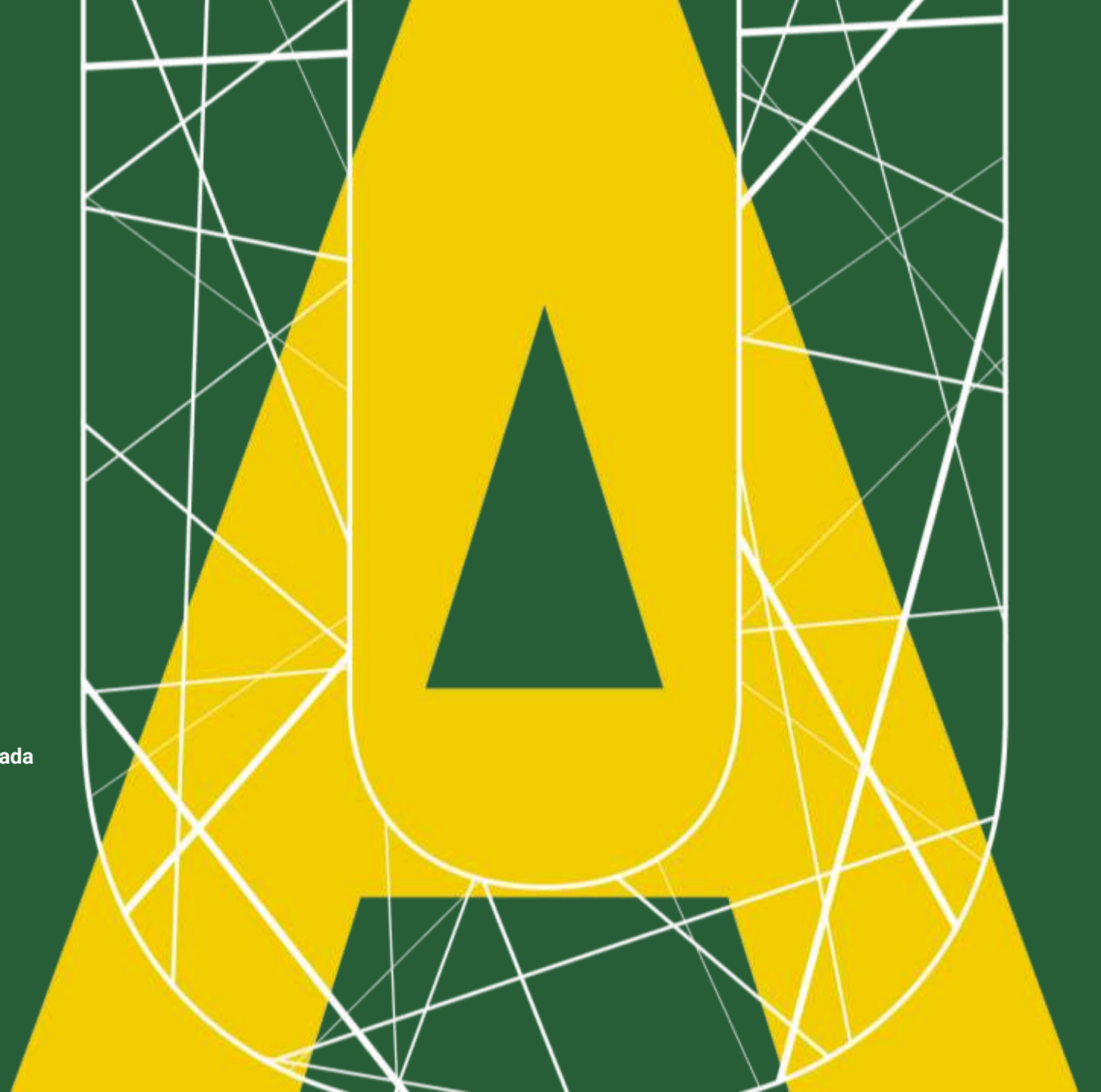
Effects of vegetation management on leaf area index (LAI) and drought tolerance in a regenerating boreal mixedwood

