

**YUKON SCHOOLS FRY RELEASES AND HABITAT STUDIES
Final Report to the Yukon River Panel**

Project Number: CRE-67-09



**Submitted by: Streamkeepers North Society
May 10, 2010**

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Acknowledgements:

Many organizations contributed to the success of this project. **Yukon Schools** teachers taught the “Stream to Sea” program, and supervised classroom incubation and field trips. They were assisted on field trips by **parents and other volunteers**. **Fisheries and Oceans Canada** conducted egg takes for the schools and provided technical support to the salmon in the classroom program and facilitation of the field trips. **Yukon College** students working at the **Northern Research Institute** McIntyre Creek incubation facility monitored and maintained the eggs prior to their delivery to the schools. They also assisted with class tours of the McIntyre salmon incubation facility. The **Kluane First Nation** again hosted a feast for students from Kluane Lake School and Nelnah Bessie John School during the chum egg take.



Photo: Helen Dewel. Klondike R. chinook alevins in classroom incubator

Yukon Schools Fry Releases and Habitat Studies

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Abstract:

Yukon students from eighteen schools in eight Yukon communities (Dawson, Old Crow, Ross River, Pelly Crossing, Destruction Bay, Haines Junction, Whitehorse, Teslin, and Watson Lake) participated in fry releases and/or aquatic studies field trips in spring 2009. Most schools released chinook fry back to their river system of origin. A few returned fry to the McIntyre incubation facility and did their habitat study activities at the McIntyre site. Others toured the McIntyre site en route to release their salmon. Four schools released chum fry back to the Kluane River, and one school to the Porcupine River. In October 2009, two schools participated in a chum broodstock collection and egg take field trip, hosted by the Kluane First Nation. A Yukon college class also collected chum eggs for schools. These field trips enabled an estimated 265 students and 33 teachers and volunteers to gain a better understanding and appreciation of Yukon River salmon and their habitat.

Introduction:

Conservation of Yukon River salmon runs depends on the maintenance and development of a stewardship ethic among those who live in the watershed. The "Stream to Sea" program helps to foster this ethic in students by helping them to gain a better understanding and appreciation of salmon and their habitat requirements. The program includes classroom studies and incubation projects that engage the students in nurturing the salmon. Students' understanding of the connection between the scientific concepts learned in the classroom and the natural habitat of the salmon is strengthened when students are able to participate in field studies. Field trip funding enables students involved with classroom incubation of salmon to participate in fry releases and various aquatic habitat studies and activities. Engagement in these activities makes the scientific concepts more personal and memorable. For students who raised fry in their classroom, the sense of stewardship that the students develop for their fry is extended to include the natural salmon habitat and aquatic habitats in general.

Project Location:

Students from schools in communities throughout the Yukon participated in several field trips to many Yukon aquatic habitats. These sites included McIntyre Creek and Fox Creek, in the vicinity of Whitehorse, Klondike River, near Dawson City, Kluane River, near Destruction Bay and Beaver Creek, and Tatchun Creek, near Carmacks.

Project Summary:

The primary objective of this project was to provide transportation funds to enable students involved with the Stream to Sea program to participate in field trips that enable them to better understand the nature of salmon habitat. The R and E funding assisted twenty Yukon classes to participate in field trips during which students conducted various aquatic habitat studies and activities. In most cases, the classes were accompanied by, and in some cases were chauffeured by, parent volunteers. The DFO education coordinator was available to facilitate the fry releases and various field trip activities. Activities varied with the age of the students, the focus of the teacher, and the time available. They included fry releases, aquatic invertebrate studies, water quality studies, life cycle games, dissections, fry trapping, and broodstock collection and egg takes. Students who had raised salmon in their classroom as part of the Stream to Sea program were given the opportunity to release fry back into their natal streams, and thus make the connection between their classroom studies and the natural habitat of salmon. The field trip activities also helped to give students, teachers and parent volunteers an appreciation of the natural aquatic habitat of the salmon and to foster stewardship of the salmon and their habitat.

