Fisheries as Community

27th Lowell Wakefield Fisheries Symposium

Fishing People of the North: Cultures, Economies, and Management Responding to Change

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Herring roe on branches
Sitka Sound, 2010
Photograph by Jory Stariwat
Division of Subsistence

• In 1978 the State of Alaska enacted the Alaska Subsistence Law recognizing the customary and traditional uses of resources.
• The Division of Subsistence was established to scientifically quantify harvests of wild resources by rural residents to determine the Amount Necessary for Subsistence (ANS) for each population or stock.
• Since its inception, over the past 30 years, the Division’s small staff of social scientists has worked in 220 rural communities in Alaska.

Core Services
• Research, quantify, and provide the resulting information to the public about customary and traditional uses by Alaskans of fish and wildlife resources.
• Provide scientifically-based information for fisheries and wildlife management programs; and to Board of Fisheries and Board of Game for their use in evaluating reasonable opportunities for customary and traditional uses.
THE ROLE OF THE SOCIAL SCIENTIST IN FISHERIES MANAGEMENT IN ALASKA

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Research Questions

- What are the contemporary internal and external factors that create long-term viability of rural fishing communities in sub-Arctic Alaska?

- What socio-cultural and economic factors have shaped the mixed economy in these communities over time?

- How can cultural and economic viability of rural fishing communities be measured?
How do local communities engage management in Alaska?

1. Write proposals to the Alaska Board of Fisheries.
2. Testify before the Board of Fisheries.
3. Provide data or written testimony to the Board of Fisheries (RC).
4. Participate as a member of a committee.
5. Active members could become a member of the Board of Fisheries.
Proposals: *Tyonek Fishery*

*Portion of Proposal 270*

The portion of this proposal that may affect the Tyonek Subdistrict subsistence fishery would:

1. Reduce open season by approximately 10 days by changing opening date from May 1 to June 1;
2. Reduce open periods from 3 days per week to 1 day per week;
3. Increase the net length by 40 feet; clarify only 1 net per household.

Department Position: NEUTRAL on allocative aspects;
SUPPORTS addressing biological aspects through development of action plan for Alexander Creek king salmon.
Tyonek Subdistrict:
Customary and Traditional Uses (C&T) and
Amounts Reasonably Necessary for Subsistence (ANS)


1981  Positive C&T finding.

- 750–2,750 king salmon.
- 100–275 sockeye salmon.
- 50–100 chum salmon.
- 50–100 pink salmon.
- 100–375 coho salmon.
Tyonek Subdistrict:
Regulations and Permit Data

- Permit required, issued at Anchorage AD&FG office and Native Village of Tyonek office.
- Limit = 25 for head of household plus 10 for each additional household member. Permit holder can harvest 70 additional king salmon.
- If 4,200 king salmon are harvested, early season closes and late season does not open until July 1.
Tyonek Subdistrict: Permit Data

Number of permits issued 1980—2009
Tyonek Subdistrict: *Permit Data*
Subsistence Salmon Harvest Estimates, 2009

Residency of permit holders in 2009, Tyonek Subdistrict subsistence salmon fishery

- Tyonek: 70%
- Anchorage: 21%
- Other AK Communities: 9%
Tyonek Subdistrict: Permit Data

Harvest of salmon over time

- King
- Sockeye
- Coho
- Chum
- Pink
Research: Tyonek 2004–2006

Methods:
- Archival research.
- Key respondent interviews.
- Photograph collections.
- Participant observation.
Research: Tyonek 2004–2006

Commercial fishing at Old Tyonek, 2005
Photograph by Davin Holen
Research: Tyonek 2004–2006

Robert’s Creek, 2004
Photograph by Davin Holen
Research and Regulations: Tyonek
Subsistence Fishery 1983 and 2004

Set gillnets, not exceeding 10 fathoms in length (5 AAC 01.570).

Photograph by Ron Stanek, 1983

Photograph by Davin Holen, 2004
Research: Tyonek 2004–2006

Photograph by Davin Holen, 2004
Research: Tyonek 2004–2006

Photograph by Davin Holen, 2004
Research: Tyonek 2004–2006

Photographs by Davin Holen, 2004
Research: Tyonek
2006 Baseline Harvest Assessment Survey

- Removed from commercial harvest
- Subsistence setnet fishery harvest
- Sport rod and reel harvest

Research: Tyonek 2004–2006

Harvest of salmon by residents of Tyonek, 2005-2006
Subsistence setnet and sport rod and reel fisheries

- King Salmon: 82%
- Coho Salmon: 13%
- Sockeye Salmon: 5%
- Pink Salmon: <1%

Harvests of king salmon by set net and rod and reel, Tyonek 2006

Source: Stanek et al. 2007
Research:
Tyonek
2004–2006

Harvest of salmon by residents of Tyonek, 2005-2006
Subsistence setnet and sport rod and reel fisheries

- King Salmon: 82%
- Coho Salmon: 13%
- Sockeye Salmon: 5%
- Pink Salmon: <1%

Harvests of coho salmon by set net and rod and reel, Tyonek 2005-2006
Source: Stanek et al. 2007
Research:
Tyonek 2004–2006
Summary: *Tyonek*

Importance of King Salmon

1. King salmon arrive early—few other resources, including other salmon, are available; traditional food supplies are low.

2. King salmon provide more food per time or energy unit spent than other salmon.

3. King salmon are processed into specific traditional products, such as *balik* (strips) and backbones; these products at Tyonek are not made from other species.

4. Survey respondents say king salmon are rich in fat and oil.

5. Traditional knowledge and skills for king salmon fishing, processing, and uses continue to present-day.
Supporting Organizations

Tyonek Fish Camp, 2005

Photograph by Davin Holen

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