



Anti-Spray for Wildfires: A Data-Driven Solution for British Columbia



MU Inc. WILDFIRE DEFENSE TEAM

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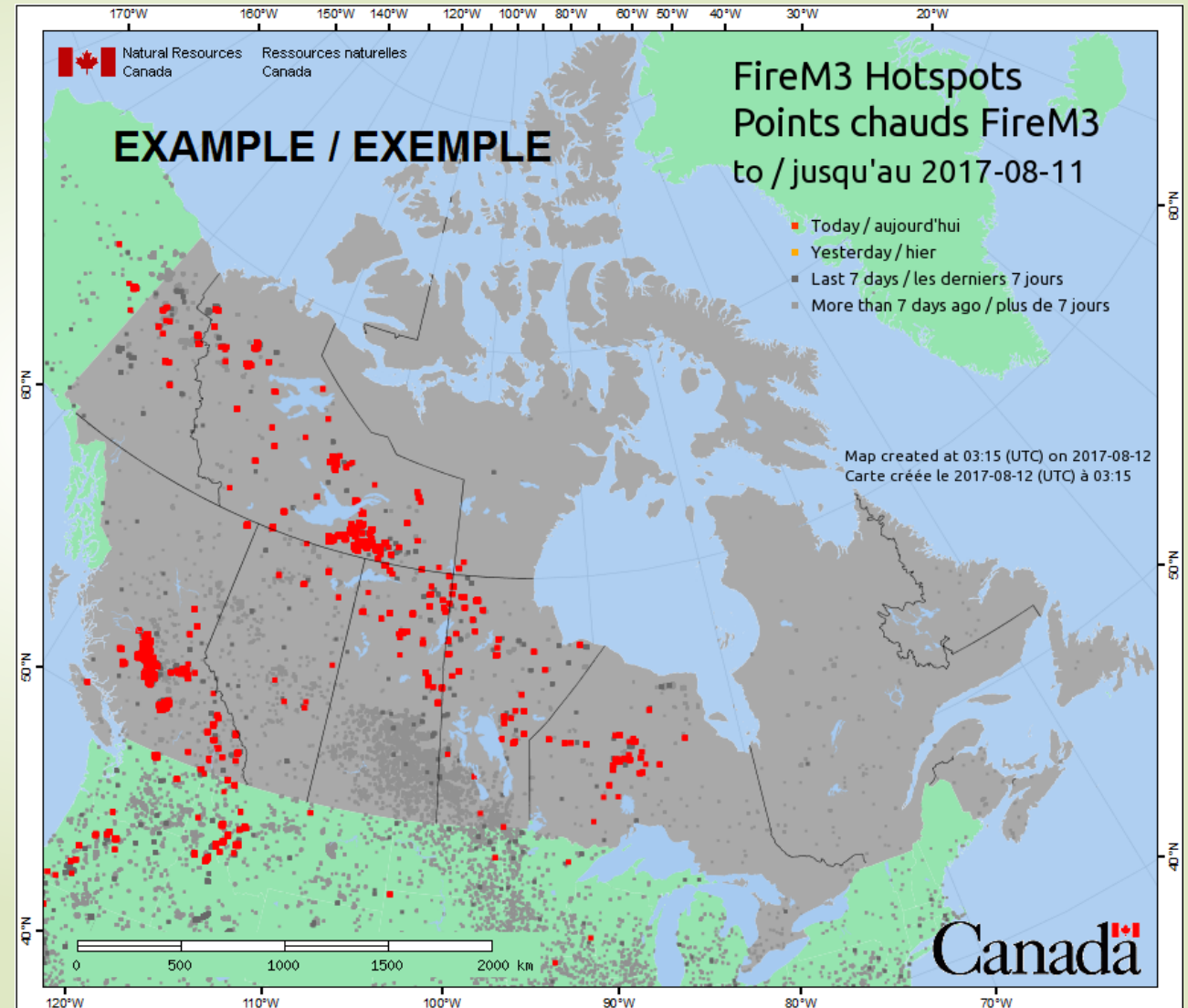




How does this image make you feel about the impact of wildfires?

