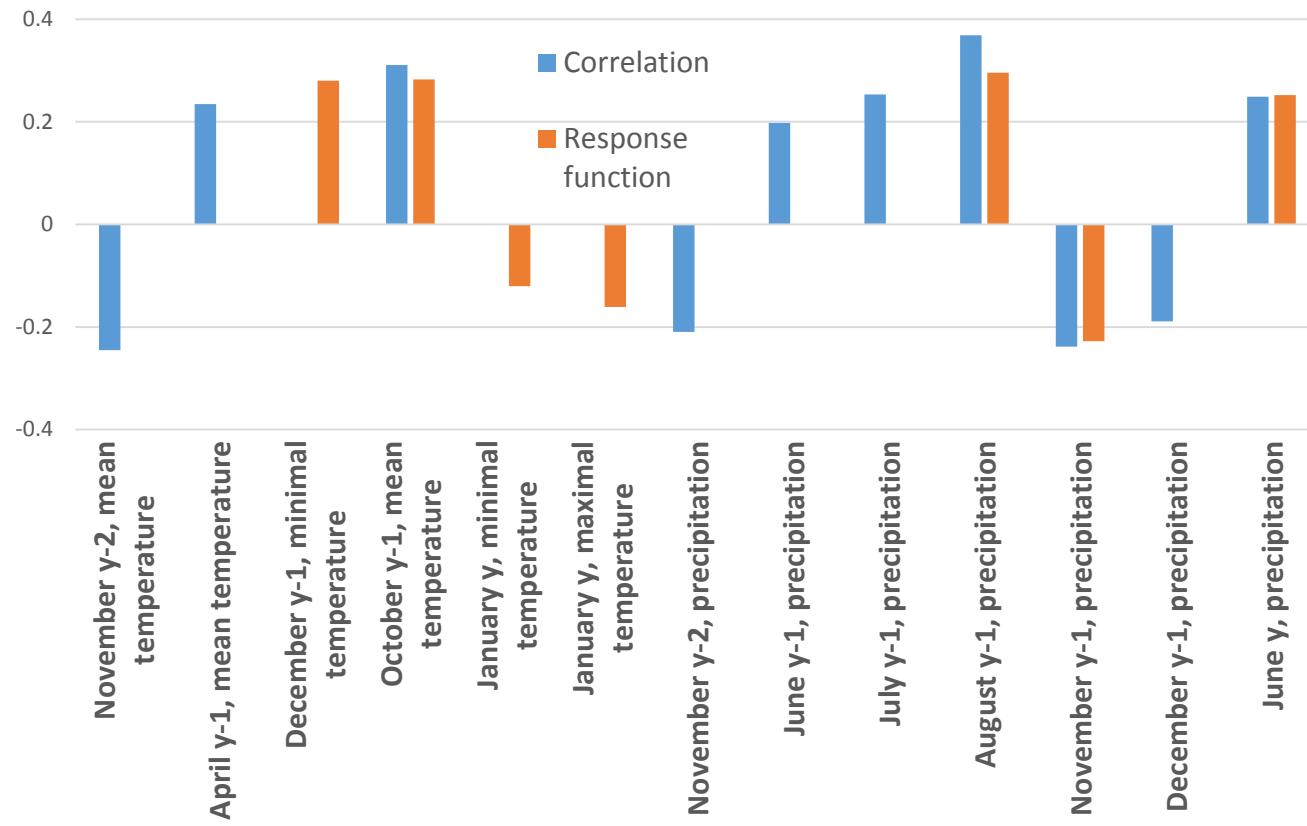
- Increased productivity
- Selection of early-flushing clones

