Tanana Conservation Outreach
2001 - 2003

Tanana Tribal Council
Tanana, AK

November, 2003

Final Report to the U.S. Fish and Wildlife Service
Federal Office of Subsistence Management

Federal Subsistence Fishery Monitoring Program Report

Tanana Conservation Outreach 2001 - 2003

Fishery Information Services Division Project FIS 01- 199
Final Report

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November 2003

Cover: Students from Tanana, Nenana, and Fairbanks collect otoliths and data on bering cisco whitefish for a USFWS study by Randy Brown of the Fairbanks office. Tevis Underwood and Chrissy Apodaca also of the USFWS Fairbanks office show students proper collection methods.

Title: Tanana Conservation Outreach 2001 - 2003

Study Number: FIS 01- 199

Investigator(s)/Affiliation(s): Kathleen Peters-Zuray, Tanana Tribal Council, Box 130, Tanana, AK 99777, Phone - (907) 366-7170, Fax - 907-366-7195

Management Regions: Yukon River Geographic Area

Information Type: Traditional Ecological Knowledge

Issue(s) Addressed: A need to involve and make more adults and young people aware of fisheries work and issues relating to their subsistence lifestyles.

Study Cost: **$**27,600 (3 year project)

Study Duration: July 3- August 17, 2001-2003

Abstract: Currently there are a number of fish monitoring projects in the Tanana area. Data on subsistence use in the area shows a relatively large subsistence use fishery in both the past and at the present. People's lives are very much dependent on the proper management of the subsistence fishery yet most know very little about how it is managed and often have very little opportunity to meet with the fisheries biologist and technicians that run the projects. This condition is not conducive to our elders and younger people understanding the problems of people on the management side or of management understanding the problems of people who subsistence livelihoods are at stake. If we are to expect our children to be able to obtain jobs in the fisheries research and management fields and work in an effective and knowledgeable way they must learn at an early age that it is an option, what it is about and that it is important. This projects objectives address these concerns.

Key Words: communication, education, elders, fisheries research projects, management, Tanana, traditional ecological knowledge, students, subsistence.

Project Data: *Description-* Data for this study consists of the individual student reports from 2001 to 2003, worksheets on student Ichthyophonus chinook and chum research from 2001 to 2003, biological samples and data collected for bering cisco whitefish study in 2003,and 2001 to 2002 data collected while assisting Dr. Kocan in his Ichthyophonus research. *Custodian(s)* - Reports and student Ichthyophonus work data are maintained by the Kathleen Peters-Zuray with the Tanana Tribal Council. Whitefish samples and data maintained by Randy Brown with the USFWS office in Fairbanks. Dr. Kocan's research data maintained and available through the Alaska Dept of Fish and Game, Division of Commercial Fish, Fairbanks. *Availability* – Whitefish study data is still being worked on, all the rest of the above is available upon request.

Citation: Peters Zuray, K. 2003. Tanana Conservation Outreach, 2003, Federal Subsistence Fishery Monitoring Program Final Project Report FIS 01- 199, U.S. Fish and Wildlife Service, Office of Subsistence Management, Fishery Information Services Division, Anchorage, Alaska.

Author

Kathleen Peters-Zuray is a lifelong resident in of the village of Tanana. She has worked for the Tanana Tribal Council of the past 12 years and currently she heads the environmental office there.

Sponsorship

This project is funded by a grant from the U.S. Fish and Wildlife Service, Federal Office of Subsistence Management, Federal Subsistence Fishery Monitoring Program.

Acknowledgments

Thanks to fisheries biologist Tevis Underwood (USFWS office in Fairbanks) for his involvement during the planning stages and 3 years of operation of the project. Also for his hospitality to the students involved in the outreach project who came to view his Rampart Rapids fall chum tagging project.

Thanks to Rapids video project manager Stan Zuray for his help coordinating trips to the Rapids, working directly with the students and help with final report.

Thanks to Dr. Kocan for allowing and encouraging students to work directly with his Ichthyophonus research activities at the Rapids video Camp in 2001 and 2002. Thanks also to assistants Paul Herschberger, and Laura Bolles

Thanks to Chrissy Apodaca (USFWS office in Fairbanks) for working with students in 2003 during the cisco whitefish study.

