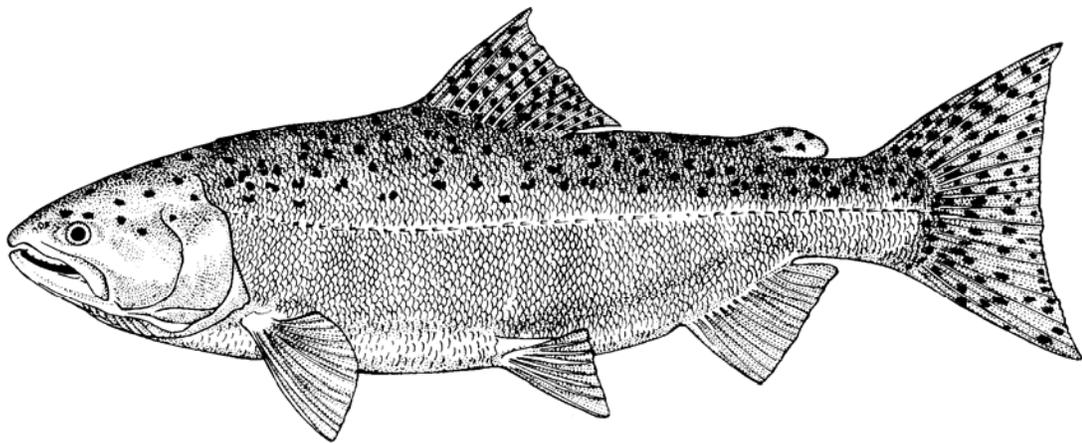




SALMON and TROUT ENHANCEMENT PROGRAM

Annual Progress Report
2003



Edited by: Gary Galovich, STEP Coordinator



Oregon Department of Fish and Wildlife
3406 Cherry Avenue NE
Salem, OR 97303



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EXECUTIVE SUMMARY

This report summarizes the activities and accomplishments of the Salmon and Trout Enhancement Program (STEP) from October 1, 2002 through September 30, 2003.

Established by the Oregon Legislature in 1981, STEP is a program of the Oregon Department of Fish and Wildlife (ODFW) that seeks to achieve the recovery and sustainability of the state's native salmon and trout through the education of Oregon's citizens and their involvement with fish management efforts. As STEP volunteers, citizen efforts to enhance fisheries and restore habitats lend critical support to the management programs of ODFW and complement the broader statewide watershed restoration objectives of the Oregon Plan for Salmon and Watersheds.

STEP is funded by a combination of US Fish and Wildlife Service Sport Fish Restoration Program and ODFW funds (75% federal with 25% state match). The current funding provides for one ½-time program coordinator who is located in the ODFW headquarter office in Salem and ten program biologists that have been placed throughout the state in eight of the ten watershed management districts. In addition to the program staff, a Governor-appointed 13-member STEP Advisory Committee (STAC) advises the Fish and Wildlife Commission and ODFW on the STEP program.

Within the watershed management district, the STEP Biologist can fill several roles including fish and habitat biologist, educator, outreach specialist, community or technical advisor and lead for volunteer management. The program works with a variety of individuals, groups and organizations including adult and youth volunteers, angling and conservation interests, watershed councils, soil and water conservation districts, private landowners, schools, individual students, and other state, federal and local government agencies. The types of projects conducted through STEP are equally diverse and are defined only by the ways that volunteers can assist with the diversity of fish management needs found throughout Oregon. The issues and priorities within individual watersheds can be unique to that geographic area thus the focus of STEP efforts can vary across the state. Generally, however, activities can be grouped into four main categories:

- Education and program development: activities that inform and educate the citizens about Oregon's salmon and trout resources, the habitats that they depend on, and the Salmon and Trout Enhancement Program (classes, information, printed materials, activities, and facility construction and maintenance).
- Inventory and monitoring: activities that characterize fish populations and their habitat. Projects include stream and riparian habitat surveys, spawning surveys, and other fish sampling efforts using a variety of techniques including seining, electrofishing, juvenile migrant trapping, adult trapping, snorkeling and other methods used to research, monitor or inventory fish life history, presence/absence, distribution, or abundance.
- Habitat improvement: activities that enhance, restore and protect habitat for native stocks of salmon and trout, including instream projects such as the placement of large woody debris, riparian restoration, fish passage improvement or restoration, and fish carcass placement for stream nutrient enrichment.

- Fish culture: activities such as releasing fry or rearing fish in propagation projects to supplement natural production and/or augment fisheries. STEP fish culture activities can often include other program objectives beyond fish production such as education or fostering stewardship and participation in other fish or habitat efforts. For example, the Classroom Incubator Program, the primary STEP activity conducted with elementary, middle and high school-age students around the state, educates youth about the development of salmon and trout from eyed eggs to fry, demonstrates the sensitivity of these fish to environmental conditions, and encourages understanding of other issues confronting fish recovery and protection. STEP has produced two manuals to accompany these projects, one of which directs participants to a broad range of project support activities beyond the incubator itself.