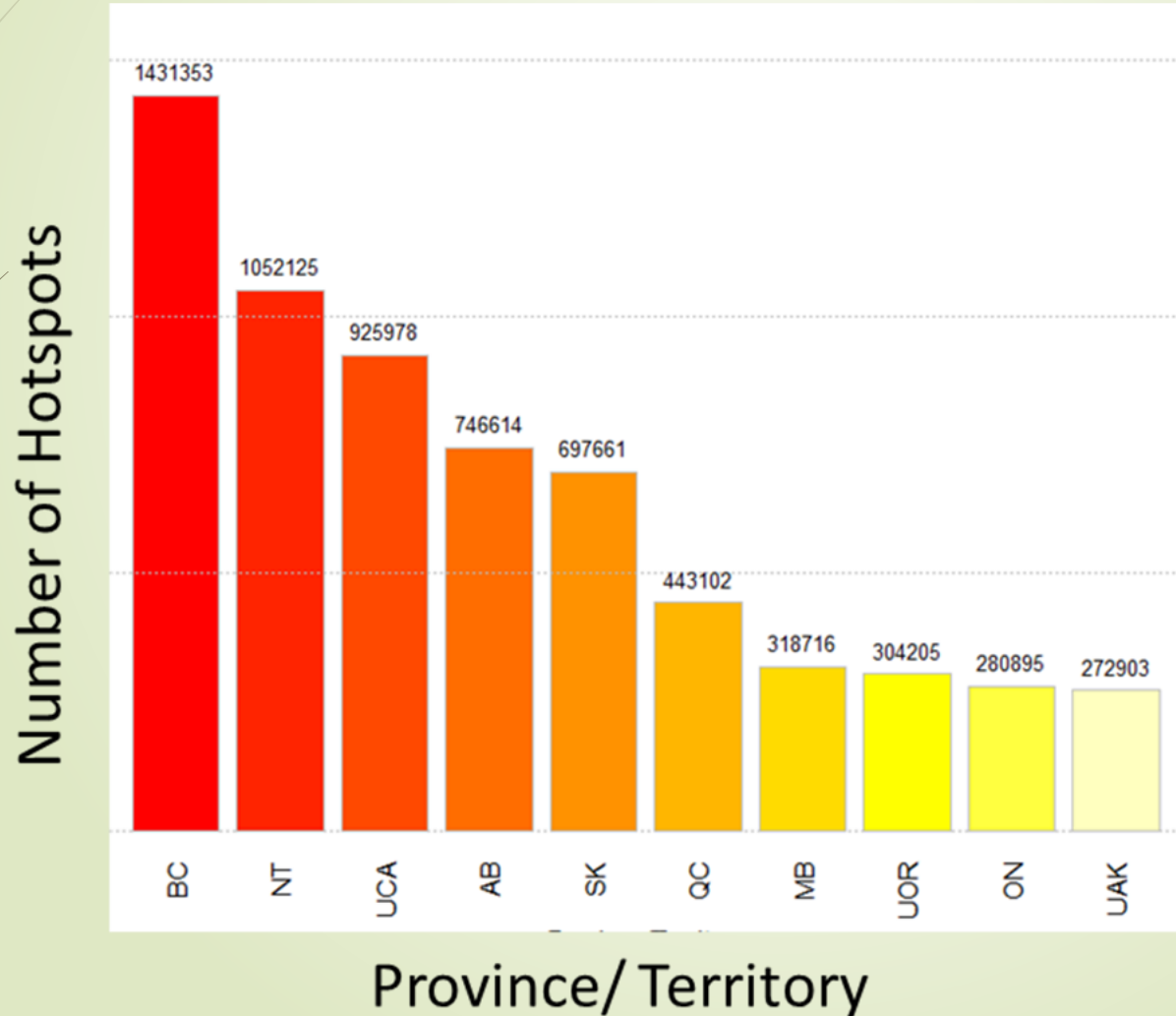
The Problem – BC Wildfire Crisis

According to **CWFIS**,
1.4 million wildfires over the