Final thanks to the following persons for donations involving transportation, data collection, camp materials, work with kids, and coordinating logistics: Milton Moses, Faith Peters, Jennifer Johnson, Donna Folger, Gerald Nicholia, Charlie Campbell, Lester Erhart, Bill Fliris, Steve O'Brien, Linda Johnson, Julie Roberts, Mike Andon, Pongee Carlo, Mary Edwin, James Roberts, Virginia Woods, Carrie Farr, Tobin Hugny-Farr, Greg Wallace, Monica Zuray, Paul Erhart, Adele Grant

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Introduction

Past and present Tanana has a strong history of subsistence use of fish. Most elders and many adults living in the village at present were raised at summer fish camps. There large portions of the year's food was put up and small amounts of cash needed for other foods and supplies was made by putting up fish strips or dry dog food for the dog teams that delivered mail. Tanana still has many fish camps that operate in a non-recreational manner. The people running these camps are very dependent on the fish that come up the river for their subsistence way of life.

In the summer of 2000, members of the Tanana Tribal Council, superintendent and board members of the Tanana City School District and two classes of students made trips to the Rampart Rapids. There they viewed a video CPUE project (Zuray, S., 2002a) (Zuray, S., 2002b) and the fall chum tagging project, (Underwood et al. 2003) that operated there. As the saying goes, "a picture is worth a thousand words". It became quite clear that the amount that people got out of the visit was so much more than you could ever get from attending a meeting or lecture on fisheries research. Students were excited and wanted to ask relevant questions. For some students who have less opportunity to be on the river it was a unique experience. They were able to handle equipment and some actually helped in the operations of the projects. After discussion with fisheries biologist Tevis Underwood (USFWS Fairbanks Office) who runs the tagging project and Stan Zuray of Tanana who runs the chinook video project it was decided that some organized effort to provide a forum for elders, management, children and fisheries biologist at the Rapids project site could prove very positive. Tevis Underwood and Stan Zuray offered to work with the children. Stan Zuray offered the use of his subsistence fish camp for lodging. A proposal was written and a 3-year project accepted.

From 2001 to 2003 the Tanana Conservation Outreach project (Peters Zuray, K. 2001) (Peters Zuray, K. 2002) was able to work with a number of students, councilors, and elders. The original proposal called for 16 students per year. Officially we had 21 students in 2001, 24 in 2002, and 19 in 2003. In fact the project supported many more than that. The project provided Dr. Kocan (Ichthyophonus study) with workers for his daily sampling and provided meals etc. to them. Many of these students had been in a previous “official” group and were now actually being paid for their help. This was real work of the type we had been telling them about. Many got so good at detecting even subtle signs of the disease that Dr. Kocan and crew were able to rely on the student’s preliminary examination of the fish heart, livers, etc. while conducting his exams. Students learned about using sterile gloves and tools and following the same procedure for each sample. When the official study ended the next groups of students continued on their own study using the same methods and were then all taught to make and fill out worksheets on the computer (examples, Table 1and 2). Subsistence fish were used at these times. Also the project supported a number of day trips by parents and community members interested in seeing the kids do their work. For example one larger group of 38 people, brought by the Tanana Tribal Council, spent the day in 2001 watching students work with Dr. Kocan.

In bringing these groups of students to the Rapids area we have tried to concentrate on showing them as much as possible how the two fisheries projects that operate there conduct themselves. All groups viewed the chinook video project. Some groups later in the season were able to talk with the technicians and biologists that worked for the USFWS fall chum tagging project. Each year we had every technician tell them where they were from, where they went to

school and how they got their job working with the Fish and Wildlife Service. The object was to show them that this type of option for work and career does exist and would be possible for each and every one of them if they so choose. Students in the above groups who completed their reports on their experience received a $50 stipend as stated in the proposal. These short reports were included in the yearly reports and a sampling from each year is included in this final report. In 2002 and 2003 students were also put to work clearing brush for the new campsite being made for the project. While the project is now over it is hoped that this new camp will be further used as a youth research camp with students working a number of actual projects while being watched over by biologists. This camp and those facilities available at the Rapids video camp allowed all students and elders good housing right at Rapids and there was no need for some to use other camps for sleeping as in 2001.

