



# Tribal Wildlife Stewardship

Serra J. Hoagland (Laguna Pueblo), PhD CWB

Yale Forest Forum Spring 2024 Seminar Series: Tribal Forestry

March 7, 2024



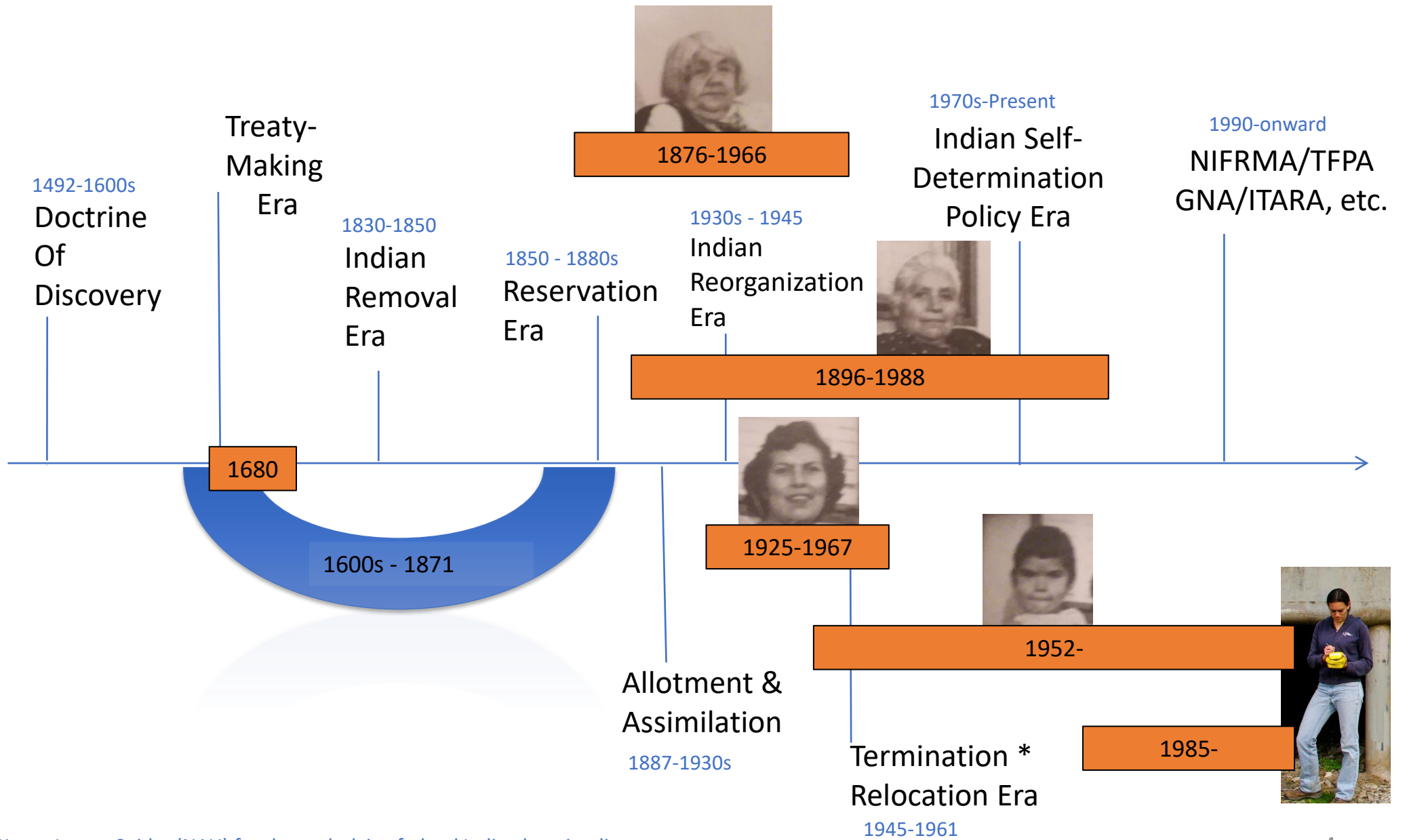


**“It is the people who  
belong to the mountain”**

Ceremony, Leslie Marmon Silko

# How do you feel when you see these words?

- Assimilation
- Removal
- Termination & Relocation
- Reorganization
- Self-determination & Education
- Reform
- Indian **Assimilation** Era: 1887-1930
- Indian **Removal** Era: 1830-1860
- Indian **Termination & Relocation** Era: 1945-1961
- Indian **Reorganization** Era: 1930-1945
- Indian **Self-determination & Education** Era: 1970's to present
- Indian Trust Asset **Reform**: 2000's to present



Da'wa'eh (thanks) to Karen Jarrett Snider (NAU) for the underlying federal Indian law timeline