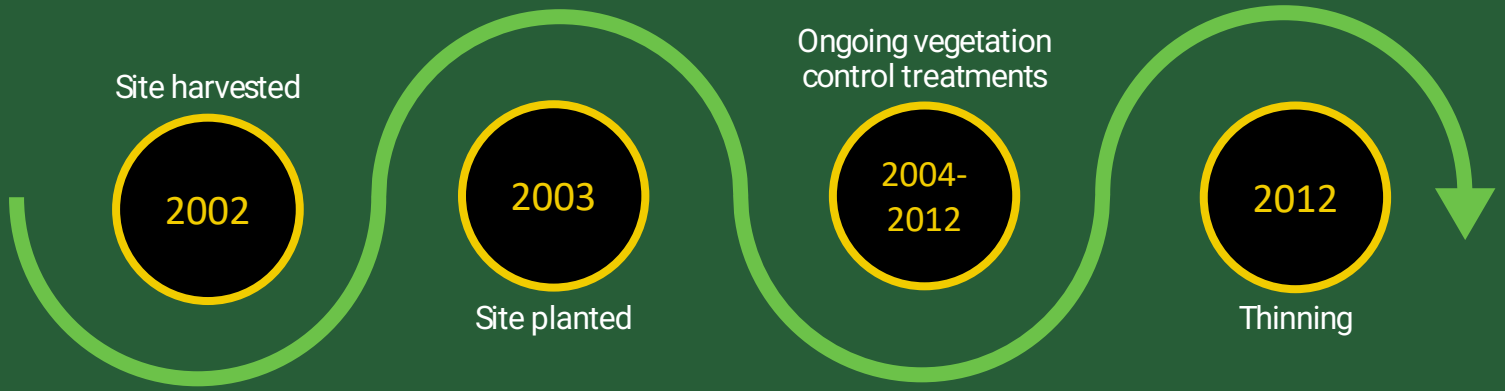
Benjamin D. Strelkov[1], Bradley D. Pinno[1], Philip G. Comeau[1]

[1]Department of Renewable Resources, University of Alberta, Edmonton, AB, Canada

