State of Alaska's Salmon & People in the 21st Century

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Map, compass, and knowledge of place

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Salmon and People as complex adaptive systems

What ought to be sustained is an *interaction* between three dynamic variables:

- Arthur McEvoy 1996

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Salmon and People as complex adaptive systems

What ought to be sustained is an *interaction* between three dynamic variables: an *ecosystem*,

- Arthur McEvoy 1996

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Salmon and People as complex adaptive systems

What ought to be sustained is an *interaction* between three dynamic variables: an *ecosystem*, a group of people engaged with the resource (*economies and cultures*),

- Arthur McEvoy 1996

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Salmon and People as complex adaptive systems

What ought to be sustained is an *interaction* between three dynamic variables: an *ecosystem*, a group of people engaged with the resource (*economies and cultures*), and a system of social control (*governance*).

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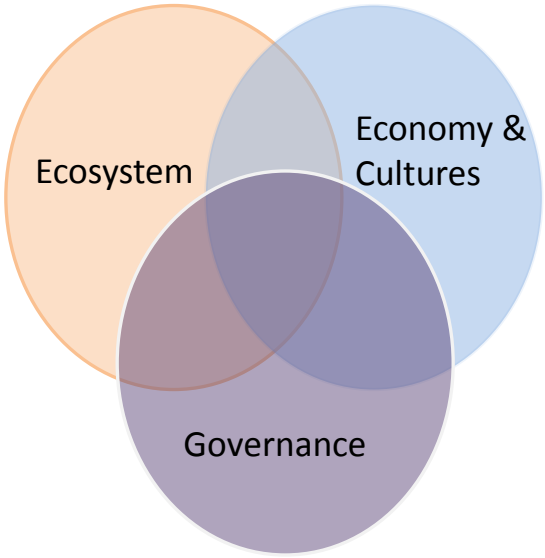
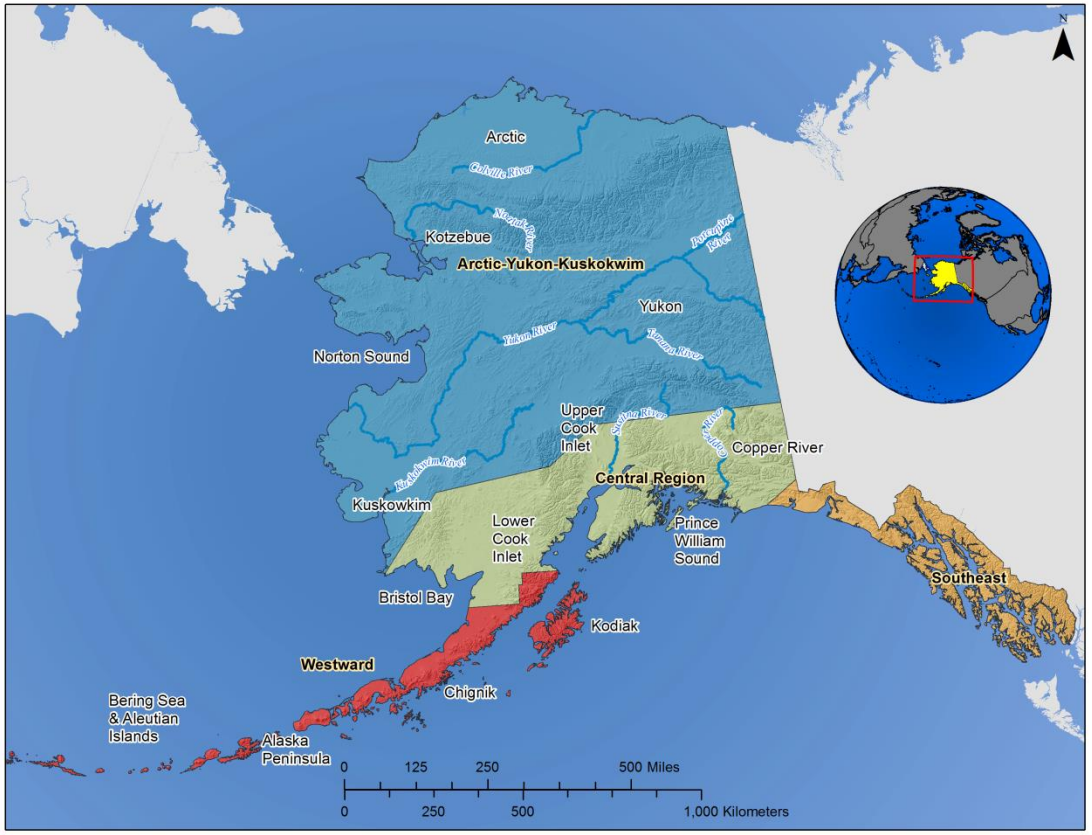
Examination of the three variables at statewide scale





