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Subsistence Fisheries Research, Capacity Building, 2001-2003

Final Report No. FIS 01-226

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FINAL REPORT SUMMARY PAGE

- 1. Title:** Subsistence Fisheries Research, Capacity Building, 2001-2003
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- 3. Investigator:**
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- 6. Issue(s) Addressed:** Effective community involvement in fisheries research and management in the Kuskokwim River drainage related to subsistence salmon harvest in-season and post-season monitoring and reporting requires increased local training and skill development.
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- 9. Abstract:** The Alaska Department of Fish and Game Subsistence Division partnered with three regional tribal organizations of the lower, middle and upper Kuskokwim River to provide community-based training for in-season subsistence salmon monitoring and post-season harvest assessment, to strengthen community involvement in local advisory bodies and to support subsistence salmon fisheries management with timely information.
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ABSTRACT

During the subsistence salmon fishing seasons of 2001 and 2002, the Alaska Department of Fish and Game Subsistence Division developed and provided training and support to tribal organizations of the lower, middle and upper Kuskokwim River. A primary goal was to build local capacity for community-based fisheries research, particularly related to carrying out newly organized in-season subsistence salmon fishing monitoring projects in the Kuskokwim River drainage. The Bethel Subsistence Resource Specialist III designed and conducted trainings in interviewing and reporting methods with the Orutsaramiut Native Council, the Kuskokwim Native Association, and the McGrath Native Village Council.

Comprehensive, long-term community involvement in resource research and management decision-making requires sufficient local organizational capacity to gather, report, and interpret harvest information. Although the Division of Subsistence has worked with regional tribal organizations of the Yukon-Kuskokwim Delta region since the mid-1980s to hire survey technicians from within local communities where research is conducted, recruitment and retention of qualified personnel within these communities to carry out fisheries research is difficult, due in large part to limited training opportunities.

Alaska Department of Fish and Game regional fisheries management must simultaneously support a subsistence priority, salmon escapement goals, and long-term regional economic benefits from salmon harvest. Resource management involving such multiple goals has been challenged in recent years by low salmon runs in the Kuskokwim River. Managers' ability to reliably assess salmon abundance along the river is crucial, and timely community participation in salmon in-season monitoring can assist management in the assessment of salmon runs. As in-season subsistence salmon harvest monitors, local community members can generally facilitate the communication required to gather fish harvest information from fellow subsistence fishers, supported by knowledge of their own region and subsistence practices.

The intent of this project was to increase community capacities for self-directed in-season subsistence salmon fisheries monitoring. Further aims were to use on-going in-season fisheries data to strengthen community involvement in decision-making bodies such as the Kuskokwim River Salmon Management Working Group and local fish and game advisory committees, and to support Alaska Department of Fish and Game regional subsistence salmon fisheries management. The Bethel Subsistence Resource Specialist III provided direct training in survey methods and harvest documentation to members of three tribal organizations in Bethel, Aniak and McGrath.

INTRODUCTION

The Kuskokwim River can support combined annual subsistence and commercial salmon harvests of nearly 1.2 million fish (Burkey et al. 2000). However, with declining salmon runs since the early 1990s, commercial and subsistence fishery managers have struggled to maintain a viable commercial salmon fishery on the Kuskokwim River while recognizing the state-mandated priority of subsistence. Community involvement with in-season subsistence salmon harvest monitoring represents a potentially significant assessment tool to assist in fisheries management. This project provided direct training in survey methods and harvest documentation to three tribal organizations of the Kuskokwim River drainage, the Orutsaramiut Native Council (ONC), the Kuskokwim Native Association (KNA), and the McGrath Native Village Council (MNVC), to assist them in conducting such in-season monitoring and reporting.

For more than 15 years, the Alaska Department of Fish and Game Subsistence Division (ADF&G/SD) has worked with communities of the Kuskokwim Management Area (KMA) (Appendix A) to collect post-season subsistence salmon harvest household information (Coffing 2003). The long-term working relationship between the Division and KMA communities has revealed challenges that include: limited involvement by local community members in regional research; a lack of qualified local applicants for field technician positions available as part of state and federal research and management; and a high turnover rate among those research technicians hired for field projects.

