



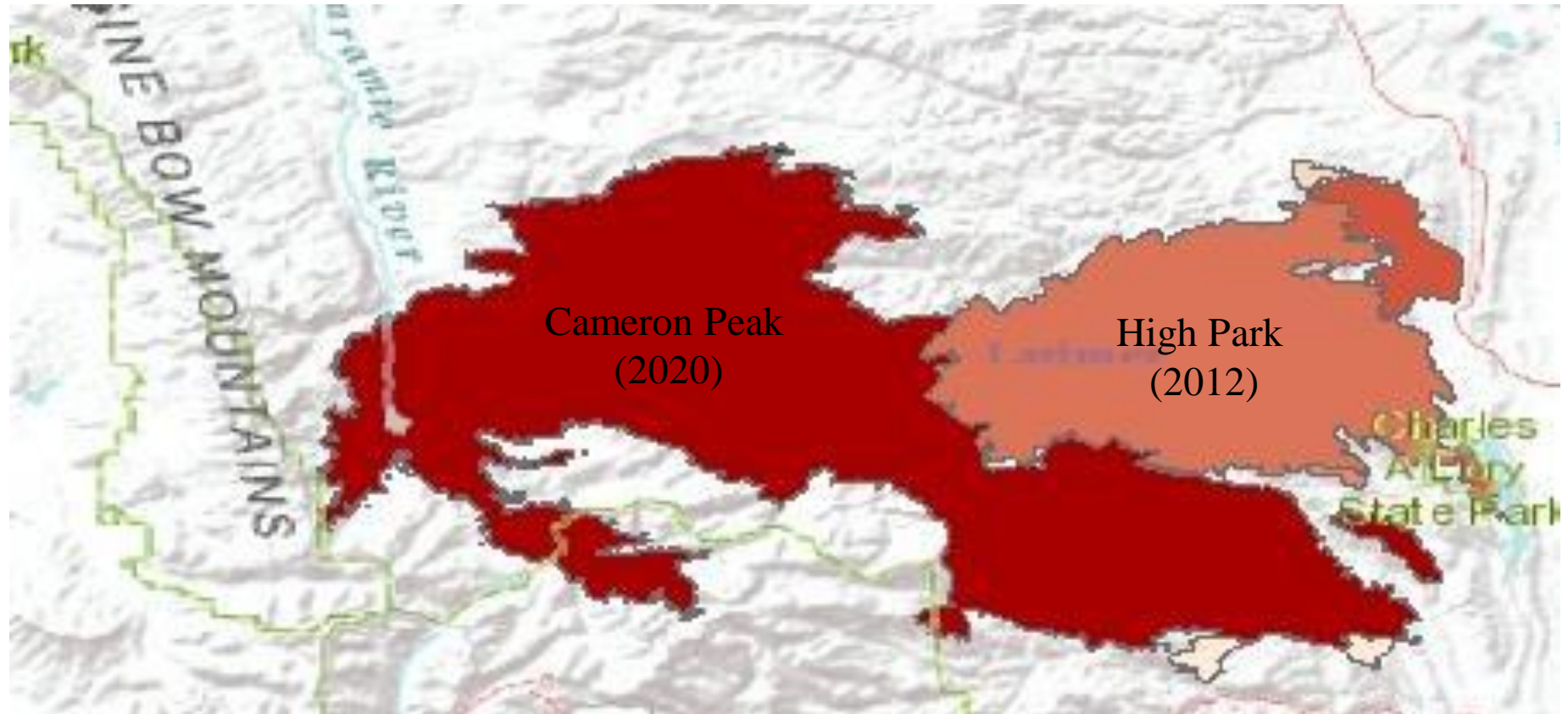
Forest treatments and wildfire behavior in the 2020 fires

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What is a “successful treatment”?

- Barrier to spread



What is a “successful treatment”?

- Decrease in soil burn severity and tree mortality



Control



Thinned



Thinning and Prescribed Fire

What is a “successful treatment”?

