

Fishery Management Report No. 05-55

**Summary of Public Education and Outreach Activities
Conducted by the Salmon Trout Restoration
Education and Aquatic Management (STREAM)
Program, July 1, 2001-June 30, 2002**

by

Frederic R. Kraus

October 2005

Alaska Department of Fish and Game

Divisions of Sport Fish and Commercial Fisheries



Symbols and Abbreviations

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Weights and measures (metric)		General		Measures (fisheries)	
centimeter	cm	Alaska Administrative Code	AAC	fork length	FL
deciliter	dL			mid-eye-to-fork	MEF
gram	g	all commonly accepted abbreviations	e.g., Mr., Mrs., AM, PM, etc.	mid-eye-to-tail-fork	METF
hectare	ha			standard length	SL
kilogram	kg			total length	TL
kilometer	km	all commonly accepted			
liter	L	professional titles	e.g., Dr., Ph.D., R.N., etc.		
meter	m			Mathematics, statistics	
milliliter	mL	at	@	<i>all standard mathematical signs, symbols and abbreviations</i>	
millimeter	mm	compass directions:		alternate hypothesis	H _A
		east	E	base of natural logarithm	<i>e</i>
		north	N	catch per unit effort	CPUE
		south	S	coefficient of variation	CV
		west	W	common test statistics	(F, t, χ^2 , etc.)
Weights and measures (English)		copyright	©	confidence interval	CI
cubic feet per second	ft ³ /s	corporate suffixes:		correlation coefficient (multiple)	R
foot	ft	Company	Co.	correlation coefficient (simple)	r
gallon	gal	Corporation	Corp.	covariance	cov
inch	in	Incorporated	Inc.	degree (angular)	°
mile	mi	Limited	Ltd.	degrees of freedom	df
nautical mile	nmi	District of Columbia	D.C.	expected value	<i>E</i>
ounce	oz	et alii (and others)	et al.	greater than	>
pound	lb	et cetera (and so forth)	etc.	greater than or equal to	≥
quart	qt	exempli gratia (for example)	e.g.	harvest per unit effort	HPUE
yard	yd	Federal Information Code	FIC	less than	<
		id est (that is)	i.e.	less than or equal to	≤
		latitude or longitude	lat. or long.	logarithm (natural)	ln
		monetary symbols (U.S.)	\$, ¢	logarithm (base 10)	log
		months (tables and figures): first three letters	Jan, ..., Dec	logarithm (specify base)	log ₂ , etc.
		registered trademark	®	minute (angular)	'
		trademark	™	not significant	NS
		United States (adjective)	U.S.	null hypothesis	H ₀
		United States of America (noun)	USA	percent	%
		U.S.C.	United States Code	probability	P
		U.S. state	use two-letter abbreviations (e.g., AK, WA)	probability of a type I error (rejection of the null hypothesis when true)	α
Physics and chemistry				probability of a type II error (acceptance of the null hypothesis when false)	β
all atomic symbols				second (angular)	"
alternating current	AC			standard deviation	SD
ampere	A			standard error	SE
calorie	cal			variance	
direct current	DC			population	Var
hertz	Hz			sample	var
horsepower	hp				
hydrogen ion activity (negative log of)	pH				
parts per million	ppm				
parts per thousand	ppt, ‰				
volts	V				
watts	W				

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CONDUCTED BY THE SALMON TROUT RESTORATION
EDUCATION AND AQUATIC MANAGEMENT (STREAM) PROGRAM,
JULY 1, 2001-JUNE 30, 2002**

by

Frederic R. Kraus
Division of Sport Fish, Anchorage

Alaska Department of Fish and Game
Division of Sport Fish, Research and Technical Services
333 Raspberry Road, Anchorage, Alaska, 99518-1599

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Frederic R. Kraus,

*Alaska Department of Fish and Game, Division of Sport Fish
333 Raspberry Road, Anchorage, AK 99518-1599, USA*

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ABSTRACT

Described are the activities conducted under the Salmon Trout Restoration Education and Aquatic Management (STREAM) Program, July 1, 2001-June 30, 2002. Activities are summarized in two categories; education and outreach. Education activities include: classroom salmon egg incubation, classroom visits and presentations, field educational experiences, teacher workshops/in-services, adopt-a-stream program and educational materials. The outreach component includes: stream restoration/ habitat activities; shows and special events; fulfilling requests for information, materials and equipment; and continuing and enhancing media coverage and program contributions. The new aquatic education mobile classroom trailer and its activities in FY 2002 are described. Goals for the continuing program are outlined.

Key words: Salmon Trout Restoration and Aquatic Management (STREAM) education, outreach, classroom salmon egg incubation, mobile classroom trailer, teacher workshops, Adopt-a-Stream, media coverage.

INTRODUCTION

BACKGROUND INFORMATION

Aquatic education in Southcentral Alaska began in 1989 with an experimental classroom salmon egg incubation program supported by the former Fisheries Rehabilitation Enhancement Division (FRED) of the Alaska Department of Fish and Game (ADF&G). This program was based out of the Big Lake Hatchery and initially concentrated on Matanuska-Susitna Valley schools, but by school year 1990/1991 supported projects in five Matanuska-Susitna Valley and five Anchorage area schools.

During this same time frame, FRED Division had plans to initiate a project to conduct research on stream rehabilitation techniques and structures the division was planning to construct in Anchorage area streams, with emphasis on Campbell Creek. The program was to be funded in part by the Alaska Science and Technology Foundation (ASTF), which was interested in the development of low cost stream restoration techniques that the general public and other agencies could afford and utilize along streams around Alaska. The projects would be small in design and materials would be inexpensive and easy to install.

A union of the fledgling aquatic education program and the new stream restoration effort occurred in July 1991 when the new project biologist realized there was an opportunity to combine these efforts to create an educational outreach program, which was named the Salmon Trout Restoration Education and Aquatic Management (STREAM) Program.

The main goal of the program was, as it remains today, to increase the public's awareness of Alaska's healthy wild salmon stocks through education and the offering of hands-on opportunities. In this way it is hoped that the public will become personally involved and become better stewards of this valuable resource. In 1996, the STREAM Program was transferred to the Division of Sport Fish (DSF). At that time, angler education and outreach became the main goal of the STREAM Program.

The STREAM Program's activities have been modeled after other existing agency aquatic education and outreach programs such as the Oregon Department of Fish and Wildlife's (ODF&W) Salmon Trout Enhancement Program (STEP) and the federal Canada Department of Fisheries and Ocean's (DFO) Salmonid Enhancement Program (SEP) in British Columbia. Components of these programs have been incorporated into STREAM Program activities; however, these programs use activities to concentrate on enhancement of depleted salmon stocks while the ADF&G program focuses on maintaining existing healthy stocks around the state. Salmonid enhancement is not an integral part of the STREAM Program.

The STREAM Program continues to expand and supports incubation projects throughout Southcentral Alaska and Interior Alaska. Projects are located in the Anchorage area, Kenai Peninsula, Matanuska-Susitna Valley, Kodiak and Region III (Fairbanks) road system area. The program also continues to support Cooperative Extension Service (CES) classroom salmon egg incubation projects statewide on a technical basis since this program was established in the early 1990s.

The success and popularity of the STREAM program is due to the high visibility of the program. ADF&G staff are in the schools and field with the students and volunteers that have the desire to learn more about Alaska's salmon resources. This not only allows the department to inform the public, but also enables the public to become more aware of the department's concerns and to understand why and how the resource is managed.

FY 2002 ACTIVITIES (JULY 1, 2001–JUNE 30, 2002)

The STREAM Program accomplishes its goals in many ways, but primarily develops and incorporates hands-on activities to increase the public's awareness of our salmon resources. The program focuses on education and outreach as its primary tools to accomplish its goals; however, with the ever increasing demand for educational activities and materials, the time consuming small scale stream restoration outreach activities have decreased significantly since the early days of the program.