In 2001, following the success of ONC's Fisheries Information Services (FIS) Project 00-008, "Bethel In-Season Subsistence Harvest Pilot Study," The Office of Subsistence Management (OSM) Fisheries Information Services funded several additional projects (FIS 01-023, FIS 01-132, and FIS 01-225) designed to monitor the subsistence harvest of salmon in-season along the Kuskokwim River. The in-season monitoring projects sought to reduce salmon fishery management uncertainties through closer observation of the progress of the subsistence fishery—how fishers were progressing towards meeting their needs—and the effects of the commercial fishery in this progress. Additionally, in an attempt to foster cooperative management of both fisheries in the Kuskokwim region, the in-season projects partnered tribal organizations with ADF&G to accomplish this goal. In all three projects, tribal organizations assumed lead investigator duties and the budgets reflected this.

OBJECTIVES

This project had four primary objectives:

- 1) Familiarize staff of local tribal organizations with comprehensive subsistence fisheries research in the Yukon-Kuskokwim region, and work with them to identify data gaps, perceived needs, and research goals.

- 2) Assist these organizations to: develop subsistence fisheries research plans in particular geographic areas; link research planning with other agencies and organizations regionally; and prepare detailed investigation plans that include budgeting and scheduling considerations.
- 3) Provide opportunities for training and mentoring of project staff through hands-on application of research tools, methods, and skills required to implement a research project. Training areas include survey design, data collection, land-use mapping, data coding, data analysis, and report writing.
- 4) Work towards developing a pool of experienced and skilled research assistants in the region who can be available to carry on future research.

METHODS

The primary activities under this project were directed at training and assisting ONC, KNA, and MNVC in implementing in-season subsistence salmon fishing monitoring projects. During the subsistence salmon fishing seasons of 2001 and 2002, the Bethel Subsistence Resource Specialist (SRS) III, Mike Coffing, conducted on-site trainings in Bethel, Aniak, McGrath and Nikolai. Trainings were in fisheries monitoring and reporting techniques. Technicians were briefed in conducting weekly interviews, either on-site, by telephone, or by two-way radio, with subsistence fishers in fish camps along the main stem of the Kuskokwim River. The SRS III designed a monitoring and reporting form to meet in-season information needs of regional subsistence salmon managers (Appendices A and B) that was used by technicians in gathering subsistence salmon harvest data by species and gear type. The reporting form enquired as to: relative success in amount of salmon harvested, relative level of effort required to harvest salmon compared to previous years, gear type used, progress toward achieving stated goals, the relative health of salmon being caught, general water conditions, and diversity of harvest locations.

Mr. Coffing continued to consult weekly with each organization to assist them in the subsistence salmon monitoring and reporting. Interviews documented on the project's reporting form were faxed to Bethel. The SRSIII reviewed and compiled technicians' data entry and reporting, and submitted summary reports orally and in writing regularly to the Kuskokwim River Salmon Management Working Group.

The SRSIII also assisted tribal organizations in completing Performance Reports, required under Office of Subsistence Management (OSM) Fisheries Information Services (FIS) funding, for the in-season fisheries monitoring projects. Further, he assisted the ONC in completing its post-season subsistence salmon household harvest survey reporting. Finally, the SRS III worked with community representatives and local fish and game advisory committee members in the Kuskokwim Management Area to outline processes for determining regional priorities and incorporating them into research proposals.

RESULTS

This project supported the research capabilities of the Orutsaramiut Native Council, the Kuskokwim Native Association, and the McGrath Native Village Council predominantly by training technicians in Bethel, Aniak, McGrath, and Nikolai to conduct and report in-season subsistence salmon fishing monitoring under FIS projects 01-023, 01-132, and 01-225. Through this work, these three tribal organizations were able to contribute timely and instrumental data for subsistence salmon harvest assessment and management in the Kuskokwim River Salmon Management Working Group.

With the assistance of the Bethel SRS III, ONC, KNA, and MNVC completed FIS Performance Reports that reviewed their efforts in contributing to local in-season subsistence salmon harvest data collection. The SRS III worked also with ONC to complete its Performance and Final Reports for the Bethel Post-Season Subsistence Fisheries Harvest Survey (FIS 00-009).