Map courtesy Dustin Merrigan, ACCS/UAA

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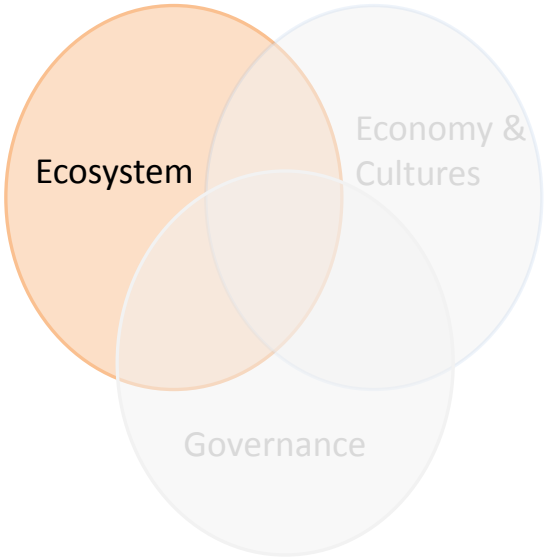
Bio-physical working group (*ecosystem*)



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Additional support from:

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Brian McKenna
Rich Brenner
Jon Gerken
ACCS Team

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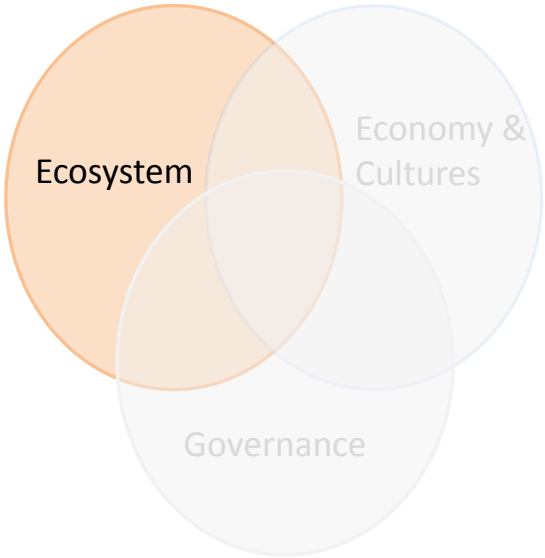
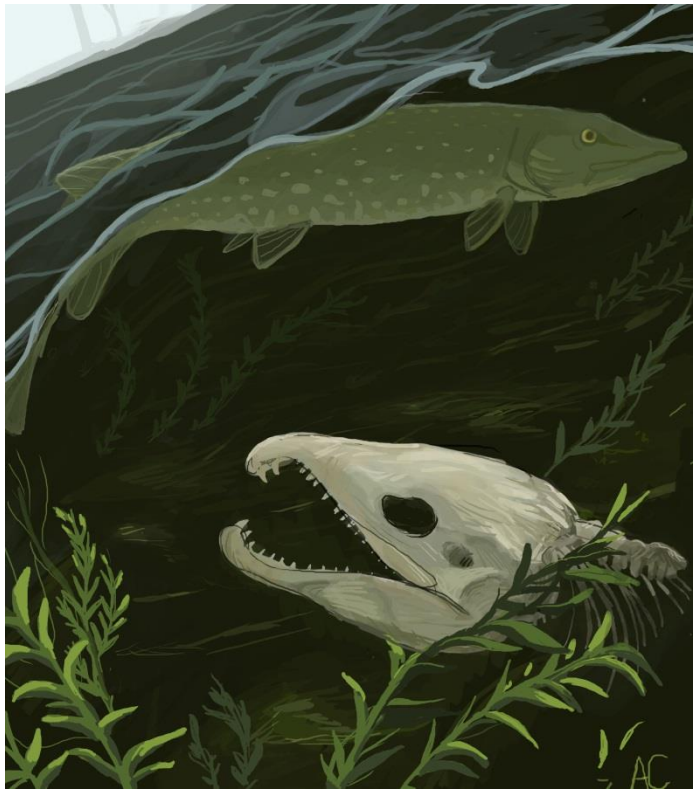
Biological System - First steps