Activities conducted by the STREAM Program are summarized in two categories; education and outreach. Education activities include: classroom salmon egg incubation, classroom visits and presentations, field educational experiences, teacher workshops/in-services, adopt-a-stream program and educational materials. The outreach component includes: stream restoration/ habitat activities; shows and special events; fulfilling requests for information, materials and equipment; and continuing and enhancing media coverage and program contributions. Work on a new aquatic education mobile classroom trailer commenced in FY02 and therefore a new section of this report will include trailer activities. All activities are summarized below for fiscal year 2002.

EDUCATION

Classroom Salmon Egg Incubation

As one of the original aquatic education tools, classroom salmon egg incubation activities have long been the backbone of the educational effort in Southcentral Alaska. Classroom salmon egg incubation came to Alaska using technology developed by the DFO-SEP in British Columbia. Classroom salmon egg incubation projects are used as a part of SEP's "Salmonids in the Classroom" program. Since its origins at the Big Lake Hatchery, these projects now exist in 92 ADF&G STREAM Program-sponsored schools in Southcentral Alaska and statewide in approximately 50 Cooperative Extension Service (CES)-sponsored schools. These projects continue to be for educational purposes only and not for enhancement.

Most schools are using 29-gallon aquariums with standard undergravel filter plates, powerheads and aquarium gravel. The tanks are insulated and darkened using 1-inch high density Styrofoam and the recirculated water is refrigerated using specially designed refrigeration units. If schools are on a city-treated water system they must dechlorinate their water before introduction into their tank. These systems incubate up to 250 eggs. Coho salmon *Oncorhynchus kisutch* is the species used to obtain salmon eggs for the school projects because its egg development stages from spawning to fry emergence coincide best with a school year.

Classroom incubation equipment is funded cooperatively between CES and the STREAM Program. The CES receives approximately \$5,000 from EXXON U.S.A. to purchase refrigeration units for participating

schools. CES has these units built locally and turns them over to the STREAM Program for distribution to participating schools. The STREAM Program supplies the other equipment and accessories required. During FY2002, the Kenai River Sportfishing Association (KRSA) also contributed \$2,400 for the purchase of six school refrigeration units.

Several schools utilize a technique developed by the STREAM Program when standard incubation equipment is not available. This technique uses a small 1-gallon aquarium inside of a refrigerator, which chills the water, to incubate approximately 50 salmon eggs through the fry stage.

The classroom salmon egg incubation program enables students and teachers, as well as parents, to witness and monitor the early development of a salmon from egg to fry, probably the least understood stages of the salmon's life cycle, but a period we as humans have great control over. Classes are responsible for monitoring tank temperature on a daily basis and performing water exchanges once a week. Classroom salmon egg incubation projects focus on increasing student awareness of salmonid life histories, biology, anatomy and habitat requirements of these fish.

Educational materials have been developed and continue to be developed to complement this program. The STREAM Program modified the primary version of *Salmonids in the Classroom* with permission from DFO. The curriculum package has been well received and the intermediate version of this same series is still in the process of being modified. *A Guide to Classroom Salmon Egg Incubation in Alaska* continues to be distributed to teachers. A modified life-cycle poster originally produced by the Washington Department of Fish and Wildlife (WDF&W) and salmon egg vial displays constructed by high school students are also made available to educators.

In 2002, 52 Anchorage area schools conducted classroom salmon egg incubation projects (Table 1), an increase of two from the previous year. There were 14 participating schools in the Matanuska-Susitna Valley area, a decrease of one school from the previous year; 7 schools on the Kenai Peninsula, a decrease of one school from the previous year; 7 schools in Kodiak, an increase of one school from the previous year; and 12 schools in the Fairbanks area, a decrease of one school from the previous year.

In late September and early October, classes from Anchorage and the Matanuska-Susitna Valley came to Campbell Creek and Spring Creek, respectively, to participate in a coho salmon egg take. The children witnessed the beginning of life for a salmon and left with up to 250 fertilized eggs, which they then observed and monitored throughout the winter. Schools on the Kenai Peninsula received their coho salmon eggs from Bear Creek during a cooperative ADF&G, Cook Inlet Aquaculture (CIAA) and Seward Sealife Center egg take held at the CIAA operated Bear Creek weir. Following the egg takes the Seward Sealife Center hosted reduced entry fee tours for the participants.

Kodiak area projects received eggs from an egg take held at the Buskin River in early November. The Copper River basin school (included with the Fairbanks Sport Fish Region III area schools) continues to receive fertilized coho salmon eggs from an egg take at the privately operated Solomon Gulch Hatchery in Valdez. Fairbanks and adjacent area schools travel to the Delta-Clearwater River in Delta Junction to attend an egg take.

The classroom eggs eventually hatched and turned into fry at which point the classes received salmon food supplied by the Fort Richardson Hatchery and distributed by STREAM Program staff. The majority of the coho fry were released in mid to late May in landlocked lakes: Taku-Campbell Lake in Anchorage, Matanuska Lake in Palmer, several lakes in the Kenai/Soldotna area, Island Lake in Kodiak, Strelna Lake near Kenny Lake and either Bathing Beauty Pond near Fairbanks or the Delta-Clearwater River (anadromous).

Table 1.-Schools participating in salmon egg incubation projects, by area, 2002.

<u>ANCHORAGE</u>		<u>MATANUSKA-SUSITNA</u>
Abbot Loop Elementary	Susitna Elementary	Burchell Alternative
Alpenglow Elementary	Taku Elementary	Butte Elementary
Aquarian Charter	Trailside Elementary	Colony MS
Aurora Elementary	Tudor Elementary	Finger Lake Elementary
Baxter Elementary	Turnagain Elementary	Goose Bay Elementary
Bayshore Elementary	Ursa Minor Elementary	Meadow Lakes Elementary
Bear Valley Elementary	Village Charter	Midnight Sun
Chinook Elementary	Williwaw Elementary	New Ideas Home
Chugach Optional	Willow Crest Elementary	Palmer MS
Chugiak HS		Pioneer Peak Elementary
College Gate Elementary	Total 52	Swanson Elementary
Creekside Park Elementary		Tanaina Elementary
Denali Elementary	<u>FAIRBANKS REGION III</u>	Teeland Middle
Eagle River Elementary	Arctic Light Elementary	Wasilla MS
Fairview Elementary	Delta Junction HS	
Fire Lake Elementary	Joy Elementary	Total 14
Girdwood Jr. High	Kenny Lake Elementary	
Gladys-Wood Elementary	Nordale Elementary	<u>KENAI PENINSULA</u>
Goldenview MS	North Pole MS	Kalifornsky Beach Elem.
Homestead Elementary	Pearl Creek Elementary	Mt. View Elementary
Huffman Elementary	Ryan Middle School	Nikiski Elementary
Inlet View Elementary	Tok School	Redoubt Elementary
Kasuun Elementary	Weller Elementary	Sears Elementary
King Career Center	Whitestone School	Sterling Elementary
Klatt Elementary	Woodriver Elementary	Tustumena Elementary
Lake Hood Elementary		
Mirror Lake MS	Total 12	Total 7
Mt. Iliamna Pre-School		
Mt. View Elementary		<u>KODIAK</u>
Muldoon Elementary		Chiniak School
Northern Lights ABC		East Elementary
Nunaka Valley Elementary		Kodiak HS
Ocean View Elementary		Main Elementary
O'Malley Elementary		North Star Elementary
Orion Elementary		Peterson Elementary
Polaris Alternative		St. Mary's School
Rabbit Creek Elementary		
Rogers Park Elementary		Total 7
Russian Jack Elementary		
St. Elizabeth Ann Seton		
SAVE HS		
Scenic Park Elementary		
Service HS		

Egg-take and release summary information for each area can be found in Table 2. Anchorage area events continue to account for the largest amount of participation during egg takes (2,330 students, 95 classes) and releases (1,650 students) due to the large number of schools participating. Egg takes in Anchorage were held over a 3-day period for classes to attend. An egg take was conducted on a fourth day (Saturday) for instructors who could not attend with their classes. The fry releases in Anchorage, Palmer and Kodiak, had the only organized fry releases in the region where classes came out on a single day to release their fish. These releases were combined with a “Salmon Celebration” (hands-on activity booths) so that the students could participate in salmon related activities after releasing their fry.