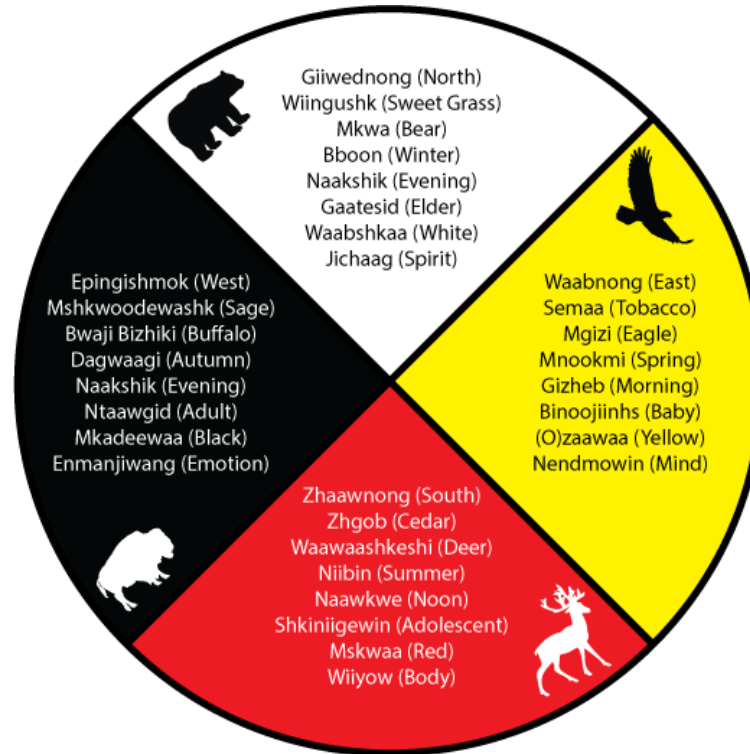
*Piute Forestry vs. Forest  
Fire Prevention*

*Leopold 1920*

- *“This theory is called ‘Piute Forestry’ for the alleged reason that the California Indians, in former days, deliberately ‘light-burned’ the forests in order to protect them against serious fires.”*
- **“It is, of course, absurd to assume that the Indians fired the forests with any idea of forest conservation in mind.”**



## IFMAT IV findings



USFS Research & Development  
Tribal Engagement

Mescalero and the MSO

Tribal Wildlife Stewardship  
new contributed volume

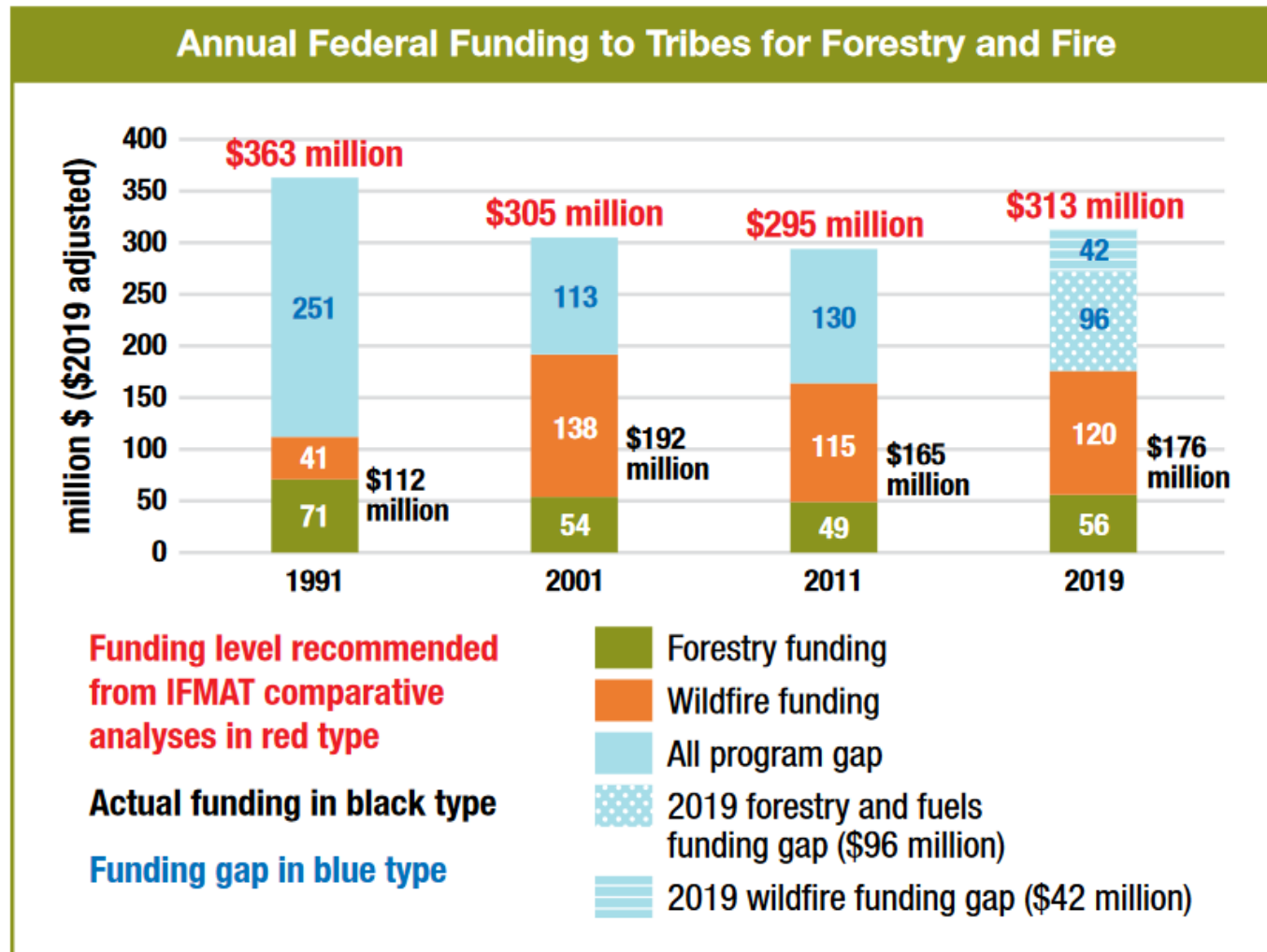
# NIFRMA IFMAT IV findings and recommendations