past 10 years



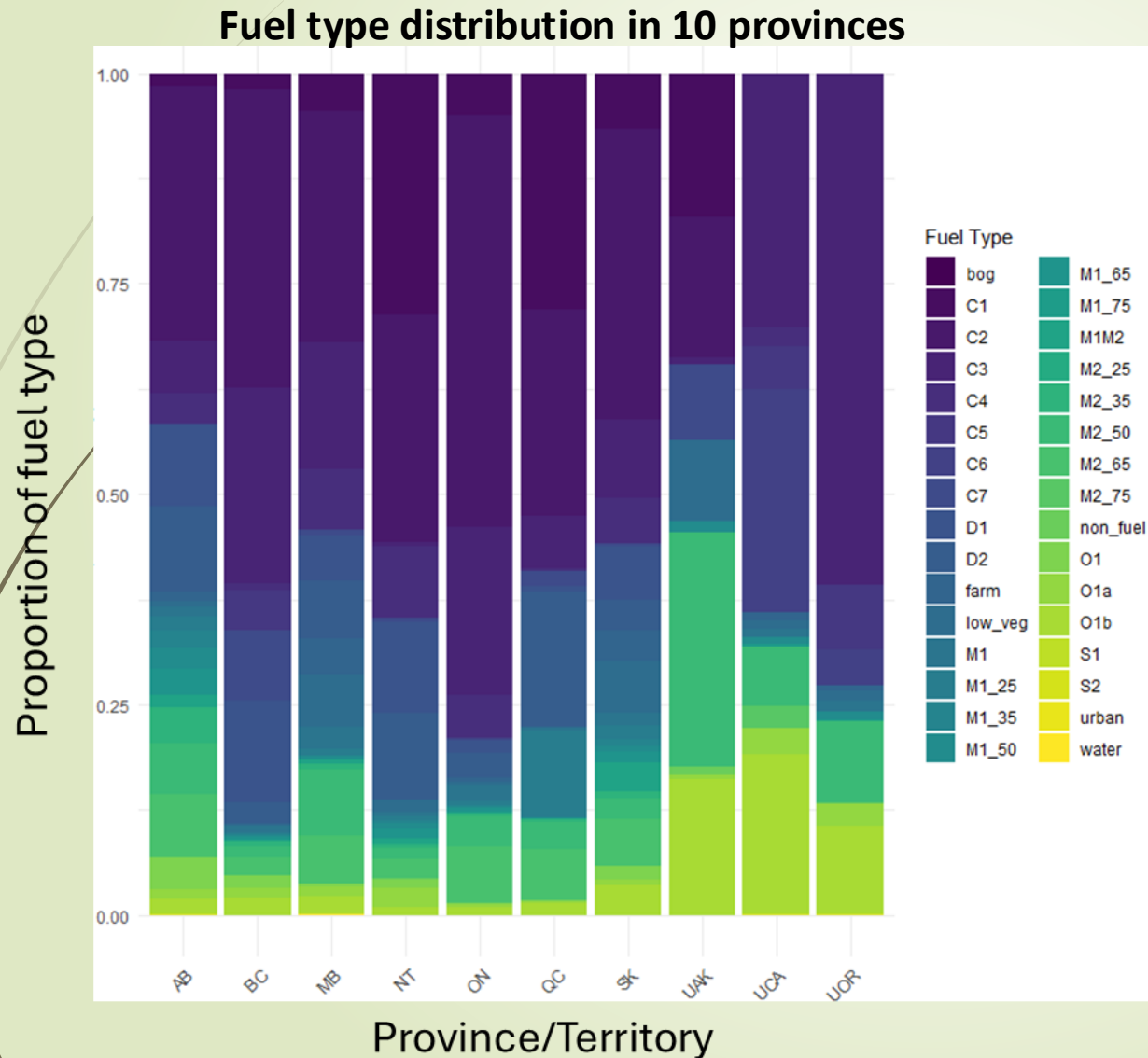
Wildfire Prevalence in British Columbia

Top 10 Provinces with most hotspots