# Growth intensity: differences between tree species

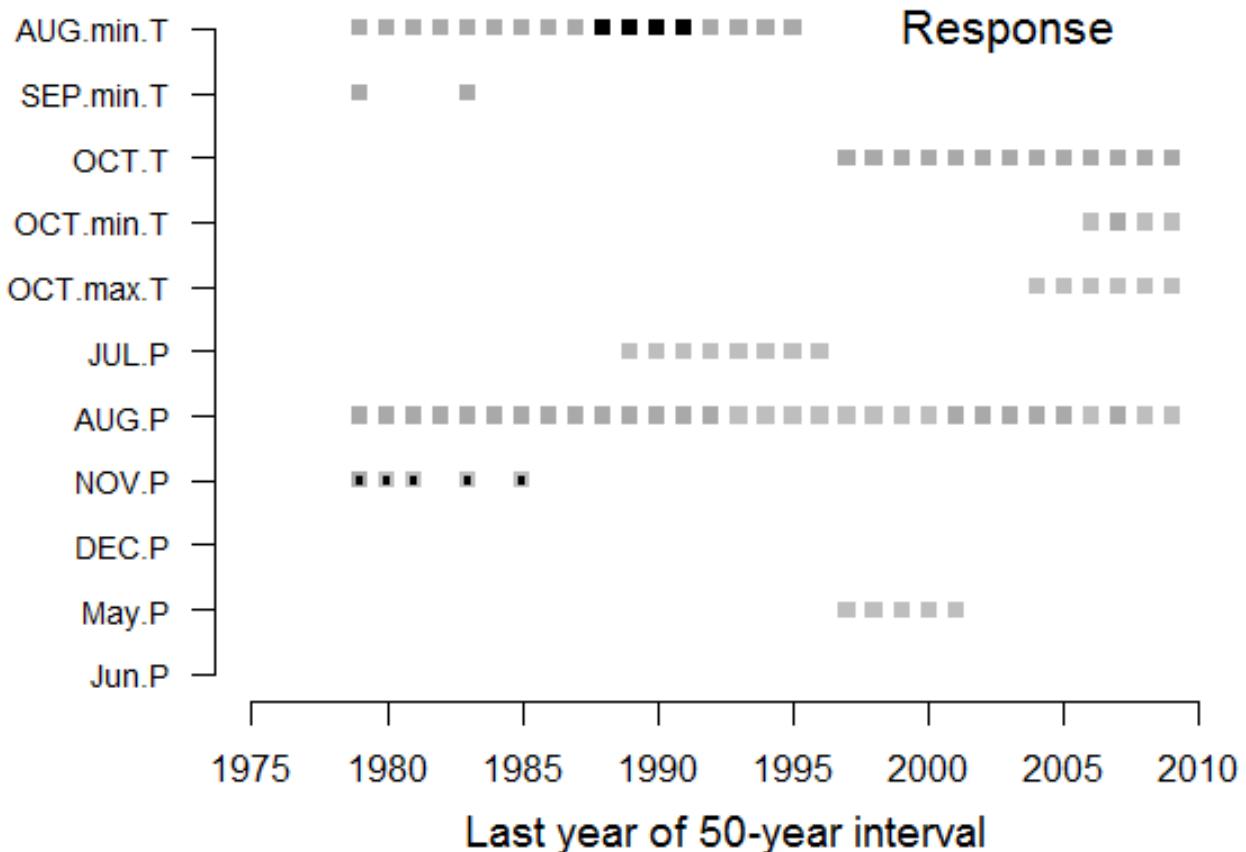




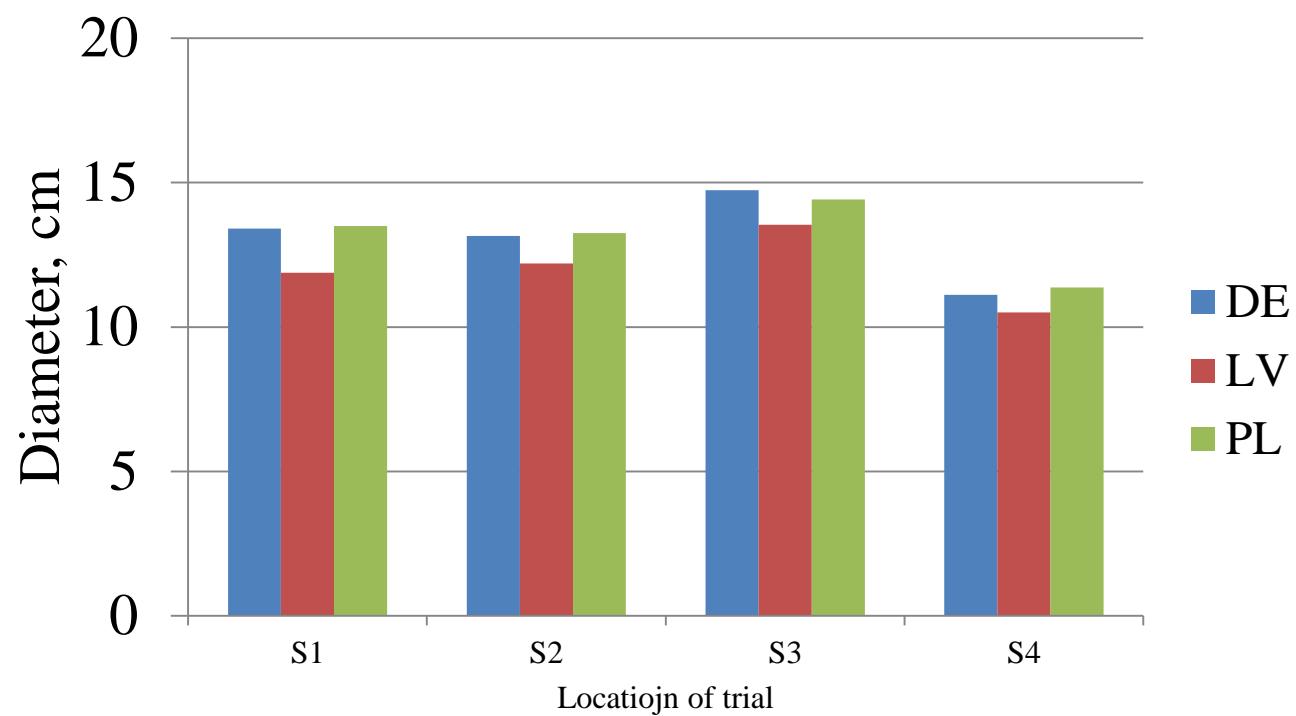