- National Indian Forest Resource Management Act 1990
- Required by Congress, decadal, independent assessment of tribal forests and forest management
- 8 mandated tasks, 3 identified by Intertribal Timber Council
- Goal: provide an integrated picture of Indian forests and forestry on trust lands
- IFMAT I 1993, IFMAT II 2003, IFMAT III 2013, IFMAT IV 2023
- Visited 37 tribal forests, met with BIA regional/central offices, comparative analysis, focus groups, and surveys
- Out of 74 IFMAT I-III recommendations, 65 addressed with action
- IFMAT reports available online at [www.itcnet.org](http://www.itcnet.org)





# Forestry funding shortfalls in Indian Country



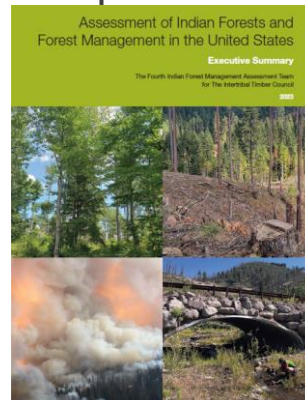
**State-of-the-Art forestry cannot be achieved long term without the funding**

- Stretched by growing land base and obligations
- Increasing reliance on soft-money

# IFMAT IV Executive Summary

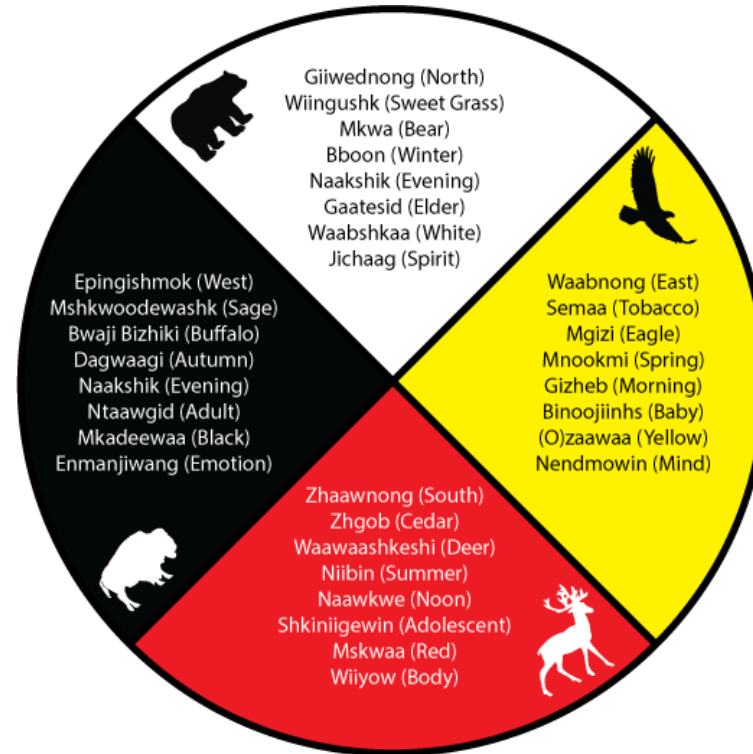
There is a unique tribal vision of forest management including a focus on stewardship and non-timber forest products as self-governance increases yet the Secretary's trust responsibility remains and is vaguely defined.

Forest based income is less important value, tribes are prioritizing stewardship and traditional uses of their forest.



Numerous threats exist to NTFP that include reduced access, decline in NTFP populations, increased human pressure, changes in forest structure, as well as loss of native language resulting in loss of traditions around gathering, preparing and processing NTFP