Two days of school egg takes held at Spring Creek in Palmer drew an attendance of 565 students (22 classes), an increase from the previous year. Students from the Matanuska-Susitna Valley area then released their fry into Matanuska Lake during a combined district-wide classroom fry and catchable rainbow trout (from Anchorage area hatcheries) release. This release was combined with a Salmon Celebration.

The Kenai Peninsula school egg take was moved this year to Bear Creek in Seward. This egg take was attended by 256 students (11 classes). Kenai Peninsula classes have three release location options, but most opted to release their fry at Centennial Lake in Kasilof.

Kodiak area schools attended egg takes held at the Buskin River at the outlet of Buskin Lake (373 students, 17 classes) and the resultant fry were released into Island Lake near North Star Elementary School, which hosts the annual fry release and Salmon Celebration for the Kodiak area. This release is district-wide and students from non-participating classes help to release the classroom fry raised by fellow students.

The Fairbanks area schools egg take was again combined with a scaled down version of the Salmon Celebration in early October at the Delta Clearwater River in Delta Junction (419 students, 19 classes). The Copper River basin school received fertilized (green) coho salmon eggs from an egg take at the privately operated Solomon Gulch Hatchery in Valdez. All Region III fry were then released into approved release locations in their areas.

Lakes that are approved for school fry releases are landlocked so that school-raised fry cannot mix with wild salmon in anadromous systems. Teachers may also elect to sacrifice their fry if they do not wish to release them. Classes may, by state policy, also release their fry into the system from which the eggs originated; however, projects sponsored by the STREAM Program are not offered this option in Southcentral Alaska, but may do so in the Fairbanks (Region III) area.

Forty (40) Cooperative Extension Service sponsored incubation projects received eyed eggs from the Ft. Richardson Hatchery on November 5, 2001. STREAM Program staff assisted with the packaging of those eggs.

Classroom Visits and Presentations

Making presentations to groups of people is one of the more conventional means of getting information out. The STREAM Program, however, prefers to be very visual and hands-on when staff visit classrooms or adult groups to present topics relating to salmon. The STREAM Program attempts to make presentations interactive, where the audience must participate in some fashion. This may mean asking questions to the audience during the presentation or by giving

Table 2.-School egg-take and release information, 2002.

Date	Location	Stream/Lake	Number Students
Anchorage			
Egg Take			
09/19/01	Anchorage	Campbell Creek	638 (28 classes)
09/20/01	Anchorage	Campbell Creek	832 (36 classes)
09/21/01	Anchorage	Campbell Creek	710 (31 classes)
09/22/01	Anchorage	Campbell Creek	150
Total		4	2,330 (95 classes)
Released			
05/10/02	Anchorage	Taku-Campbell Lake	1,650 (65 classes)
Total		1	1,650
Matanuska-Susitna Valley			
Egg Take			
09/27/01	Palmer	Spring Creek	326 (12 classes)
09/28/01	Palmer	Spring Creek	239 (10 classes)
Total		2	565 (22 classes)
Released			
05/14/02	Palmer	Matanuska Lake	350 (10 classes)
Total		1	350 (10 classes)
Kenai Peninsula			
Egg Take			
10/11/01	Seward	Bear Creek	256 (11 classes)
Total		1	256 (11 classes)
Released			
05/02	Nikiski	Chugach Estates L.	30 (1 class)
05/02	Kasilof	Centennial Lake	125 (5 classes)
05/02	Soldotna	Longmere Lake	0
Total		2	175 (6 classes)
Region III / Fairbanks			
Egg Take			
10/05/01	Delta Junction	Delta Clearwater R.	419 (19 classes)
10/01	Valdez	Solomon Gulch	28 (1 class)
Total		2	447 (20 classes)
Released			
05/02	Fairbanks	Bathing Beauty Pond	125 (5 classes)
05/02	Kenny Lake	Strelna Lake	22 (1 class)
05/02	Fairbanks area	Delta-Clearwater R.	75 (3 classes)
Total		3	222 (9 classes)
Kodiak			
Egg Take			
11/02/01	Kodiak	Buskin River	373 (17 classes)
Total		1	373 (17 classes)
Released			
05/21/02	Kodiak	Island Lake	1,000 (40 classes)
Total		1	1,000 (40 classes)

them a hands-on activity to do while a presentation is occurring. Hands-on activities include puzzles, rubber stamps, fish dissections, fly tying and button making. Presentations focus on many salmon-related topics including salmon life histories, biology, habitat requirements, anatomy (dissections), coded wire tag demonstrations, watersheds, stream ecology or fishing.

Table 3 contains summary information on classroom visits and presentations for 2002. During this year, 123 presentations (down from 142 in 2001) were made to groups ranging in size from one to 175. Various presentations were made to 5,894 individuals, an increase of 365 from FY01, from kindergarten through adult age levels. Presentations were conducted for elementary age children (82.1%), 11.7% to junior high students, 3.9% to high school students, and 2.3% to adult groups.

In 2002 the STREAM Program continued the salmon dissection program, where teachers could pick up salmon from a designated location to conduct dissections in the classroom or they could have STREAM Program staff bring fish and lead the dissection. Snug Harbor Seafoods, a local fish processor in Kenai, donated 350 pink salmon to support the program this year. With those fish, along with coho salmon from the Elmendorf Hatchery and school egg takes, the STREAM program distributed 704 fish, which were utilized by 3,254 students for classroom dissections this year. In many instances, coded wire tag demonstrations were conducted, where tags were removed from the heads of specimens. Once used in the classroom, almost all of the fish used for dissections in Anchorage were donated to the Alaska Zoo. The STREAM Program continued the very successful fly tying in the classroom program to introduce students to fly fishing. ADF&G staff, King Career Center Students and other adult volunteers visited 85 classes and worked with 2,121 students to tie the four life history stages (egg, eyed egg, alevin, fry) they would observe in classroom incubators, as well as some advanced patterns. The majority of school presentations this year were requests for salmon dissections and fly tying.

Aquatic Education Classroom Trailer

In FY02 the STREAM Program received funding through the Wildlife Conservation and Restoration Program (WCRP) to construct a 40-foot aquatic education classroom trailer. During FY02 the trailer design and bid process began. The Department of Transportation (DOT) took over the bid process after STREAM Program staff worked with trailer manufacturers to design the trailer.

Several organizations were identified that expressed an interest in assisting with the trailer project. Sponsors who contributed \$10,000 to the trailer project in FY02 include the Kenai River Sportfishing Association and Phillips Alaska.

Field Educational Experiences

The STREAM Program occasionally receives requests from groups to lead outdoor presentations at a local stream or river. These talks range from assisting a Girl Scout Troop earn a nature badge to more detailed discussions with technical groups to consult on stream problems. Most of the field trips are based on a watershed perspective so that participants can become more aware of the “big picture,” that fish and aquatic organisms require more than just water to survive and how man’s impacts on a watershed can affect aquatic life. Hands-on activities usually accompany these presentations and typically several sites may be visited along a stream to discuss changes that have occurred in the system. Hands-on activities may include: sampling

Table 3.-Classroom visits and presentations conducted by the ADF&G STREAM Program, 2002.