Study Area

The project was conducted on the Yukon River 40 miles upriver from the village of Tanana at an area locally known as "The Rapids", a narrow canyon 1176 km (730 miles) from the mouth of the Yukon River. Traditionally and at the present time it is an area known for its abundance of a wide variety of fish species. Traditionally it is one of the major fish camp areas for local residents.

Objectives

1. To provide a forum for school children, elders, local parents and fishery biologists to work together and learn from each other.
2. To provide school children with a firsthand look at Fisheries Management in operation so they may be better able to consider job opportunities in those area

Methods

Posters were put up at the school in Tanana notifying students interested in the project that they would be required to write an essay related to the fisheries project, to be considered. When the project was approved it was realized that the extra money included in the budget by the Office of Subsistence Management would probably be enough to be able to take all students wishing to participate. Students were still required to write a letter about why they wanted to be involved. One of the main reasons for the selection process was that it was thought it would make the students take the project more serious if they had to apply. While this might have been true the counselors were very happy with the attitudes of the students and the way they behaved themselves.

A six-week period was given to accommodate problems involving weather, etc. causing cancellation of activities on a given week. A minimum of one elder and one counselor was used to accompany each group of students. Often a parent or volunteer would come along to help for a day. Counselors included workers at the Tanana Tribal Council. The Tanana Native Council has a large boat they use for transportation and this was used for transportation for all groups of students and elders. The boat was not able to stay at Rapids as it was needed regularity elsewhere. As with all summertime boating activity conducted by the Tanana Tribal Council, life preserver use was strictly adhered to.

In the original proposal the budget only included funds for boat gas and oil. In an attempt to increase funding chances by keeping the budget small it was originally decided that volunteers could probably be found to transport the students back and forth to the Rapids. Again because of the increased funding received experienced drivers could be hired and reimbursement for use of the Tribal Council boat could be provided for.

Each year students would be set to task on different subjects depending on the time of year and research that was happening at the Rapids. Efforts were made to coordinate project trips with research activities taking place at the Rampart-Rapids. Examples would be chinook data (lengths, condition, visible Ichthyophonus, and sex) and assisting researchers such as Dr. Kocan and Randy Brown (USFWS) in spring and early summer, fall chum identification and talks with the USFWS tagging project biologists and technicians in fall. A part of each group's efforts would be to enter whatever data collected into excel worksheets in an attempt to get them use to computer entry of data. The Rapids video project supplied the equipment and supplies for that. Since the Rapids video project was running all season all students got very familiar with its operation.

The subsistence camp where the students, elders, and counselors stayed is directly adjacent to the Fish and Wildlife Service camp. The chinook video project is run out of the subsistence camp. The Rapids fall chum tagging project is run out of the Fish and Wildlife camp.

The student reports at the end of this report were required if participants wanted to get their $50 stipend. Some were written at camp before the students left others were written at the Tanana school. In this final report are six examples of the reports (2 from each year).

Results and Discussion

Tanana Conservation Outreach is geared towards students in grades 4 through 12. After 3 years of running there are very few Tanana students in those grades that have not participated in this program. A number of out of town students were also able to attend. The meeting of the project objectives, it was felt, was successful. The participating students and elders are much more educated about how fisheries research projects work. Fisheries awareness and young people seeking related work has increased dramatically in the Tanana area since 2001 and it is felt that this project is at the very least partially responsible for that. The project leaders feel that the youth fisheries camp that was built and some of the research data collected was a step beyond the original objectives but should be invaluable in providing a smooth start to the proposed future fisheries camp. As mentioned a 2004-2006 Office of Subsistence Management camp has already been applied for having a much more structured work and educational plan, biologist oversight, and an increased operational time frame.

Partnership and Capacity Development

There were different things going on during the time each group was participating in the program but some of the students were able to get firsthand experience working up fish samples with Dr. Kocan and his assistants, in 2002 and 2003, which were at the Rapids doing the Ichthyophonus study. Dr. Kocan did pay eight students for extra data collection work also.