A summary of what was accomplished by the program in each of these categories during 2003 includes:

- 13,566 people participated in STEP training, classes, tours, presentations or workshops.
- volunteers spent over 12,000 hours conducting creel surveys, culvert inspections, fish monitoring, and habitat surveys in streams and rivers across the state.
- over 599 miles of waterways were improved for fish use by 1,068 volunteers through fish passage, instream, riparian, and carcass placement projects.
- over 6,000,000 chinook, coho, steelhead, and trout were released by STEP volunteers for enhancement or augmentation purposes; over 4,000,000 of these fish were also reared before release (i.e., fed and cared for) and over 1,700,000 were marked with a fin-clip or coded-wire tag by volunteers. The Classroom Incubator Program, which is primarily an education program, released 220,345 unfed fry into Oregon waters. Finally, over 4,400 adult salmonids were collected for broodstock.

As the amount of work accomplished shows, volunteers contribute a very large effort to STEP. ODFW also contributes time and resources to STEP beyond what is funded by the Sportfish Restoration grant because STEP activities are closely tied to district fish management objectives. Details can be found in Table 1, Figures 1 and 2, and the other sections of this report. Highlights of volunteer effort include:

- 9,601 youth and 5,119 adults in Oregon participated in STEP.
- If volunteer hours and mileage are converted to dollar values and added to actual monetary donations of supplies and services, volunteers contributed \$2,357,600 to accomplish 1,319 STEP projects in 2003.
- In addition to the combined state and federal contribution of over \$1,000,000 for the Sport Fish Restoration-funded STEP program, ODFW contributed at least \$69,000 in funding toward STEP projects, which does not include time spent on STEP projects by non-STEP staff.

- Given the combined state and federal contribution to the Sport Fish Restoration-funded STEP program of over \$1,000,000, the returns on this money in both volunteer contributions (\$2,357,600) and other ODFW contributions (\$69,000 plus personnel time) toward projects was again high in 2003 and shows the value of volunteer efforts for the fish resources of Oregon.

In this report for 2003, each of the STEP Biologists has provided a narrative that describes their district and gives an overview of activities in that district for each of the four main program components of STEP. These four components are:

- Development of the Salmon and Trout Enhancement Program (STEP)
- Characterization of Fish Populations and Their Habitat in Streams
- Habitat Improvement
- Fish Culture

In the Appendices, the following program information can be found:

- A list of the current STEP Biologists
- A map of Oregon showing the STEP Districts
- A list of the current STEP Advisory Committee (STAC) members
- A partial list of the groups and organizations that work with STEP

STEP DISTRICT DESCRIPTIONS

Northwest Region

Lower Willamette STEP.....*Darlene Siegel*
Jim Muck, District Fish Biologist

The Lower Willamette STEP Biologist is responsible for program implementation throughout the entire North Willamette Watershed District. This includes the Portland Metropolitan (Metro) Area and contains the largest concentrated population of people in the state of Oregon. The territory is bounded by the Columbia River on the north, the Tualatin and Clatskanie River drainages on the west, the crest of the Cascade Range on the east, and the Molalla/Pudding and the Yamhill River drainages in the Willamette Valley to the south.

Mid Willamette STEP.....*Gary Galovich*
Steve Mamoyac, District Fish Biologist

The Mid Willamette STEP district is a geographically diverse area in the South Willamette Watershed District reaching across the Willamette Valley from the crest of the Coast Range east to the crest of the Cascades. The Willamette River travels the length as it flows from McKenzie River confluence downstream to the agricultural lands north of Salem. Within this area, three major stream systems flow from the western slopes of the Cascades into the Willamette (North Santiam, South Santiam and Calapooia). Another four (Rickreall, Luckiamute, Marys, and Long Tom) drain the eastern slopes of the Coast Range.

The District is also one of the most populated regions of Oregon. Salem, Eugene, Corvallis and Albany are the larger urban areas but a number of smaller cities, towns and rural communities are scattered throughout. The natural resource concerns that have accompanied the area's historical land uses of timber harvest and agriculture have been complicated by the challenges posed by urbanization.

A growing human population and the resulting changes to the landscape have placed exceptional pressures upon the Willamette's natural resources, yet the basin continues to support a diversity of fish. Native among these include spring chinook salmon, winter steelhead, and rainbow and cutthroat trout. Several species have also been introduced including fall chinook salmon, coho salmon and summer steelhead. Although the focus of STEP efforts in this area is upon the native salmonids, the program through its educational, monitoring and habitat efforts also recognizes and benefits the basin's many other native fish.

A failure to recognize the importance of watershed rather than just stream health has led to the degradation and loss of aquatic habitats across Oregon. In this area, one of the results has been federal listings under the Endangered Species Act of the mid Willamette's two native stocks of salmon and steelhead. In response, the State of Oregon and its citizens have initiated a comprehensive and cooperative community-based approach to watershed restoration under the Oregon Plan. Although all ODFW programs have an important role in this effort, STEP finds itself uniquely situated in that its responsibilities include many of the

major components of the Oregon Plan. Most importantly, the foundation of STEP is community involvement with these activities. The focus of STEP in this District has been therefore to involve area groups, schools and individuals in all aspects of ODFW's local fish management efforts

Because the area's population is large and still growing, an emphasis of the program in the mid-Willamette basin is outreach and education. This is achieved in-part through direct community involvement with many ODFW activities but particularly monitoring and inventory efforts. Adult and youth participation with these projects not only demonstrates the ability that communities have to assist with the more technical needs of fish recovery, but also provides the "hands on" experience that allows for increased awareness and fosters stewardship. Of special interest have been new inventories on waters that are considered "at risk" and for which little or no fishery information exists. The data gathered has been essential to habitat protection and restoration efforts throughout the basin, especially those in the agricultural and urban areas.