# Annual height increment



# Annual height increment: moving intervals

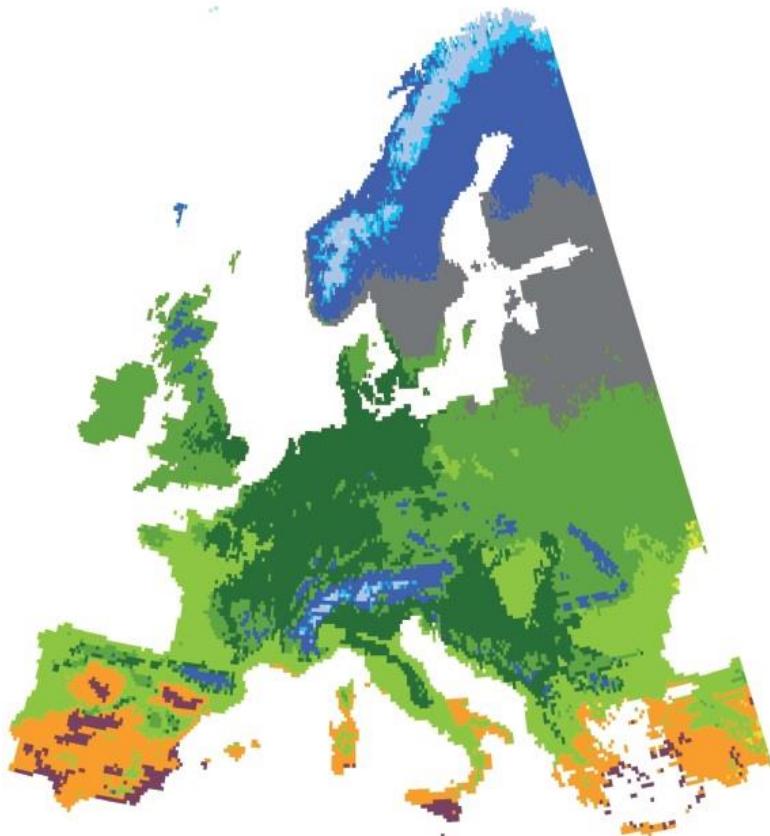


