

TRIBAL FIRE AND FOREST MANAGEMENT

CONFEDERATED SALISH-KOOTENAI FIRE HISTORY, PHILOSOPHY,
AND RESOURCE MANAGEMENT STRATEGIES



Field Trip Summary 13 | May 2018

Within the ancestral homelands of the Confederated Salish Kootenai Tribes (CSKT), the Fire Continuum Conference (May 2018) discussed the complexity of wildland fire and fuels research and management. The CSKT fieldtrip took place on the Flathead Reservation (figure 1), about 20 miles north of Missoula, and the presenters addressed many facets of the fire continuum and the CSKT's novel approach towards addressing the complexity challenge. Approximately 53 people, from a variety of different countries, states, and backgrounds, attended the field trip which made for a great opportunity for shared learning and networking. Serra Hoagland, Liaison Officer (Biologist), Rocky Mountain Research Station, was the facilitator for the field trip.

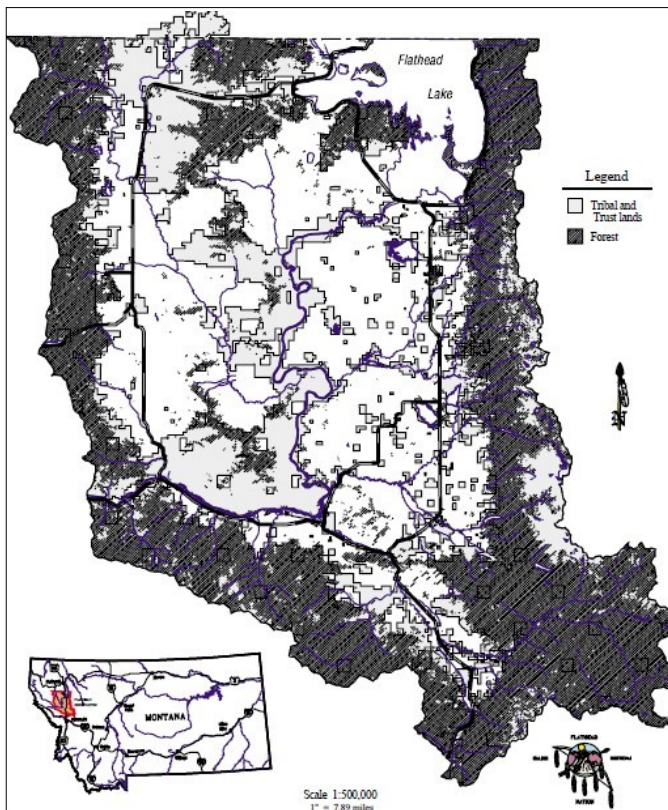


Figure 1. CSKT Reservation (CSKT Resource Management Plan, 2000)

OVERVIEW

The Hellgate Treaty of 1855 established the Flathead Reservation, which was decreased by a half a million acres in 1905 during the Allotment Era (1871-1934). The reservation was then managed by the Bureau of Indian Affairs, which initially did not incorporate tribal values or opinions into their management strategies. They hired what they called Indian Agents (not foresters or tribal members) to administer timber sales. Like many reservations across the U.S., poor timber management by these agents led to the exploitation and illegal harvest of the CSKT's timber resources and to a prohibition of indigenous fire on the land in the 19th century, with no consideration for sustainability or benefits to the tribal people. When the Indian Self-Determination Act of 1976 (Public Law 93-638) was passed, it allowed the unique opportunity for sovereign tribal governments such as the CSKT to develop a forest management plan that addressed their unique cultural, ecological, and economic values for the best interest of the tribe.

Within their Forest Management Plan (May 2000), the CSKT demonstrates how natural resource management can heal the land and the people, and adapt to address complex challenges such as increasingly frequent and large wildfires and climate change. This was the focus of the field trip. The field trip included presentations at the Gray Wolf Peak Casino by CSKT Employees who discussed ecological and social challenges the tribe is facing and how they are successfully addressing these with their innovative CSKT Forest Management Plan, which is updated every 10 years (CSKT 2000). The presentations were followed by a drive to the Jocko Prairie project area to see the ecological concepts of the resource management plan in practice on a recent prescribed burn.