Upper Willamette STEP *Jeff Ziller (District Fish Biologist)*
Dan VanDyke
Kelly Reis
Richard Irish
Jason Seals
Jared Weybright

The Springfield Field Office of the South Willamette Watershed District coordinates the volunteer effort to restore and monitor native populations of salmon and trout within the headwaters of the Willamette River. The major stream systems include the McKenzie River, the Coast Fork Willamette and the Middle Fork Willamette. Only one anadromous salmonid fish species, the spring chinook salmon, is native to the area. Rainbow, cutthroat, and bull trout are also native to the upper Willamette.

In this area, the District Fish Biologist is also identified as the STEP Biologist. The duties for implementation of STEP are split between the District Fish Biologist, two Assistant District Fish Biologists, and one Assistant Fish and Wildlife Biologist. It should be noted that during this past year one of the Assistant District Fish Biologist positions was vacant for several months and was then filled as a temporary position. Also, the Assistant Fish and Wildlife Biologist retired in June and that position was subsequently left vacant.

Staff in the Upper Willamette STEP district feel that this approach of more broadly assigning STEP responsibilities among staff allows for greater flexibility by providing four to five biologists that can work directly with volunteers and therefore better incorporates STEP throughout all management activities.

A variety of individuals and organizations participate in STEP activities in the Eugene-Springfield area. Among these are the McKenzie Flyfishers, the Cascade Family Flyfishers, the Emerald Empire Chapter of the Northwest Steelheaders, the Friends of Garden Lake Park, the Back Country Horsemen, and five watershed councils. Meetings were attended and volunteers recruited from each group. Area schools and youth groups were another source of

STEP participation. Volunteers were recruited from the University of Oregon, Oregon State University, Lane Community College, local high schools and local Boy Scout troops.

North Coast STEP.....*Tracy Holton*
Keith Braun, District Fish Biologist

The North Coast STEP district includes all of the coastal basins extending from Neskowin Creek on the south to the Columbia River on the north. It also includes lower Columbia River basins up to Plympton Creek. STEP projects are implemented by all of the fisheries staff in the district with Tracy Holton responsible for coordinating and reporting program activities. Different staff are can be involved in projects depending on their specific geographic and work responsibilities. Volunteers in the district have a high interest and commitment to fish culture activities and operate two large rearing facilities, two net-pen acclimation sites and one acclimation pond. The district also has a small hatchbox program using spring and fall chinook. Staff also work closely with local watershed councils and local schools.

With the departure in February of 2003 of John Casteel, the longtime STEP Biologist for this area, Assistant District Fish Biologist Robert Bradley temporarily assumed responsibility for coordinating district STEP activities for much of this reporting period until Tracy Holton was hired in 2003 to fill the STEP position. During this transitional period, several dedicated groups of volunteers were essential to the function and development of STEP in this area.

Mid Coast STEP *Tony Stein*
George Westfall
Bob Buckman, District Fish Biologist

The Newport STEP district includes all the coastal watersheds located along the central Oregon coast from Salmon River (Cascade Head) in the north to the Siuslaw River in the south. This geographic region extends from the top of the Coast Range Mountains in the east down to the coastal estuaries that meet the Pacific Ocean in the west. The area encompasses five major drainages: the Salmon River, Siletz River, Yaquina River, Alsea River and the Siuslaw River. Newport STEP also includes a number of large ocean tributaries that have significant salmon and trout populations, including the Yachats River, Beaver Creek, Big Creek, Tenmile Creek, Cummins Creek, Siltcoos River and Tahkenitch Creek. George Westfall, an Assistant District Fish Biologist based in Florence, coordinates STEP activities in the Siuslaw Basin and adjacent watersheds south to the Umpqua River.

Southwest Region

Umpqua STEP.....*Laura S. Jackson*
Dave Loomis, District Fish Biologist

The Umpqua Watershed District encompasses Douglas County and extends from Diamond Lake in the Cascade Mountains west to the coast at Reedsport. The Umpqua is the second

largest coastal basin in Oregon. Volunteers in the Umpqua district participated in 70 projects and contributed over 17,000 hours. Volunteers also contributed or raised over \$60,000 to aid STEP projects. Fish culture and education/development projects comprised most of the district's volunteer's efforts. This year the program reached over 8,400 adults and 3,639 youth. Major groups contributing to efforts in the Umpqua included: Umpqua Fishermen's Association (UFA), Gardiner-Reedsport-Winchester Bay STEP (GRWB), Oregon Equestrian Trails (OET), the Umpqua Fishery Enhancement Derby (Derby), angling guides who fish the South Umpqua for winter steelhead, the Umpqua Basin Watershed Council (UBWC), Oregon Wildlife Heritage Foundation, and the Cow Creek Band of the Umpqua Tribe of Indians. In addition, STEP is strongly supported by the assistance of ODFW district fish management staff, ODFW Rock Creek Fish Hatchery staff and local volunteers.