Date	School	# Students	Age Group	Subject
09/13	Weller Elementary	63	Elementary	Salmon dissection (3 classes)
09/25	Wayland Baptist Univ.	14	College	Salmon dissection (1 class)
10/01	Joy Elementary	24	Elementary	Salmon dissection (1 class)
10/01	Wood River Elem.	78	Elementary	Salmon dissection (3 classes)
10/02	North Pole MS	100	Junior High	Salmon dissection/CWT (1 class)
10/02	Ryan Middle	118	Junior High	Salmon dissection (3 classes)
10/03	Arctic Light Elem.	25	Elementary	Salmon Cel. training / Salmon dissection
10/15	Eagle River Elem.	58	Elementary	Salmon life cycle
10/16*	Palmer Middle	101	Junior High	Salmon LC and lake presentation
10/17*	Palmer Middle	102	Junior High	Salmon LC and lake presentation
10/17	Nunaka Valley Elem.	21	Elementary	Salmon dissection (1 class)
10/17	Russian Jack Elem.	70	Elementary	Salmon dissection (3 classes)
10/18	Scenic Park Elem.	100	Elementary	Salmon dissection (3 classes)
10/18	Willow Crest Elem.	28	Elementary	Salmon dissection/CWT (1 class)
10/22	Lake Hood Elem.	175	Elementary	Salmon dissection (6 classes)
10/22	Village Charter	52	Elementary	Salmon dissection/CWT (3 classes)
10/23	Abbott Loop Elem.	44	Elementary	Salmon dissection (2 classes)
10/23	Susitna Elementary	55	Elementary	Salmon dissection (2 classes)
10/23*	Talkeetna Elementary	38	Elementary	Salmon LC, activities, dissection
10/24	Ursa Minor Elem.	21	Elementary	Salmon dissection/CWT (1 class)
10/24	Huffman Elementary	83	Elementary	Salmon dissection (3 classes)
10/25	Rabbit Creek Elem.	26	Elementary	Salmon dissection/CWT (1 class)
10/25	Ocean View Elem.	50	Elementary	Salmon dissection/CWT (2 classes)
10/25**	K-Beach Elementary	52	Elementary	Watershed model / salmon ID (2 classes)
10/30	North Star Elem.	90	Elementary	Salmon dissection (3 classes)
10/30	St. Mary's School	17	Elementary	Salmon dissection (1 class)
10/31	Main Elementary	40	Elementary	Salmon dissection (2 classes)
10/31	East Elementary	65	Elementary	Salmon LC / Incubation project
11/01	Chiniak School	18	Elementary	Salmon dissection/ LC / Incubation
11/07*	Pioneer Peak Elem.	76	Elementary	Salmon dissection (3 classes)
11/08	Inlet View Elem.	59	Elementary	Salmon dissection/CWT (3 classes)
11/09*	Pathways Alternative	10	High School	Fly tying - egg / alevin / leech
11/09**	Kenai Pen. College	1	College	Careers in fisheries
11/13	Alpenglow Elementary	65	Elementary	Salmon dissection/CWT (3 classes)
11/13	Turnagain Elementary	45	Elementary	Salmon dissection (2 classes)
11/13*	MatSu Youth Facility	10	High School	Salmon LC, lakes, dissection
11/14	Gladys Wood Elem.	90	Elementary	Salmon dissection/CWT (3 classes)
11/14	Bear Valley Elem.	75	Elementary	Salmon dissection/CWT (3 classes)
11/15	St. Elizabeth Seton	42	Elementary	Salmon dissection/CWT (1 class)
11/15	Klatt Elementary	50	Elementary	Salmon dissection/CWT (2 classes)
11/16	Taku Elementary	40	Elementary	Salmon dissection/CWT (2 classes)

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Table 3.-Page 2 of 3.

Date	School	# Students	Age Group	Subject
11/16	Bayshore Elementary	100	Elementary	Salmon dissection (4 classes)
11/16**	K-Beach Elementary	52	Elementary	Salmon / Dolly dissection (2 classes)
11/19	Orion Elementary	27	Elementary	Salmon dissection (1 class)
11/19	Fairview Elementary	60	Elementary	Salmon dissection (3 classes)
11/29**	Mt. View Elementary	39	Elementary	Watershed model
11/30*	Valley Pathways	10	High School	Fly tying
12/07*	Valley Pathways	10	High School	Fly tying
12/14*	Valley Pathways	10	High School	Fly tying
01/08*	Finger Lake Elem.	25	Elementary	Lake presentation, activities
01/14	King Career Center	21	High School	Fly tying – 4 egg patterns
01/14	King Career Center	25	High School	Fly tying – 4 egg patterns
01/15	Baxter Elementary	27	Elementary	Fly tying – 4 egg patterns
01/15	Scenic Park Elem.	105	Elementary	Fly tying – 4 egg patterns (3 classes)
01/16	Fairview Elementary	69	Elementary	Fly tying – 4 egg patterns (3 classes)
01/16	Huffman Elementary	80	Elementary	Fly tying – 4 egg patterns (3 classes)
01/17	Susitna Elementary	23	Elementary	Fly tying – 4 egg patterns
01/17	Gladys Wood	62	Elementary	Fly tying – 4 egg patterns (2 classes)
01/22	Chugach Optional	75	Elementary	Fly tying – 4 egg patterns (3 classes)
01/22	Chugach Optional	65	Elementary	Fly tying – 4 egg patterns (3 classes)
01/23	Kasuun Elementary	45	Elementary	Fly tying – 4 egg patterns (2 classes)
01/23	College Gate Elem.	26	Elementary	Fly tying – 4 egg patterns
01/24	Village Charter	48	Elementary	Fly tying – 4 egg patterns (2 classes)
01/24	Oceanview Elem.	25	Elementary	Fly tying – 4 egg patterns
01/25	Klatt Elementary	54	Elementary	Fly tying – 4 egg patterns (2 classes)
01/28	Turnagain Elementary	54	Elementary	Fly tying – 4 egg patterns (2 classes)
01/28	Orion Elementary	64	Elementary	Fly tying – 4 egg patterns (2 classes)
01/29	Bear Valley Elem.	80	Elementary	Fly tying – 4 egg patterns (3 classes)
01/30	SAVE HS	30	High School	Fly tying – 4 egg patterns
01/30	SAVE High School	31	Elementary	Fly tying – 4 egg patterns
01/31	Homestead Elem.	44	Elementary	Fly tying – 4 egg patterns (2 classes)
01/31	Rogers Park Elem.	56	Elementary	Fly tying – 4 egg patterns (2 classes)
02/01	Rabbit Creek Elem.	24	Elementary	Fly tying – 4 egg patterns
02/01	Willow Crest Elem.	23	Elementary	Fly tying – 4 egg patterns
02/04	Inlet View Elem.	28	Elementary	Fly tying – 4 egg patterns
02/05	Goose Bay Elem.	41	Elementary	Fly tying – 4 egg patterns (2 classes)
02/05	Meadow Lakes Elem.	55	Elementary	Fly tying – 4 egg patterns (2 classes)
02/06	Finger Lake Elem.	10	Elementary	Fly tying – 4 egg patterns
02/06	Tanaina Elementary	75	Elementary	Fly tying – 4 egg patterns (3 classes)
02/07	Denali Elementary	20	Elementary	Fly tying – 4 egg patterns
02/07	Fire Lake Elem.	65	Elementary	Fly tying – 4 egg patterns (3 classes)
02/08	Teeland Middle	48	Junior High	Fly tying – 4 egg patterns
02/08	Teeland Middle	56	Junior High	Fly tying – 4 egg patterns

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Table 3.-Page 3 of 3.

