

# Fire Ecology: Rebuilding Connections with Communities, Fire, and the Land



Photos credit: (Left) Spokane Tribal Network. (Center & Right) Monique Wynecoop



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Yale Forest Forum Spring 2024 Seminar Series: Tribal Forestry

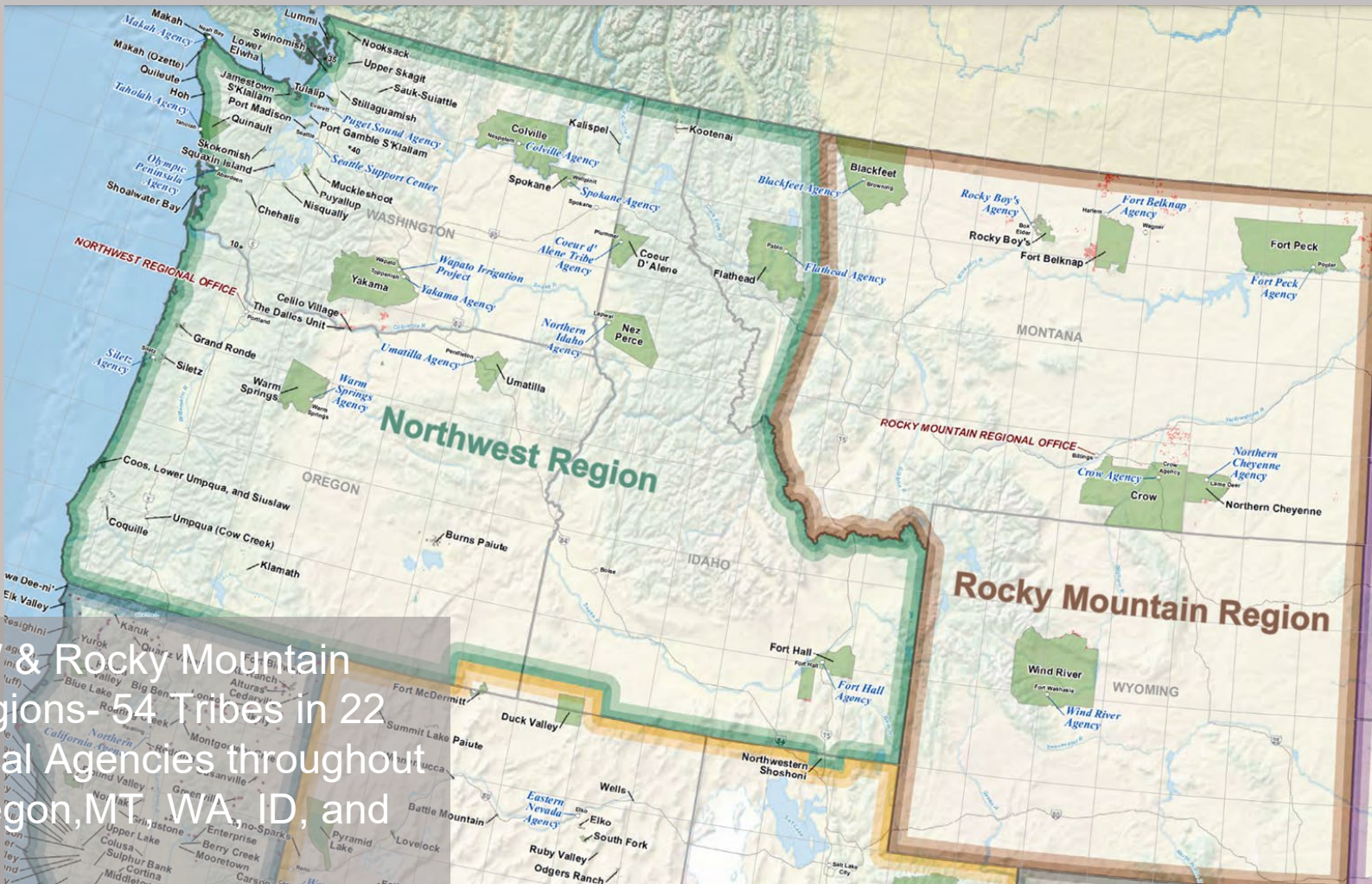
- MS Fire Ecology
- BS Fisheries Sciences, Ecology & Conservation Biology, & American Indian Studies  
Emphasis in Treaty Rights/Tribal Water Rights