# Increment: direct comparison in provenance trials

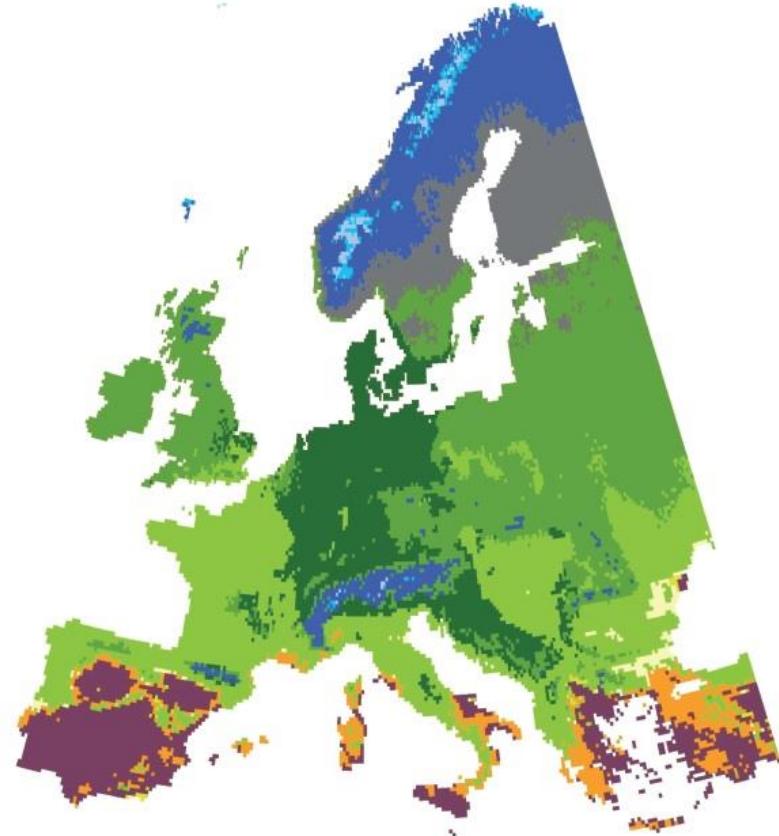


# Predicted changes