Date	School	# Students	Age Group	Subject
02/11	Pioneer Peak Elem.	75	Elementary	Fly tying – 4 egg patterns (3 classes)
02/11	Butte Elementary	45	Elementary	Fly tying – 4 egg patterns (2 classes)
02/13	Ursa Minor Elem.	58	Elementary	Fly tying – 4 egg patterns (3 classes)
02/13	Mt. View Elementary	28	Elementary	Fly tying – 4 egg patterns
02/14	Trailside Elementary	30	Elementary	Fly tying – 4 egg patterns
02/15	St. Elizabeth Seton	17	Elementary	Fly tying – 4 egg patterns
02/15	Alpenglow Elementary	25	Elementary	Hayley McCutcheon art presentation
02/20*	Swanson Elementary	50	Elementary	Salmon/pike dissection (2 classes)
02/25	Northern Lights ABC	40	Elementary	Salmon dissection (2 classes)
02/25	Chugach Optional	70	Elementary	Salmon dissection (3 classes)
02/26	Rogers Park Elem.	24	Elementary	Salmon dissection
02/26	Creekside Elementary	49	Elementary	Salmon dissection (2 classes)
02/27*	Colony Middle	48	Junior High	Salmon/pike dissection (1 class)
02/28*	Colony Middle	48	Junior High	Lake presentation slide show
03/01	Baxter Elementary	25	Elementary	Salmon dissection
03/01	College Gate Elem.	25	Elementary	Salmon dissection
03/04	Fire Lake Elementary	56	Elementary	Salmon dissection (2 classes)
03/11	Sterling Elementary	25	Elementary	Fly tying – 4 egg patterns
03/11	K-Beach Elementary	27	Elementary	Fly tying – 4 egg patterns
03/12	Tustumena Elementary	76	Elementary	Fly tying – 4 egg patterns (3 classes)
03/12	Mt. View Elementary	47	Elementary	Fly tying – 4 egg patterns (2 classes)
03/13	Sears Elementary	40	Elementary	Salmon / pike dissection (2 classes)
03/13	Redoubt Elementary	53	Elementary	Salmon / pike dissection (2 classes)
03/14	Tustumena Elementary	65	Elementary	Salmon / pike dissection (3 classes)
03/14	Nikiski Elementary	21	Elementary	Salmon / pike dissection
04/01	King Career Center	40	High School	Salmon Celebration training
04/02	King Career Center	40	High School	Salmon Celebration training / dissection
04/04*	GASS	30	Adult	Stocked lakes presentation
04/06*	GASS	75	Adult	Stocked lakes presentation
04/12	Kenny Lake Elem.	20	Elementary	Fly tying / hands-on activities
04/16*	Kiwanis Club	15	Adult	Mat-Su area fishing
04/17	Ravenwood	54	Elementary	Watershed 101 presentation
04/25*	Wasilla High School	25	High School	Stocked lakes presentation
05/02**	Mt. View Elementary	45	Elementary	Salmon / Dolly dissection (2 classes)
05/06	Kenai River Center	59	Elementary	Salmon Celebration training / dissection
05/08	ADF&G Rifle Range	19	Elementary	Salmon Celebration training
05/09	ADF&G Rifle Range	54	Elementary	Salmon Celebration training
05/13	Teeland Middle	70	Junior High	Salmon Celebration training
05/20	North Star Elementary	79	Elementary	Salmon Celebration training / fly tying
05/22	East Elementary	24	Elementary	Chloe Ivanoff art presentation
Total	123	5,894		

* Presentations made by STREAM Program Technician – Palmer office.

** Presentations made by STREAM Program Biologist – Soldotna office.

aquatic macroinvertebrates using nets, trapping juvenile salmonids or testing water quality with test kits. All these activities are incorporated into the presentation so that the “big picture” becomes clear.

In 2002, 126 students were led on watershed field trips to the Little Susitna River in Palmer and the Russian River near Cooper Landing on the Kenai Peninsula (Table 4).

Teacher Workshops/In-Services

Teachers are becoming more interested in educating their students about salmon and streams. If trained properly, these teachers can assist the department in getting the word out in their classrooms. This becomes even more important when demand for STREAM Program staff class visitations exceeds available time. It is for this reason that the proper training of instructors is a high priority of the STREAM Program. Time is well spent when you can assemble several teachers together at a single time rather than on a one-on-one basis. Teacher workshops are considered formal or informal. Informal training sessions are not required by a school district, where in-services are formal training sessions required by a district. Other sessions may involve the training of volunteers to assist at a STREAM Program event.

During 2002, one Anchorage School District incubation project training session was held and attended by eight people (Table 5). This year’s Cooperative Extension Service’s Incubation Workshop for statewide teachers in Fairbanks was cancelled due to the events of 9/11/01.

Adopt-A-Stream Program

Adopt-A-Stream (AAS) programs are becoming increasingly popular across the country. These programs enable the general public to care for or monitor a favorite section of stream. In Southcentral Alaska these AAS projects are also used as an educational tool. The STREAM Program works primarily with schools and non-profit groups who wish to establish AAS projects. The program has grown from a single project in 1996 to seven projects in 2002 (Table 6), with approximately 440 stream watchers. Participating adult groups are most interested in cleaning up sections of stream.

Schools may participate in AAS projects for educational purposes. Too many similar monitoring projects have promised teachers that their data would be stored in databases or used to fix potential problems in their streams, and historically these promises have never been kept. Many educators lost faith in these programs as a result and the STREAM Program has attempted to restore some of that lost faith in the name of education.

Teachers are informed up front that the purpose of the program is educational and not scientific in nature. It is suggested that schools participate at whatever level they feel comfortable and that they are collecting water quality data to maintain their own database. This database can then be used to “communicate” findings with other schools in the same watershed or even different areas.

Water quality sampling equipment has been made available to teachers in Anchorage, the Matanuska Valley and the Kenai Peninsula. Instructors who have completed a training course may check the kits out for use at their AAS site. These kits are currently available for check out at the King Career Center (KCC) in Anchorage, the ADF&G area office in Palmer and the Kenai River Center and ADF&G area office in Soldotna.

Table 4.-Field educational experiences conducted by the ADF&G STREAM Program, 2002.

Date	School/Organization	# Students	Age Group	Location	Subject
08/30**	K-Beach Elementary	22	Elementary	Russian R.	Russian River Falls and spawning salmon
09/05**	Mt. View Elementary	49	Elementary	Russian R.	Russian River Falls and spawning salmon
10/08*	Teeland Middle School	27	Junior High	Little Su R.	Stream ecology, fish and macroinvertebrate ID
10/09*	Teeland Middle School	28	Junior High	Little Su R.	Stream ecology, fish and macroinvertebrate ID
Total	4	126			

* Presentations made by STREAM Program Technician – Palmer office.

** Presentations made by STREAM Program Biologist – Soldotna office.

Table 5.-Teacher workshops and in-services conducted by the ADF&G STREAM Program, 2002.

Date	District	Teachers	Location	Subject
11/13	Anchorage	8	Romig MS	Incubation projects
Total	1	8		

Table 6.-Adopt-A-Stream programs sponsored by the ADF&G STREAM Program, 2002.

Stream	School/Organization	Number Participants	Activity	Sign
Kenai River	Alaska Fly Fishers	90	cleanup	yes
Chester Cr.	Rogers Park Elementary	30	clean/monitor	no
Soldotna Cr.	Soldotna Elementary	100	clean/monitor	no
Slikok Cr.	Kalifornsky Beach Elementary	50	clean/monitor	no
Campbell Cr.	Gladys-Wood Elementary	30	clean/monitor	no
Ship Creek	Aerospace 3 rd EMS Ground Equip. and Flight	100	cleanup	yes
Ship Creek	3WG Maintenance Operations Center	40	cleanup	yes
Totals		7		440

Schools may participate at varying levels in activities which may include: stream cleanup (litter), stream and habitat surveys, macroinvertebrate (aquatic insect) surveys, water quality testing using chemical test kits, or involvement in an actual small-scale stream restoration project if they determine one may be necessary.

Educational Material Development

As the STREAM Program's educational effort continues to expand so does the need for new materials to meet the demands of the growing program. The STREAM Program continues to design new effective hands-on ways to increase the public's awareness of Alaska's salmon resources.

STREAM Program educational developments from 2002 (Table 7) include:

1. Reference copies of *Pacific Salmon, Alaska's Story* were distributed to schools participating in salmon egg incubation projects. A total of 20 copies was distributed. An updated version of this publication is expected in FY03.
2. "First Catch" cards were again printed, laminated and distributed to children catching their first fish during STREAM Program ice fishing events and the Great Alaska Sportsman's Show. A total of 370 cards were distributed.
3. Salmon life cycle posters (162) and egg development vial displays (2) continue to be distributed to instructors.
4. Educational web pages continue to be created and updated for use by instructors.
5. Planning started for the federal Wildlife Conservation and Restoration Program Initiative funded Aquatic Education Trailer. Several partners have assisted the project with \$10,000 contributions, including Phillips Alaska and the Kenai River Sportfishing Association. The design and bid process began in FY02.
6. The STREAM Program worked with Juneau Commercial Fisheries staff to streamline the permitting process for classrooms participating in similar classroom incubation project areas overseen by the STREAM Program. A new blanket permit system now covers instructors in Anchorage, Mat-Su, Kenai Peninsula, Kodiak and Fairbanks area schools.