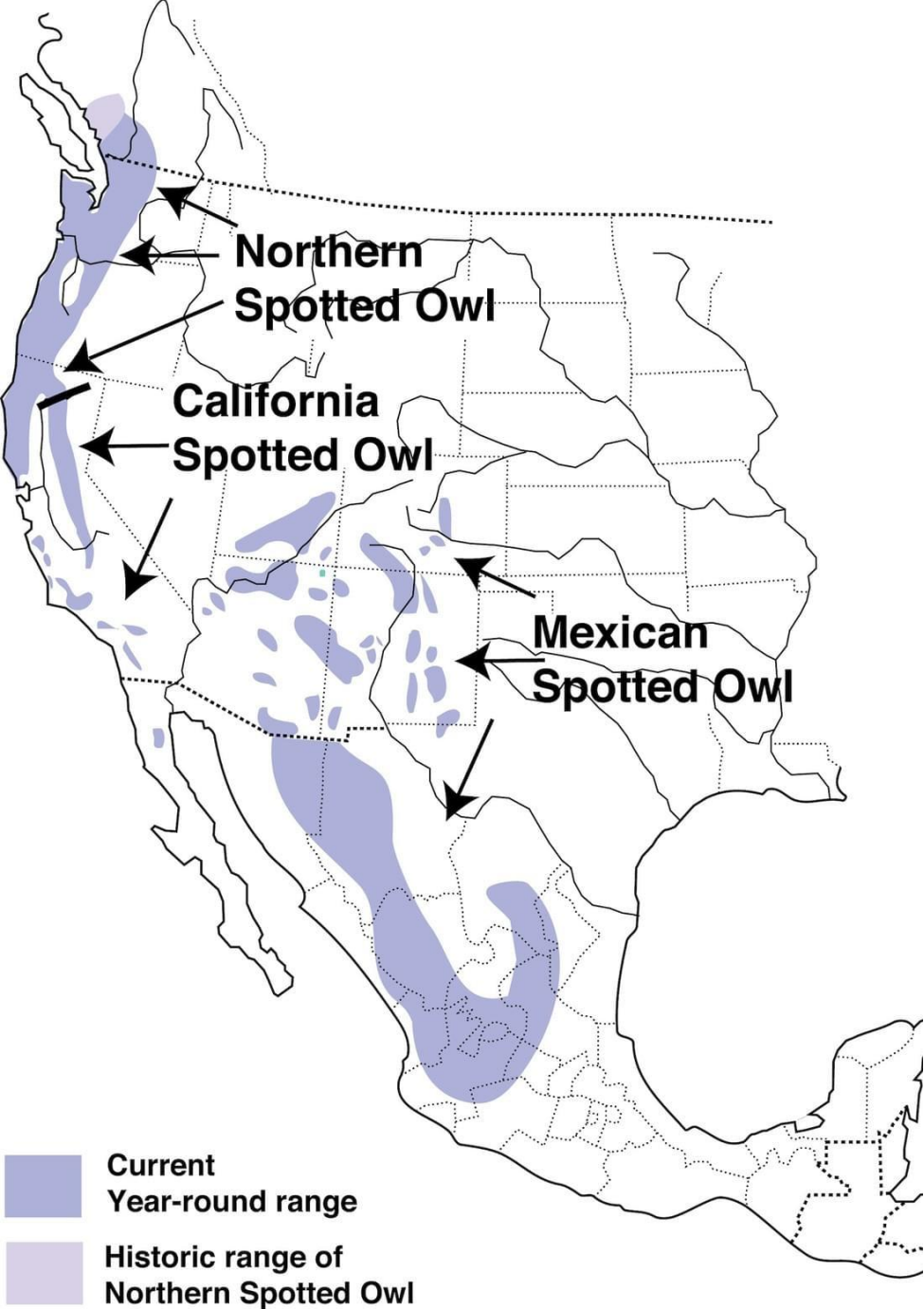
# IFMAT IV findings



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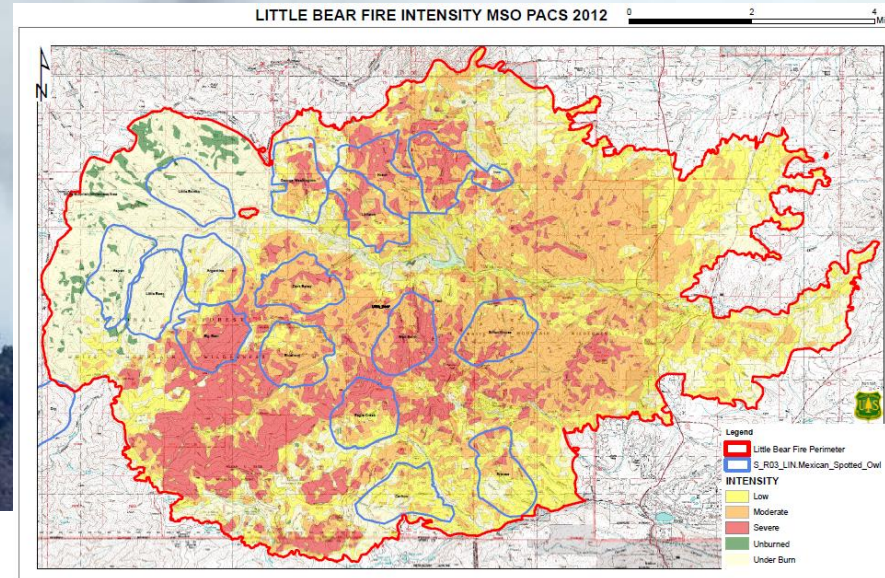


# Wildfire & the Mexican spotted owl (MSO)

Looking to tribal forest management for answers.....

# The spotted owl conundrum...

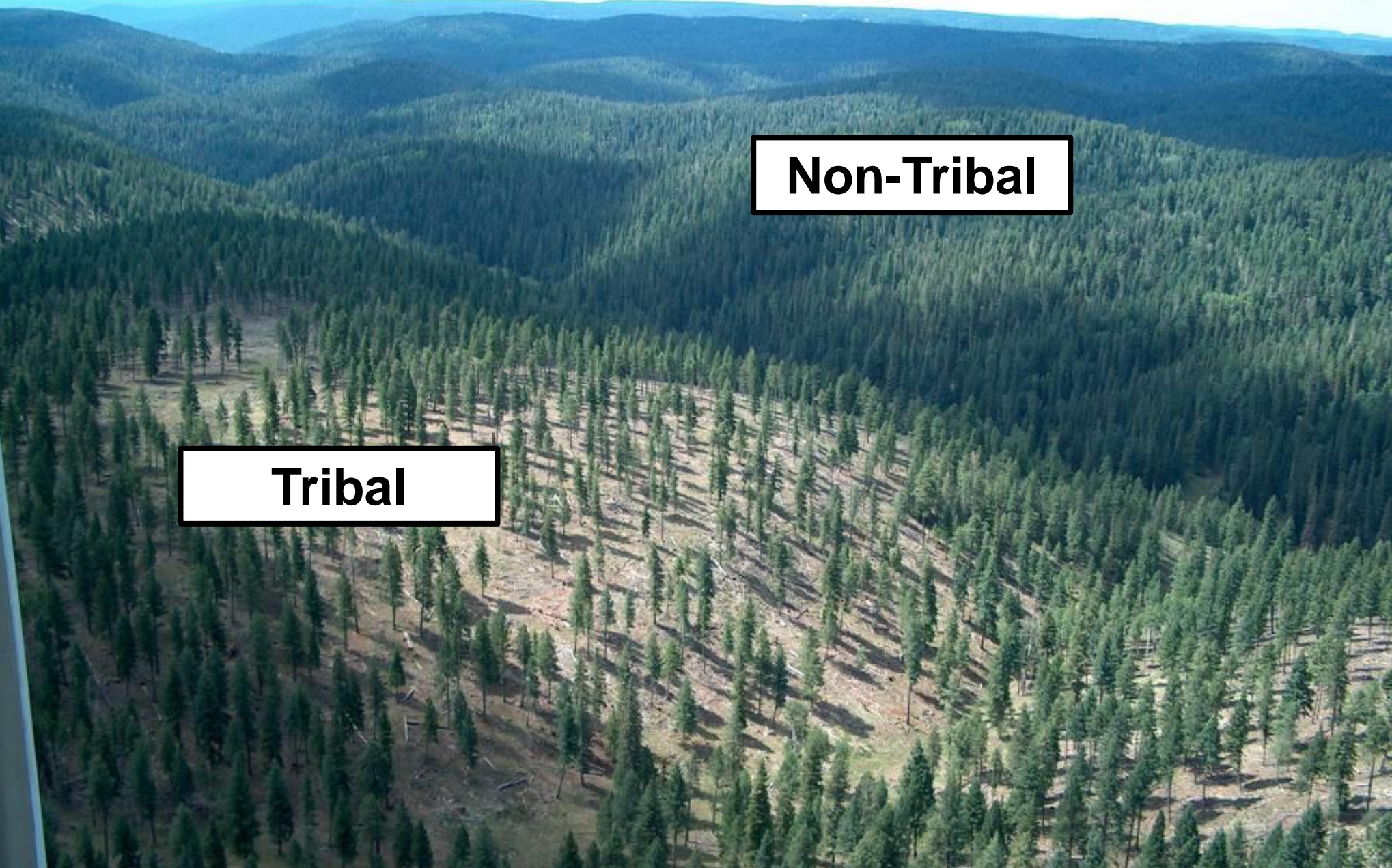
- Fire suppression, livestock grazing, and timber harvesting practices have altered southwestern forests and wildfire regimes
- MSO nesting habitat is susceptible to forest and-  
replacing
- MSO Rec  
treatment
- BUT LAC  
FOREST