In 2003 Randy Brown with the USFWS office in Fairbanks sent out sampling equipment to this project for a bering cisco whitefish study he wanted to conduct during the spring and early

summer. With oversight from Stan Zuray of the Rapids video project and Tevis Underwood and Chrissy Apodaca of the USFWS Fairbanks students were taught the correct procedures to remove otoliths, weight fish and developing eggs and package and label samples. All data collection was done in teams of two to double check data. Presently Randy is working up this data and samples and some preliminary results of the students work is in this report (Table 2).

Since 2001 students have been assisting in a standardized traditional ecological knowledge evaluation of the arrival date of the fall chum run at the Rapids by the Rapids video project. In 2002-2003 this has included photo samples of the flesh color and exterior of the fish. If a new proposed student project is funded in 2004 this project will be run full season and entirely by the students with USFWS oversight.

Prior to this project there was a noticeable lack of involvement and awareness by young people in fisheries work in this area. This was not because of a lack of test projects or management issues taking place, as this area has had a strong showing of both for some time. At present the students below have been through the Tanana Conservation Outreach program and are actively working for or engaged in fisheries career efforts:

Harris Hyslop of Tanana has worked for the Tozitna River weir project for two years now (2002 and 2003).

Katlyn Zuray of Tanana went through training and worked for the Rampart Rapids Fall Chum Tagging project in 2003.

Jessie Fliris of Tanana has worked for Dr. Kocan doing Ichthyophonus research out of Tanana and attended YRDFA fisheries training in 2003.

Colin Cambell of Tanana worked on the fall chum driftnet study funded by the USFWS out of Rampart in 2003.

Tobin Hugny-Farr is applying for a job with the Rampart Tagging project in 2004.

Because of donations, volunteer efforts of individuals and aid by the Tanana Tribal Council some expenses that initially were included in the budget did not exist. This has enabled the project to not only purchase stoves and wall tents for the student camp but also buy lumber and pay local carpenters to build two tent frames complete with floors, walls, and bunks.

Next year the project plans to move beyond the “show and tell stage”, and use this new camp to house rotating groups of elementary to high school students to run actual projects using subsistence fish already being taken in the Rapids area. Tevis Underwood with the USFWS Office in Fairbanks has discussed plans of providing biologist or mentors to oversee those data collection efforts and a new OSM proposal has been submitted.

Each year a large poster of pictures, taken during the project, was made up and posted in the Tanana community hall or the school so all residents of the village can see what went on.

Conclusions

When given the right opportunity young people can show a lot of enthusiasm and capacity for fisheries research work

Elders and parents, seeing these young people get involved during the project thought it was a very positive step.

Recommendations

1. Future projects at this site need to incorporate the collection of accurate and needed data with the teaching of fisheries research to the youth. This is both efficient from a dollar value point of view and beneficial to students if they are to become future biologists and managers.

2. Efforts to find mentors from organizations (USFWS, ADF&G, TCC, etc.) to work with the students need to continue in 2004.

Literature Cited

Peters Zuray, K. 2001. Tanana Conservation Outreach, 2001, Federal Subsistence Fishery Monitoring Program Final Project Report FIS 01- 199, U.S. Fish and Wildlife Service, Office of Subsistence Management, Fishery Information Services Division, Anchorage, Alaska.

Peters Zuray, K. 2002. Tanana Conservation Outreach, 2002, Federal Subsistence Fishery Monitoring Program Final Project Report FIS 01- 199, U.S. Fish and Wildlife Service, Office of Subsistence Management, Fishery Information Services Division, Anchorage, Alaska.

Zuray, S. 2002a. Rampart Rapids fall catch-per-unit-effort video monitoring - 2002 using a fishwheel on the Yukon River, Alaska. A final report to the Yukon River Panel, Anchorage, Alaska.

Zuray, S. 2002b. Rampart Rapids summer catch-per-unit-effort video monitoring- 2002 using a fishwheel on the Yukon River, Alaska. Federal Subsistence Fishery Monitoring Program Annual Project Report FIS 01-197, U.S. Fish and Wildlife Service, Office of Subsistence Management, Fishery Information Service Division, Anchorage, Alaska.