➡ BC - Province with the highest wildfire occurrences

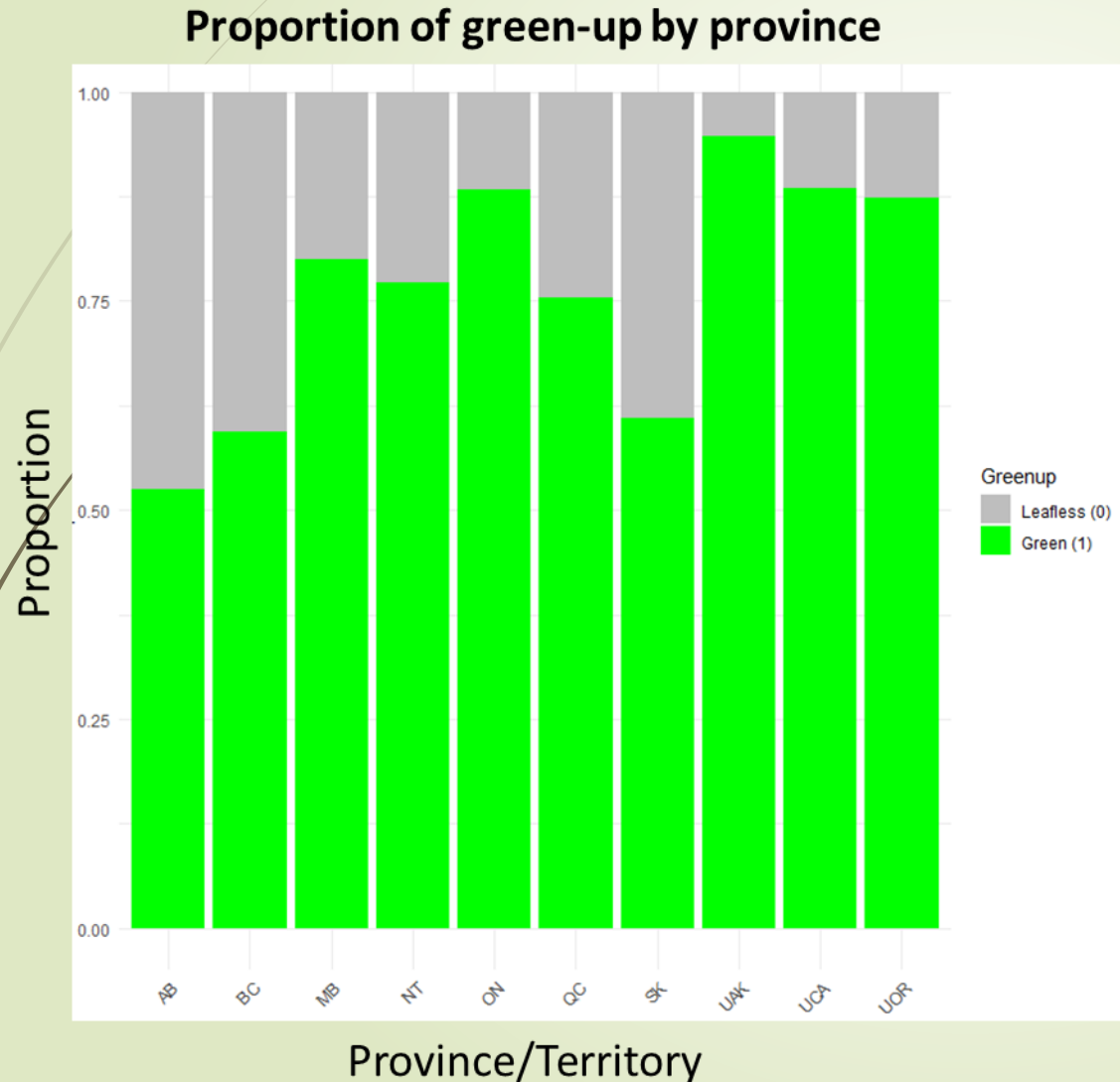
Why is BC having the most wildfires?



