

# Advocating for the Protection of the Spring Chinook Salmon in the Klamath-Trinity Watershed from an Indigenous Knowledge Perspective

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Spring Chinook Salmon Symposium  
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# Positionality

- Hoopa, Karuk and Yurok Person
- Inherent Responsibility
  - Picyavish World Renewal Priest
  - Karuk Dip-net Fishermen
- Environment and Community Graduate Student at Humboldt State
  - Bridge the gap of knowledges



Norgaard 2012

# Background/Rationale

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## Environmental Issues

- Spring Chinook runs numbered in the hundreds of thousands (Moyle, Lusardi, and Samuel 2017).
- Klamath Dams cut off 90% of spawning habitat; impact water flows and quality (Hamilton et. al 2005)
- 135 other fish and wild species benefit from Salmon (Alaska DFG 2008)



Photo by Amy Gulick

# Background/Rationale

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## Policy Issues

- Endangered Species Act (1973) designed to protect 'imperiled species and the ecosystems' (fws.com)
- 1991 Evolutionary Significant Unit was established by NOAA
- Petitions result in Spring Chinook rejection

listing under the ESA. A salmon stock will be considered a distinct population, and hence a "species" under the ESA, if it represents an evolutionary significant unit (ESU) of the biological species. The stock must satisfy two criteria to be considered an ESU: (1) It must be substantially reproductively isolated from other nonspecific population units; and (2) it must represent an important component in the evolutionary legacy of the species. Only Pacific salmon stocks that meet these criteria will be considered by NMFS for listing under the ESA.

**EFFECTIVE DATE:** November 20, 1991.

(Fox 1991)

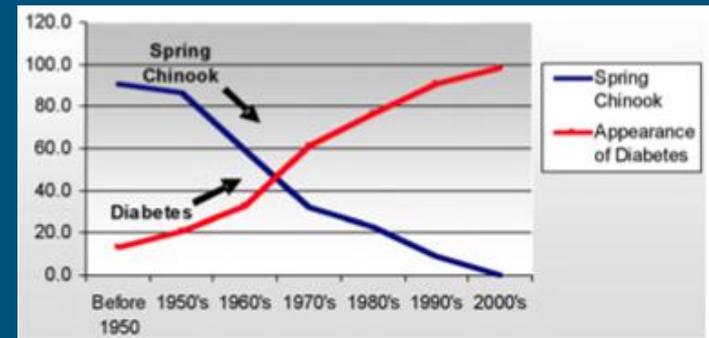
# Background/Rationale

## Socio-cultural Issues

- Tribal communities symbiotic relationship with salmon
- Decrease in Spring Chinook = increase in impaired health conditions (Karuk Tribe 2005, Norgaard 2012, 2019)
- “Not just a fishery. It’s a social area” (Willette, Norgaard, Reed 2016)
- Perpetuates Settler Colonial view of land dispossession
  - Unratified treaty
  - Minimal land management governance



(David McLaine, National Geographic 2016)



(Norgaard 2012)

# Research Questions

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- How can Indigenous knowledge support the debate that there is a difference in Spring and Fall Run Chinook?
- What role does the Karuk tribe have in watershed management decisions?
- How can the Karuk people's way of knowing inform restoration efforts?

# Methods

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- 15-20 Participants
  - Federal, state, tribal and non-profit fishery officials and community members
- Community-based Participatory Action Research
  - Semi- structured interviews
  - Focus groups
- Secondary Source Analysis
  - Archival Data Research
  - Karuk Language Analysis

# What we know

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## Indigenous Knowledge

- Language Analysis
  - Chiipich: smolt sized Chinook Salmon who migrates in Spring
  - Aama: term used before Ceremonies begin
  - Ishyaat: Ishav=winter aat= salmon (Bright 2005)
- Ceremonial Indicator Species (Reed pers. Comm., 2017)
- First spotted springer indicates start of World Renewal

## Western Science

- Genetics
  - Greb1L locus region identifies with 'migration gene' (Prince et al 2018)
- Social Impacts
  - Access to traditional diet = healthy communities (Norgaard 2005, 2012, 2016)

# Anticipated Results

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Karuk people have the knowledge necessary to:

1. Support the differentiation of the spring and fall-chinook salmon in Klamath-Trinity watershed
2. Self efficacy to lead land management processes.
3. Use our place-based religion as foundation to restore, protect and govern watershed

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# Questions, Comments, Concerns?



PC Jason Reed 2019

# Yootva! (Thank you!)