y threat  
ECTS OF

*This strategy presents a dilemma...[w]e know that the risk of stand replacing fire has increased over time. As a result, large areas have experienced such fires in recent years. Further, Mexican spotted owls nest and roost in areas featuring high canopy cover and relatively decadent stands of multi-aged and sized trees. Thus, these areas contain relatively continuous canopies and high loads of surface fuels, large numbers of snags, and multi-storied stands. These are all features that can predispose these areas to experience stand replacing fire under certain weather conditions...[s]uch conditions appear likely to become more common in the southwestern U.S. – 2012 USFWS*

We look to Indian forestry...



**Non-Tribal**

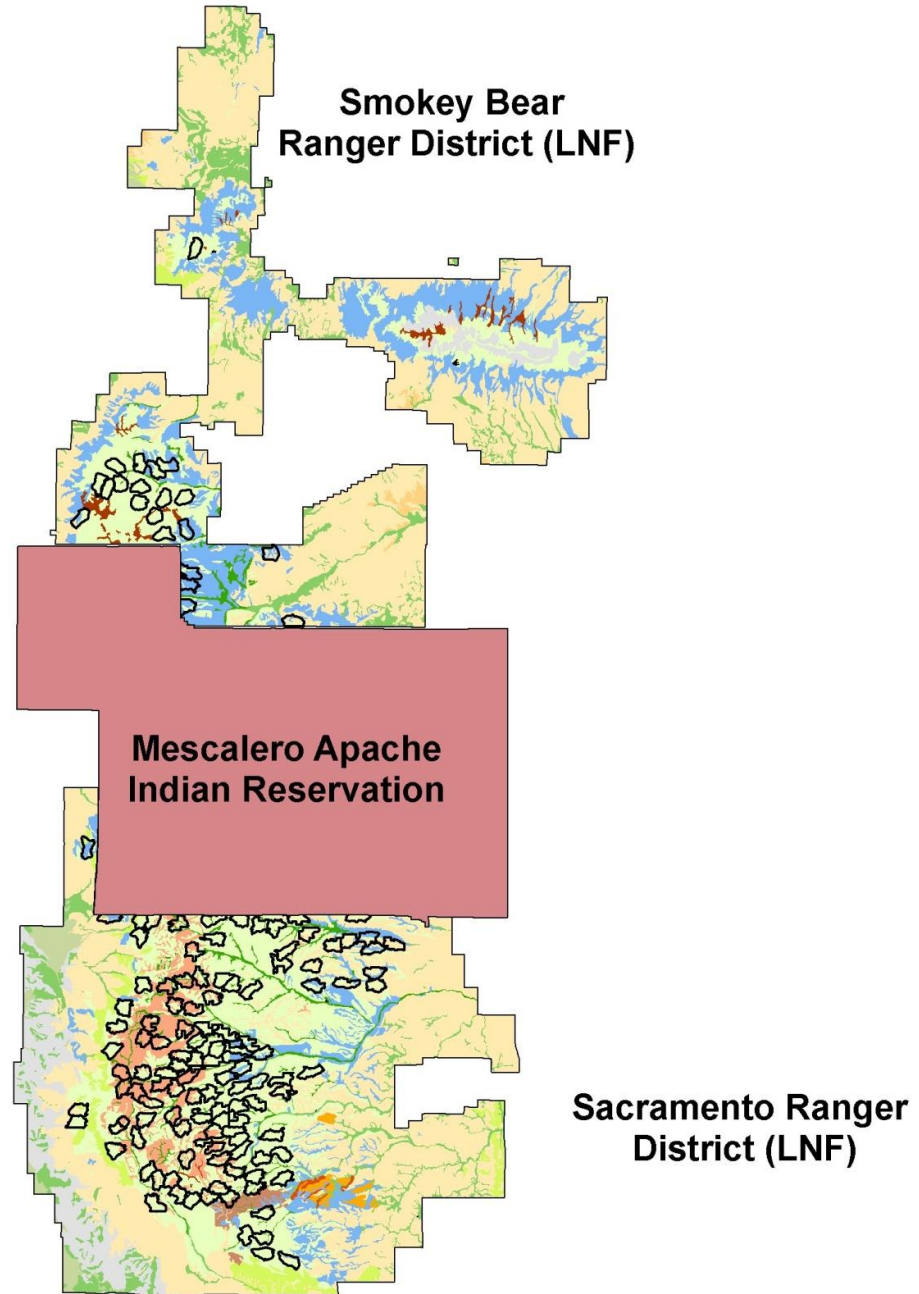
**Tribal**

**Legend**

**Veg\_Type\_TEU**

**Veg\_Type**

- High Grass
- Mixed Conifer
- MC - Aspen
- Aspen
- Ponderosa Pine
- Oak
- Mid Grass
- Shrubland
- PJ
- Juniper
- Pinyon
- Desert Grass
- Grassland
- Desert Shrubland
- Rock Outcrop
- Rubble Land
- No Data



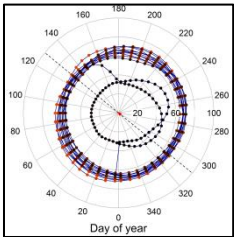




