

ANNUAL PROGRESS REPORT

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Program

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Prepared by: Dennis Wise
Anthony A. Nigro

Oregon Dept. of Fish & Wildlife
2501 SW First
P.O. Box 59
Portland, OR 97207

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INTRODUCTION

The Freshwater Fish Enhancement and Restoration Program provides funds for the development and implementation of the Salmon Trout Enhancement Program (STEP), a program that enables and encourages citizen involvement in activities that enhance salmon and trout resources of the state. Trained volunteers work with Oregon Department of Fish and Wildlife (ODFW) personnel on projects to rehabilitate and enhance salmon and trout populations and their habitat. Projects also serve as education opportunities to increase understanding by the public of Oregon's aquatic resources and the environment.

STEP projects focus on characterizing fish populations and their habitat in streams, improving habitat, and culturing fish to supplement natural production. Citizen volunteers help collect information on fish populations and their habitat by conducting physical and biological stream surveys. They also assist with projects to enhance fish passage, and fish spawning and rearing habitat. Finally, citizen volunteers contribute significant effort to ODFW programs to develop broodstock, incubate eggs, and rear fish to enhance populations of naturally produced salmon and trout.

ACCOMPLISHMENTS

Job 1. Program Development of the Salmon and Trout Enhancement Program

To increase public participation in and develop guidelines for STEP, ODFW personnel 1) regularly met with STAC; 2) made presentations to sport groups, schools, and government entities; 3) developed instructional materials; 4) helped STAC conduct a STEP volunteer workshop; and 5) distributed a STEP Volunteer Newsletter.

Specific accomplishments by objective are

Objective 1. *Meet with Salmon Trout Advisory Committee (STAC) bimonthly to review STEP activities for consistency with ODFW management programs and policies.*

STAC met five times and reviewed department policies and programs affecting STEP. Meetings were held at various locations within the state to allow volunteer groups to discuss their work with the Committee.

Major issues discussed at STAC meetings were: Oregon Administrative Rules governing STEP; STEP budget; approaches to increasing school participation in STEP; project record keeping; STEP rearing programs; basin and species plans; and impacts on STEP of implementation of Wild Fish and Natural Production policies .

- Objective 2. *Make presentations on STEP to citizen groups, schools, local and state governments, and industry. Distribute informational brochures on STEP.*

STEP biologists made 211 presentations to citizen groups, schools, and other governmental agencies. STEP displays were present at local sports shows, environmental workshops, and county fairs. Over 3,000 brochures on STEP were distributed.

- Objective 3. *Develop training brochures to conduct various types of stream surveys and incubate eggs, and describe class room egg incubation and broodstock development procedures.*

A Classroom Incubation Manual was written and printed. New ten year patches were designed and made available to veteran volunteers. A Storm Drain Marking Guide was prepared to promote and facilitate water quality protection.

STEP conducted the seventh annual training workshop for teachers under the Watershed Education Project. The workshop had 24 participants who were taught to incorporate STEP into classroom activities using *The Stream Scene - Watersheds, Wildlife and People*, STEP'S core education package. Over the past six years, more than 300 workshop teachers have involved over 7,500 students in watershed awareness activities.

- Objective 4. *Conduct an Annual STEP Volunteer Workshop to bring together volunteers to exchange information and ideas.*

The 1992 STEP Volunteer Conference was held in Roseburg, Oregon on March 6-7, 1992. Two-hundred seventy five volunteers attended. The program included training sessions on habitat restoration techniques, aquatic education, survey techniques, fish culture, juvenile fish identification, and acclimation site operations. Resource professionals from Alaska also attended to learn more about Oregon's program.

Objective 5. *Publish a STEP Volunteer Newsletter on a quarterly basis informing the public of STEP activities.*

One issue of the STEP Volunteer was published. The news letter was incorporated into a state wide volunteer publication. The circulation was increased by a factor of five to 10,000 copies. The newsletter describes statewide STEP activities, techniques for habitat enhancement or egg incubation, and activities in other states.

Job 2. Collect Physical and Biological Stream Survey Information

To obtain physical, chemical, and biological data on fish populations necessary for the basic management programs, ODFW personnel 1) met with land managers to identify stream systems where information was lacking; 2) conducted workshops to train volunteers to do surveys; and 3) coordinated and supervised volunteer survey projects.

Specific accomplishments by objective are

Objective 1. *Work with district fish biologists and other land managers to identify stream systems or areas where stream data and information on fish populations is not adequate, and develop programs to collect the information.*

Stream survey records were reviewed statewide and areas identified where surveys have not been conducted in recent years, or where evaluations of STEP projects needed to be done.

Objective 2: *Conduct 15 training sessions to teach volunteers how to conduct physical and biological stream surveys, spawning fish surveys, and compile survey information for management use.*

Thirty six training workshops were held to train volunteers to conduct various types of stream surveys. Four hundred thirty one volunteers were trained.