of vegetation zones

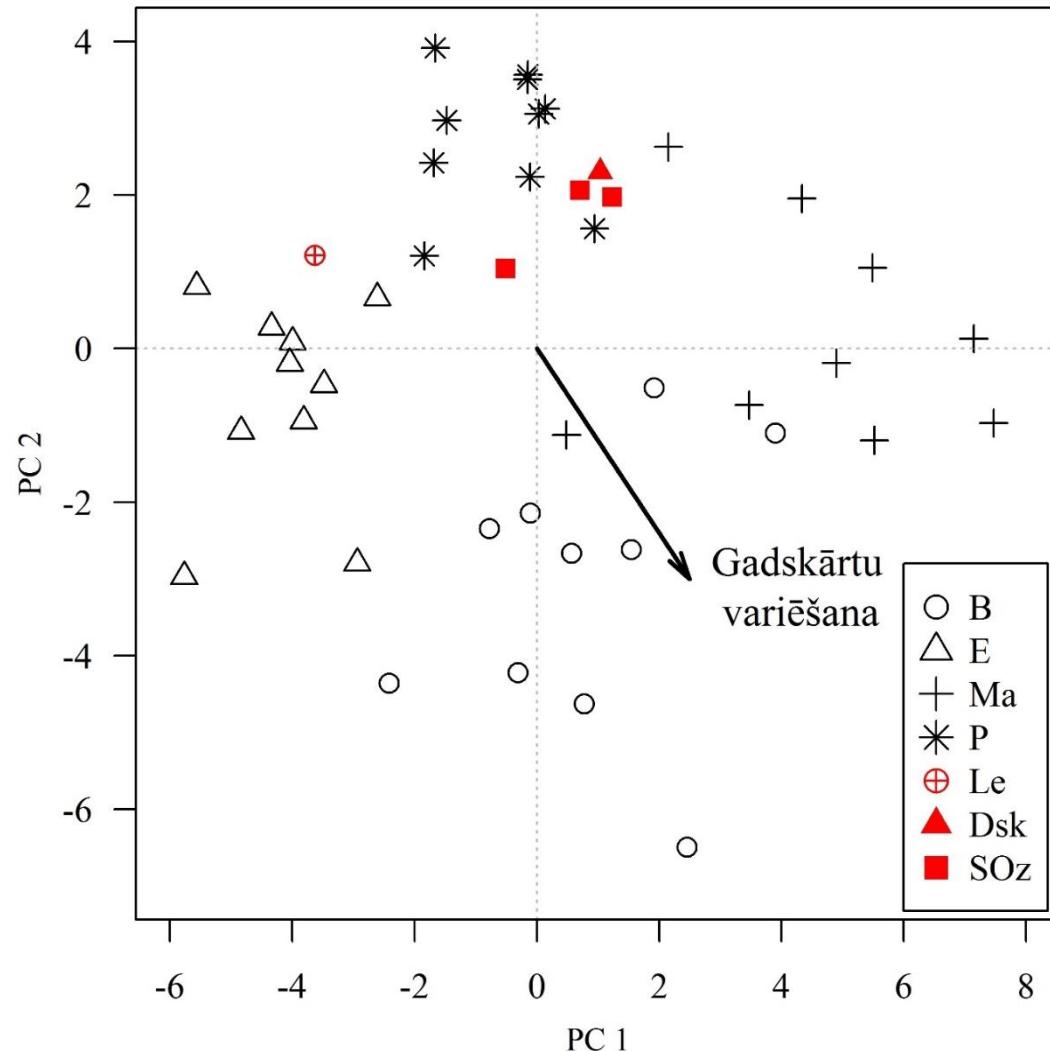
**Present**



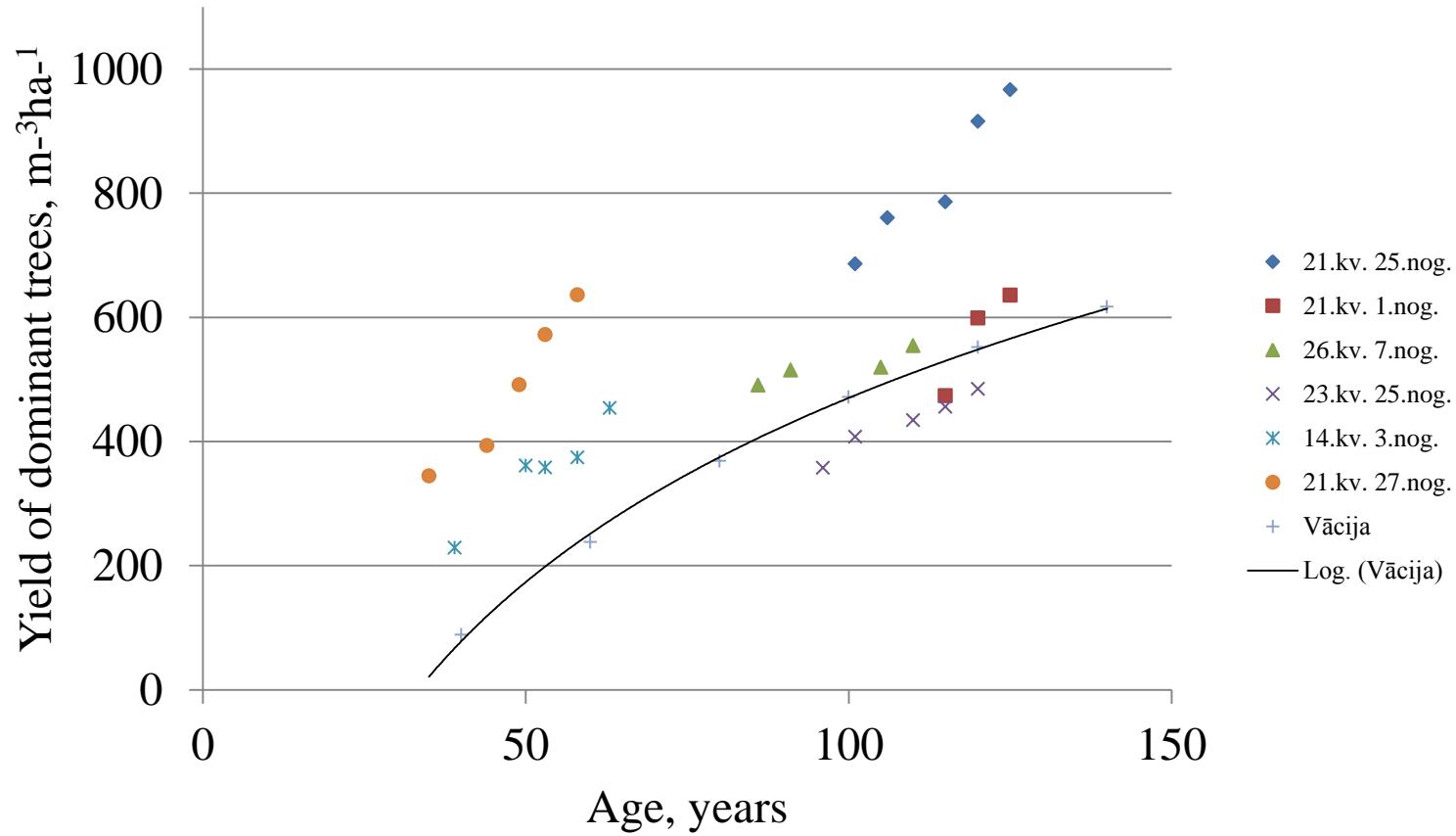