Some key take-away points from the field trip:

- The management plan follows an ecosystem-based approach that is defined in the plan as, "the integrated use of ecological knowledge at various scales to produce desired resource values, products, services, and conditions in ways that also sustain diversity and productivity of ecosystems. This approach blends physical, biological, cultural, and social needs" (CSKT 2000).

- Management, such as timber removal, is designed to mimic natural disturbance.
- Natural fire and indigenous fire have had a significant impact on the CSKT landscape for thousands of years.
- Cultural ideology of the CSKT is incorporated into all facets of management.
- Combining TEK and western science is the best way to address resource management issues today.
- The land is being managed to help and heal the people. Tribe and future generations come first.

Combining TEK & Western Science is the best way to address resource management

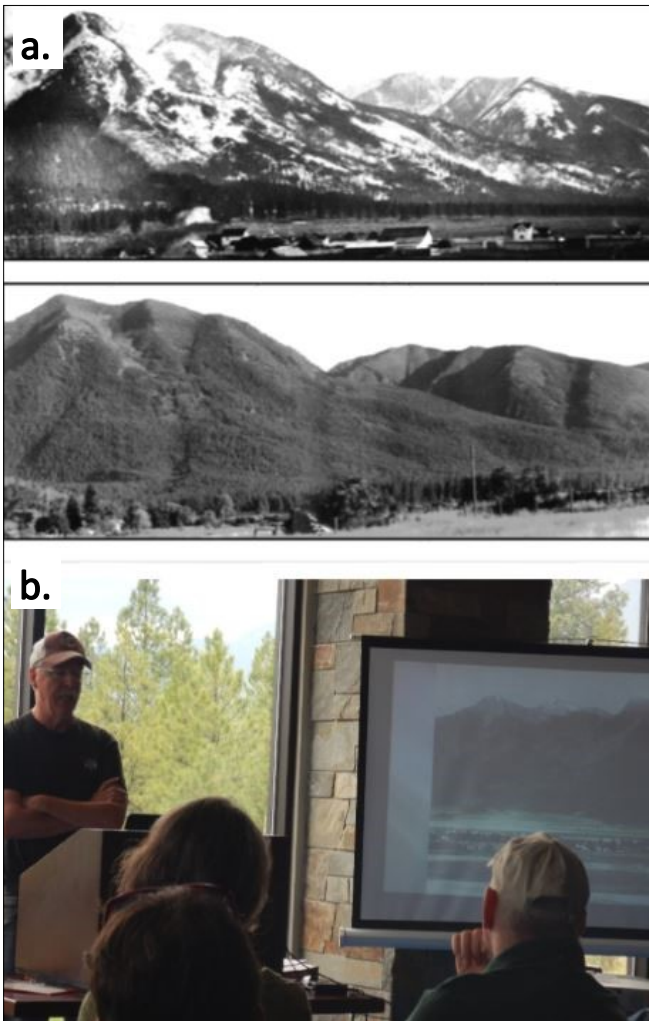


Figure 2.a. Comparison between photo points taken during 1925 (top) and 1994 (bottom). Photo courtesy of the CSKT. Figure 2b. Tony Hardwood notes that retaking pictures at historic photo points demonstrates the loss of diversity and how the removal of fire has caused a monoculture.