Tenmile, Coos, and Coquille STEP*Thomas J. Rumreich*
Mike Gray, District Fish Biologist

The Tenmile, Coos, Coquille STEP district is located on the Southern Oregon Coast and is recognized as the birthplace of the program over twenty years ago. The district is bordered by the Umpqua River basin to the north and the east. The New, Sixes, and Elk River basins (which are small coastal basins) border the district to the south. The district contains three major watersheds and several small streams that drain directly into the ocean. The major watersheds are: Tenmile, Coos, and Coquille.

Watersheds in the district are diverse. Both the Coos and the Coquille River watersheds drain the mountains of the Coast Range. These systems have long intertidal areas and have different size estuaries. The Tenmile watershed is also a coastal basin that is dominated by several large lakes.

The primary method of program development is that of gaining direct citizen involvement in management programs to protect and enhance salmon and trout populations. Early in the development of STEP in the district, education and outreach became an important element. It was recognized that educating the public, particularly local children, would be an important tool to achieving the long term goals of the program. Education through outreach, would increase awareness about requirements of salmonids so that the general public would be able to manage stream habitat to maximize salmonid productivity. Habitat restoration is also an important component of the volunteer effort in the district. Large numbers of volunteers continue to be involved in the extensive fish culture programs. There are ten broodstock development, four spawning, 20 egg incubation, seven rearing, and 21 acclimation projects in the district. The fish culture operations in the district have involved the largest number of volunteers in recent years.

Lower Rogue STEP*John Weber*
Todd Confer, District Fish Biologist

Responsibilities in the lower Rogue River basin among fish management district staff are delegated as follows: the District Fish Biologist is the lead staff person responsible for fish management in the district. The District Fish Biologist is assisted by the Habitat Protection

Biologist, a position funded half on fish management and half under wildlife management, and the Salmon and Trout Enhancement Program (STEP) Biologist.

The Lower Rogue STEP district is part of the Rogue Watershed District. The Lower Rogue district includes coastal basins from Four Mile Creek located near Bandon south to the California boarder. New River, Elk and Sixes Rivers, Euchre Creek, the Rogue River upstream to Mule Creek, Hunter Creek, Pistol River, Chetco River, Winchuck River, and other smaller coastal tributaries are included in this district.

The focus of STEP within the district is to use volunteer resources to accomplish district management objectives. The STEP biologist works primarily with local clubs, individuals, landowners, timber companies, watershed councils, educators, and school groups. The majority of district STEP volunteers belong to one of two local STEP organizations: the Oregon South Coast Fishermen, and the Curry Anadromous Fishermen. The members of these clubs are, for the most part, retired and have chosen to dedicate their efforts to the restoration of fish populations in the area watersheds. Aquaculture projects are the main interest for the Curry Anadromous Fishermen and their efforts are focused on operations at Indian Creek Hatchery. In contrast, the South Coast Fishermen have been more oriented toward fish inventory and habitat enhancement efforts. Both groups, however, consider education to be a high priority and often cooperate with other local organizations.

In summary, volunteers in the 2002-2003 reporting year participated in a variety of projects including fish culture, youth education, habitat restoration and population monitoring. The fish culture and population monitoring efforts comprised most of the effort.

Volunteers reared 80,242 fall chinook smolts and 77,296 unfed fry to supplement the lower Rogue fishery. In addition, the Boy Scouts maintained a hatchbox that raised 10,000 fall chinook unfed fry in an effort to rehabilitate Euchre Creek. Volunteers assisted in collecting 499 fall chinook and 120 winter steelhead for district hatchery programs.

Fish population monitoring efforts consisted primarily of volunteers implementing and operating a downstream migrant rotary screw trap, seining for juvenile fall chinook, and assisting with the 27th year of the annual Huntley seining project. Although a “non-salmonid” activity, STEP volunteers also assisted with capturing and placing radio tags in green sturgeon on the lower Rogue River.

Upper Rogue STEP.....*Charles A. Fustish*
Mike Evenson, District Fish Biologist

The Upper Rogue STEP district includes the Rogue River basin upstream of Mule Creek near river mile 48. The Rogue River Watershed Management District and the Upper Rogue STEP district extend east above this point about 200 miles upstream at the headwaters where the river begins as a spring near Crater Lake. Approximately 400,000 people live in the STEP district, providing a large number of schools, service clubs, sportsman's clubs, and volunteers to assist in completing STEP projects that educate citizens and improve fish habitat throughout the basin.