UNIVERSITY OF ALBERTA



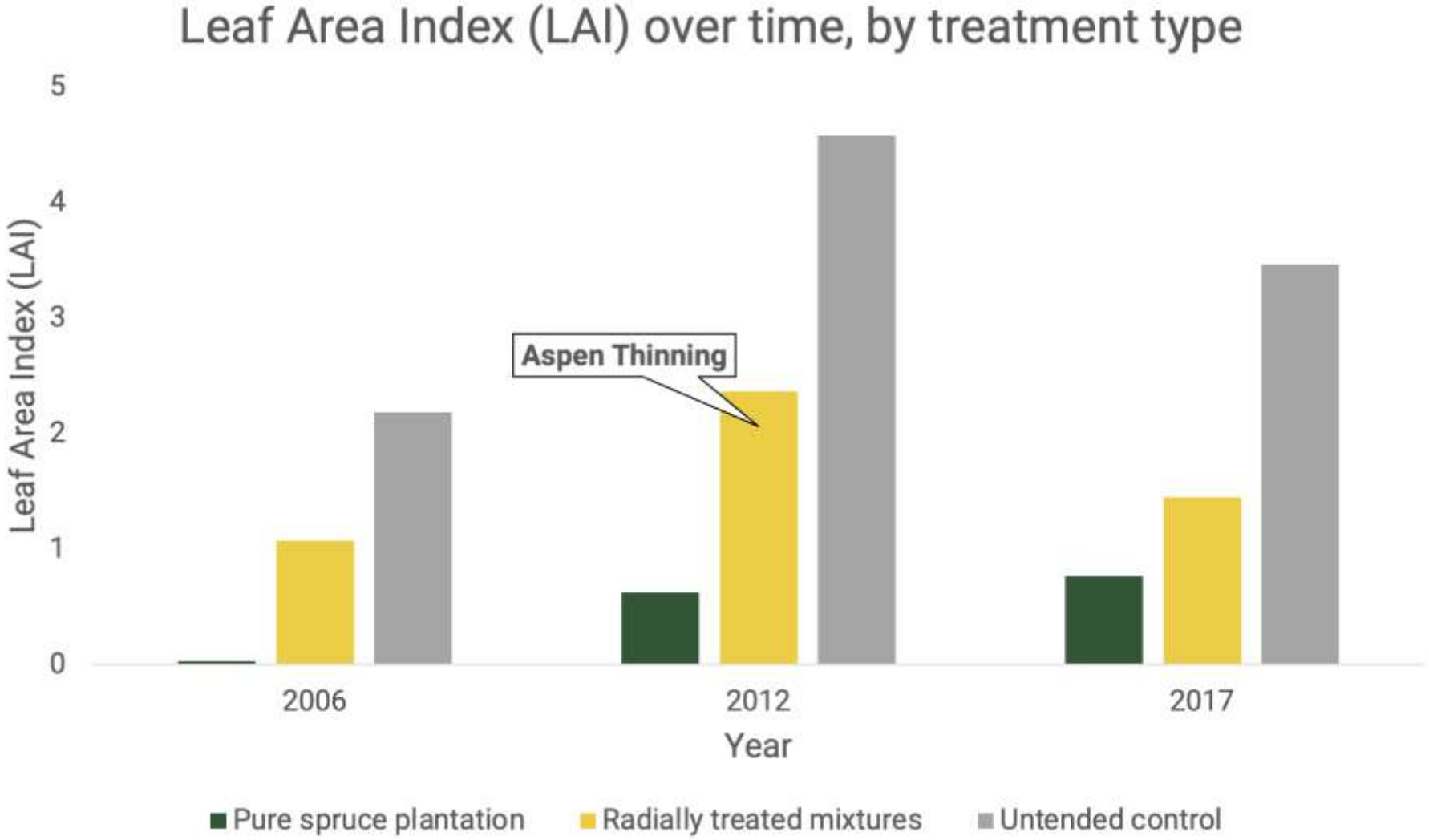
Treatments & Methods



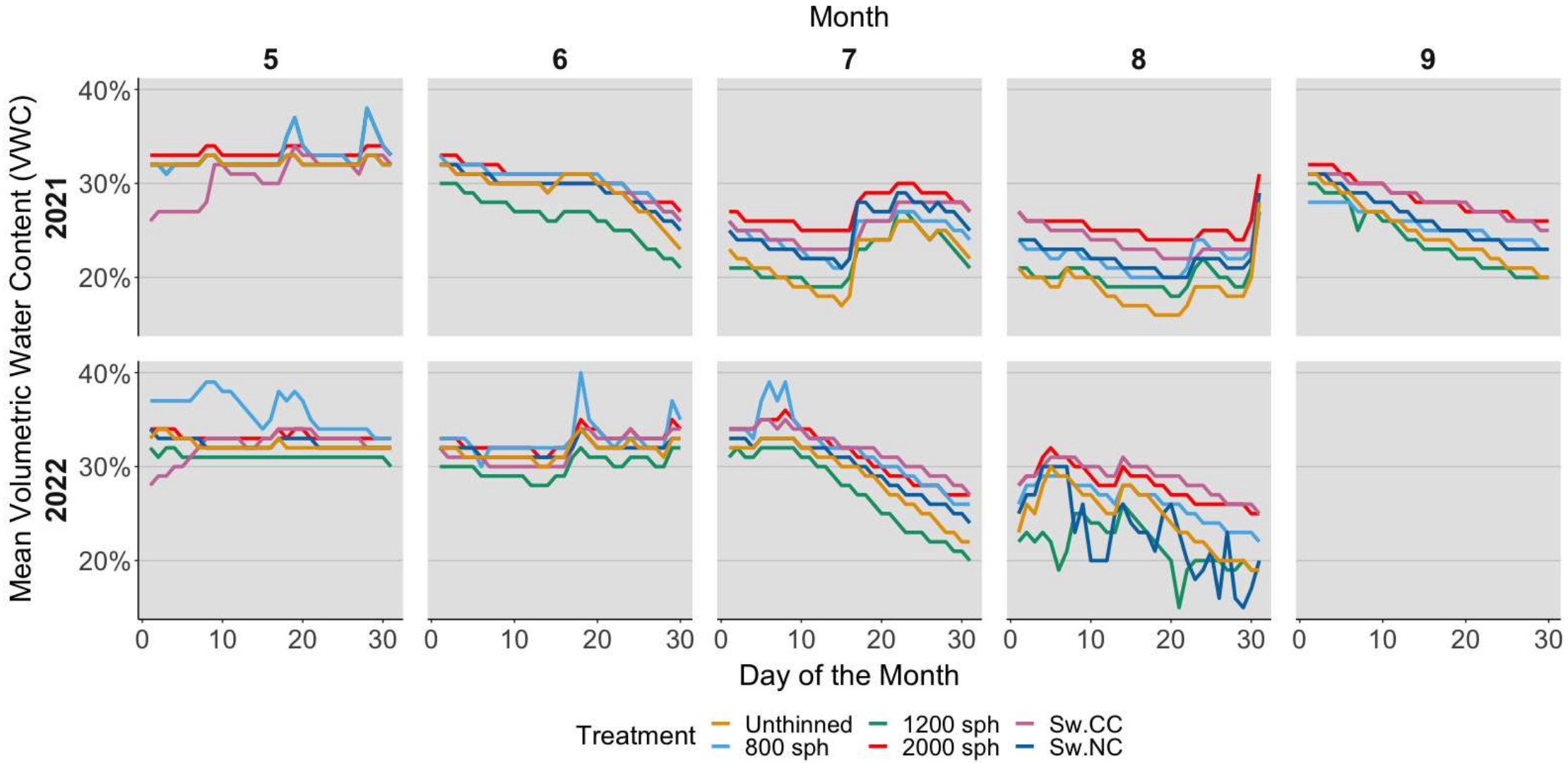
- Examine the **Leaf Area Index (LAI)** and **soil moisture** among treatments.
  - Measured throughout the 2023 growing season
- White spruce & Aspen **core samples** will be used to explain site-specific drought responses.
  - To be collected in Fall 2023
- Analyze past data from the 18 **microclimate data loggers** on the site.
  - Installed August 2020
- Drought tolerance will be explained through soil moisture, LAI, climate data, and **δ13C analysis** of tree cores.

UNIVERSITY OF ALBERTA

Preliminary Results: *LAI*



Preliminary Results: *Soil Water*



Next steps & conclusions

- The findings of this study will provide valuable insights for forest managers, enhancing their comprehension of LAI dynamics and drought tolerance in the boreal mixedwood forests of Alberta's lower foothills region.

- Continual field sampling and data analysis are being conducted to unveil any notable distinctions in the measured variables across different treatments.

UNIVERSITY OF ALBERTA

Thank you!

Silviculture
RESEARCH GROUP

UNIVERSITY
OF ALBERTA