**End of the century**



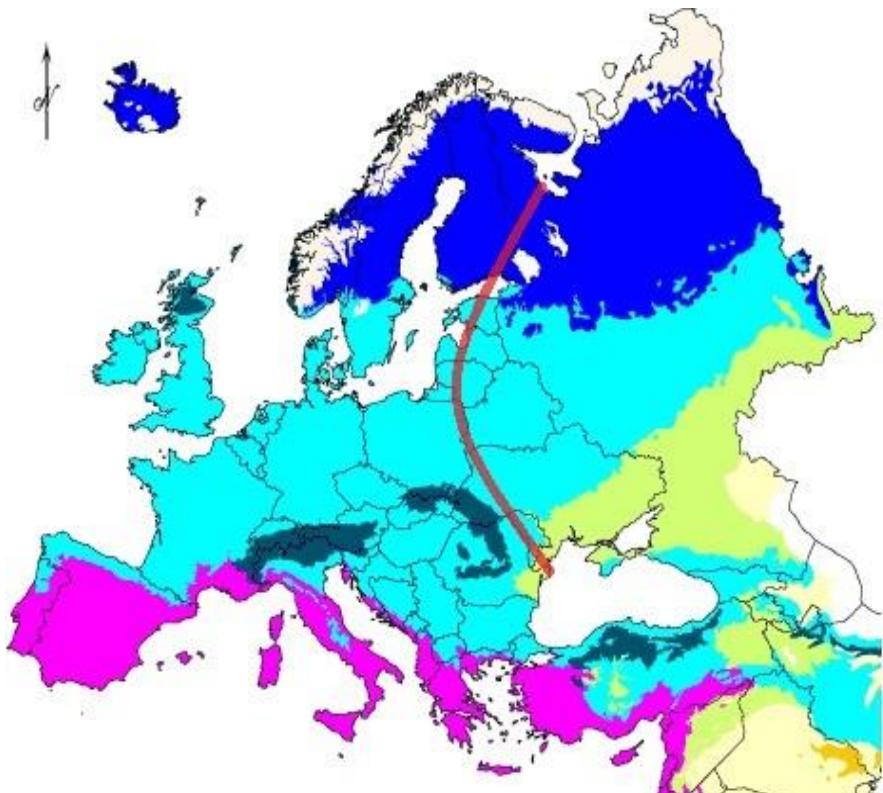
# «Introduced» tree species: PCA of annual increment variation