➤ Unique geography and diverse vegetation types

➤ Coniferous forests (C1-C7 fuel types) prevalent in BC

Green/Leafless and Wildfire Risk

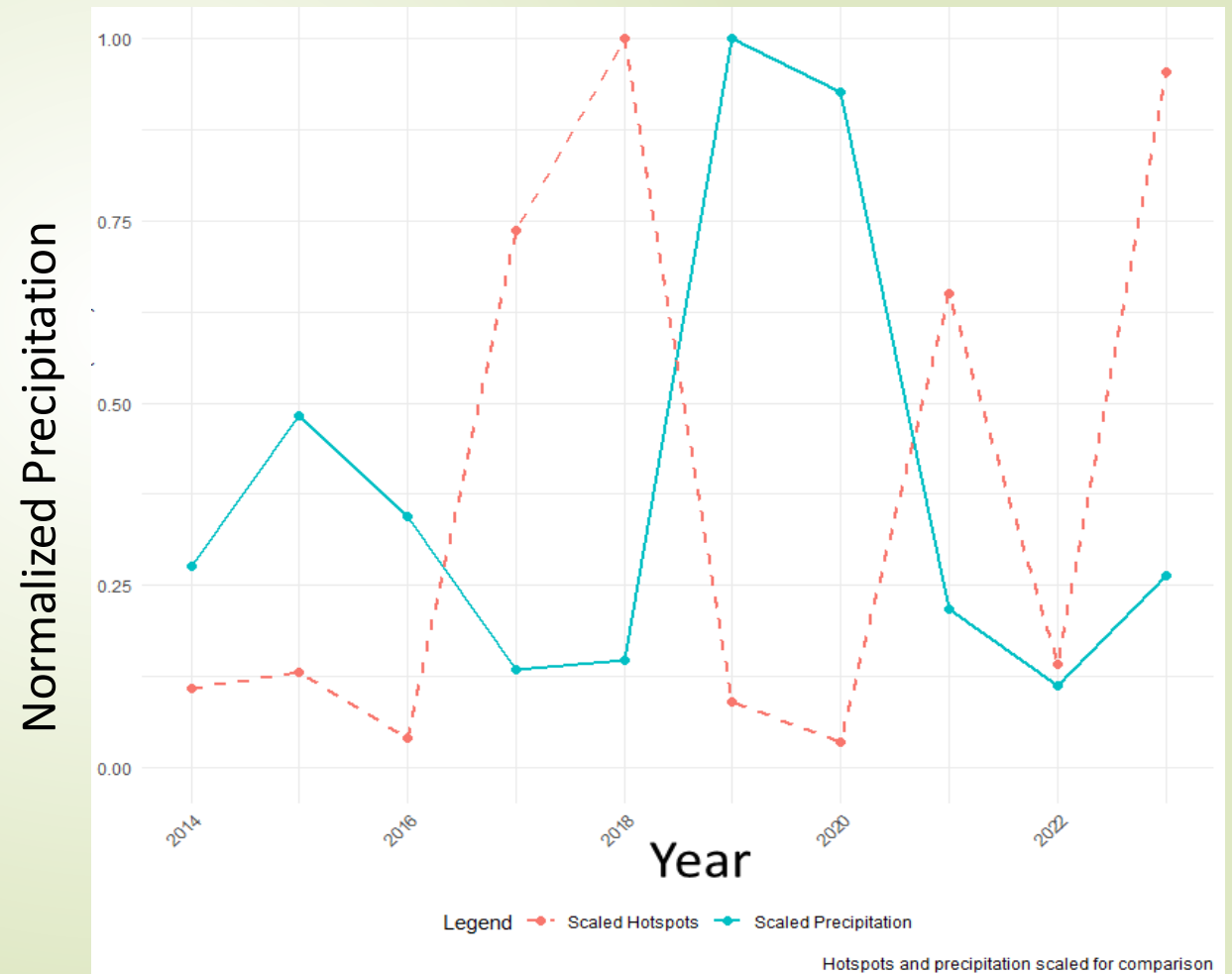



➤ Dry branches and stems act as fine fuels, increasing flammability

Why BC Struggles to Recover Quickly?

➡ 2017, 2018, 2021--
lowest precipitations
→ more wildfires

Yearly scaled Precipitation and Hotspots in BC



A firefighter in a forest fighting a wildfire. The firefighter is wearing a red helmet and dark clothing, using a shovel to clear debris. Thick smoke is rising from the fire, and the background shows bare trees in a misty or smoky environment.

