Traditional Knowledges and Climate Change Adaptation: Traditional Use of Fire

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Education
- 1995 B.S. University of California, Davis.
- 2007 Ph.D Oregon State University

USDA Forest Service-PSW
- Arcata Lab Orleans, Ca.
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Research
- Traditional Ecological Knowledge and Ethnobiology
- Fire Effects and Climate Change Impacts to Tribally Valued Habitats and Resources

Management
- Resource Advisor on Wildland fires
- Interdisciplinary team assignments

Klamath River TREX Oct. 2015 Lake Property Karuk and Yurok Ignitors “Traditional burning in a modern context to achieve multiple objectives”

2019 Tribes and First Nations Climate Summit Session: Traditional Knowledges in Conservation and Adaptation
Indigenous/Tribal Knowledges: Applications and Implications

• Sources (forms) of IK
  • Ethnographic/historical
  • Tribal/agency project reports
  • Academic research partnerships
  • Tribal lead interview projects
  • Direct knowledge transfer: “teaching and training” of elders or practitioners to youth
  • Knowledge sovereignty: Tribal Govt. or Family/Individual as Sources

• Responsibility for knowledge and what was learned or how it was applied. Initial projects to others?

• Knowledge genealogy and sustaining cultural fire related practices—sharing the wealth
Inadvertent Disclosure?: Learning about and respecting tribal knowledges & sovereignty

• Project level/scale considerations?
  • Sources of information to consider?
  • Using publicly available and/or tribal confidential information.
  • What level of detail from synthesis or assessments is appropriate to publicly share?
• Tribal input and oversight of final species, locations, or descriptions of culturally significant habitats and resources.
• Federal vs. Tribal regulations, authorities, or ordinances.
Learning to work with Indigenous Knowledge Systems

• What are some “Best Practices” for working with Indigenous communities and Tribes when requesting the use or incorporation of their knowledge?

• What Guidance and Frameworks are available for non-tribal researchers and managers?

• Current project with Dr. Michelle Steen-Adams (USFS-PNW) building upon her fire history/ ecology research & building upon Chas Jones (ATNI liaison) work with PNW Tribes.
Project: Understanding Effects of Climate Change on Forest Resources for Tribal Communities in the Pacific Northwest and Northern California

- Objective is to understand climate effects on tribally valued forested habitats (places) and resources (species)
- Synthesizing previous and ongoing climate work of forests and tribal vulnerability to climate effects
- Requesting Tribes to be Case Study contributors

Graphic by Kirsten Vinyeta created for Karuk Climate Adaptation Plan.
Project: Understanding Effects of Climate Change on Forest Resources for Tribal Communities in the Pacific Northwest and Northern California

- What are the main climate threats and stressors to forests and tribal knowledge systems and practices?
- How can broader scale climate and forestry assessments and models be used?
- What are the forms of knowledge and data tribes have to inform research assessments?
- What level of detail or sources of information are tribes seeking and needing?

*Please come see Project Poster and discuss with Frank this evening*
Traditional Use of Fire as Conservation and Adaptation Actions

- Tribes as Fire Dependent Cultures (*Building upon the Fire Adapted Communities approach)
- Indigenous Fire Stewardship- *Knowledges application*
- Increasing landscape resilience as a Socio-ecological & Cultural process
- Promoting drought tolerant/fire adapted species of cultural importance
- Emphasis on food, materials/basketry, medicinals, and wildlife (food and regalia spp.)

*Traditional burning/IFS as “Human services for Ecosystems”- Bill Tripp Karuk Tribe*
Traditional Use of Fire as Conservation and Adaptation Actions

- Example - Karuk Tribe for the Western Klamath Restoration Partnership
- Indigenous Knowledge informed prioritization of where to conduct treatments “value assessment”
- IK integrated into prescriptions and tribal/community workforce for treatment (thinning & burning) implementation
- IK/Tribal Resource Advisory Committee engaged with the research process
- IK guided research processes are creating the Best Available Science to inform management and for policy development

Photo: E. Knapp, USFS-PSW