

WESTERN WILDFIRES — ADAPTING TO A FUTURE WITH MORE FIRE



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March 2, 2022

Washington Botanical Symposium

LAND ACKNOWLEDGEMENT

As part of the University of Washington, I respectfully acknowledge the Coast Salish peoples of this land, the land which touches the shared waters of all tribes and bands within the Duwamish, Puyallup, Suquamish, Tulalip and Muckleshoot nations.

I respectfully acknowledge the Methow People who have lived and cared for the Methow Valley for thousands of years. I recognize that we can and must do more to build better relationships, support their voices, and acknowledge our past.

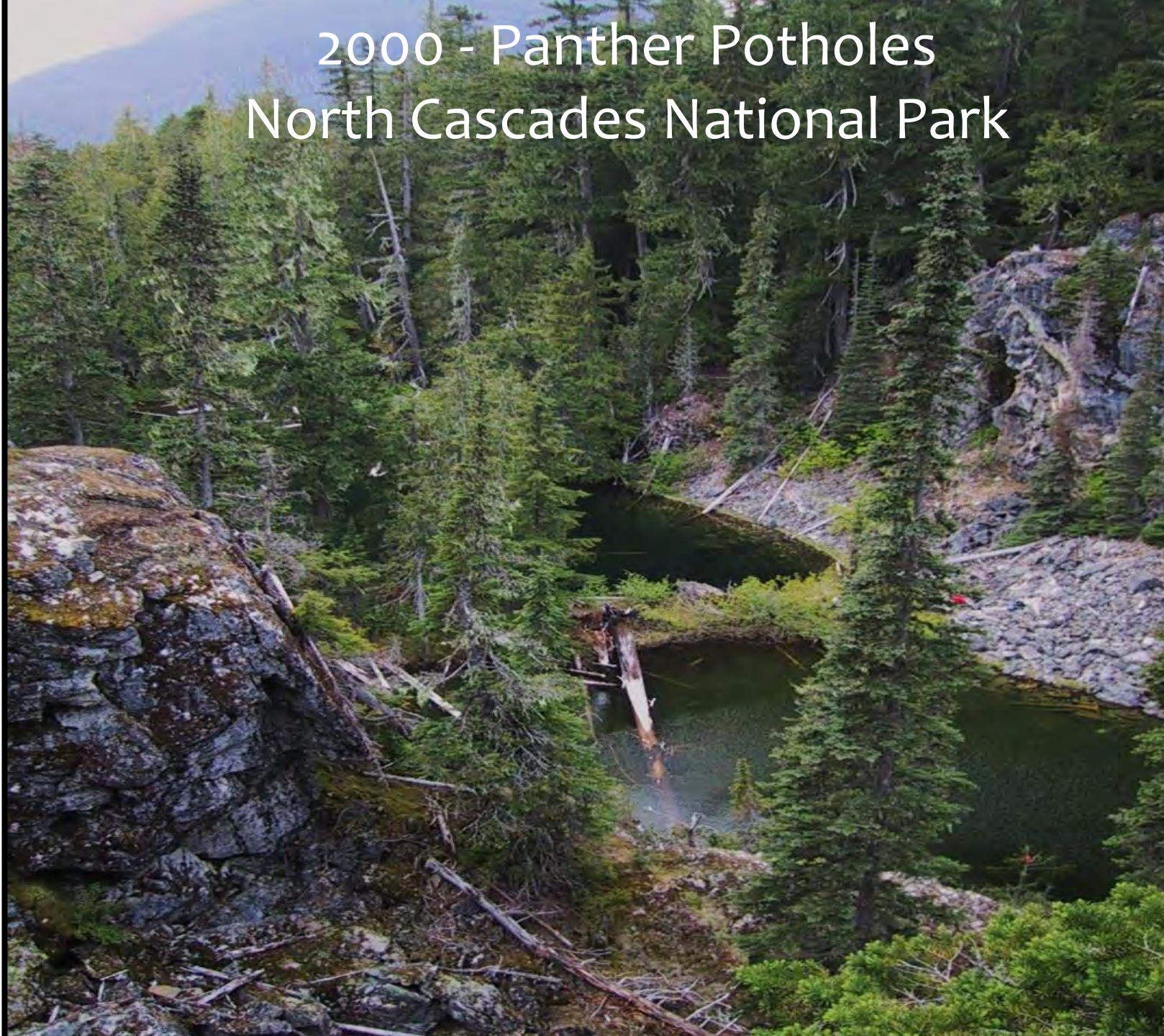


Outline:

- 1) Recent wildfires seasons in eastern WA
- 2) Legacy of fire exclusion
- 3) How do we adapt to a future with more wildfires?
 - Forest and landscape management strategies
 - Community adaptation work



2000 - Panther Potholes North Cascades National Park

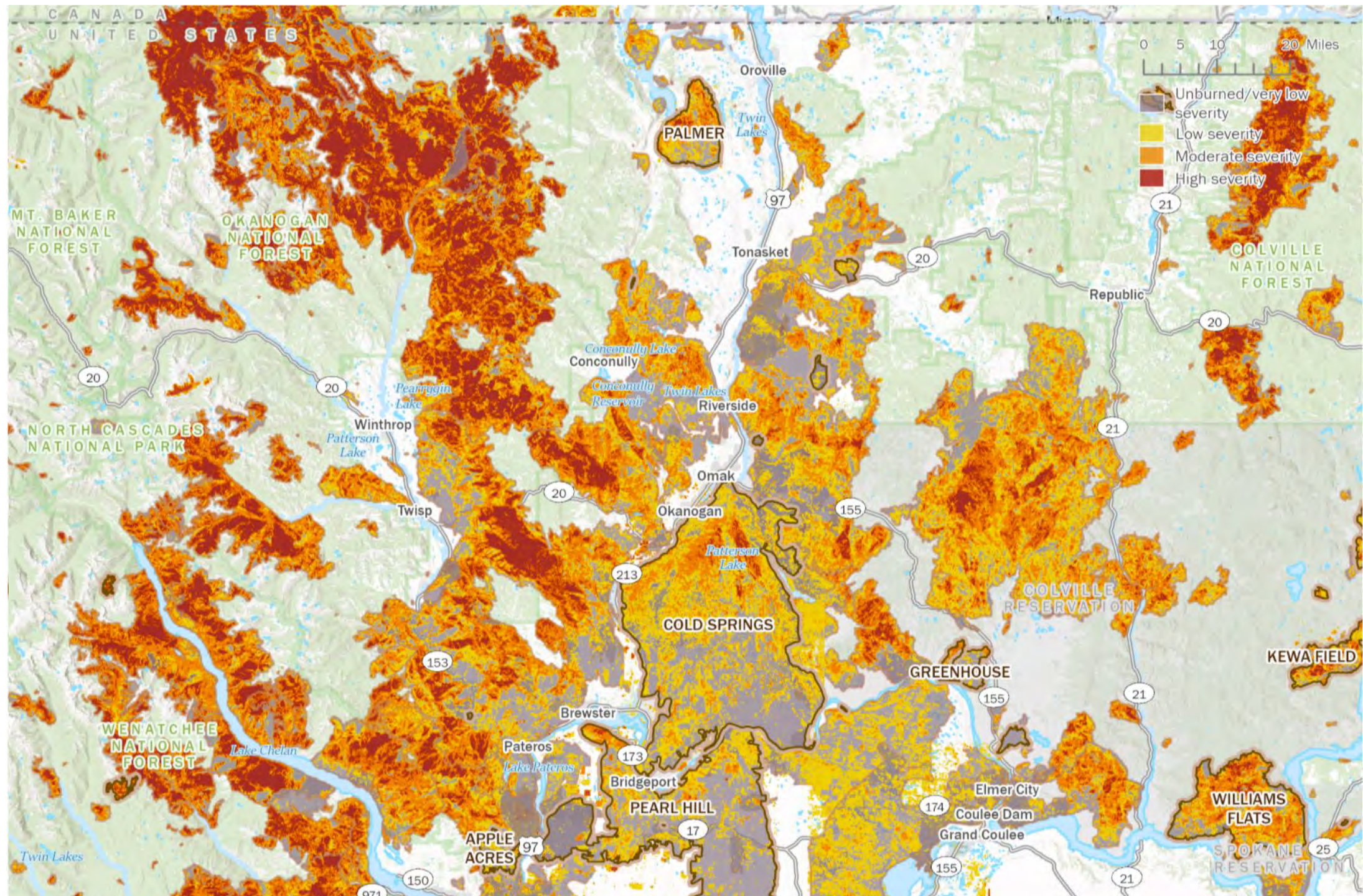


2004 Methow Valley