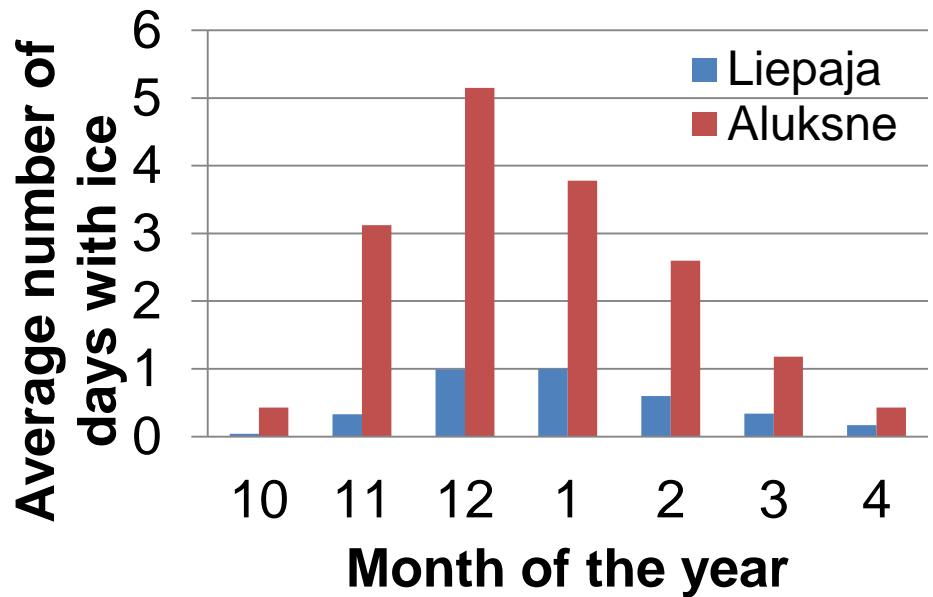
# «Introduced» tree species: growth of *Fagus sylvatica*



