

Reindeer reduce topsoil roots and explorative community root traits

Horizontal and vertical root distribution in oligotrophic northern pine forests

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Background

Does Grazing ...?

- Reduce root biomass
- Impact topsoil roots most
- Change root traits
- Interact with tree distance

Reindeer:

- remove lichen
- trample in the open
- extremify soil temperature
- dry the soil

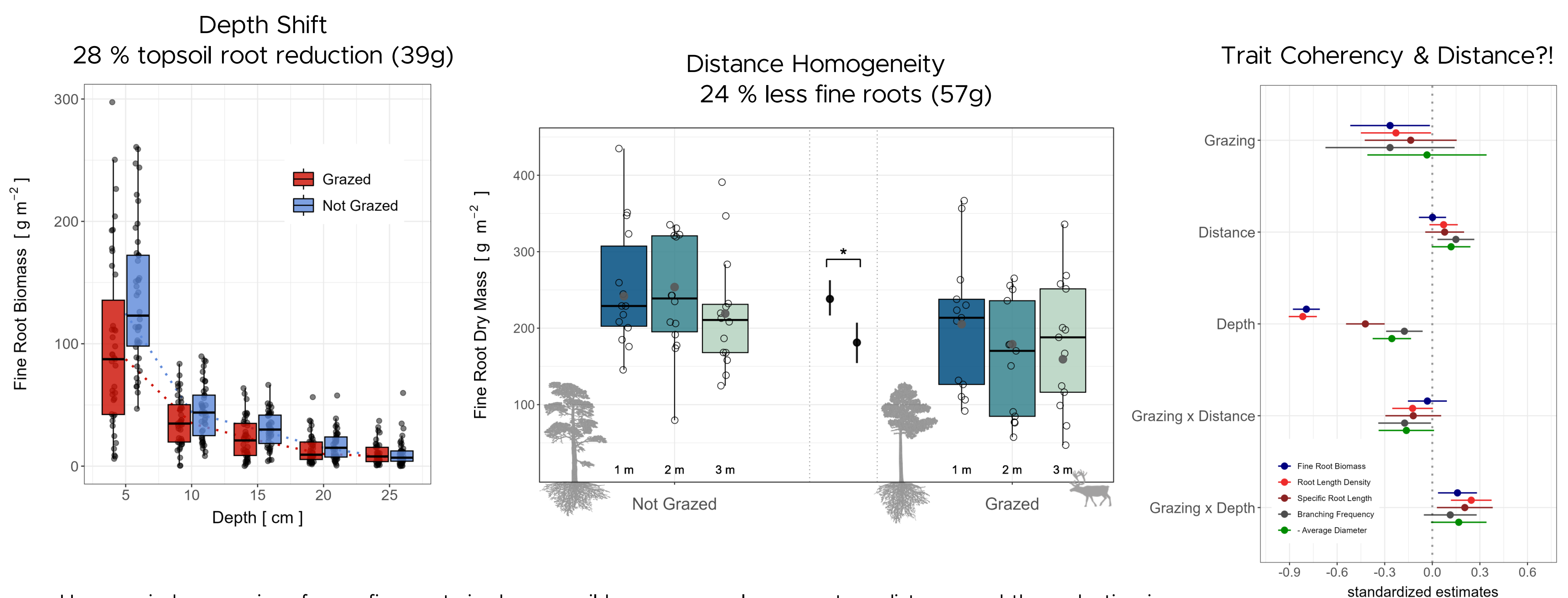
Study Site



Method



Results



Heavy reindeer grazing forces fine roots in deeper soil homogeneously across tree distance and the reduction is strongest in the topsoil. Similarly, explorative root community traits follow mass the distribution patterns, but additionally, distance and the interaction of grazing and distance have a weak effect. Overall, community root traits suggest vulnerability of ericaceous shrubs to reindeer grazing belowground, potentially more so in the open.