Photo credits: Teri Pieper

2019 -
2020



<https://storymaps.arcgis.com/stories/da2c6d84fa67456c87d0c2f891f3e0cf>



John F. Marshall



LEGACIES OF FIRE EXCLUSION

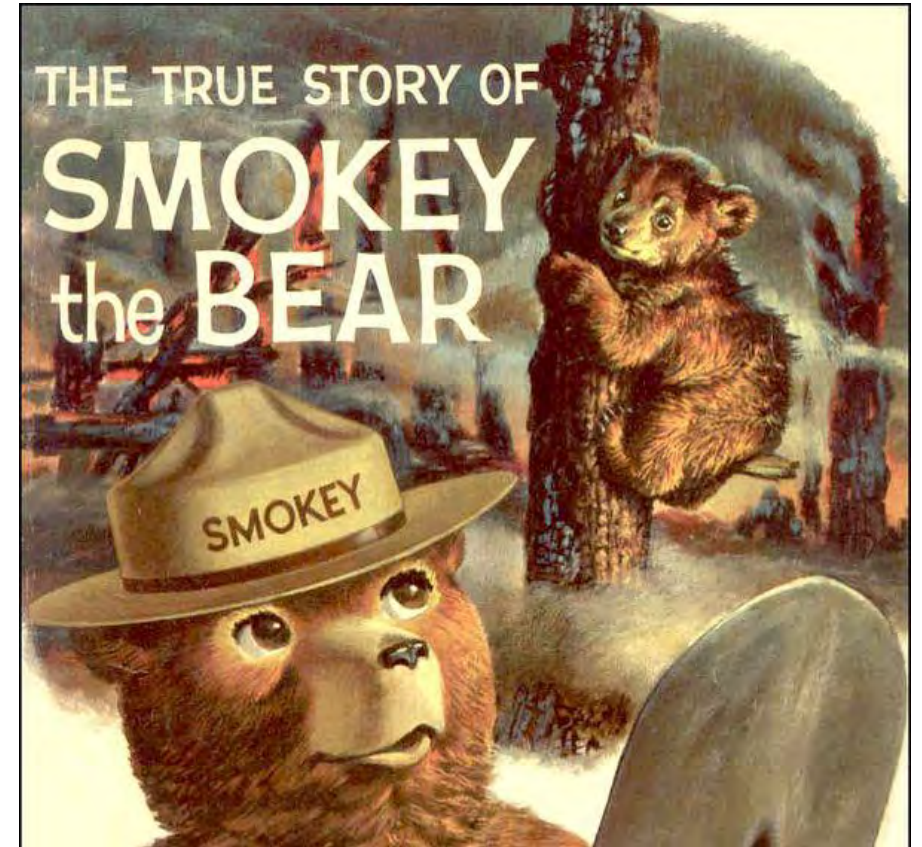




WESTERN KLAMATH MOUNTAINS

<https://eos.org/features/fire-as-medicine-learning-from-native-american-fire-stewardship>