Basin fisheries include salmon, steelhead, trout, and warmwater fish. The Rogue River is reported to possess the strongest runs of salmon and steelhead of all the coastal streams in Oregon. In order of abundance, fall chinook, spring chinook, and coho salmon inhabit the system, as do winter steelhead, summer steelhead, cutthroat and rainbow trout. Smaller populations of brook trout are found in some of the higher elevation streams and wilderness lakes. A small population of brown trout is found near the upper end of Lost Creek Reservoir near river mile 157 and in the streams above the reservoir. Warmwater fisheries abound in all the standing waters (reservoirs and backwater areas) of the Rogue River and tributaries. Primary species of warmwater fish include largemouth bass, smallmouth bass, black crappie, bluegill, and brown bullhead catfish.

In terms of listed fish species, the coho salmon is the only fish in the district listed under the federal Endangered Species Act (ESA). The coho are currently listed as “Threatened”. The district recommends against the stocking of salmonid species not already present in the basin, and of warmwater fish other than largemouth bass, black crappie, bluegill, and brown bullhead catfish. While many of the area’s standing waters currently have populations of warmwater fish, ODFW has only participated in the stocking of warmwater fish in two lakes (Applegate and Lost Creek Reservoir). The District recommends against the stocking of private ponds with species other than rainbow trout and largemouth bass and other warmwater species already present in the district.

This past year's STEP activities in the Upper Rogue basin focused on habitat enhancement, the monitoring of existing habitat projects, and the planning and permitting for stream habitat projects proposed for the summer of 2004. In the winter months, educational opportunities for students and adults were highlighted by the Classroom Incubator Program. Also during the winter, volunteers were trained to monitor the spawning of coho salmon, and summer and winter steelhead in Flat Creek (Elk Creek Tributary near Trail) where 30 structures were built to replace those burned during the 2002 fire season. Three monitoring projects from previous years were aimed at monitoring changes in the number of spawning fish and the amount of spawning gravel deposited because of the presence of the structures.

In addition to these efforts, one individual volunteer spent 192.9 hours entering data for various projects in the district, another spent 263 hours operating smolt traps, and still another generously donated 42 hours painting the outside of the office. During the winter months, the STEP Biologist spent most of his time planning and getting the various permits for in-stream projects on Bitter Lick and Sugarpine Creeks (tributaries of Elk Creek near Trail). This year, the STEP Biologist also served as the fish management district’s “watershed council liaison”. This resulted in less time spent on speaking engagements as many requests for presentations were forwarded to the Angler Education Program.

In summary of 2003, a total of 146 volunteers donated 1,833 hours to complete this year's activities. This compares to the 85 volunteers that donated 1,030 hours in 2002. The most popular projects in terms of numbers of volunteers were the one-day river cleanup (30), and the fish salvage program (25). Based on hours donated, assisting fish management staff with their various sampling efforts (263 hours) and fish salvage (199.5 hours) were the most popular activities. The volunteers came from a variety of groups including Trout Unlimited (TU), Rogue Fly Fishers (RFF), the Upper Rogue Watershed Association (URWA), Williams Creek Watershed Council (WCWC), Middle Rogue Watershed Council (MRWC), Seven

Basins Watershed Council (7BWC), Trail Creek Residents, the Southern Oregon Fly Fishers (SOFF), Girl Scouts of America, Students from Crater High School, Southern Oregon Bass Club, and the Medford Eagles.

**High Desert Region
and
Northeast Region**

Eastern Oregon STEP *Jennifer Bock*

The Eastern Oregon STEP District includes 18 counties and nearly 67,000 square miles. Organized into two ODFW Management Regions - Northeast and High Desert - it includes eight Watershed Management Districts. Major watershed basins in this STEP district include Deschutes, Klamath, Malheur, Malheur Lake, John Day, Umatilla, Grande Ronde and Owyhee. Project definition and direction come from the individual fish management districts and are based on the annual needs.

The STEP Biologist works with the districts and hatcheries to identify specific project needs requiring volunteer recruitment, supervision or training. The project load is balanced among districts and hatcheries based on volume of requests received. District and hatchery personnel directly supervise the largest portion of volunteer activities in the Eastern Oregon STEP district. These supervisors provide project documentation and volunteer time reports to the Eastern Oregon STEP Biologist on a quarterly basis.

In early January of each year, the project request information is sent to each fish management district, hatchery, fish research, and habitat program in Eastern Oregon. Project requests from these sources are received by March and are used to build a schedule for recruiting and coordination. The consolidated project information is then distributed to potential volunteers and interested organizations. It is also posted on the Eastern Oregon STEP web site at <http://www.dfw.state.or.us/odfwhtml/eostep/projects/>.

Eastern Oregon STEP recruiting is accomplished with assistance from the Conservation Chair of the Central Oregon Flyfishers. Using email, references to the Eastern Oregon STEP web site, presentations and updates at club meetings, newsletter postings, and phone calls, the recruiting service provided by this group is without doubt, key to the success of Eastern Oregon STEP. Recruiting information is also passed along to the Sunriver Anglers via their organization newsletter. Many individuals, schools, and members of other organizations like the Ochoco Chapter Trout Unlimited, Klamath Country Flycasters and Oregon Trout are also valuable participants in this program.