OUTREACH

Stream Restoration/Habitat Activities

Integration of small-scale stream restoration projects with education has been an effective tool in increasing the public's awareness of salmon and especially the protection of their habitat. These projects are often very time consuming to plan, coordinate and implement, so unfortunately, the STREAM Program continues to decrease its efforts in this area, but will make opportunities available to the public should they become available at a reasonable time and cost.

During 2002 panels were replaced in the two informational kiosks installed along Campbell Creek. A Christmas tree revetment was also installed along the Buskin River in Kodiak to protect an eroding bank. This project was completed with the assistance of students from North Star Elementary school, who collected and stored the trees following the 2001 Christmas holiday (Table 8).

Table 7.-Educational materials developed by the ADF&G STREAM Program, 2002.

Educational Aid	Comments
Salmon dissection program	704 salmon distributed and utilized by 3,254 students
Adopt-A-Stream Streamkeepers manual	0 copies to participating AAS schools and agency people
Pacific Salmon Alaska's Story	20 copies distributed to participating schools
Salmon life cycle poster	162 copies distributed
Salmon Odyssey interactive CD	0 copies distributed
Kenai River Watershed interactive CD	5 copies distributed
Salmon egg/vial displays	2 distributed
CES incubator set-up video	5 distributed
First Catch Card program	370 cards distributed to kids catching their first fish
ADF&G incubation program manuals	9 copies distributed
Primary Salmonids in the Classroom curriculum	5 copies distributed
ADF&G Game Fish Species Poster	5 copies distributed
Fishing is Fun activity booklet	1,525 copies distributed during fly tying classes
Fly Tying in the Classroom pamphlets	2,000 distributed to classroom participants
STREAM Program educational trailer	Planning process started for large road system trailer
School Incubation Program permitting	Streamlined process established for blanket permitting
Educational trailer equipment	Purchased activities, watershed models, electronics
Clarion - Cook Inlet Salmon issue	25 copies distributed
Wildlife activities	Purchased skulls and track replica's for activities
Fish printing supplies	Purchased rubber fish collection for fish printing
Salmon egg vial displays	Construction of displays resumed
Face painting / Fish hats	New activities developed for events
Educational web sites	Fly tying, art contest, parade and egg-take photos
GASS pond volunteer T-shirts	New design "Thank you" for celebrity pond volunteers
Salmon hat activity	Salmon cut-outs painted and stapled to create hat
Sportsman Show banners	Acknowledgement banners printed by KCC
Fly Tying in the Classroom pamphlet	Updated and revised

Table 8.-Stream restoration/habitat activities (outreach) conducted by the ADF&G STREAM Program, 2002.

Date	Location	No. Volunteers	Man Hours	Coop Agency/Org	Project
05/17/02	Buskin River	14	28	ADF&G -STREAM	Christmas tree revetment
05/28/02	Campbell Creek	0	0	ADF&G -STREAM	Kiosk interpretive panels - 2 locations
Total	2	14	28		

Shows and Special Events

Large events or shows (Table 9) are an excellent way to reach out to segments of the population that may not have access to or a specific interest in fish or fishing. The activities at events in which the STREAM Program participates are always very hands-on oriented and easy to understand by the general public.

The STREAM ice fishing program continues to be a popular hands-on activity for instructors with an interest in expanding on their classroom salmon projects. This project serves as an introduction to winter fishing opportunities around Southcentral Alaska with ice fishing events held in Anchorage (Jewel Lake) and the Matanuska-Susitna Valley (Finger Lake). In Anchorage 1,392 students caught 2,361 fish, almost exclusively catchable Chinook salmon (*Oncorhynchus tshawytscha*). Of the Anchorage student anglers, 266 caught their first fish ever. In the Matanuska-Susitna Valley 523 student anglers caught 90 fish and 11 of these caught their first fish. The Matanuska-Susitna Valley student catch was also dominated by the catchable Chinook salmon, but they also caught rainbow trout (*O. mykiss*), Arctic char (*Salvelinus alpinus*) and Arctic grayling (*Thymallus arcticus*) from Finger Lake.

The year 2002 saw the continuation of the “Salmon Celebration” program. All of the Salmon Celebrations are associated with a spring fish release with the exception of the Fairbanks area, which occurs during the fall egg take.

The two Anchorage events had a combined attendance of 2,870 students. The first Anchorage Salmon Celebration was held in conjunction with the release of classroom incubation coho fry by participating Anchorage area schools. The second event was a district-wide event where Anchorage school students were given coho smolt to release as part of ADF&G’s urban coho stocking program. The smolt came from the Ft. Richardson Hatchery.

The Salmon Celebration held in Kodiak had an attendance of 1,000 students. The event was held at North Star Elementary School and children from all the attending district-wide classes were given coho salmon fry to release that had been raised at their schools. The fry were released into nearby Island Lake. This is the only event where food is donated by the community for the students attending the event. Safeway and other organizations donated over 1,100 hot dogs and buns, chips, pop, plates, utensils and condiments which were handed out to the crowd, numbering approximately 10% of the population of Kodiak.

Table 9.-Shows and special events attended or sponsored by the ADF&G STREAM Program, 2002.

Date	Event	Location	Attendance	# Volunteers	Purpose	Comments
07/06	Kenai River Classic	Soldotna Sports Center	200	9 (36 man hours)	fly tying demo	guests tied egg sucking leech pattern
10/05	Fairbanks Salmon Celebration	Delta-Clearwater River	419	25 (125 man hours)	salmonid awareness	egg take and hands-on activity booths (19 classes)
12/11	Anchorage School District ice fishing	Jewel Lake Anchorage	431	15 (60 man hours)	winter fishing opps.	683 fish, 76 first catch cards
12/12	Anchorage School District ice fishing	Jewel Lake Anchorage	409	12 (48 man hours)	winter fishing opps.	778 fish, 88 first catch cards
12/13	Anchorage School District ice fishing	Jewel Lake Anchorage	363	15 (60 man hours)	winter fishing opps	518 fish caught, 66 first catch cards issued
12/14	Anchorage School District ice fishing	Jewel Lake Anchorage	189	15 (60 man hours)	winter fishing opps	382 fish caught, 36 first catch cards issued
01/10	Mat-Su Borough School District (MSBSD) ice fishing	Finger Lake Palmer	248	7 (28 man hours)	winter fishing opps	25 fish caught, 4 first catch cards issued
01/11	MSBSD ice fishing	Finger Lake Palmer	275	5 (20 man hours)	winter fishing opps	65 fish caught, 7 first catch cards issued
01/14	Sport Fish Regulations Art Contest	Southcentral region	526	0	student artwork for regulation covers	Hayley McCutcheon
01/14	Sport Fish Regulations Art Contest	Bristol Bay region	32	0	student artwork for regulation covers	Sharolyn Zackar
01/14	Sport Fish Regulations Art Contest	Kodiak region	40	0	student artwork for regulation covers	Chloe Ivanoff
02/09	Fur Rendezvous Parade	Downtown Anchorage	2,500	10 (90 man hours)	salmon awareness	90 children, parents and teachers construct float-1 st place in division
03/15	Parade plaque presentation	Inlet View Elementary	500	0	plaque presentation	present Fur Ronyd Parade 1 st place plaque to student body

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Table 9.-Page 2 of 3.