**Can we identify Mexican spotted owl habitat from space?**

**Is owl habitat different on tribal lands?**

**YES. Selectivity of habitat was similar on tribal lands but availability was different**



**Using customized NDVI products, does habitat selectivity correlate with MSO reproduction?**

**No**



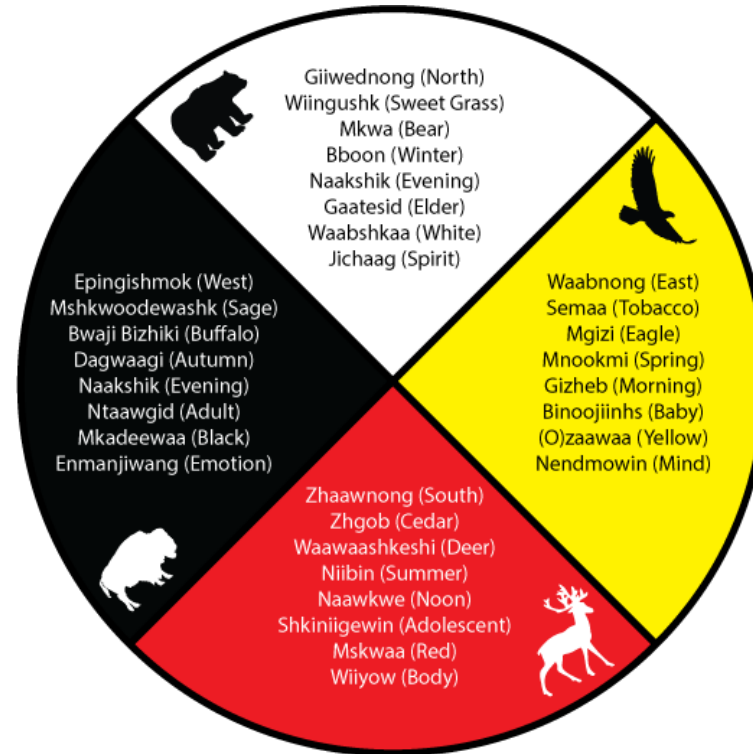
**What is the stand structure of tribally-managed MSO breeding areas?**

**Does not always match Recovery Plan recommendations**

**Hoagland, S.,** Beier, P. and D. Lee. 2017. Using MODIS NDVI phenoclasses and phenoclusters to characterize wildlife habitat: Mexican spotted owl as a case study. *Forest Ecology and Management* <https://doi.org/10.1016/j.foreco.2017.12.017>

**Hoagland, S.** 2016. An assessment of owl habitat on tribal and non-tribal lands. Dissertation Northern Arizona University. 226p. Dissertation.

# IFMAT IV findings



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# Tribal Wildlife Stewardship

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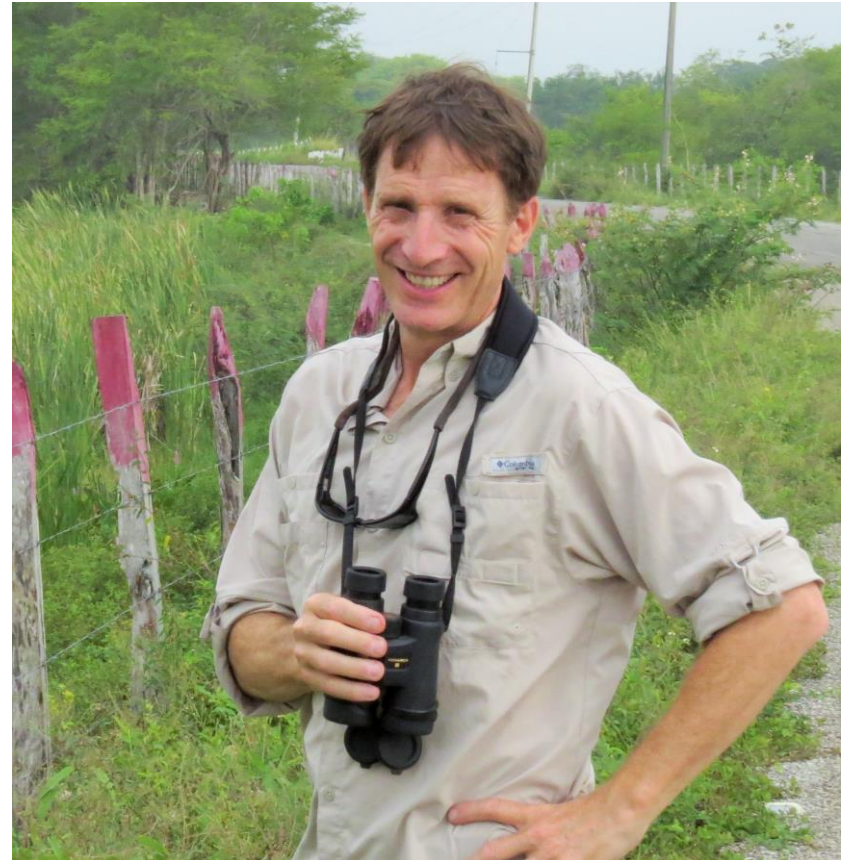
- Partnered with the NAFWS to produce the first-ever contributed volume on Tribal Wildlife Management topics
- 100+ Native and non-native authors covering topics on law/policy, TEK, T&E species, interviews and case studies
- May 2019 launched at NAFWS
- May 2023 print copies available