DISCUSSION

The ADF&G Subsistence Division's history of partnering with tribal organizations to conduct regional fisheries research placed the Division in a good position to mentor organizational capacity building for greater regional involvement in the monitoring, reporting and assessment of subsistence salmon fishing. Following the funding of FIS projects 01-023, 01-132, and 01-225, ADF&G began in 2001 to work with ONC, KNA, and MNVC to strengthen community capacities for self-directed in-season subsistence salmon fisheries monitoring and reporting of salmon runs on the Kuskokwim River. This FIS 01-226 project, Subsistence Fisheries Research, Capacity Building, 2001-2003, provided technical training to tribal organizations of the Kuskokwim Management Area. Alaska Department of Fish and Game regional fisheries managers benefited from the integration of timely local subsistence salmon harvest information. Regional communities potentially gained through a) an increased availability of local information on subsistence salmon fishing harvest levels and trends; b) the enhancement of tribal organizations' research abilities; c) more informed access to regional political processes and decision-making such as that provided in the Kuskokwim River Salmon Management Working Group; and d) the expansion of a local pool of skilled individuals to support participation in future fisheries projects regionally.

CONCLUSIONS

The Subsistence Fisheries Research, Capacity Building, 2001-2003 Project, FIS 01-226, fostered increased community-level capacity building in communities of the Kuskokwim Management Area, primarily through providing training to staff members of three tribal organizations along the Kuskokwim River drainage. This training allowed for greater community involvement in subsistence salmon in-season harvest monitoring, reporting, and decision-making. Community fishers' progressive reporting of subsistence salmon harvest data assisted regional subsistence salmon fisheries managers in more reliably assessing salmon abundance along the river, to the benefit of involved communities, fisheries advisory bodies, and comprehensive management of the resource.

RECOMMENDATIONS

It is recommended that the ADFG/SD continue to develop capacity-building projects such as the Subsistence Fisheries Research, Capacity Building, 2001-2003 Project. Approaches that expand community participation in fisheries monitoring, reporting, and evaluation strengthen tribal involvement in regional decision-making, support long-term regional adaptive capabilities, and assist subsistence and commercial salmon fisheries management.