- Control, anchor point, location to attempt suppression activity (even with minimal change in severity or spread)



ABC



Stevens-Rumann

Not all treatments are created equal

- thin and underburn, underburn only, and past wildfires are generally more effective than thin-only and thin and pile burn treatments at both barriers and reducing suppression.
- Aspect, slope, vegetation type, fire weather all play a role and can reduce effectiveness.


Forest types look and burn differently

Engelmann Spruce forest



Dense ponderosa pine

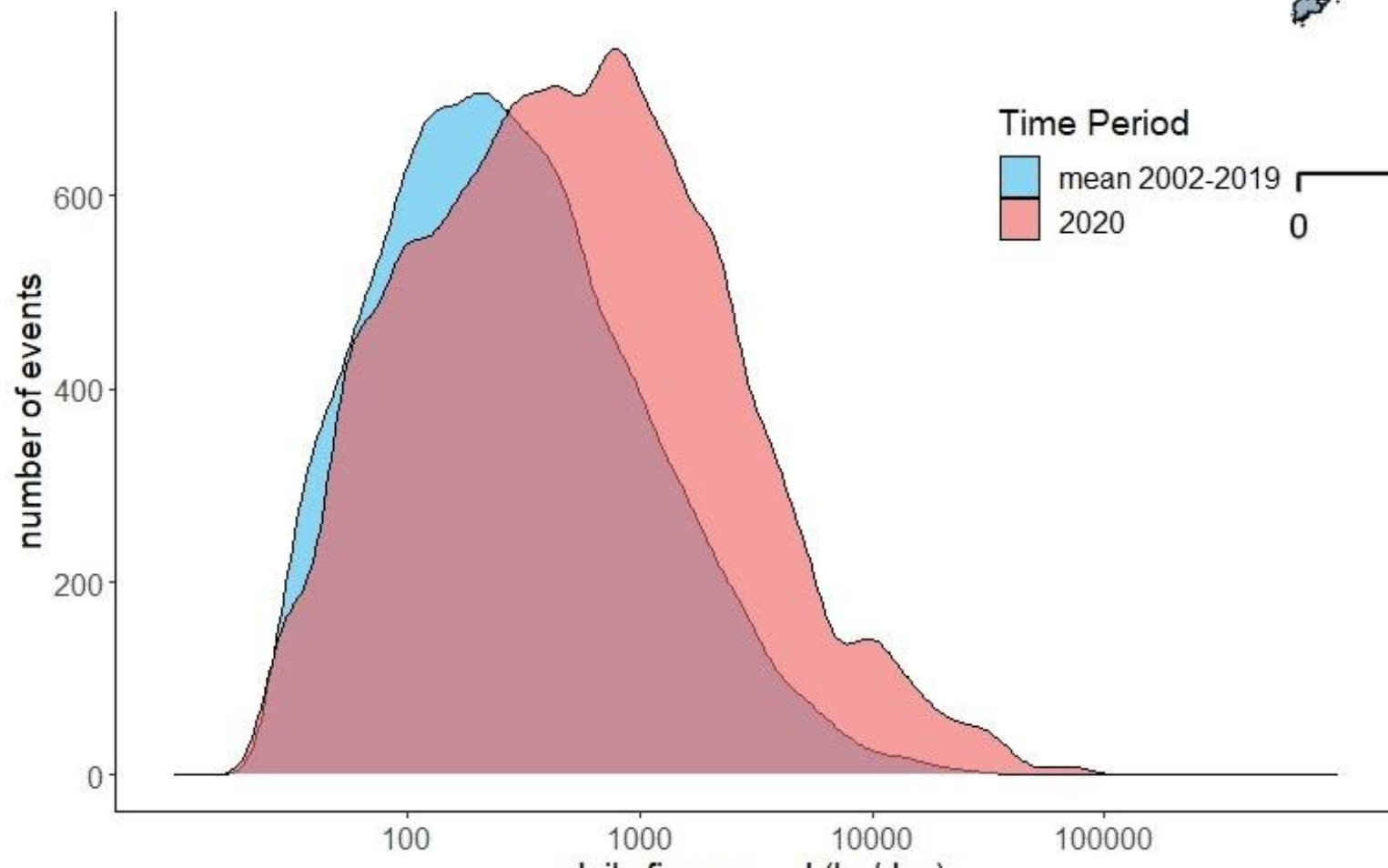
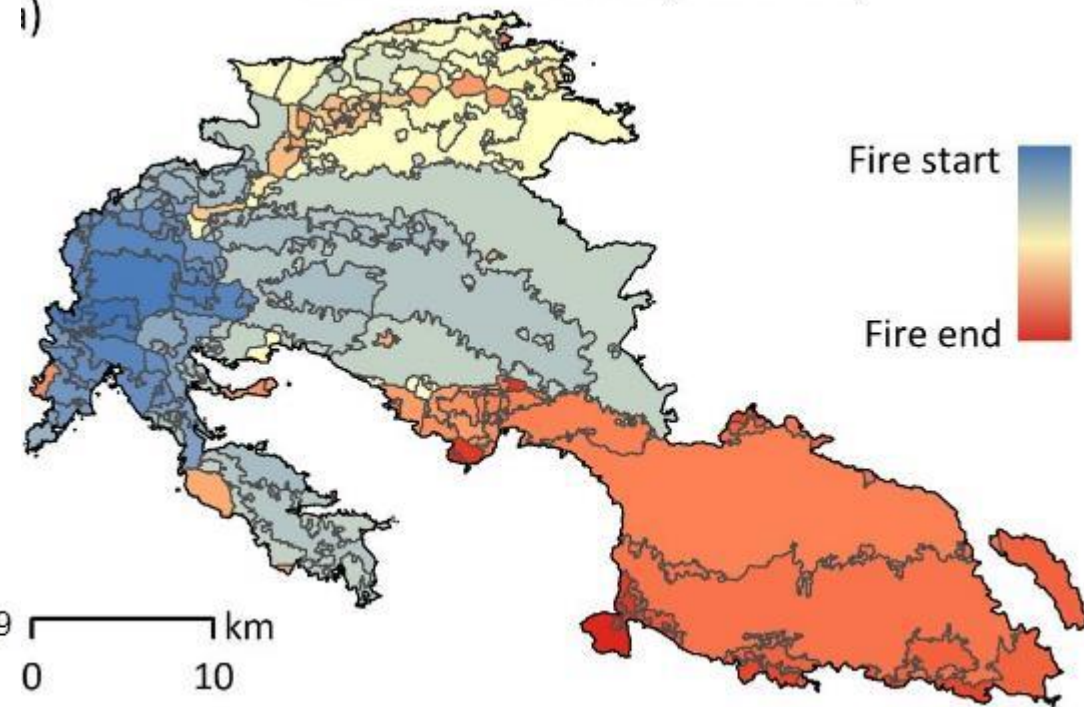


An aerial photograph capturing a powerful volcanic eruption. A massive, billowing plume of white ash and smoke rises from a mountain range, partially obscuring the sky. Below the plume, several distinct ridges of bright orange and red lava are visible, flowing down the slopes. The foreground shows the dark, rugged terrain of the volcanic landscape. In the upper left corner, the wing and tail of an airplane are visible, indicating the photo was taken from an aircraft. A semi-transparent black box with white text is overlaid on the upper portion of the image.

**6000 acres/hr over the continental divide.
Treatments are not at this scale!**

Cameron Peak Fire (Colorado)

i)



So what can we say about 2020?

- We saw extreme fire spread days, where treatment effectiveness was lower
- On moderate fire weather days treatments performed much better
- Strategic placement and treatment size both across a landscape and in relation to the fire front influenced effectiveness.
- Wildfires, thin and burn, and larger prescribed fires were generally the most effective

Questions?

Thank you to the many people involved in this including Stephanie Mueller, Kelsey Newton, Marin Chambers, Andrew Slack, Tony Vorster, many others!