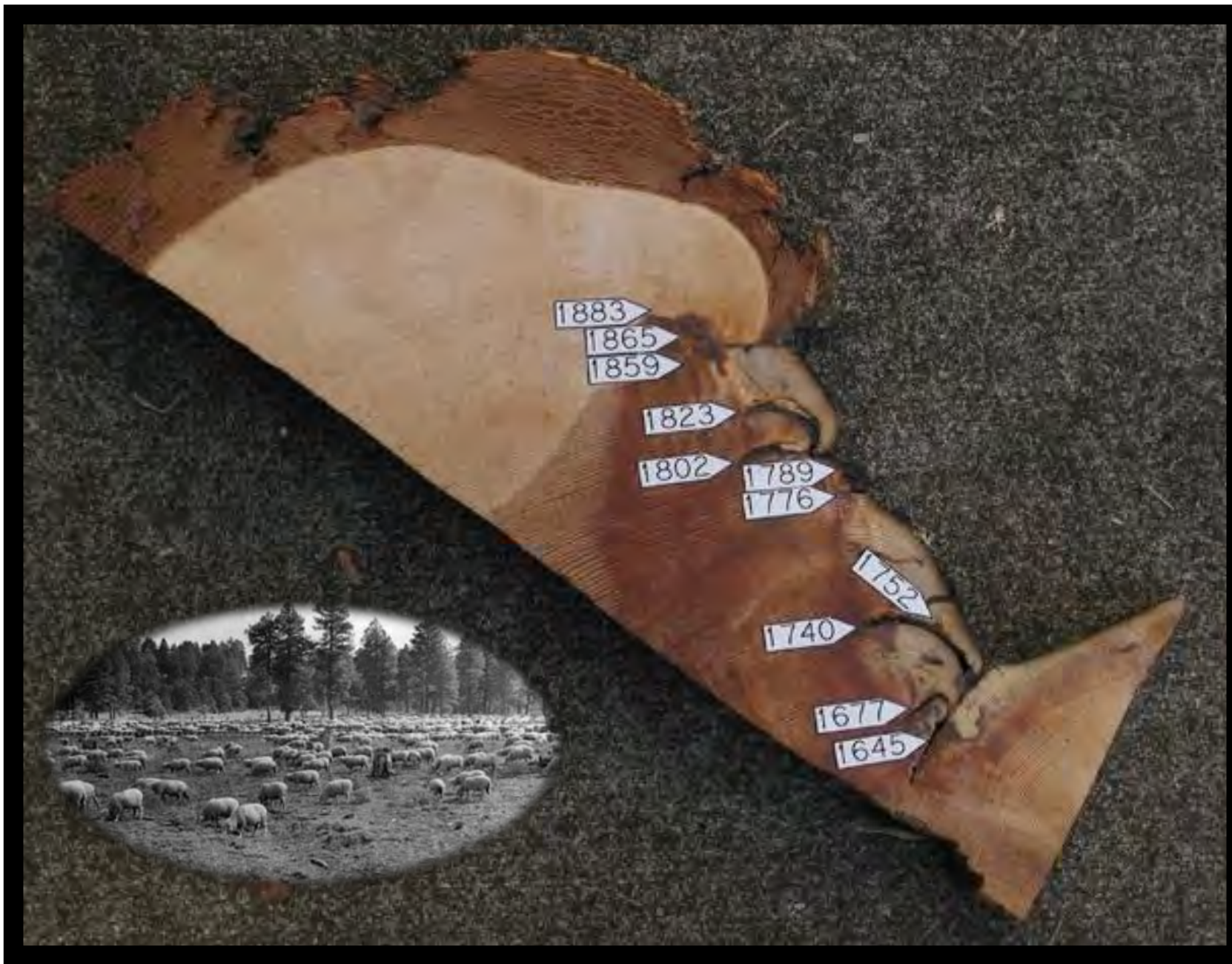