Underwood, T. J., and J.F. Bromaghin. 2003.Estimated abundance of adult fall chum salmon in the middle Yukon River, Alaska, 2000-2001. U. S. Service, Fairbanks Fish and Wildlife Office, Alaska Fisheries Technical Report Number 62, Fairbanks, Alaska.

Budget Summary

Total Cost: 27,600 (3 year project) Project Dates: July 3 – August 7, 2001-2003

2001 - 9,200
2002 - 9,200
2003 - 9,200

	FY 2003
a. Total Annual Budget	9.200
b. Expenditures Thru December	9,200
c. Balance Thru December	0
d. Anticipated Remaining Expenditures	0
e. Anticipated Final Balance	0

Additional information**:** No alterations to the budget appear to be necessary.

Non-Discrimination Statement

This report, and the study it was based on, was done with federal funding obtained through the U.S. Fish and Wildlife Service, Office of Subsistence Management. This agency conducts all programs and activities free from discrimination on the basis of sex, color, race, religion, national origin, age, marital status, pregnancy, parenthood or disability. Any person who believes they have been discriminated against should write to O.E.O., U.S. Department of the interior, Washington, D.C. 20240.

Figure 1

Summer 2001

Dr. Kocan and students doing research together.

Over 30 parents and kids come to see students work with Dr. Kocan and Paul Herschberger.

Students continuing their own research after Dr. Kocan left.

Project leader Kathleen Zuray, superintendent Mary Edwin, chaperone James Roberts and kids.

Students help build a fish friendly research fishwheel for the USFWS Rapids tagging project.

Stan Zuray explains the Rapids video project and how to enter data in computers.

Figure 2

Summer 2002

Watching the video capture of salmon at Rapids

Dr. Kocan and students in 2002 (ICH research)

Another group takes samples and looks for ICH

Traditional method of testing for fall chum arrival

Tevis Underwood (USFWS tagging project) and his crew talk to students about fisheries careers.

Entering their daily data on the video project computer.

Figure 3

Summer 2003

Tevis and Chrissie (USFWS Tagging Project) show students proper sampling techniques.

Removing whitefish otoliths for USFWS study. Students did all the data collection themselves.

Each day's data is divided up into sections for each student to enter.

Students learn the operation of video CPUE fishwheel

Paul Erhart (Watershed Council) gave two of the groups lessons on water quality testing.

Two local women working for the Rapids Tagging Project. Products of USFWS outreach efforts.

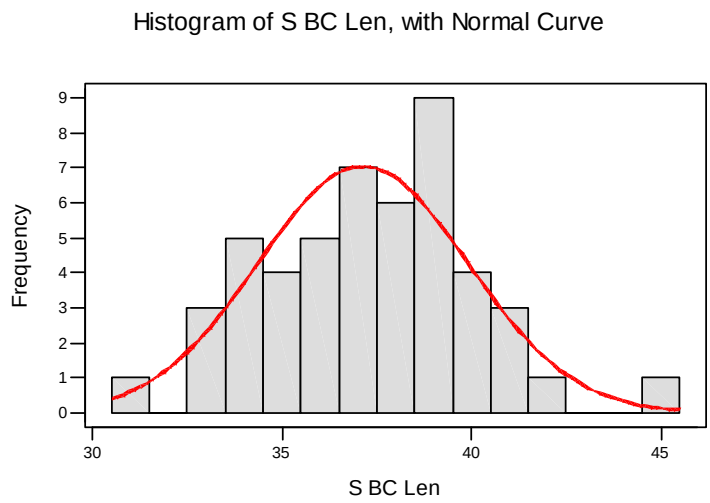
Table 1, example of data collected and recorded by students

