Spatial dependence of aboveground sedge biomass on beaver dam disturbance in a montane fen

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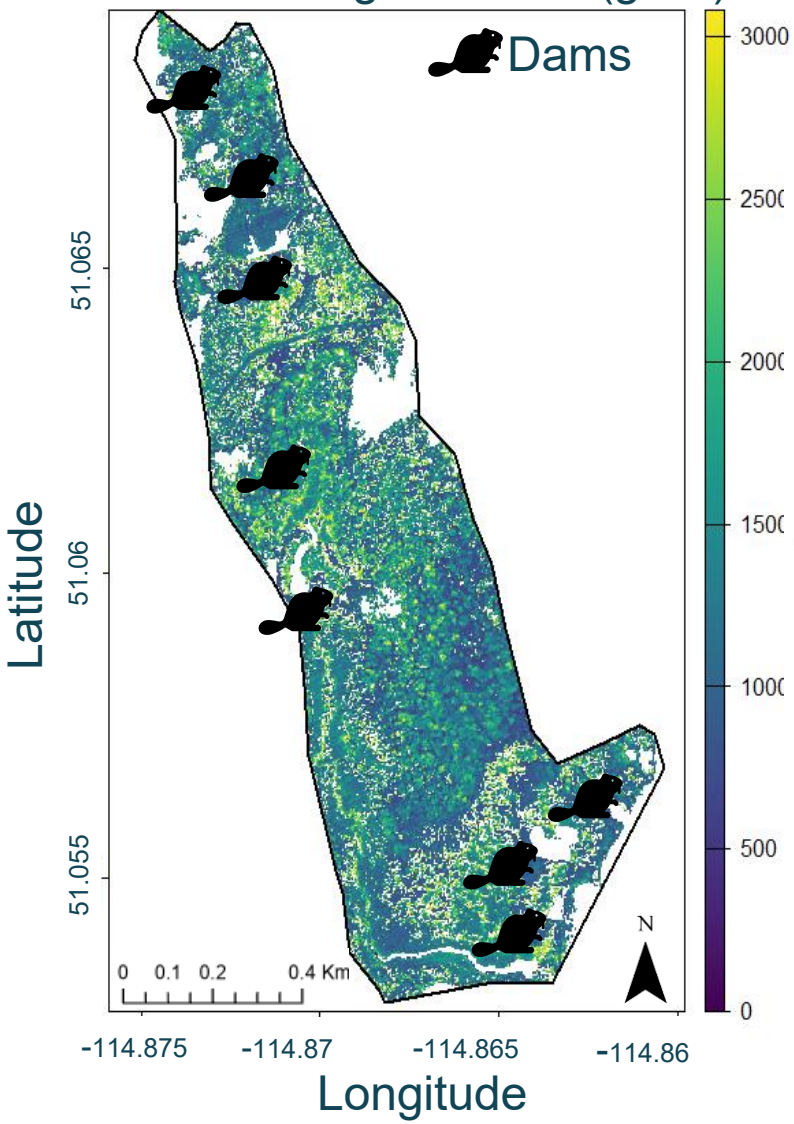
The challenge

Beaver dams → increased groundwater & surface water connectivity
Influence on peatland plant biomass is unknown

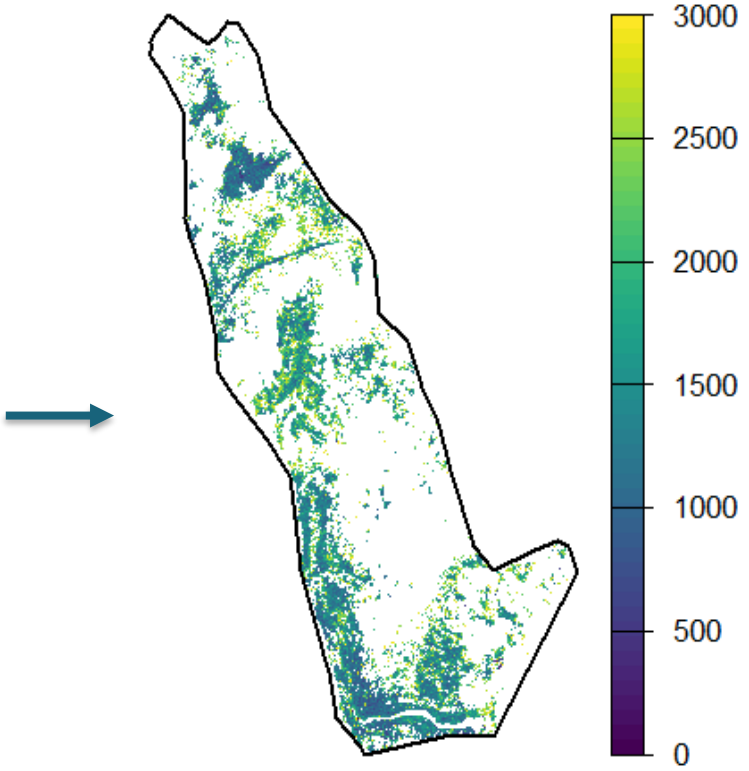
What is the spatial dependency of sedge biomass on beaver dams?