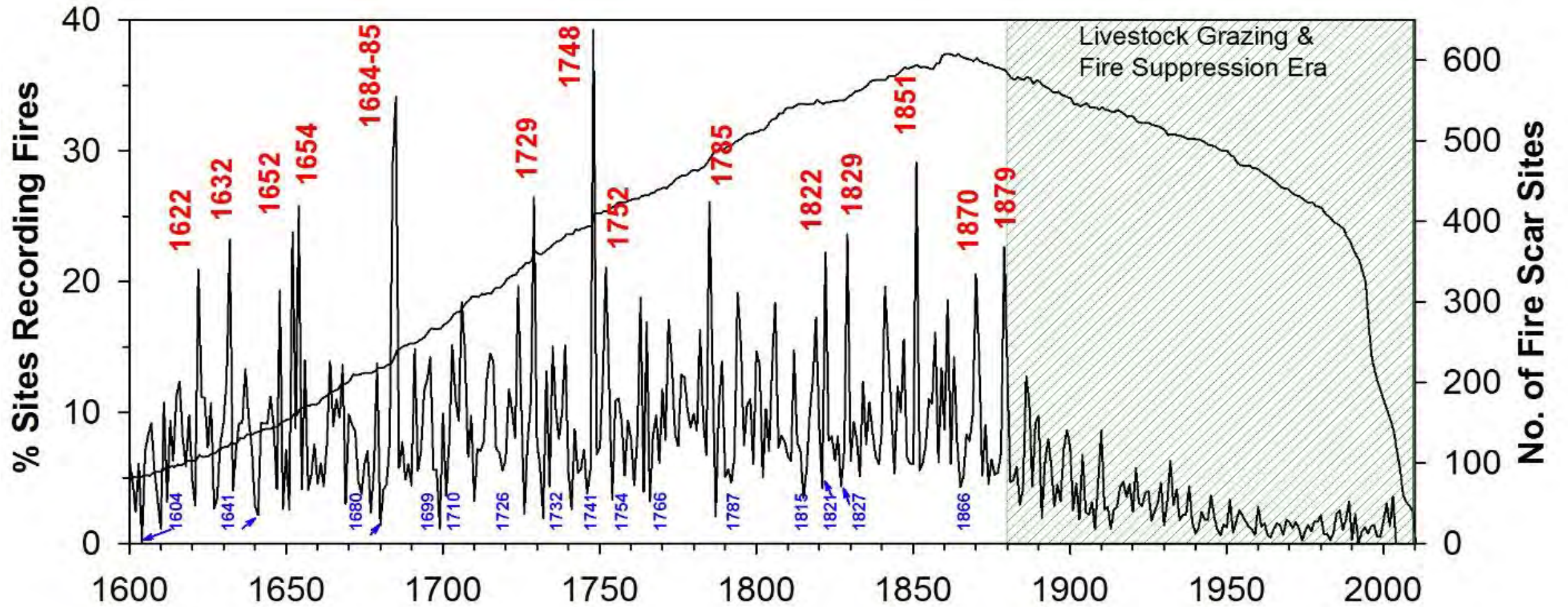
LEGACY OF FIRE SUPPRESSION?