Describe trends in:

1. Abundance and productivity
   - Data from over 650 sites, from 1955-2016, > 1 Billion counted fish
2. Age and size structure (escapement quality)
3. Distributions (e.g. Anadromous Waters Catalogue, colonization of Arctic, use of marine habitat)

Physical system-identifying data to address 4 Cs



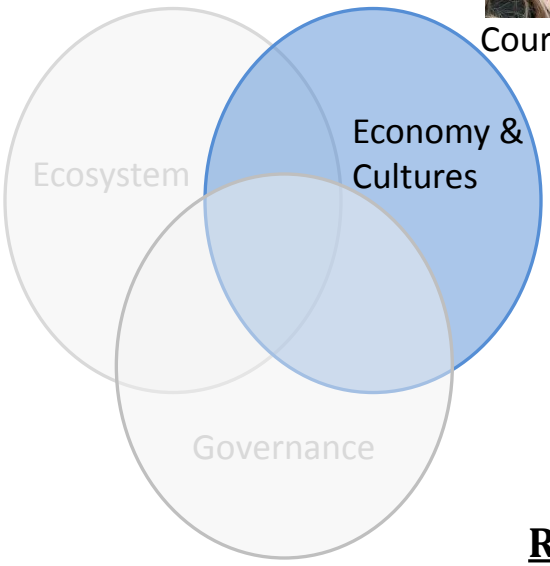
Artwork by 'Salmon & Society' student Alix Connor

1. Cold (e.g. water temperature; Cook Inlet Keeper; SNAP)
2. Clean (presence of invasive species, extent of urbanization, water quality)
3. Complex (Riverscape Analysis Project)
4. Connected (culverts and fish passage)

Sociocultural and Economic


Courtney Carothers


Jessica Black




Toby Schwörer

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Rachel Donkersloot, *AMCC*

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Liza Mack, *UAF*

Alex Whiting, *Native Village of Kotzebue*

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Julie Raymond-Yakoubian, *Kawerak*

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Guiding Principles

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Guiding Principles

Alaska's wild salmon ecosystems support a wide range of cultural, social and economic values for people.

Salmon are a cultural keystone species for many Indigenous cultures.

Salmon forms backbone of the state's subsistence, commercial, and recreational fishing economies.

Salmon play integral roles in the society, cultures, and economies of Alaska, yet human alteration and regulation threatens the sustainability of salmon-human systems.

To summarize:

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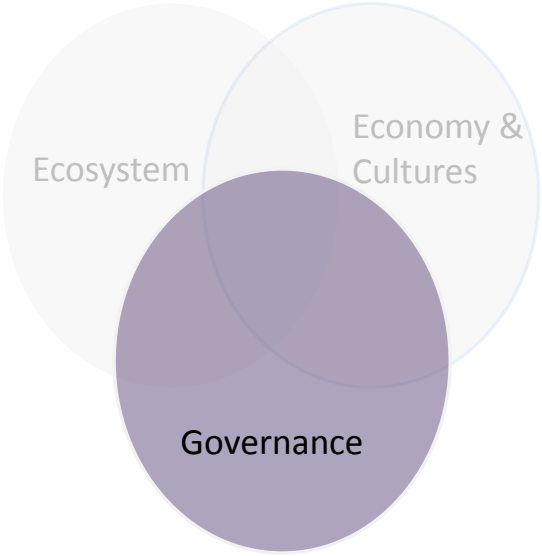
To summarize:

- **Social and cultural values of salmon throughout Alaska**
- **Use and non-use values of salmon and how these are manifested among different stakeholders**
- **Trends in human use of salmon, including market trends**
- **Threats to social, cultural and economic uses of salmon**

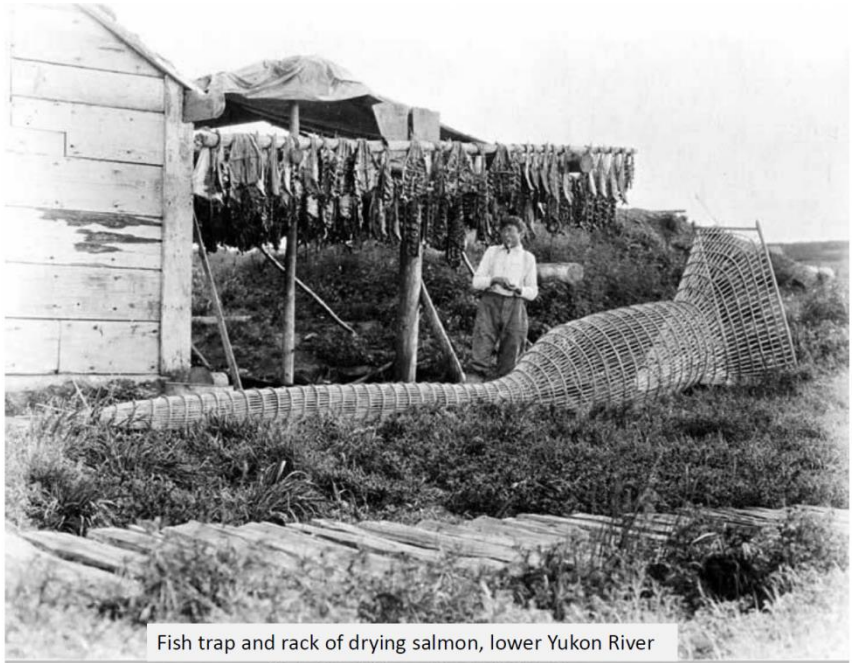
Governance



Steve Langdon

Yukon River Panel meeting, Whitehorse, 2013. Photo Jan Conitz

Some major goals are to:



Fish trap and rack of drying salmon, lower Yukon River

Alaska State Library - Historical Collections

Humans have been interacting with salmon in Alaska for over 10,000 years.

- Identify the concepts, institutions, policies and processes which have guided these interactions through time
- Describe indigenous processes of engagement and utilization of salmon, with emphasis on subsistence, through historical and ethnographic research
- Summarize contemporary practices of indigenous governance through interviews with elders
- Use historical records to describe post-contact systems of governance including, Russian, federal and state

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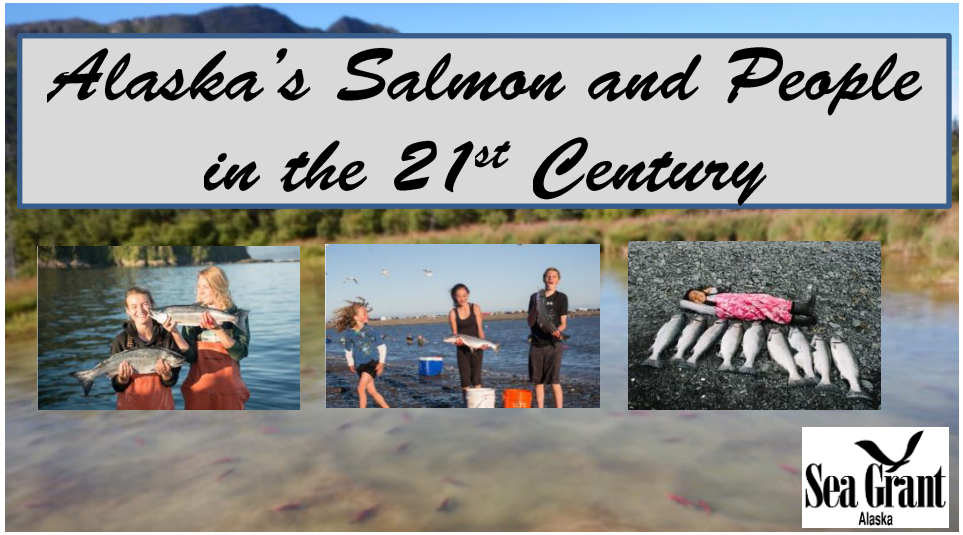
Some expected outcomes:

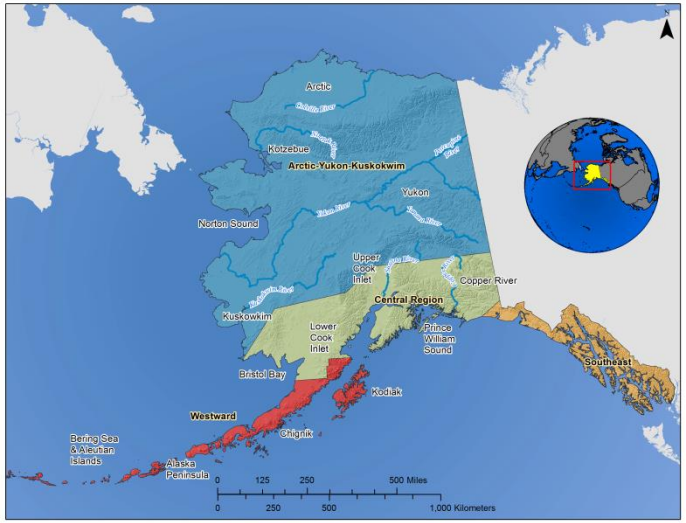
Kerry Tasker

- Identification of critical policies that guide governance as result of court decisions
- Increase awareness of databases that provide evidence of governance and descriptions of those data
- Archived interviews with state, federal, Native, and other individuals
- Summaries of subsistence and personal use of salmon and greater accessibility of these data

SASAP project communication



Publications written for wide audiences



Web-based interaction tools

Short-films

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SASAP project round 2

https://alaskasalmonandpeople.org/

1. Well-Being and Alaska Salmon Systems
Dr. Rachel Donkersloot (lead PI)
Alaska Marine Conservation Council

2. Using participatory modeling to empower community engagement in salmon science
Michael L. Jones (lead PI)
Quantitative Fisheries Center, Michigan State University

3. Consistency, causes, and consequences of declining size and age of Alaskan salmon
Eric P. Palkovacs (lead PI)
University of California Santa Cruz

4. Interacting effects of ocean climate and at-sea competition on Alaskan salmon
Peter S. Rand (lead PI)
Prince William Sound Science Center

5. Kenai Lowlands Salmon Research Synthesis and Design of Tools for Integrated Watershed Management
Coowe Walker (lead PI)
Kachemak Bay National Estuarine Research Reserve

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Collective need to decide what sort of world we want








Photos: salmonlife.org; google images; Donna Hauser; Michael Westley

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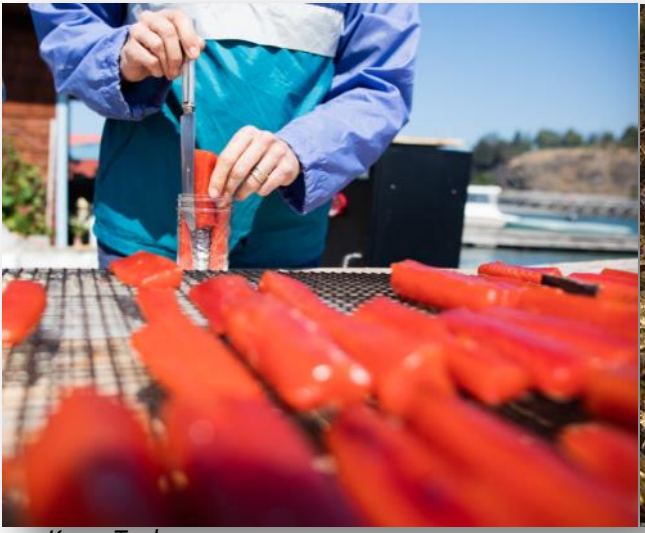

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