Fry releases and aquatic studies: Fry releases occurred between April and June, 2009.

Students were bussed, or chauffeured by volunteers, to release salmon fry to their natal streams, or to pool them with McIntyre fish for tagging. Several classes incorporated a tour of the McIntyre Creek Salmon Incubation Project into their field trip. Field trip durations varied from a couple of hours to overnight camping trips. An estimated 225 students and 30 teachers and volunteers participated in the fry release trips. Another 40 students and 3 teachers participated in aquatic study field trips. The highlights from 2009 are:

- Robert Service School in Dawson incubated Chinook. Students were accompanied by the Dawson Habitat Steward when they released their fry back into the Klondike River.
- The Ross River School incubated Tatchun Creek Chinook eggs and released these on-site at Tatchun Creek
- Kluane Lake School and St. Elias Community School incubated Kluane River Chum eggs and released them into the Kluane River.

- Eight Whitehorse area schools incubated Takhini River Chinook eggs released fry at McIntyre Creek and at Flat Creek
- Two Whitehorse Schools raised chum fry which were released back to the Kluane River.
- Teslin school brought their Chinook fry to McIntyre Creek and did some field studies, and then carried on to the Kluane River to participate in a chum fry release
- Vanier Catholic Secondary School studied salmon life cycles and habitat, and visited Whitehorse Rapids Hatchery
- Whitehorse class visited Wolf Creek to study aquatic habitats



Whitehorse Elementary School Photo: Students studying invertebrates

Yukon Classroom Salmon Incubation Projects (Release 2009)

16 schools in 8 communities rear 2 species of salmon from 3 stocks

<u>Community (People)</u>	<u>School</u>	<u>08 Brood Stock (Fish Community)</u>	<u>Species</u>	<u>Fry Release Trip Destination</u>
Whitehorse	Selkirk	Yukon River	chinook	McIntyre Creek
	Whitehorse Elem.	Yukon River	chinook	Fox Creek
	Christ the King	Yukon River	chinook	McIntyre Creek
	Jack Hulland	Yukon River	chinook	McIntyre Creek
	Takhini	Yukon River	chinook	Fox Creek
	Holy Family	Yukon River	chinook	Fox Creek
	Hidden Valley	Yukon River	chinook	Fox Creek
	FH Collins	Yukon River	chinook	McIntyre Creek
	Porter Creek Sec.	Yukon River	chinook	McIntyre Creek

Yukon Classroom Salmon Incubation Projects (Release 2009)

<u>Community (People)</u>	<u>School</u>	<u>08 Brood Stock (Fish Community)</u>	<u>Species</u>	<u>Fry Release Trip Destination</u>
Teslin	Teslin School	Kluane River	chum	Morley River
Carcross	Ghuch Tla Community School	Kluane River	chum	McIntyre Creek
Beaver Creek	Nelna Bessie School	Kluane River	chum	Kluane River
Destruction Bay	Kluane Lake	Kluane River	chum	Kluane River
Haines Jct.	St. Elias Community School	Kluane River	chum	Kluane River
Ross River	Ross River School	Tatchun Cr.	chinook	Tatchun Creek
Carmacks	Tantalus School	Tatchun Cr.	chinook	Tatchun Creek

Chum salmon broodstock collection: An estimated 20 students and 15 adults participated in the chum salmon egg take field trip in October 2009:

- Kluane Lake School and Nelnah Bessie John School students from Beaver Creek helped to capture chum broodstock and take eggs at the Kluane River.
- Additional chum eggs were taken to the McIntyre Incubation site for distribution to the Haines Junction school and a Whitehorse schools in January, at the eyed stage.



Kluane River Broodstock capture



R. Murphy Photo: Students assisting with Kluane chum milt collection

Ongoing:

The Stream to Sea Program and incubators were again offered to Yukon teachers in the fall of 2009. Several classes decided to participate in the incubation portion of the project. Sixteen Yukon schools in eight Yukon communities are growing salmon in their classrooms in the 2009- 2010 season. Field trips are currently being scheduled for May and June 2010.