Objective 3. *Coordinate and supervise volunteer efforts to conduct physical and biological stream surveys and spawning fish surveys on selected streams.*

Volunteers conducted stream surveys in 200 individual streams (Appendix A). More than 422 miles of stream were surveyed and the information provided to management biologists.

Job 3. Habitat Improvement

To enhance fish passage and rearing habitat ODFW personnel 1) trained and supervised volunteers to undertake stream enhancement projects and provided materials for them to do the work; and 2) participated in cooperative projects with federal and state land managers such as using Oregon Youth Conservation Corps crews to improve fish habitat.

Fish passage was improved by removing log jams, fixing or modifying improperly installed culverts, installing jump pools, or providing passage at impassable barriers. Sill logs deflectors and rock filled wire baskets (gabions) were installed in streams to improve pool/riffle ratios, create adult holding pools or juvenile rearing areas, and trap spawning gravel. Additional instream habitat was created by placing large boulders, root wads, and brush bundles in the stream. Streamside vegetation was improved by plantings, seeding of exposed areas, or fencing to exclude livestock.

Specific accomplishments by objective are

Objective 1. *Initiate fish habitat improvement projects on streams or standing waters identified by district fish biologists and in management programs as in need of habitat improvement. Projects will be developed by STEP biologists and undertaken by volunteers.*

One hundred three stream enhancement projects were undertaken in 66 individual streams (Appendix A). All work was conducted by volunteers. Volunteers participated in 1,112 stream enhancement projects and contributed more than 10,469 hours of their time to the work. Volunteers donated \$82,809 and ODFW provided \$5,150 for projects.

Objective 2. *Provide on-site training to volunteers on the various methods to improve fish habitat or fish passage.*

STEP biologists trained and directly supervised many of the stream enhancement projects. Safe enhancement techniques were also demonstrated at the STEP Conference.

Objective 3. *Provide technical assistance and, when available, materials and supplies to volunteer groups to undertake habitat improvement projects.*

STEP biologists visited each proposed project site and worked with volunteers to design and plan the enhancement work. Materials and supplies were provided as needed.

Job 4. Egg Incubation and Broodstock Development Program

To enhance populations of naturally produced salmon and trout and develop appropriate broodstocks to meet management objectives ODFW personnel worked with volunteers to 1) incubate salmon or trout eggs and release the resultant fish in underseeded streams or estuaries; and 2) implement broodstock development programs by rearing fish to presmolt or smolt size and capturing and spawning returning adults.

Specific accomplishments by objective are

Objective 1. *Investigate and approve volunteer requests to incubate salmonid eggs or rear fish. Coordinate requests with the ODFW district fish biologist.*

STEP biologists received requests from 409 individuals or groups to participate in the STEP egg incubation program. The proposal review and approval process included contacting applicants, determining if requests met management needs, and, if needed, investigating proposed sites. Region and division staff reviewed, and approved or rejected, proposals based on management applications.

Objective 2. *Plan and coordinate the distribution of eggs from ODFW hatcheries to STEP volunteer projects. Maintain necessary hatchery records.*

STEP biologists coordinated the collection and distribution of salmon and trout eggs from department hatcheries or STEP rearing facilities to volunteers. As a result, 7.15 million fry, presmolts, and smolts were released from the 1991 brood year into underutilized habitat (Table 1). ODFW's Fish Culture Division tracked the distribution of eggs and entered necessary egg disposition records into the ODFW Hatchery Record system.

Objective 3. *Provide fish culture assistance to STEP volunteers participating in the egg incubation program.*

STEP biologists provided fish culture assistance to 274 volunteer projects at 216 egg incubation sites. STEP biologists spent many hours monitoring these activities because many volunteers hatched multiple fish species and eggs were distributed and incubated from September through May.

Objective 4. *Develop volunteer operated broodstock collection or rearing projects on selected streams.*

Thirty six rearing projects were operated by volunteers. Some projects raised fish to full-term smolts, while the remaining sites released fish as presmolts. Over 1,473 volunteers spent 22,455 hours on these projects.

Thirty broodstock development activities were initiated by 1,364 volunteers. The volunteers spent 19,220 hours implementing these projects.

Table 1. Fish Releases by STEP Volunteers - 1991 Brood Year

Species	Fry Released	Smolts/Presmolts
Chum Salmon	0	0
Coho Salmon	1,245,178	19,537
Spring Chinook	231,203	106,760
Fall Chinook	872,799	1,400,410
Summer Steelhead	284,623	0
Winter Steelhead	2,114,878	210,155
Cutthroat Trout	567,650	0
Searun Cutthroat	0	0
Rainbow Trout	93,170	2,782
Total	5,409,501	1,739,644

APPENDIX A

Summaries of Activities and Participation

Appendix Table 1. Summary of activities, by major stream system, carried out under Jobs 2, 3, and 4.