The Solution : Anti-Spray for Wildfires

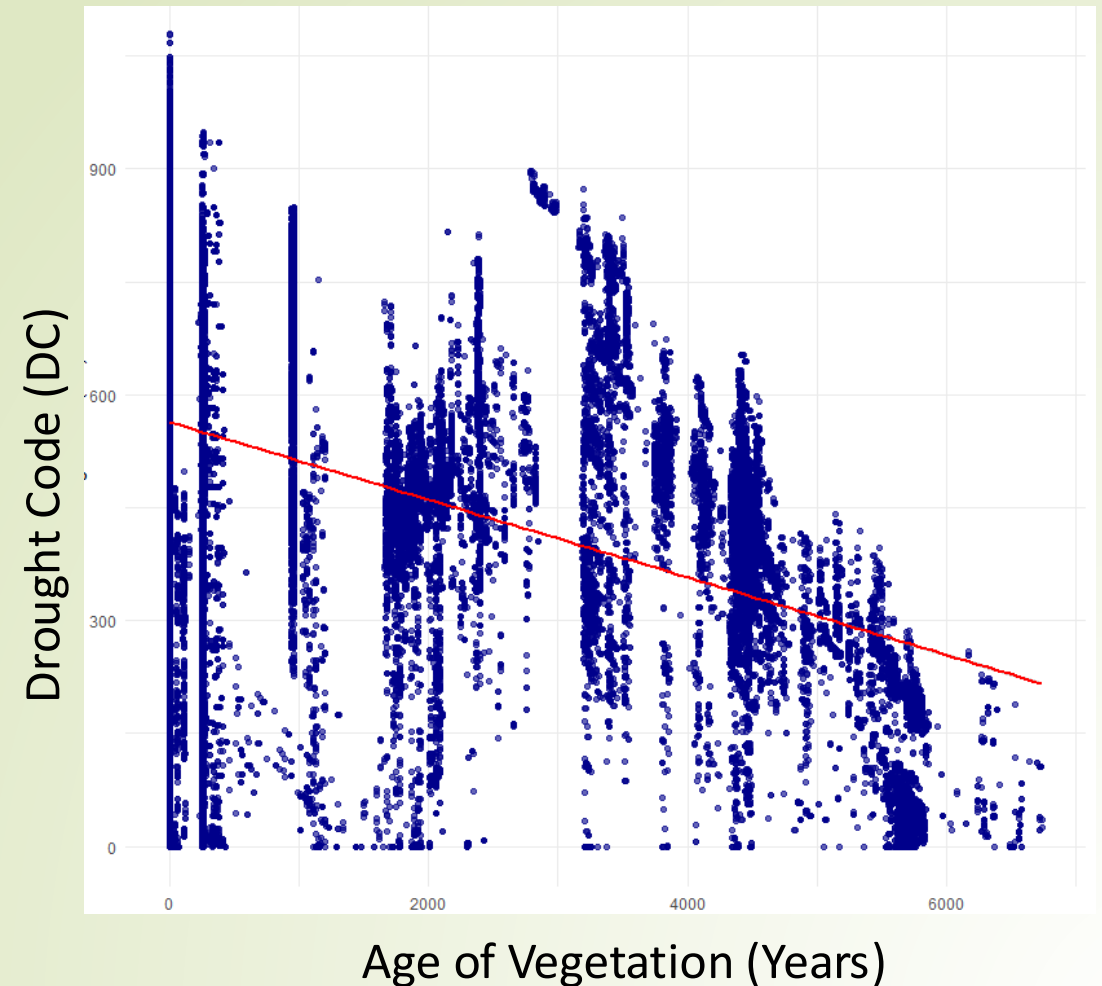
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https://live.staticflickr.com/4904/46155963272_6f1f728743_b.jpg