AGENTS OF CHANGE



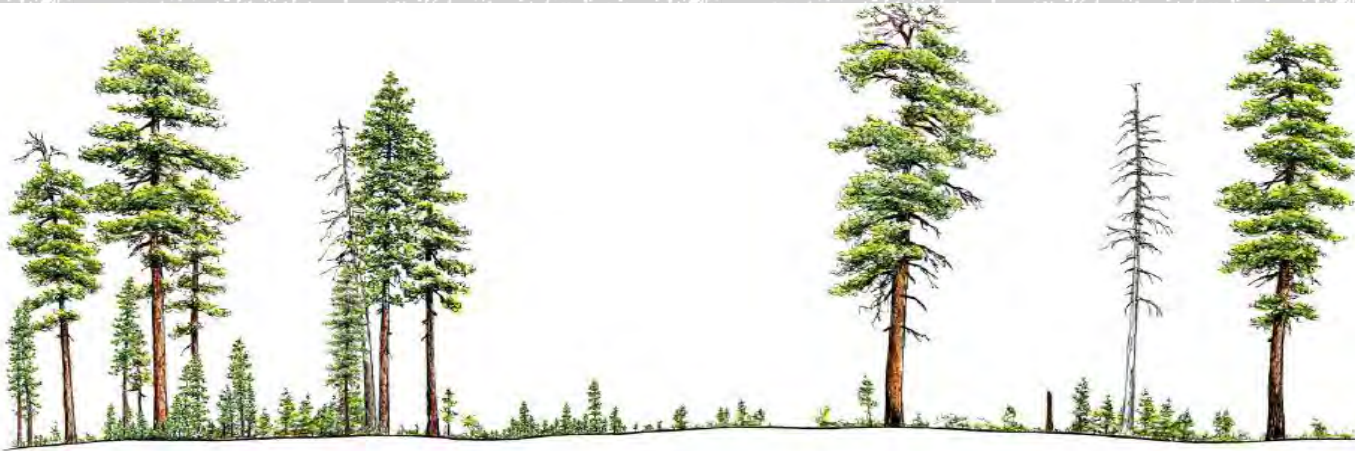
- Colonialism – curtailment of Indigenous burning
- Fire suppression policies
- Livestock grazing
- Road and rail construction
- High-grade logging
- Climate change





Combined record of fire occurrence from more than 800 sites (Swetnam et al. 2016)