Activities involving schools and other general public education about fish and their associated habitats continue to be a priority in this STEP district. The STEP Biologist participated in the following outreach events:

- Salmon Watch (sponsored by Oregon Trout)
- Kokanee Karnival's Angling Clinic and Streamside fieldtrips
- Jefferson County 4H Extension Watershed Workshop
- Creeks and Kids teacher workshop (OWEB)

DEVELOPMENT OF THE SALMON and TROUT ENHANCEMENT PROGRAM (STEP)

Introduction

STEP Biologists and volunteers perform a variety of activities that help to develop STEP and educate Oregon's citizens about salmonid issues. These include:

- "Active" education of the public (giving presentations to groups, teaching classes, conducting tours, and holding workshops)
- "Passive" education of the public (outreach activities, including preparing displays or booths for fairs and festivals, and preparing written materials such as articles, news releases, websites, brochures, and STEP publications)
- The training of STEP volunteers or cooperators so that they are able to conduct projects
- Facility construction or maintenance
- Miscellaneous (including local administrative help and other activities)

Below is an overview of STEP development and education activities from each STEP district. These summaries are not intended to be comprehensive but instead reflect the range of STEP activities in that area. Note that although a specific activity may be described for a particular STEP district, other districts may also be performing the same type of activities. A summary of volunteer participation and efforts can be found under the "Development" category in Table 1 (Statewide Summary of STEP Participation).

Lower Willamette STEP

STEP is involved with a variety of education and other program development related activities in this area but most notable has been area participation with the Classroom Incubation Program. 194 four school classroom incubation projects plus one individual hatchbox project incubated and released over 80,000 unfed salmon and trout fry into sixteen lakes, ponds, and streams within the Portland Metro area. Classroom egg incubation projects have a solely educational purpose and are intended to supplement fish life cycle discussions in the classroom. In addition, several local Chapters of the Association of Northwest Steelheaders (ANWST) as well as the local 4-H Program continue to sponsor classroom incubation projects in schools around the Portland area. The ANWST commitment to the schools includes the purchase of the incubation equipment and the delivery of the fish eggs to the individual schools participating in these classroom incubation projects.

Mid Willamette STEP

During 2003, STEP provided over twenty presentations and tours detailing fish resources, management issues and ODFW volunteer opportunities to a variety of interests including: students, teacher or other educational organizations, angler and conservation groups, Watershed Councils, and other federal, state and local agencies. Most notable among these were two classes given to participants in Oregon State University Extension Service's

Watershed Stewardship Education Program, a program largely attended by members and staff of area watershed councils. Because the Oregon Plan has enhanced the role of Watershed Councils in restoration efforts, this arena has demanded more time of STEP. The District works with eight councils in a variety of roles including providing general information, providing technical expertise to habitat and inventory projects, assisting with volunteer training, and assisting with the development of action plans and restoration priorities.

This past year, STEP again produced several informational signs and brochures detailing angling regulations, angling opportunities and conservation issues. A cooperative project with Lebanon High School led to the development and posting of signs to inform steelhead anglers and other visitors to Wiley Creek Park on the South Santiam River of the presence of spawning spring chinook salmon. The students had recognized that the activities of some of the park's visitors conflicted with efforts to protect salmon production in that reach of river. With financial assistance from the STAC Mini Grant program and a generous donation from R3 Engraving & Signs of Corvallis, the students produced eight large metal signs that they then posted at the boat ramp and along each of the river access trails. In the Calapooia basin, STEP worked with Weyerhaeuser and the Calapooia Watershed Council to develop and post informational signage along the upper Calapooia River. Several instances of poaching and the frequent harassment of the spawning spring chinook have plagued efforts to restore natural production in the Calapooia. Flows in the river are quite low during the summer and early fall leaving the large chinook visible and highly vulnerable. At a meeting hosted by the Council, STEP gave a presentation on salmon life history and habitat needs to area landowners and introduced them to the new signs that provided information about the salmon and listed ODFW and Oregon State Police contacts if poaching or harassment is observed.

The STEP Biologist continues to serve on the Oregon Trout Salmon Watch program Steering Committee for the Corvallis "hub". The STEP Biologist has worked with Oregon Trout since Salmon Watch was first introduced to the mid-Willamette area where the program serves schools from a number of communities including Dallas, Corvallis, Lebanon, Sweet Home, Salem and Silverton. STEP has selected the area's field trip sites, drafted informational materials, assisted with the program's teacher training program, coordinated ODFW participation on the Salmon Watch field trips and has annually given presentations during two or more Salmon Watch field trips to the North and South Santiam River.

STEP again hosted work experience or "job shadow" students from area high schools and universities, served as mentor for several additional high school student field projects, and supervised a three-month internship for an intern from Oregon State University's Fish and Wildlife program. STEP provides a unique opportunity for interns to become involved with a greater diversity of activities than they might otherwise encounter in other ODFW fish research or management programs.

Because of the program's community involvement and experience with natural resource issues, the STEP Biologist continues to serve as an ODFW representative on several outside boards, committees and commissions. These include the Northwest Center for Sustainable Resources Advisory Board, several watershed council technical teams and the Oregon Watershed Enhancement Board Willamette Regional Review Team.