CSKT FIRE HISTORY

Between 1978 and 1997, the Flathead Reservation had 734 fires totaling 20,933 acres. Between 1998 and 2017, there were 1,572 fires and 139,956 acres were burned (Figure 3). Many factors have led to the alteration of forested areas within and surrounding the reservation, such as, “changes in patch size, in species diversity within stands, and increases in tree density within stands (CSKT 2005).” The Tribe’s ecosystem-based resource management plan is novel in that the tribe redefines fire management units to fit their emphasis on mimicking natural disturbance. In 2005, the CSKT completed a fuels assessment to amend their fuels management plan within their 22,000 wilderness Buffer Zone Management Area and identified four significant fire regime types within the management area:

- “Lethal”, Stand-replacement Fire Regime (FRC)- Approximately 2% of the buffer zone, these areas are lower elevation even-aged, managed, and shelterwood timber stands, primarily comprised of mature, mixed conifer Douglas-fir (*Pseudotsuga menziesii*), Grand-fir (*Abies grandis*), Western Red Cedar (*Thuja plicata*), and Englemann spruce (*Picea englemannii*). They are cool and moist sites with moderate wind exposure.
- “Mixed”, Partial Stand-replacement Fire Regime (FRB)- Approximately 25% of the buffer zone, these areas are lower- and mid- elevation timber stands with a dense pine/fir/larch (*Larix occidentalis*) understory.
- Non-lethal Fire Regime (FRA)- Approximately 73% of the buffer zone, these areas are uneven-aged treatment areas within low and mid-elevation areas comprised of intermediate and mature Ponderosa pine (*Pinus Ponderosa*) and Douglas-fir with dense regeneration in the understory (CSKT 2005).

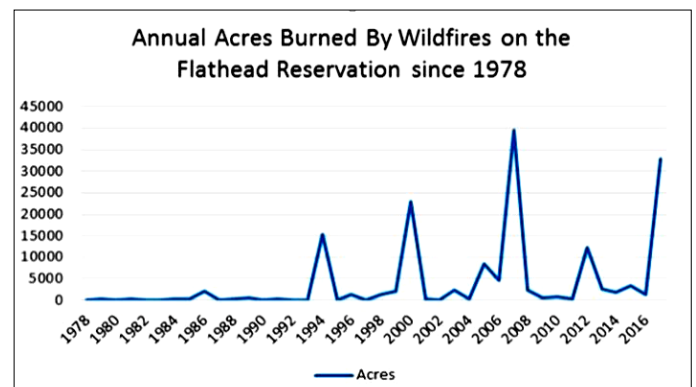


Figure 3. Trend of annual acres burned by wildfires on the Flathead Reservation between 1978 and 2017. Numbers in graph are from the CSKT Division of Fire Management numbers from field trip fire history handout (Graph prepared by Monique Wynecoop).

JOCKO PRAIRIE PROJECT

The field trip ended with a site visit to the Jocko Prairie Project (Figure 4). The site demonstrated the CSKT management approach utilizing traditional cultural knowledge, thinning, and prescribed fire to return ecological and cultural values of the CSKT to the landscape. One growing season post-fire, the blue camas (Cammassia quamash) returned in abundance to the project area. The visible difference in plant diversity and blue camas abundance between the untreated, closed-canopy stand directly across the road from the treated, now open-canopy stand was notable.