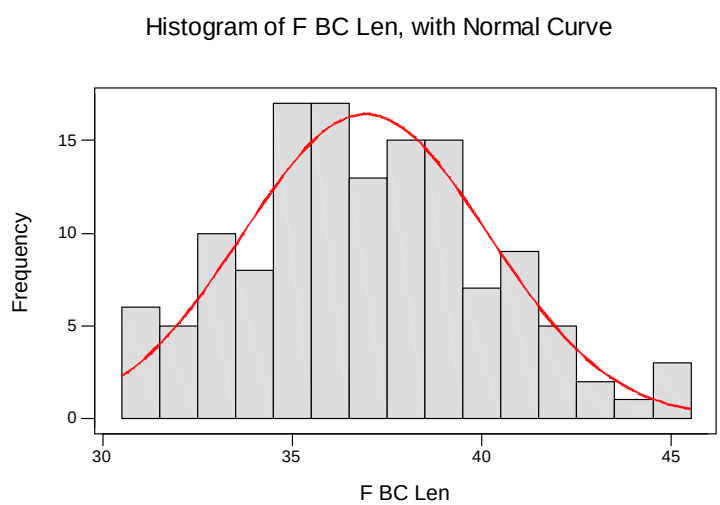
2002 Tanana Conservation Outreach Ichthyophonus Project										
Day	Date	Species	Weight	Length	Sex	Heart	Liver	Spleen	Flesh	Investigators
			(lbs.)	(inches)		(positive), (negative) or (unknown)				
Wed	7/17/02	chinook	12	31	male	pos	pos	neg	neg	Tyler Hyslop
		chinook	8	26	male	neg	neg	neg	neg	Doug Folger
		chinook	9	25.5	male	neg	neg	neg	neg	Joey Zuray
Thurs	7/18/02	chinook	20	37	female	neg	neg	neg	?	Katlyn Zuray
		chinook	20	35	female	neg	neg	neg	?	Ria Conrad
		chinook	16	36.25	female	neg	neg	neg	?	Peter Luke
		chum	10	28.5	male	neg	neg	neg	?	Colin Cambell
		chinook	15	33	male	neg	neg	neg	?	Barbara George
		chum	9	27	male	pos	pos	neg	?	Melinda Andon
		chinook	9	25	male	neg	neg	neg	?	
		chinook	5	22.5	male	neg	neg	neg	?	
		chinook	4	20.5	male	pos	neg	neg	?	
		chinook	3	18.5	male	pos	neg	neg	?	
		chum	8	26.5	female	neg	neg	neg	?	
		chinook	8	23	male	neg	neg	neg	?	
Wed	7/24/02	chinook	12	31.5	female	neg	neg	neg	?	Cassandra Joseph
		chinook	12	31	male	neg	neg	neg	?	Brittannee Erhart
		chinook	9	33	male	pos	neg	pos	?	Mary Scannell
		chinook	4	19	male	pos	neg	pos	?	Angela Folger
		chinook	19	25	male	neg	neg	neg	?	Colten Lambert
		chum	7	26	female	neg	neg	neg	?	Shawn Erhart
		chum	8	28	male	neg	neg	neg	?	Tyson Kriska
		chinook	18	31	male	neg	neg	neg	?	
		chinook	18	35	male	neg	neg	neg	?	
		chinook	20	37	female	neg	neg	neg	?	
		chinook	3	19	male	neg	neg	neg	?	
		chinook	8	25	male	neg	neg	neg	?	
		chum	11	31	male	neg	neg	neg	?	
		chum	16	31	male	neg	neg	neg	?	

Table 2, some preliminary results of data collected by students for Randy Brown (USFWS)

Comparative Statistics of Fall and Spring Run Bering Cisco at Rapids

Variable	N	Mean	Median	Minimum	Maximum
Fall BC length	133	36.929	37.000	30.500	45.000
Spring BC length	49	37.133	37.000	31.000	45.000





Executive Summary

FIS 01-199: Tanana Conservation Outreach, 2001-2003

Investigators:

Tanana Tribal Council, Box 130, Tanana, AK 99777
Phone - (907) 366-7170, Fax - 907-366-7195
Point of contact - Kathleen Peters-Zuray

Geographic Area:

Yukon River

Information Type:

Traditional Ecological Knowledge

Issues:

A stated goal common to the Office of Subsistence Management (OSM) and the Yukon River Panel is that of capacity building. In the Tanana area Federal fisheries projects such as the Rampart-Rapids fall chum salmon tagging project have a difficult time finding rural residents interested in working on subsistence focused projects. Currently the USFWS and other agencies and organizations mostly bring qualified technitions and biologists into rural areas to run needed fisheries projects. A healthier balance of local and non local workers would be to the benifit of the projects and all involved. The fisheries/subsistence/science camp funded though OSM from 2001-2003 has sparked some interest in Tanana school age kid in working on the project and the Rampart Rapids project expects to reap the benefits of its first hire from Tanana in 2003. This project also teaches cultural and practical values of the subsistence life choice giving many students a taste of being apart of real needed data collection with the hopes of creating some future fisheries biologists.