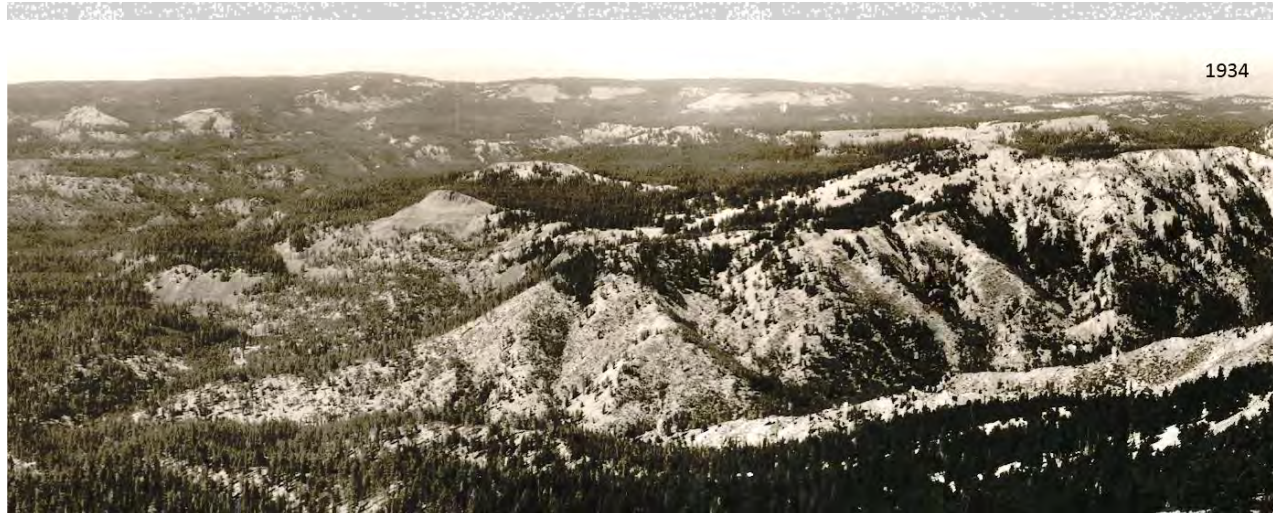
FIRE EXCLUSION – PATCH DYNAMICS



Fire-maintained forest with a low to moderate severity fire regime



Fire-excluded forest now vulnerable to high-severity fire events



1934



2010

FIRE EXCLUDED LANDSCAPES

*Slide courtesy of Paul Hessburg -
2010 photo by John Marshall*



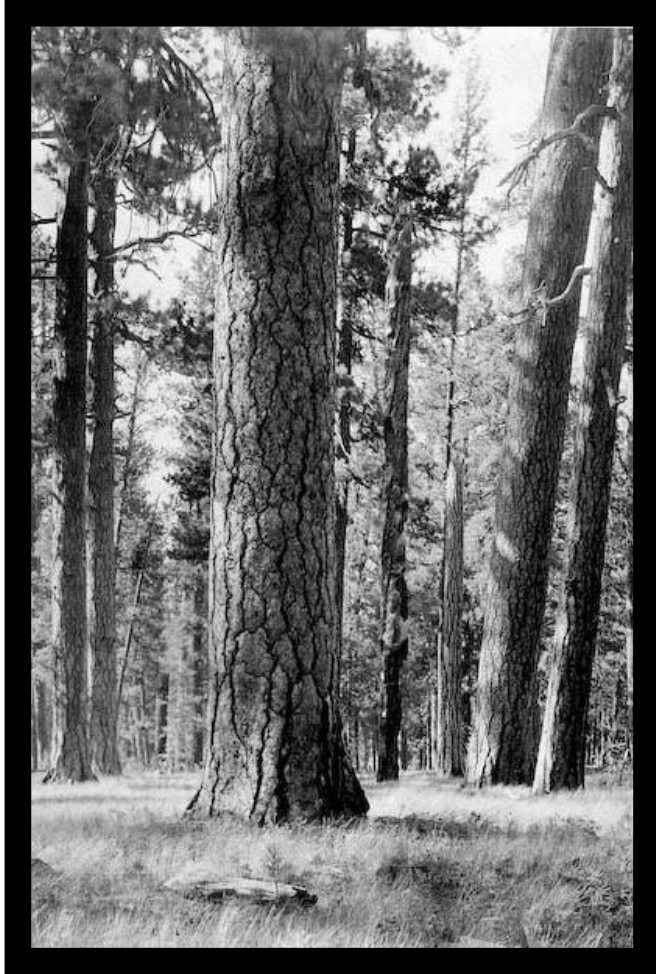
Dry, open slopes and ridgetops became filled with trees

MEGAFIRES AND CLIMATE CHANGE



2014 Carlton Complex, Upper Finley Canyon

MATURE FIRE-ADAPTED FORESTS VS TREE SEEDLINGS



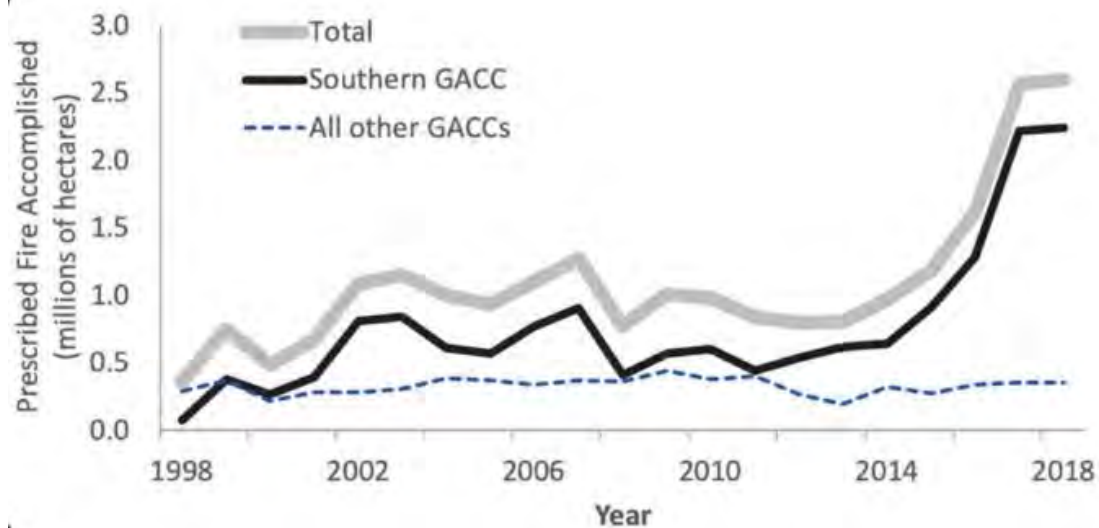
Relatively resilient to climatic extremes and fire