Photos credit: Misko Finlayson,  
Parks, Canada



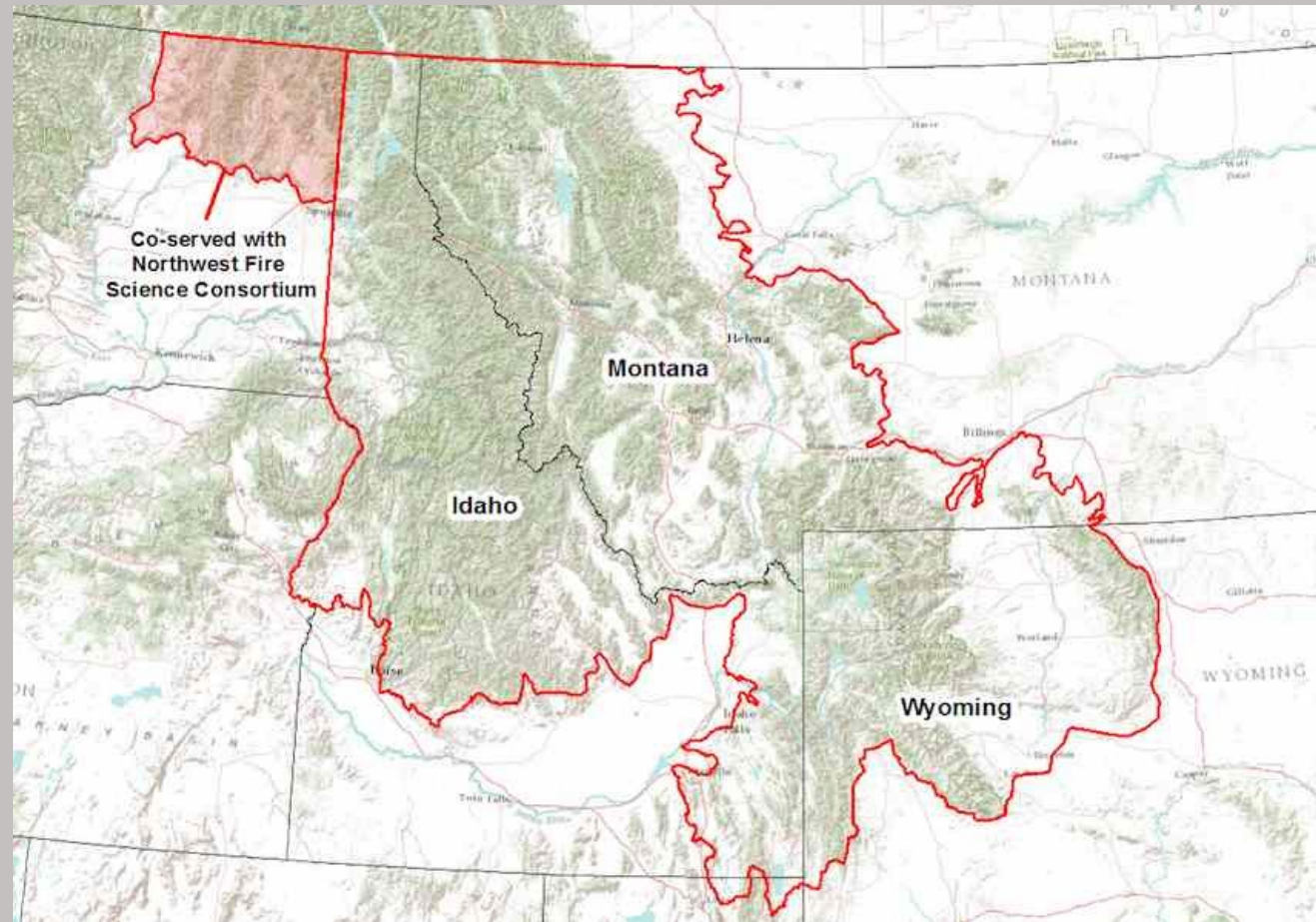
Photo credit: Monique Wynecoop



NW & Rocky Mountain  
 Regions-54 Tribes in 22  
 Local Agencies throughout  
 Oregon, MT, WA, ID, and  
 Wy

# Northern Rockies Fire Science Network

<https://www.nrfirescience.org/>



## Fire & Fuels Monitoring:

- Did we do what we said we'd do?
- Are there unintended effects of our treatments?
- How can we do better?

## Fire & Fuels Monitoring:

- Photo Points
- Acres Treated
- Fuel Loading
- Fire Behavior
- Fire Severity
- Fire Intensity
- Tree Mortality



## Fire & Fuels Monitoring:

- Species Composition
- Understory Plant Species
- Percent Cover
- Diversity & Richness
- Invasives

## Fire & Fuels Monitoring:

- Effects on cultural use and access
- Species health, condition, quality
- Soil condition and health
- Compounding effects





## Fire & Fuels Monitoring:

- Technique
- Location
- Timing
- Seasonality



## Challenges:

- Adaptive management
- What scale?
- Climate Change
- Data Sovereignty
- Communication/Collaboration between resources, programs, and agencies
- Prioritizing Monitoring in the reactive world of Wildland Fire
- Protecting Cultural Knowledge and Resources
- Power structure/cultural biases in dominant culture of fire
  - Women and Indigenous fire practitioners are working in a dominant paradigm not made for them
  - Shifting the paradigm to value the strengths we have to offer to our communities and the world

## Solutions:

- Changing the paradigm around fire
- Intergenerational Learning
- Cultural burning & sharing led by Tribes to benefit Tribes
- Cross-boundary Collaboration
- Getting Good Fire on the ground