If we are to expect our children to be able to obtain jobs in the fisheries research and management fields and work in an effective and knowledgeable way they must learn at an early age that it is an option, what it is about and that it is important.

Objectives:

1. To provide a forum for school children, elders, local parents and fishery biologists to work together and learn from each other.

2. To provide school children with a firsthand look at Fisheries Management in operation so they may be better able to consider job opportunities in those area

Methods:

Posters were put up at the school in Tanana notifying students interested in the project that they would be required to write an essay related to the fisheries project, to be considered.

A six-week period was given to accommodate problems involving weather, etc. causing cancellation of activities on a given week. A minimum of one elder and one counselor was used to accompany each group of students. Often a parent or volunteer would come along to help for a day. Counselors included workers at the Tanana Tribal Council. The Tanana Native Council has a large boat they use for transportation and this was used for transportation for all groups of students and elders. As with all summertime boating activity conducted by the Tanana Tribal Council, life preserver use was strictly adhered to.

In the original proposal the budget only included funds for boat gas and oil. In an attempt to

increase funding chances by keeping the budget small it was originally decided that volunteers could probably be found to transport the students back and forth to the Rapids. Again because of the increased funding received experienced drivers could be hired and reimbursement for use of the Tribal Council boat could be provided for.

In 2001 to 2003 students, mostly from the school in Tanana but some from Fairbanks and elsewhere, showed they were capable of aiding project managers in the preparation of the daily data. The subsistence camp where the students, elders, and counselors stayed is directly adjacent to the Fish and Wildlife Service camp. The chinook video project is run out of the subsistence camp. The Rapids fall chum tagging project is run out of the Fish and Wildlife camp.

The student reports at the end of this report were required if participants wanted to get their $50 stipend. Some were written at camp before the students left others were written at the Tanana school.

Experience of Investigators: 1. Kathleen Zuray has worked for the Tanana Tribal Council for 11 years and currently heads the environmental office running grants in excess of $200,000

Partnerships/Collaboration: Consultation has been ongoing for this camp since 2000 when the camp was first proposed. The Village Tribal Council has consistently supported this project and provides boats, drivers, and personnel to the program. Stan Zuray has been the primary fish wheel contractor of the Rampart-Rapids Tagging Project since 1996 and the primary developer and contractor of the OSM Rampart-Video Project and has been volunteering his time, equipment and camp facilities each year to make the student fisheries camp a success. USFWS Fairbanks, Fish and Wildlife Office (biologist Tevis Underwood) has worked hand in hand with investigators Kathleen Peters Zuray of the Tanana Tribal Environmental Office and Stan Zuray of the Rapids video projects on the specifics of the project and showing students what a career in fisheries entails. A number of researchers have come to the Tanana Conservation Outreach camp to use the students help or teach relevant topics. Some have asked the students to collect data for ongoing studies. This includes Dr. Kocan and assistants in 2001-2002 for his Ichthyophonus project, Randy Brown (USFWS) for his cisco whitefish study, and Paul Erhart with the Yukon River Intertribal Watershed Council teaching water testing.

Budget:

Total Project Costs:

	Non-agency	Federal Agency	Total
2001	9,200	0	9,200
2002	9,200	0	9,200
2003	9,200	0	9,200
Total	**27,600**	**0**	**27,600**

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November 29, 2003

Fisheries Information Services
Office of Subsistence Management
U.S. Fish and Wildlife Service
Attn. Polly Wheeler
3601 C Street, Suite 1030
Anchorage, AK 99503

Please accept this final report (project FIS-01 199, Tanana Fisheries Conservation Outreach). Additionally, as required, two copies are being sent to the Alaska Resources Library Information System (ARLIS). Thank you for everything.

Sincerely,

Kathleen Peters-Zuray