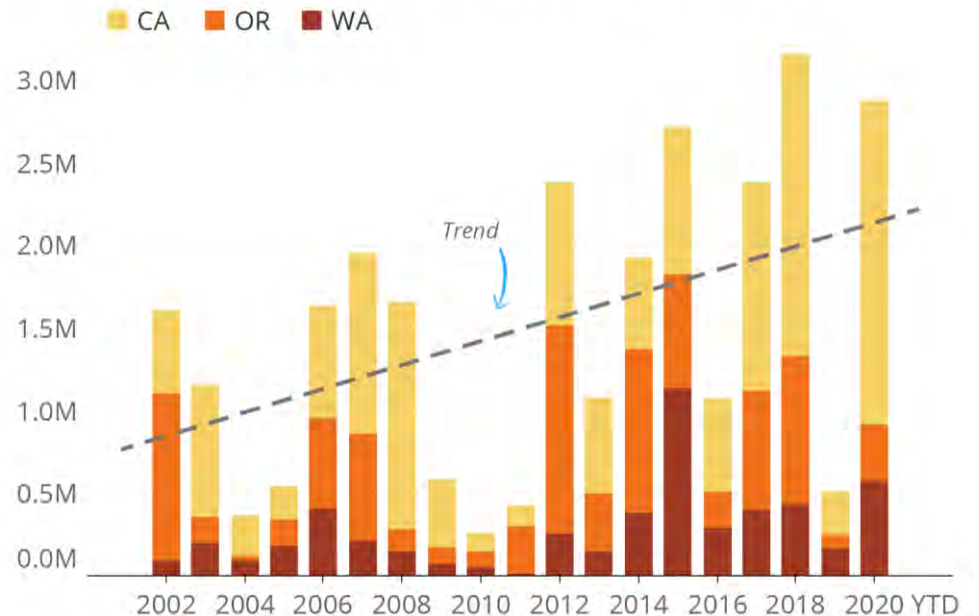
The most vulnerable phase of a plant's life

NATIONAL COHESIVE WILDLAND FIRE MANAGEMENT STRATEGY





U.S. Western wildland acres burned, millions



Source: National Interagency Fire Center
2020 data are current through September 9, 2020.

grist

PACE AND SCALE OF RESTORATION



Article

We're Not Doing Enough Prescribed Fire in the Western United States to Mitigate Wildfire Risk

Crystal A. Kolden

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INSIGHTS

PERSPECTIVES

ENVIRONMENTAL SCIENCE

Reform forest fire management

Agency incentives undermine policy effectiveness

By M. P. North,^{1,2*} S. L. Stephens,³
B. M. Collins,^{1,3} J. K. Agee,⁴ G. Aplet,⁵
J. F. Franklin,⁴ P. Z. Fulé⁶

(NCWFMS) (6) and the U.S. Forest Service's (USFS's) current effort to revise national forest (NF) plans provide openings to in-

Many severe wildfires are due to past fire suppression. Firefighters during the Rim Fire near Yosemite National Park, California, 25 August 2013.

Our land was taken. But we still hold the knowledge of how to stop mega-fires

Bill Tripp

The solution to the devastating west coast wildfires is to burn like our Indigenous ancestors have for millennia



▲ Flames and smoke from the Bobcat fire in Arcadia, California. Photograph: Patrick T Fallon/Reuters

As wildfires rage across California, it saddens me that Indigenous peoples' millennia-long practice of cultural burning has been ignored in favor of fire suppression.

Opinion

Using Wildfires as an Excuse to Plunder Forests

Logging won't end the blazes that are sweeping the West.

By Chad T. Hanson and Michael Brune

Dr. Hanson is an ecologist whose research focuses on forest and fire ecology. Mr. Brune is the executive director of the Sierra Club.

Sept. 4, 2018



Anders Nilsson