Evidence: Tree Age and DC Correlation

- Correlation Coefficient = -0.4
- Older the tree, lower the moisture

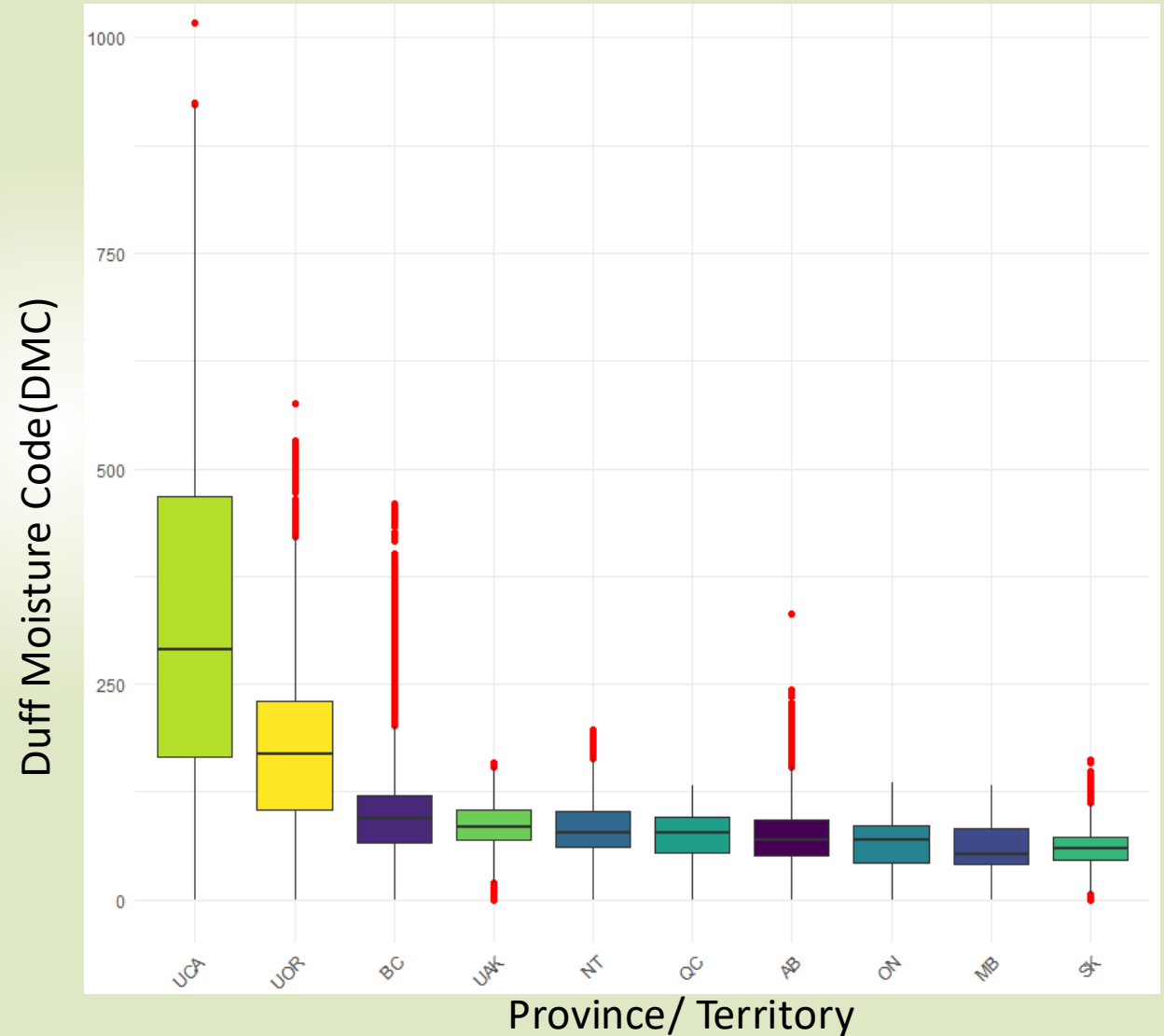
Correlation between Age and Drought Code(DC)



Conclusion

- ➡ High DMC outliers in BC
- ➡ Introduction of Anti-spray - Mitigate high fire risk

Distribution of Duff Moisture Code(DMC) for Top 10 provinces





Prevent. Protect. Preserve – Stop Wildfires

Thank You