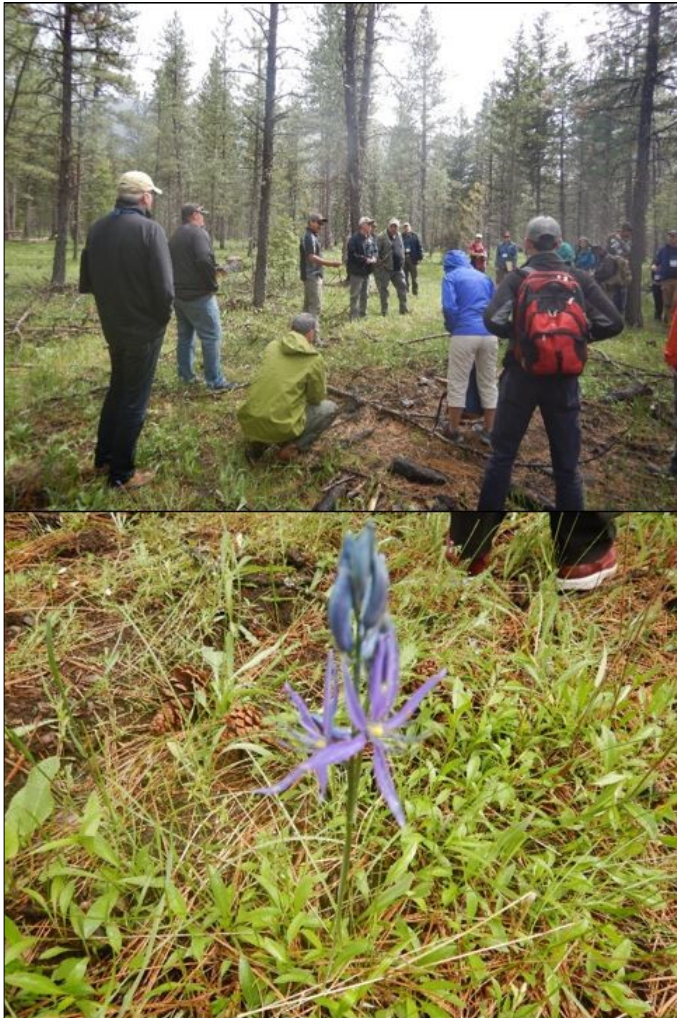


Figure 4. Jocko Prairie Project unit, post prescribed fire to reestablish camas and cultural uses of the area. Camas was plentiful in the project area one growing season post-fire.

ADDITIONAL INFORMATION

Field trip cadre- Serra Hoagland, Liaison Officer (Biologist), *USFS Rocky Mountain Research Station*; Stephen McDonald, Forestry, Division Manager of Project Planning, *Confederated Salish Kootenai Tribes (CSKT)*; Kyle Felsman, Tribal Preservation Officer, *CSKT*; Casey

Ryan, NRD Water Management Project Engineer, *CSKT Ronan Office*; Tony Hardwood, Consultant, (Former *CSKT Fire Management Officer*); Ron Swaney, Fire Management Officer, Division of Fire, *CSKT*; Mark Couture, Lands Department Specialist, *CSKT*; Tony Incashola Jr., *CSKT Forest Manager*; Vernon Finley, Gray Wolf General Manager

Summary author– Monique Wynecoop, Fire Ecologist, *USFS Colville National Forest*

READING MATERIALS

Confederated Salish Kootenai Tribes (CSKT) Climate Change Strategic Plan. 2016. Online <<http://nrd.csktribes.org/component/rsfiles/download?path=CSKT%2BClimate%2BChange%2BAadaptation%2BPlan%2B4.14.16.pdf>>. Accessed June 10, 2018.

Confederated Salish Kootenai Tribes (CSKT) Mission Mountain Wilderness Buffer Zone Reclassification. 2005. Online < <http://www.csktribes.org/natural-resources/tribal-forestry/about-forestry> >. Accessed July 2, 2018.

Confederated Salish and Kootenai Tribes (CSKT). 2000. Flathead Indian Reservation Forest Management Plan: An Ecosystem Approach to Tribal Forest Management. Online <<http://www.csktribes.org/natural-resources/tribal-forestry/about-forestry>>. Accessed June 10, 2018.

Intertribal Timber Council (ITC) Indian Forest Management Assessment Team, 2013. Assessment of Indian Forests and Forest Management in the United States: Executive Summary. Online <http://www.itcnet.org/issues.projects/issues_2/forest_management/assessment.html>Accessed June 10, 2018.

The Northern Rockies Fire Science Network (NRFSN) serves as a go-to resource for managers and scientists involved in fire and fuels management in the Northern Rockies. The NRFSN facilitates knowledge exchange by bringing people together to strengthen collaborations, synthesize science, and enhance science application around critical management issues.