Date	Event	Location	Attendance	# Volunteers	Purpose	Comments
04/04	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	503	30 (150 man hours)	ASA Kids Fishing Pond	KCC volunteers–booths, pond, stocking, fish cleaning, 12 1 st catch cards issued
04/05	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	700	30 (270 man hours)	ASA Kids Fishing Pond	KCC volunteers–booths, pond, stocking, fish cleaning, 29 1 st catch card issued – special event for intensive needs students
04/06	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	1,230	30 (330 man hours)	ASA Kids Fishing Pond	KCC volunteers–booths, pond, stocking, fish cleaning, 28 1 st catch cards issued
04/07	Great Alaska Sportsman Show	Ben Boeke Arena - Anchorage	817	30 (240 man hours)	ASA Kids Fishing Pond	KCC volunteers–booths, pond, stocking, fish cleaning, 22 1 st catch cards issued
04/15	ASD - KCC recognition presentation	ASD - HQ	200	0	Recognize KCC class for volunteering	School board recognition of KCC / ADF&G partnership
05/01	ASD volunteer recognition banquet	Fairview Elementary	500	0	recognition	STREAM program recognition
05/07	Kenai Pen. Salmon Celebration	Johnson Lake - Kasilof	625	74 (296 man hours)	salmonid/ fishing awareness	hatchery trout release and hands-on activity booths – 30 classes
05/10	Anchorage Salmon (fry) Celebration	Taku-Campbell Lake - Anchorage	1,650	78 (312 man hours)	salmonid/ fishing awareness	classroom fry release and hands-on activity booths - 64 classes
05/14	Mat-Su Salmon Celebration	Matanuska Lake - Palmer	1,141	70 (280 man hours)	salmonid/ fishing awareness	hatchery trout / school fry release and hands-on activity booths – 47 classes
05/21	Kodiak Salmon Celebration	Island Lake Kodiak	1,000	100 (400 man hours)	salmonid/ fishing awareness	classroom fry release and hands-on activity booths - 35 classes
05/23	Anchorage Hilton	Anchorage	50	0	recognition	AEA - STREAM Program recognition
05/31	Anchorage Salmon (smolt) Celebration	Campbell Creek - Anchorage	1,220	60 (240 man hours)	salmonid/ fishing awareness	smolt release and hands-on activity booths - 59 classes

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Table 9.-Page 3 of 3.

Date	Event	Location	Attendance	# Volunteers	Purpose	Comments
06/08	Kenai River Festival	Kenai	500	13 (78 man hours)	salmonid awareness	hands-on activity booths
06/09	Kenai River Festival	Kenai	300	11 (55 man hours)	salmonid awareness	hands-on activity booths
06/22	Women in the Outdoors	Carpenter Lake	17	0	fly tying	egg stages and egg sucking leech pattern
Total	28		16,585	639 (3,178 man hours)		

The Matanuska-Susitna Valley Salmon Celebration was a combined fish release event. Students who had raised coho salmon in their classrooms released their fish into Matanuska Lake. Other district-wide students who were in attendance received catchable rainbow trout from Elmendorf Hatchery in Anchorage to release as part of the annual stocking program. Overall attendance was 1,141 students.

The Kenai Peninsula Celebration had an attendance of 625 students. Students arriving from around the Kenai Peninsula School District were given catchable rainbow trout from the Ft. Richardson Hatchery to release into Johnson Lake in Kasilof. These catchable fish were also part of the stocking allocation for that lake.

After releasing their fish, classes visited the hands-on booths where they learned more about various salmon, stream and fishing topics. The activity booths included salmon life cycle rubber stamps, macroinvertebrate touch tank, live fish display, button making, salmon habitat “wheel of misfortune,” watershed model, salmon scale aging, coded wire tag fish display and detector, salmon anatomy puzzles, handouts (including fishing regulations), fly tying and fly casting stations, and spin casting station. Wildlife oriented booths with furs, skulls and animal tracks were added this year.

The Fairbanks area Salmon Celebration was held in the fall during the school egg take because it would have been difficult to assemble all the participating classes for a spring event. Students (419) from Tok to Fairbanks attended the event at the Delta-Clearwater River. After doing the hands-on activities the classes left with their eggs for their classroom projects.

Overall attendance for all the Salmon Celebration events was 6,055 students. Four hundred and seven volunteers made these events possible this year, including students from Rabbit Creek, Susitna and St. Elizabeth Ann Seton elementary schools in Anchorage; Teeland Middle and Wasilla High schools in the Matanuska-Susitna Valley; North Star Elementary in Kodiak; Kalifornsky Beach and Soldotna elementary schools in Soldotna; and Arctic Light Elementary in Fairbanks.

Other major events this past year included the Kid's Fishing Pond with activity booths and local celebrity helpers at the Great Alaska Sportsman's Show (GASS) (3,250 children), the Kenai River Festival (800 children) and the Anchorage Fur Rendezvous Parade, where a local elementary school builds a salmon-related float for this annual parade. The parade was attended

by approximately 2,500 people and the 90 students from Inlet View Elementary won first prize in the non-commercial youth division for their fishing theme float.

GASS organizers with Aurora Productions again donated 50% of the children's show admission fee to the King Career Center's Natural Resources Class for running the activity booths and Kid's Fishing Pond at the show. Four scholarships (1 at \$1,000 and 3 at \$500) were awarded to college-bound students interested in pursuing careers in fish or wildlife.

This year's Sport Fish regulations cover art contest was held in three regions: Southcentral (combined Cook Inlet/Prince William Sound area), Kodiak and Bristol Bay. Entries (598) were received from all areas and fishing poles and other small prizes were awarded to the first through third place winners.

The STREAM Program also teamed up again with the ADF&G Division of Wildlife Conservation to work with women who wanted to learn outdoor hunting and fishing skills through the Wildlife Conservation program "Women in the Outdoors." STREAM Program staff held sessions to teach the ladies how to tie a fly (egg-sucking leech) and cast a fly rod.

Many volunteers make these large events possible. In 2002, 639 volunteers spent at least 3,178 man-hours ensuring that events were a success. Participating in or attending this year's events were 16,585 people.

Media Coverage

The media (Table 10) continue to play an important role in getting the STREAM Program word out to the public. Anchorage area media are very interested in the various projects that the STREAM Program conducts and although most stories are considered general interest, it still assists the department in getting the word out. The positive nature of these stories can only help a department whose media image, unfortunately, is oftentimes negative. The STREAM Program also continues to work with a local television network to produce several child-oriented segments relating to salmon. Media in other areas of the state and even the country are becoming interested in STREAM Program activities as they expand into new areas of the Southcentral and Interior regions. In 2002 STREAM Program events or topics were covered 51 times. The STREAM Program will continue to take advantage of the media when there is interest in helping the department get more information out to the public.

Requests for Information or Materials

Table 11 documents requests for information or materials during 2002. In 2002, the STREAM Program responded to 435 requests. These requests ranged from phone information to loans of scientific or educational materials.

Program Contributions

Many agencies, schools, businesses, organizations and individuals have made contributions to the STREAM program to either support or enhance activities. It is important to recognize and thank these people for their generous support. This year's contributors include:

Great Alaska Sportsman's Show:

ASD King Career Center – manpower to run pond and booths

Mike Moen (\$125) - recognition banner

Table 10.-Media coverage of the ADF&G STREAM Program, 2002.