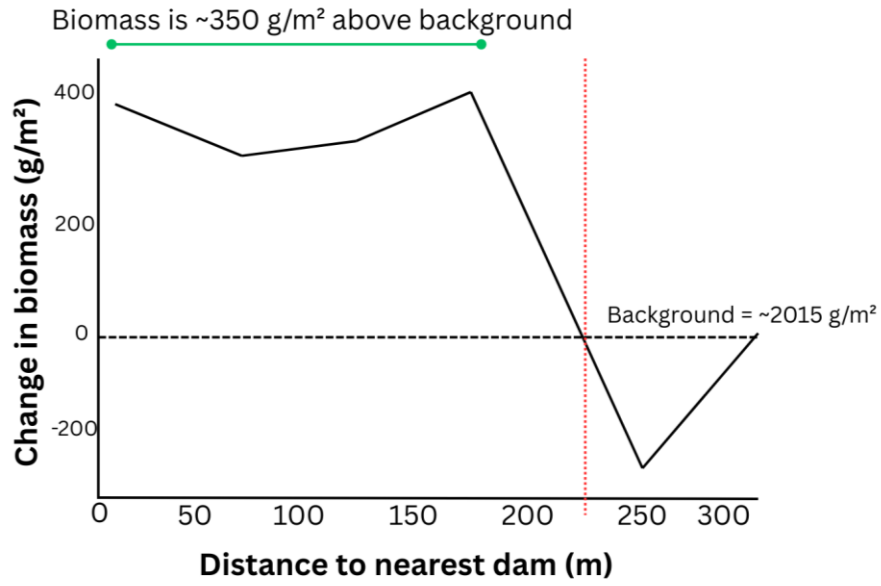
Main findings

Total AGB: sedge & shrub (g/m^2)



Total AGB: sedge only (g/m^2)

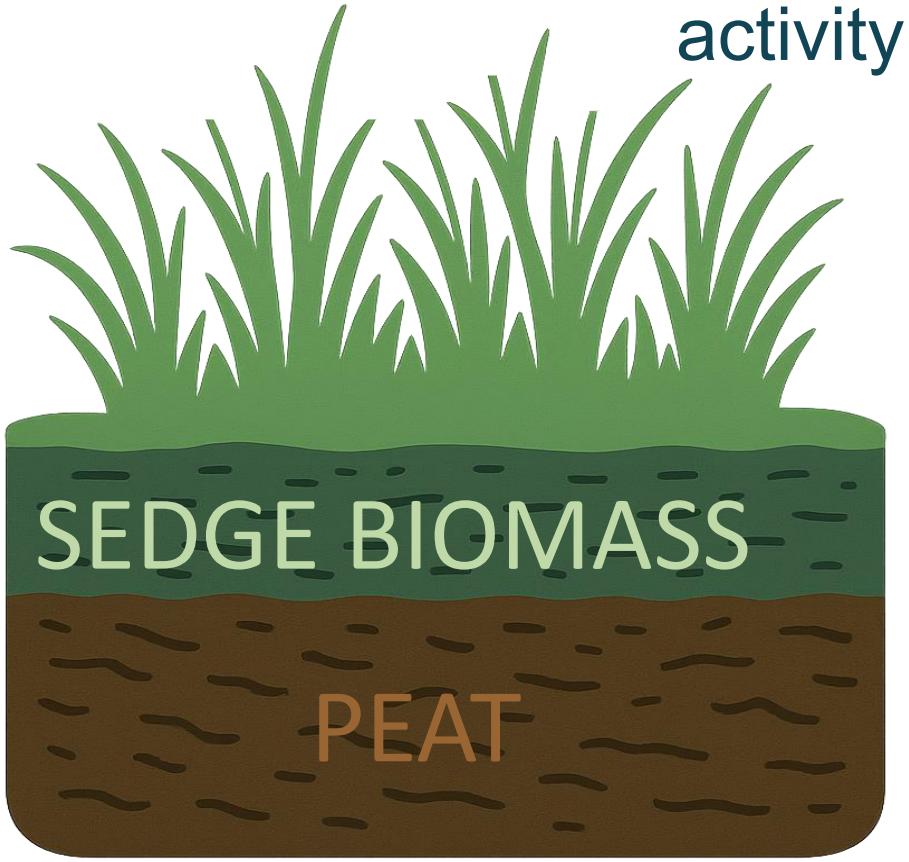




Ecological footprint: significant increase in sedge biomass of ~10% within 225 m

Implications

- Beaver damming leads to increase in local biomass
- Biomass is a key control on energy, water, and carbon fluxes.
- New insights into the ecohydrological mechanisms that couple beaver activity to peatland C cycling



Beaver dams are an important driver of plant production in peatlands