# Steve Albert, co-editor

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**Steven Albert** ([salbert@birdpop.org](mailto:salbert@birdpop.org)) is an Assistant Director at The Institute for Bird Populations, a conservation science non-profit, where he works on avian ecology initiatives in North America and Latin America. For many years, he was the Fish and Wildlife Department Director and Chief Conservation Law Enforcement Officer at the Pueblo of Zuni, where he helped develop the nation's first tribal eagle aviary and a program of sacred spring and wetland restoration.



# Volume Mission Statement

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- *For the benefit of all our relations, past, present, and future, this volume on Tribal Wildlife Stewardship strives to consolidate and describe contemporary wildlife issues throughout Indian Country, educate and inform wildlife professionals and students, support tribal sovereignty and autonomy by elevating native voices, and begin to change the wildlife management paradigm by meaningful representation and incorporation of native worldviews, traditions and practices.*

# Goals

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## Increase

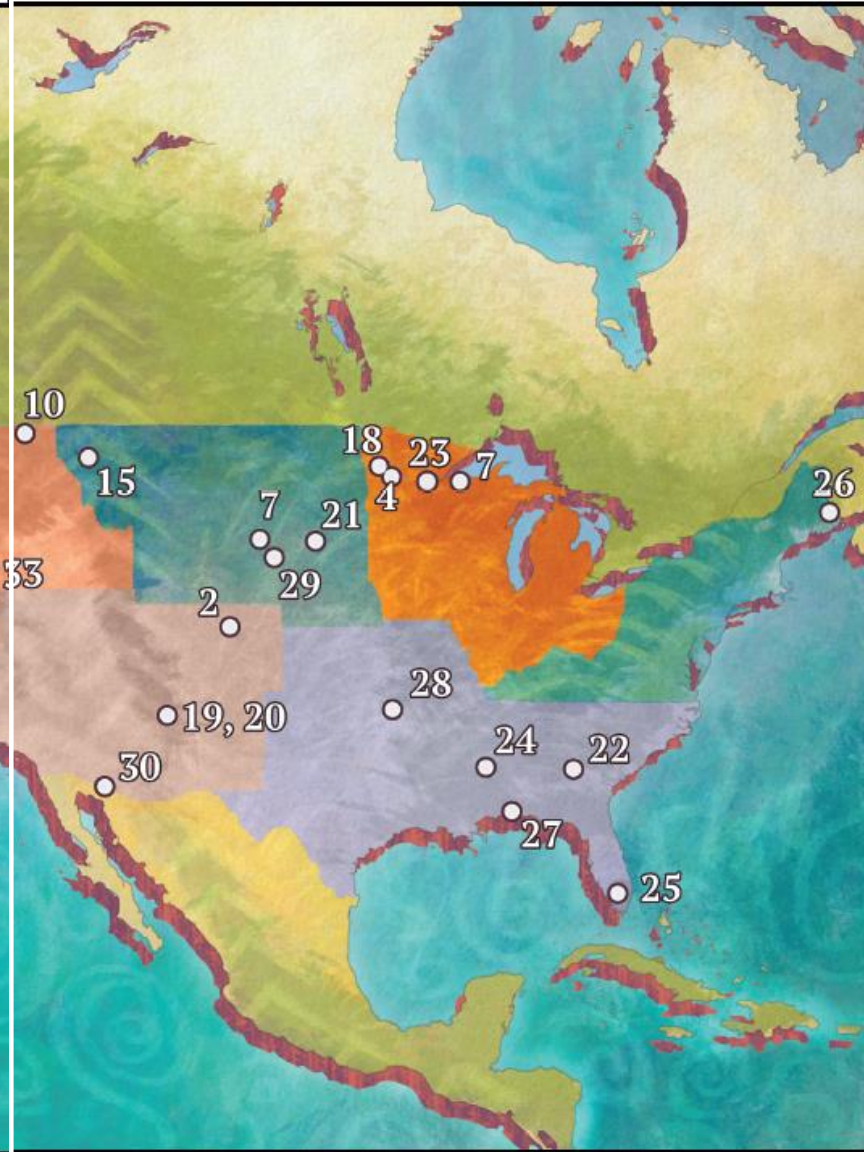
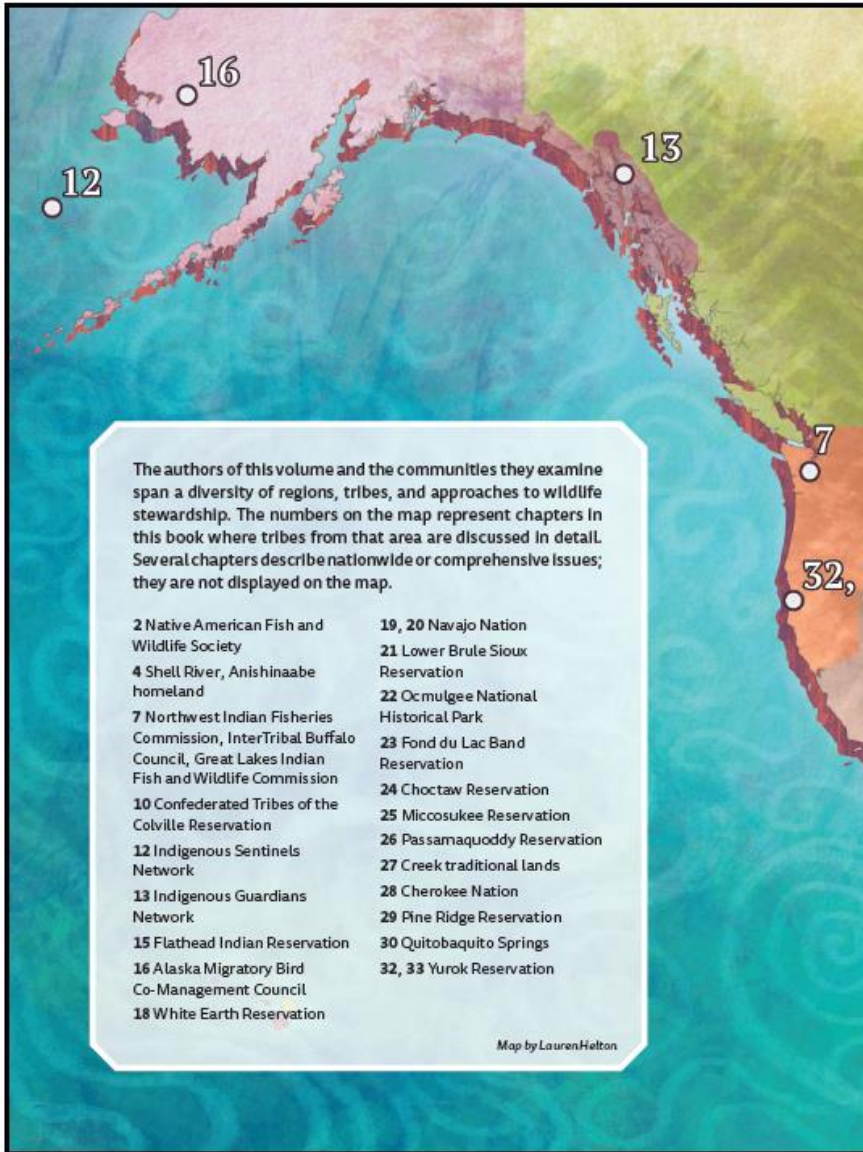
- Increase the representation of Native culture, programs, authors and practices regarding wildlife management in wildlife texts and resources