A JFSP Fire Science Exchange Network  
Bringing People Together & Sharing Knowledge in the Northern Rockies

August 2023 TK & Fire Newsletter

## TK & Fire August 2023 Newsletter



<https://www.nrfirescience.org/hot-topics/fire-traditional-knowledge>

# Changing the paradigm around fire

- Schools, youth, community involved
- Bridge-builders
  - NGO's
  - Prescribed Fire Exchanges
- Sharing in resources, learning together, building relationships, changing the dominant paradigm around fire



Photo credit: Kara Karboski, WA Prescribed Fire Council



Photo credit: Kara Karboski, WA Prescribed Fire Council



Photo credit: Monique Wynecoop



## Healing the people by healing the land with fire

- Intergenerational learning & knowledge transfer
- Food Sovereignty
- Building Relationships
- Healing

Photos crédit: Monique Wynecoop



Healing the people by healing  
the land with fire

- The Nature Immersion Program
- Delayed Justice

Photos credit: Monique Wynecoop

# Cultural burning & sharing led by Tribes to benefit Tribes

- Karuk Indigenous Women's TREX
- NE WA Indigenous Prescribed Burning Network



Photo credit: Monique Wynecoop



Photo credit: Monique Wynecoop

# Cross-boundary Collaboration Confederated Tribes of the Colville Reservation/Spokane Tribe/USDA FS/University of Idaho/RMRS Aldo Leopold Wilderness Research Institute

Wynecoop et al. *Fire Ecology* (2019) 15:17  
<https://doi.org/10.1186/s42408-019-0030-3>

Fire Ecology



ORIGINAL RESEARCH

Open Access

## Getting back to fire *sumés*: exploring a multi-disciplinary approach to incorporating traditional knowledge into fuels treatments

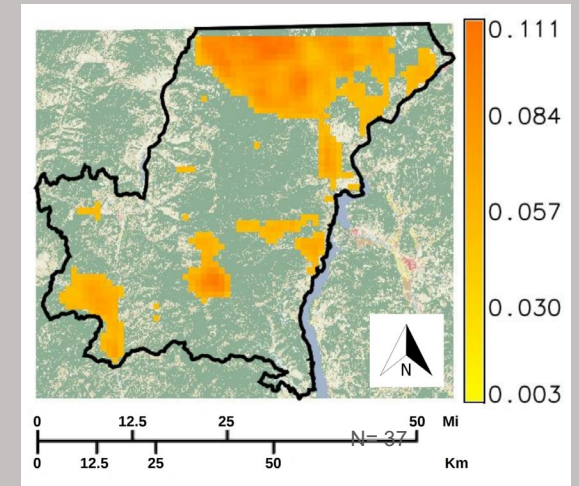
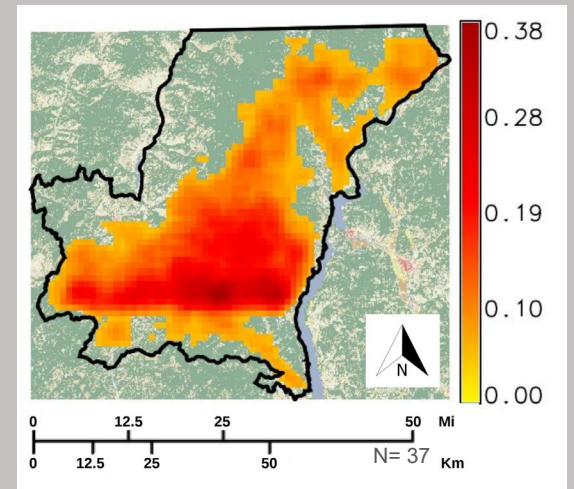
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### Abstract

**Background:** Evaluating fuel treatment effectiveness is challenging when managing a landscape for diverse ecological, social, and economic values. We used a Participatory Geographic Information System (PGIS) to understand Confederated Colville Tribal (CCT) member views regarding the location and effectiveness of fuel treatments within their ancestral territory within the Colville National Forest (CNF) boundary. The 2015 North Star Fire burned 88 221 ha (218 000 acres) of the CCT ancestral territory.

**Results:** We sampled thirty plot pairs that were treated or untreated prior to being burned by the North Star Fire and again one growing season post fire. Species diversity was significantly increased by wildfire in both treated and untreated plots. Species richness was significantly increased in the plots that were treated, and there was no significant change in species richness from wildfire within the untreated plots. The percent





# Changing the Paradigm around Fire & Fuels Management

Monitoring is also telling the story for  
those that can't speak



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Bureau of Indian Affairs  
Northern Rockies Fire Science Network  
TK & Fire in the Northern Rockies & Pacific NW Newsletter  
Spokane Tribal Network  
The Spokane Tribe  
The Confederated Tribes of the Colville Reservation  
The Nature Immersion Program  
The Nature Conservancy Indigenous Prescribed Burning Network  
WA Prescribed Fire Council  
Selkirk TRES  
Karuk Indigenous Women's TRES  
The USDA FS R6 Ecology Program  
The Aldo Leopold Wilderness Research Institute