ACKNOWLEDGEMENTS

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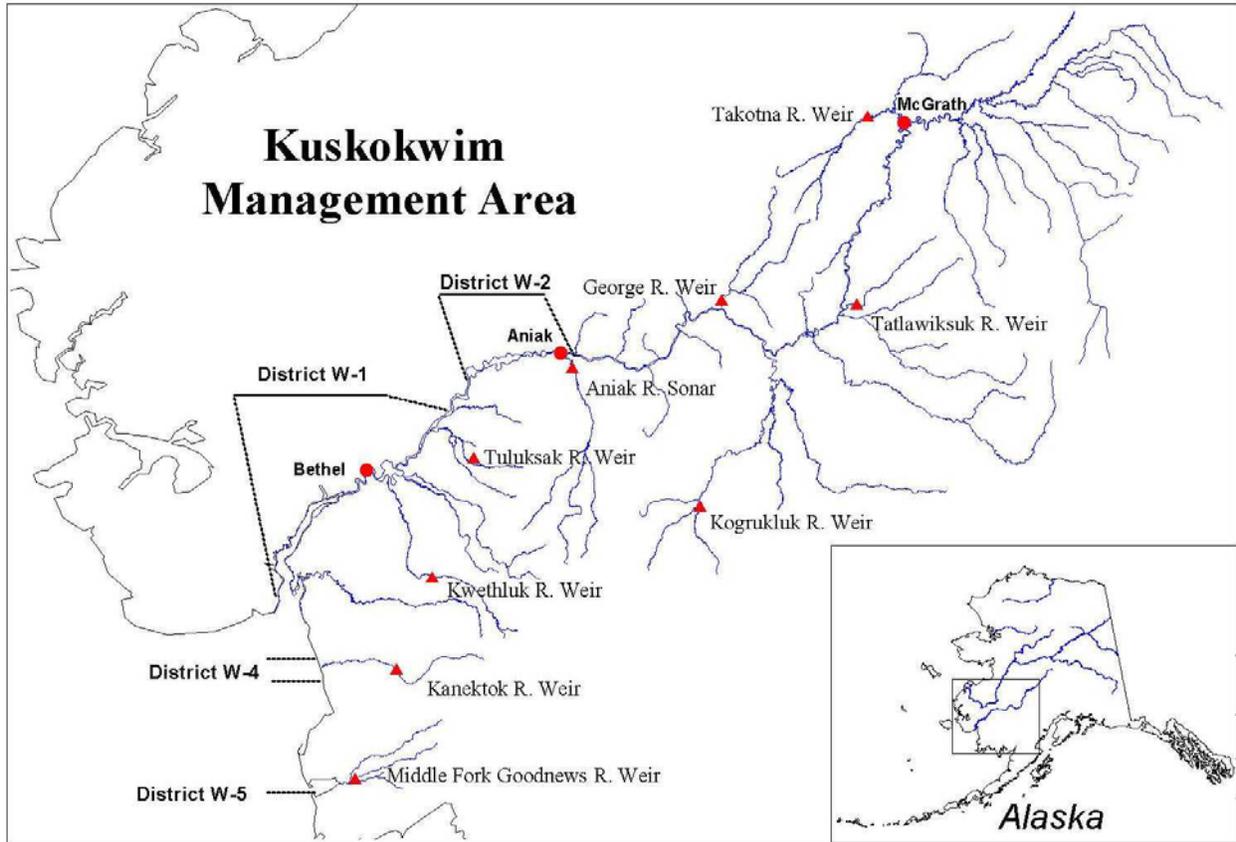
The U.S. Fish and Wildlife Service, Office of Subsistence Management, Fisheries Resource Monitoring Program, provided \$47, 708 in funding support for this project, #01-226.

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APPENDIX A. Map of Kuskokwim Management Area



APPENDIX C. In-Season Subsistence Salmon Fishing Report, 2002

INSEASON SUBSISTENCE SALMON FISHING REPORT, 2002

Family Name: Lastname Firstname Community Fishcamp Location

Date family started salmon fishing this year (month, day) Primary Subsistence Salmon Fishing Areas

What are your family's salmon harvest goals this year ? (number of salmon)

King _____ Chum _____ Sockeye _____ Coho _____
Chinook *Red* *Silver*

Staff initials	Week Ending	Salmon Fishing Gear Used This Week					Compared with this time in a "NORMAL" year, how were catch rates for salmon this week?									Comments about salmon fishing this week?			
		Net Type		Mesh ?			King Salmon			Chum Salmon			Sockeye Salmon			Few fish ?	Lot of fish ?	Are fish early / late?	Water levels?
		Drift Net	Set Net	6" or Less	More than 6"	Rod Reel	Fish Wheel	Very Good	OK Normal	Poor	Very Good	OK Normal	Poor	Very Good	OK Normal	Poor	Size of Fish ?	Fish look healthy ?	Fishing harder this year ?
	1-Jun																		
	8-Jun																		
	15-Jun																		
	22-Jun																		
	29-Jun																		
	6-Jul																		
	13-Jul																		
	20-Jul																		
	27-Jul																		
Staff initials	Week Ending	Net Type		Rod Reel	Fish Wheel	Chum Salmon			Coho Salmon			Comments about salmon fishing this week?							
		Drift Net	Set Net			Very Good	OK Normal	Poor	Very Good	OK Normal	Poor	Few fish ?	Lot of fish ?	Are fish early / late?	Water levels?				
		Size of Fish ?	Fish look healthy ?			Fishing harder this year ?													
	3-Aug																		
	10-Aug																		
	17-Aug																		
	24-Aug																		
	31-Aug																		

Were your family's salmon harvest goals achieved ? Kings _____, Chum _____, Sockeye _____, Coho _____.

When did your family stop subsistence fishing for: King Salmon _____, Chum Salmon _____, Sockeye Salmon _____, Coho Salmon _____
(month, day) (month, day) (month, day) (month, day)

NOTES:

DATE: _____
 DATE: _____

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