# Ice damages in forest



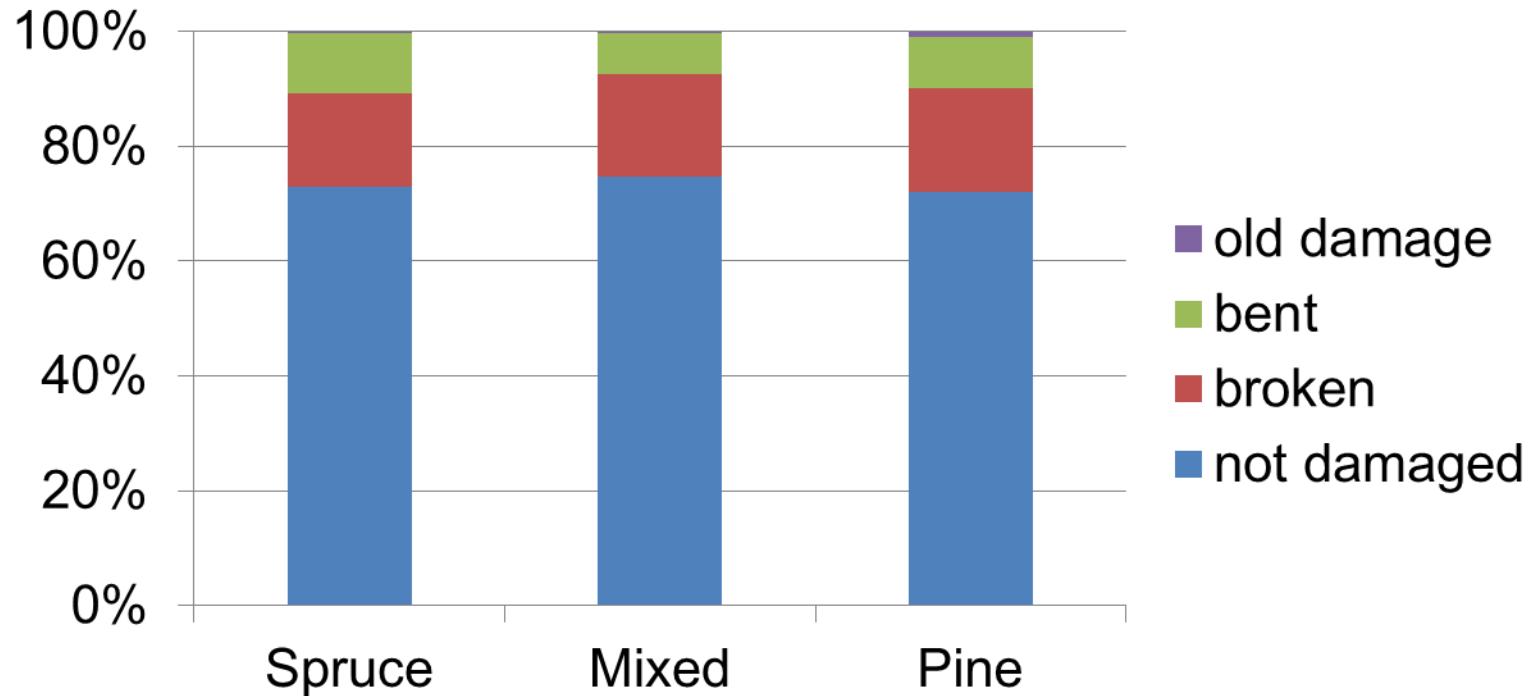
(Krauklis, 2006; <http://chalk.richmond.edu>)



LVGMC

There is no reason to believe,  
that frequency of ice events will  
decrease in future due to  
climatic changes

# Ice damages in forest

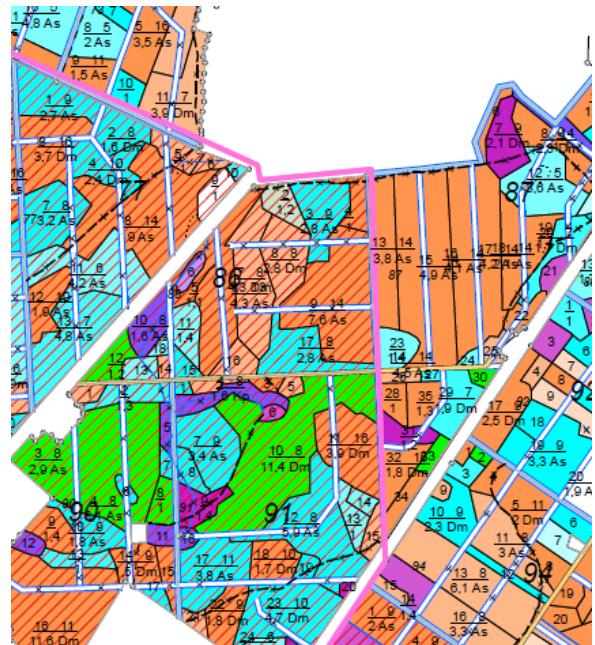


Ice damages, independently from dominant tree species, were found for 27% of trees.

# Recommendations



- Assessment of risks (regionally)
  - Tree breeding
  - Planting
  - Increased number of tree species
  - Mixture at **landscape** scale
  - Shorter rotation





**Thank You!**

Research was carried out in Forest Competence Centre (ERAF) project „Methods and technologies for increasing forest capital value” (No. L-KC-11-0004)

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