Aside from their participation with field activities, volunteers further contributed to the day-to-day needs of ODFW by constructing and maintaining fish traps and other sampling equipment and by developing and maintaining angling access sites. STEP worked with the Albany Chapter ANWST and Linn County to develop an improved boat ramp and angler access site on the South Santiam River at Waterloo. Completion of this project has generated interest from both Linn County and the City of Albany to develop another access site further downstream in the Lebanon area. This project was funded through a combination of county funds, donated labor and a grant from the ODFW's Restoration and Enhancement Board.

Upper Willamette STEP

The district participated in Oregon Trout's Salmon Watch program, a coordinated effort to teach students about wild salmon through a combination of curriculum and field trips to observe spawning salmon. The District participated as a member of the steering committee and also participated in three field trips with individual schools. Each field trip consisted of approximately 40 students.

Upper Willamette STEP participated in a 4H-summer camp at Camp Lane in western Lane County. STEP personnel and a volunteer spent a day on Turner Creek in the Siuslaw River Basin talking about native fish and their habitat to fourth and fifth grade students. Even though the camp location was outside of the Upper Willamette STEP district, we felt participation was still warranted because the majority of the participating 4H students were from within district boundaries.

The Upper Willamette STEP district partnered with several local fishing groups to organize the Fish 'N Fun booth at the Lane County Fair in Eugene. Springfield STEP designed and contributed a bull trout display, a riparian poster and a poster showing the native fish of Amazon Creek to the effort. The bull trout display and riparian poster were also displayed as part of the Fish 'N Fun booth at the Oregon State Fair in Salem. Additionally, STEP personnel and volunteers helped staff the booth at the Lane County Fair and provided logistical support during planning, set up and take down of the booth.

Additional talks on area salmonids and habitat issues were prepared and presented to area groups. Kelly Reis presented a talk on bull trout to the Middle Fork Willamette Watershed Council on March 19, 2003. Jared Weybright gave a talk on native trout and salmon of the Mohawk River Basin to the monthly meeting of the Mohawk Watershed Partnership on October 7, 2003. Two reports summarizing STEP survey efforts in the Mohawk River Basin were prepared and printed in the Mohawk River Basin Newsletter.

The Springfield office of the South Willamette Watershed District sponsored a student intern from Oregon State University (OSU). Ty Herbert was a senior majoring in Fisheries at OSU. He worked two days each week from mid-June until early September. Ty worked directly with STEP in a wide variety of district fish activities and assisted in research activities for bull trout including day and night snorkeling surveys for juvenile fish. His other work included data entry, fish presence surveys, warmwater fish trapping and assisting with hatchery operations. In addition, Ty participated in several public educational outreach events including a one-day presentation at a 4-H summer camp and volunteering at the Fish 'N Fun booth at the Lane County Fair. Ty gained insight into natural resource management activities and fisheries biology while contributing to projects within the district.

There are numerous local groups whose meetings the Upper Willamette district staff regularly attend. The district works with five local watershed groups: the McKenzie River Watershed Council, the Middle Fork Willamette River Watershed Council, the Coast Fork Willamette River Watershed Council, the Mohawk River Partnership and the Lost Creek Group. District staff attend regular meetings of several area fishing groups including the Emerald Empire Chapter of Northwest Steelheaders, McKenzie Flyfishers, the Cascade Family Flyfishers and The Friends of Garden Lake Park. Meetings can often serve as a source of volunteer recruitment and an opportunity for public education and outreach on fish management activities and issues.

North Coast STEP

The Tillamook Anglers had another successful Disabled Anglers Fishing Day at their Whiskey Creek facility. ODFW supplied 1200 rainbow trout plus 77 “trophy sized” fish which were placed into the facility after the reared spring chinook salmon were earlier released. Of these stocked trout, 764 were caught by the hundreds of participants at this event.

Tillamook Bay Yacht Club set up a net-pen in Smith Lake at Camp Magruder which was then stocked by ODFW with approximately 300 rainbow trout plus 50 “trophy sized” fish for Camp Ukandu, a summer camp designed specifically for kids diagnosed with cancer.

Nestucca Anglers led over 20 school field trips at their Rhoades Pond fall chinook rearing facility, educating over 500 students and teachers.

Volunteers performed water quality testing and maintenance on Pond 14 at Cedar Creek Hatchery to ensure that the facility met Oregon Department of Water Quality (DEQ) requirements. Their efforts helped to restore use at the facility and lost production.

Volunteers from the Association of Northwest Steelheaders (ANWST) fixed Stone’s Camp and Loren’s Drift boat slides, and paid for pump repairs at the Hughey Creek acclimation pond and the district’s portable fish transport tank.

The Rockaway Lions completed restoration of the Lake Lytle angling dock, making it safer and more secure for anglers.

Ten schools participated in the classroom incubator program; releasing 35,000 salmon and steelhead fry into a number of river systems.

Mid Coast STEP

With Oregon Plan guidance, Newport STEP worked cooperatively with the Mid-Coast Watersheds Council (MCWC) and the Siuslaw Watershed Council as an active council member and ODFW liaison in:

- Assessing local watershed conditions and developing action plans.
- Implementing “best management practices”.
- Developing projects to protect and restore fish habitat.
- Informing and educating volunteer landowners and interested citizens.