Date	Media Organization	Event	Coverage Type
08/01	Fish on Alaska	STREAM Program	Magazine article
09/19	KTBY FOX 4	Campbell Creek egg take	children's TV program
09/20	KIMO Channel 13	Campbell Creek egg take	television news
09/21	KTVA Channel 11	Campbell Creek egg take	television news
09/21	Anchorage Daily News	Campbell Creek egg take	newspaper article
09/22	KTUU Channel 2	Campbell Creek egg take	television news
10/02	FOX 7 (Fairbanks)	Ryan Middle salmon dissection	television news
10/05	Valley Frontiersman	Mat-Su Spring Creek egg take	newspaper article
10/12	FBKS Daily News Miner	FBKS egg take / Salmon Celebration	newspaper article
10/28	Anchorage Daily News	ASD ice fishing event	Outdoors Activity Guide
11/01	KTBY FOX 4	Salmon dissection	children's TV program
11/02	KTBY FOX 4	Salmon Dissection	children's TV program
11/07	Kodiak Daily Mirror	Kodiak egg take	newspaper article
11/18	Anchorage Daily News	Reg. artwork request release	newspaper release
12/11	KTUU Channel 2	ASD Jewel Lake ice fishing	television news
12/11	KTVA Channel 11	ASD Jewel Lake ice fishing	television news
12/11	KIMO Channel 13	ASD Jewel Lake ice fishing	television news
12/12	KTBY FOX 4	ASD Jewel Lake ice fishing	children's TV program
12/24	Anchorage Daily News	Egg cam - egg / alevin	photo article
01/13	Anchorage Daily News	Campbell Creek egg take	Year in Pictures
01/14	KTVA Channel 11	KCC fly tying	television news
01/15	Valley Frontiersman	Mat-Su ice fishing	newspaper article
01/15	KTUU Channel 2	Scenic Park fly tying	television news
01/15	KIMO Channel 13	Scenic Park fly tying	television news
01/17	Anchorage Daily News	Fairview fly tying	photo article
02/03	Anchorage Daily News	Fairview fly tying	Outdoors photo
02/04	Anchorage Daily News	Kenai R. Sportfish grant	newspaper article
02/14	Alaska Star	Fire Lake fly tying	newspaper article
02/14	Anchorage Daily News	Fur Rondy Parade	newspaper article
03/15	KOOL 97.3	GASS Pond	live radio interview
03/26	KOOL 97.3	GASS Pond	live radio interview
03/31	Anchorage Daily News	GASS Pond	supplement
04/03	KOOL 97.3	GASS Pond	live radio interview
04/04	Alaska Star	Hayley McCutcheon reg. art	newspaper article
04/04	Kodiak Visitors Guide	Kodiak Salmon Celebration	event guide
04/07	Anchorage Daily News	Regulation art contest winners	newspaper release
04/10	Anchorage Daily News	KCC Student Jessica Andrews	recognition article
04/18	Bristol Bay Times	Bristol Bay reg. art winners	newspaper article
05/01	Anchorage Daily News	GASS Pond thank yous	newspaper release
05/02	KTVA Channel 11	Craig Baer stocking / macros	television news
05/10	KTUU Channel 2	ASD classroom fry release	television news
05/10	KTVA Channel 11	ASD classroom fry release	television news
05/10	KIMO Channel 13	ASD classroom fry release	television news
05/12	Anchorage Daily News	Anchorage Salmon Celebration	newspaper release
05/14	KTVA Channel 11	MSBSD Salmon Celebration	television news

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Table 10.-Page 2 of 2.

Date	Media Organization	Event	Coverage Type
05/21	Valley Frontiersman	MSBSD Salmon Celebration	newspaper article
05/23	Kodiak Daily Mirror	Kodiak Salmon Celebration	newspaper article
05/29	Kodiak Daily Mirror	Buskin River tree revetment	newspaper article
05/31	KTUU Channel 2	Anchorage Salmon Celebration	television news
05/31	KIMO Channel 13	Anchorage Salmon Celebration	television news
06/08	Paul Gray's Alaska	Kenai River Festival ADFG/KRSFA	television show
Total	51		

Table 11.-Requests for information, materials and equipment from the ADF&G STREAM Program, 2002.

Requests for materials or information	419
Educational material loans	12
Scientific or field equipment loans	4
Total	435

SAM's Club (\$50) and Bill's Distributing (\$125) – soft drinks for volunteers.

Arctic Roadrunner (\$5,350), Blockbuster Video (\$50), Castle on O'Malley mini golf (\$300), Chuck E. Cheese (\$50), Schoolhouse Express (\$75), Wal-Mart (\$50), KIMO 13 (\$100), KTBV 4 (\$100), Century Theatres (\$360) - pond prizes

KTUU Channel 2 (Alison Lane, Jason Moore, Jonathan White, J.D. Wallace), KTVA Channel 11 (Lauren Maxwell, Eileen Floyd), KIMO Channel 13 (April Davis, Ty Hardt), MAGIC 98.9 FM (Dave Flavin, Brian Ross), FOX 100.5 FM (Bob Lester, Mark the Hitman), KGOT 101.3 FM (Scott Dooley, Bill Stewart), Iditarod musher Martin Buser, ASD Superintendent Carol Comeau – Celebrity assistance at the Kid's Fishing Pond

Anchorage Fire Department – pond fill

Fly Tying in the Classroom Program:

Pudge Kleinkauf and ASD King Career Center – volunteer classroom support

O. Mustad Co. and Eagle Claw – supplied hooks for fly tying program

Kenai River Sportfish Association (\$1,490) – vises and materials for fly tying program

Classroom Salmon Egg Incubation Program:

University of Alaska Cooperative Extension Service, Exxon USA (\$5,000) and the Kenai River Sportfishing Association (\$2,400) – Refrigeration equipment for the classroom incubation program

Safeway, Kodiak School District and the Birch Brothers – food for Kodiak Salmon Celebration

Aquatic Education Mobile Classroom Trailer:

Phillips Alaska (\$10,000), Kenai River Sport Fishing Association (\$10,000)

Miscellaneous:

Snug Harbor Seafoods – 350 pink salmon for school dissections

Estate of David Ragsdale - fly tying materials and books

Sally Haldewang (Kodiak) - event vest fabrication

Cathy Sabrowski – *Salmonids in the Classroom* Intermediate format work

Stocked Lake Maps Series

Another component that was brought into the Education Program in 1997 was the continuation of the “Stocked Lake Maps” series. In 1995 the staff in the Palmer area office initiated the publication of a series of maps for the lakes stocked in the Matanuska-Susitna Valley area. This publication included information on each lake including a bathymetric (underwater contour) map if available, description of public access to the lake, average depth, maximum depth, volume, map location, stocking history, surface area, Statewide Harvest Survey information and stocking plan. In 1996, this series was expanded to include an Anchorage Lake Map series. In 1997, as part of the Information and Education program, lake series maps were completed for the Upper Copper and Upper Susitna management area. All of these were also made available online on the regional web pages.

During FY02 the Matanuska-Susitna Valley Stocked Lakes book of 94 lakes, the Anchorage Area Stocked Lakes book of 29 lakes and the 29 Southcentral wild lakes book were updated with current stocking, test net sampling and statewide harvest information. Corrections to maps were also made to the books, and they were made available online.

FUTURE GOALS

Education and Outreach

Future program goals for education and outreach are:

1. Complete aquatic classroom education trailer and get trailer operational in FY03. Find Alaskan artist to paint mural around the trailer. Order tow vehicle to tow trailer.
2. Expand the classroom salmon egg incubation program where requested in all areas.
3. Update Primary *Salmonids in the Classroom* curriculum
4. Maintain or increase participation level in the school dissection and fly tying in the classroom program.
5. Continue to investigate and take advantage of community funding sources or support to meet the demands of the expanding STREAM Program.
6. Expand duties of seasonal technician in the Matanuska-Susitna Valley, hire Kenai Peninsula and additional Anchorage area personnel.

ACKNOWLEDGEMENTS

The STREAM Program would like to acknowledge the efforts of all the volunteers and staff who helped at the many events held this year, but especially to ADF&G Technicians Craig Baer

(Palmer) and Mark Mahoric (Anchorage) for assisting the STREAM Program during all the egg takes, ice fishing and fly tying programs. Thanks to the staff at the Fort Richardson and Elmendorf Hatcheries for supplying staff time, trucks and fish for many of the STREAM Program's events. Thanks to Mike Woods and his Natural Resources class at the King Career Center for making the Great Alaska Sportsman's Show Kids Fishing Pond and activity booths a success and for the many hours the students helped during ice fishing, fly tying, fish releases and carnivals. Thanks to Rabbit Creek, Susitna and St. Elizabeth Ann Seton Elementary schools (Anchorage); Northstar Elementary sixth grade class (Kodiak); Teeland Middle and Wasilla High School classes (Mat-Su); Arctic Light Elementary sixth grade (Fairbanks); and Kalifornsky Beach and Soldotna Elementary classes for making all this year's Salmon Celebrations a success. To the many other agencies, businesses, organizations and individuals noted previously who have helped this year. Finally, to all the teachers and school district staff throughout Southcentral Alaska and the Interior who make my job enjoyable and rewarding – thanks for helping me make students more aware of our salmon resources. Without the support of staff, volunteers, teachers and community many of the STREAM Program's events would not be possible.

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