## Weave

- Weave technical and creative pieces (artwork, poems, pictograms, stories) from native voices throughout Indian Country regarding wildlife management and conservation

## Incorporate

- Incorporate historical and contemporary knowledge to capture how tribes manage and relate to wildlife
-



Book proceeds

AND

Public access

- All proceeds from the book will be transmitted to the Native American Fish & Wildlife Society in perpetuity
- After 3 years it will be public access

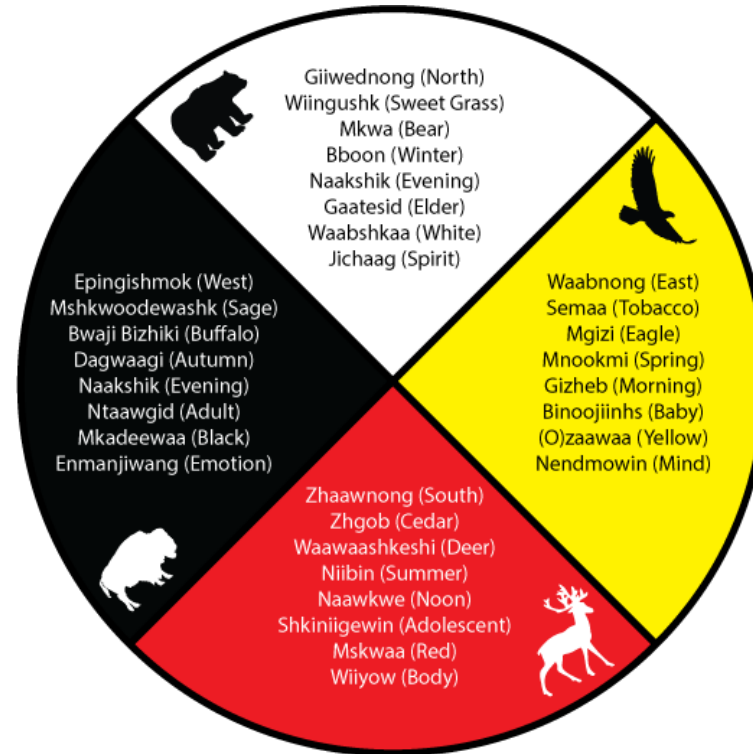




Sponsors and significant contributions

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# USFS Research & Development Tribal Engagement

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- Tribal Engagement Roadmap
- Tribal Relations Specialists within research stations
- Limited capacity and funding
- ITEK memo and federal guidance



Da'wa'eh

# Additional resources



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**Rocky Mountain Research Station**

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**Caring for the land and serving people**