STEP District	Job 2	Job 3	Job 4	
	Physical & Biological Surveys	Habitat Improvement Projects	Egg Incubation	Fish Rearing
TILLAMOOK				
Bear Cr.			X	
Big Cr.		X		
Clatskanie	X		X	
Kilchis		X		
Lewis & Clark	X		X	
Miami		X	X	
Necanicum	X	X	X	X
Nehalem	X	X	X	X
Nestucca		X	X	
Plympton Cr.				X
Skipanon			X	X
Tillamook	X	X	X	
Trask	X	X	X	
Whiskey Cr.	X		X	X
Wilson	X	X	X	
Youngs Bay			X	X
LINCOLN				
Alsea		X	X	
Beaver Cr.		X		
Depoe Bay Cr.			X	
Hill Cr.		X		
Moolack Cr.	X			
Salmon		X	X	
Siletz	X	X	X	
Siltcoos				X
Siuslaw	X	X	X	X
Tahkenitch Cr.			X	
Yaquina	X	X	X	

Appendix Table 1. Continued.

STEP District	Job 2	Job 3	Job 4	
	Physical & Biological Surveys	Habitat Improvement Projects	Egg Incubation	Fish Rearing
COOS				
Coquille	X	X	X	X
Coos	X	X	X	X
Millicoma		X	X	X
Tenmile Cr.	X	X	X	X
SOUTH COAST				
Chetco			X	X
Floras Cr.			X	
Hunter Cr.		X	X	X
Lower Rogue			X	X
Pistol		X	X	X
Winchuck			X	X
UPPER ROGUE				
Applegate	X	X	X	
Illinois	X			
Rogue	X	X	X	
UMPQUA				
Umpqua	X	X	X	X
UPPER WILLAMETTE				
Coast Fork Willamette	X	X		
Middle Fork Willamette	X	X	X	X
Mckenzie	X	X		
Siuslaw	X	X	X	X
MID WILLAMETTE				
Calapooia	X			
Luckiamute	X			
Long Tom	X		X	
Marys	X	X		
Mill Cr.	X	X	X	
Molalla	X			
Rickreall Cr.	X	X	X	

Appendix Table 1. Continued.

STEP District	Job 2	Job 3	Job 4	
	Physical & Biological Surveys	Habitat Improvement Projects	Egg Incubation	Fish Rearing
MID WILLAMETTE				
Santiam	X	X	X	
Willamette	X	X		
Yamhill	X	X	X	
LOWER WILLAMETTE				
Abernethy Cr.			X	
Balch Cr.	X	X		
Clackamas	X		X	
Johnson Cr.	X		X	
Miller Cr.	X	X		
Newell Cr.		X	X	
Sandy		X	X	
Scappoose Cr.		X		
Tualatin	X		X	
EASTERN OREGON				
Blitzen	X	X		
Chewaucan	X			
Columbia	X	X	X	
Crooked	X	X	X	X
Deshutes	X	X	X	
Hood	X	X	X	
Goose Lake Basin	X			
John Day	X			
Grande Ronde	X			
Malheur	X			
Metolius	X			
Owyhee	X			
Snake	X			
Umatilla	X	X	X	
Williamson		X	X	
Walla Walla			X	

Appendix Table 2. Summary of STEP participation, October 1991 through September 1992

Category, Activity	No. of Projects	No. of People	Hours Donated	Miles Surveyed	\$	
					Donated	ODFW
YOUTH/EDUCATION						
Habitat Improvement	22	416	2141	0	7158	1533
Stream Surveys	48	1727	8627	30	773	0
Survey Classes	16	269	1104	0	4000	45
Broodstock/Presmolt	5	575	10290	0	1000	400
Attend Presentations	67		2491			
Miscellaneous	23	209	1024	0	1000	420
Total	181	3196	25677	30	13931	2398
GENERAL PUBLIC						
Habitat Improvement	85	556	8466	0	69224	7041
Stream Surveys	122	464	4529	392	8125	1070
Research Project	11	71	777	0	0	0
Scale Collection	4	30	548	0	140	0
Survey Classes	20	162	645	0	0	0
Broodstock Develop.	25	789	8930	0	8300	3013
Presmolt Rearing	18	731	10462	0	7825	2229
Smolt Rearing	28	742	11993	0	34386	8240
Hatchbox Program ^a	274		20550	0	150	94
Attend Presentations	144		3985			
Miscellaneous	59	498	4649	0	15695	7058
Subtotal	790	4379	75184	392	143845	28795
Pooled Activities ^b	--	--	--	--	20720	830
Total	904	7575	98370	422	178496	32023

^a Participants not available, hours donated estimated at 75 hours/hatchbox

^b 2 STEP districts submitted only total summaries for \$

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