Newport STEP and the MCWC continued a partnership to develop and implement watershed education and awareness in mid-coast communities. Newport STEP continued advising and assisting a part-time MCWC Education Coordinator in watershed projects for local schools and youth groups. The Education Coordinator advised 15 teachers how to utilize the ODFW Stream Scene curriculum and recommended field assessment techniques. Over 800 students and 94 parents participated in 18 field trips collecting water quality data, macroinvertebrate diversity and stream habitat data.

Coordination and technical assistance was provided to participants of the Lincoln Soil and Water Conservation District (LSWCD) watershed workforce. Technical advice was provided for the selection of high priority streams for stream habitat inventories and spawning surveys. This local project has recruited many new STEP volunteer landowners that have expressed a desire to collect fish data and improve fish habitat.

Presentations on fish sampling and species identification were given to 22 participants at the “Creeks and Kids” Watershed Education Workshop held at the Lake Creek Camp in Seneca. The workshop was designed to give educators the skills and knowledge to use their local stream as watershed learning sites. Participants learned about fish identification, stream surveying, mapping and water quality.

STEP recruitment for the Newport STEP district consisted of two community-sponsored events. STEP program information and materials were presented at the Schooner Creek Fair in Lincoln City. A STEP/Oregon Plan aquarium and information booth was displayed at the Hatfield Marine Science Center “SeaFest” in Newport. Both events reached a total estimated audience of 1,100 individuals.

Newport STEP also provided hands-on field demonstrations and presentations for juvenile salmonid sampling to nine North American Marine Educators and 25 Oregon State University “Forest Camp” youth participants.

A new STEP group was organized in the Lincoln City area in response to unethical fishing, increasing fishing violations and unsanitary conditions. The Salmon River “Keepers” have initiated a weekly river clean-up campaign and is working with Oregon State police to assist in providing enforcement information.

Florence STEP initiated an effort to educate all anglers within the Siuslaw River and Bay about the differences between coho and chinook salmon. A brochure was distributed to anglers showing the clear differences between coho and chinook in both bright and spawning colors. A kiosk was built at the ODFW boat ramp at the port of Siuslaw, the most popular boat ramp in the system that presented life size examples of adult coho and chinook salmon.

A hatchery open house and training session was organized for all new volunteers and members of the public. The project emphasized wild fish needs in stream and stressed the need to reduce hatchery fish influence on wild fish.

A Boy Scouts of America Campout was attended and both adults and youth helped in collecting broodstock and spawning adult steelhead at Whittaker Cr.

Umpqua STEP

Thanks to grants from the ODFW Fish Restoration and Enhancement Program (R&E), Oregon Wildlife Heritage Foundation, and the Cow Creek Band of the Umpqua Tribe of Indians, the new “modu-tank” winter steelhead acclimation site opened last winter and successfully acclimated 11,536 steelhead smolts. The smolts were tended by Seven Feather’s maintenance and grounds crew staff. Due to the success of the program, the Cow Creek Band started construction of a 15x24 foot concrete raceway this summer. This additional raceway will greatly increase the number of smolts that they can acclimate. As a result, the Umpqua district should - in combination with the Canyonville acclimation site - near its goal of 100% acclimation for its winter steelhead program.

Upstream at the Canyonville acclimation site, the Umpqua Fishermen’s Association (UFA) funded and coordinated the construction of a new shed and outdoor classroom and installed a water system for the host/SCA living on site. In cooperation with Ed Wood Engineering, the UFA, and the City of Canyonville, a bridge was installed to make access to the Canyon Creek fish trap safer for staff and volunteers. The bridge has a pulley system to allow it to be pulled upward to prevent access to the trap when not in use by staff.

January 1, 2003 greeted the Gardiner-Reedsport-Winchester Bay (GRWB) STEP volunteers with a landslide, which demolished their storage shed. The transport tanks and net-pens were spared but much of the other equipment was lost in a rubble of mud and debris. Local businesses and individuals donated excavators, backhoes, and dump trucks to remove the debris and salvage equipment. It was a long, rainy season spent working in the mud. Meanwhile, the group moved forward. They built a small shed on site to store fish food and began planning the new shed. Through fund-raising, grants, local discounts, assistance and a lot of labor, they were able to erect a new 30x48 foot pole barn by September. The new shed has concrete floors, electricity, and three garage bays in addition to a meeting area.

This summer, Ed Wood Engineering and Wolf Creek Job Corps completed the design and installation of sidewalks, a fishing dock, picnic tables and handrails for the Bowman Pond for the Handicapped. Another company donated and built a gazebo on the site. A barbecue was hosted at the beautiful, oak savannah site to celebrate the opening. In the first month that it was opened, over 80 handicapped participants and 28 staff used the site and caught nearly one fish per person. The comments on the survey form were glowing as they described the excitement of people who had never had the chance to catch a fish before. Next spring when the site reopens, we hope to teach more angler education classes at the site in addition to the continued use by handicapped and senior groups. This project was supported by the STEP Advisory Committee (STAC), Oregon Wildlife Heritage Foundation, The Cow Creek Band of the Umpqua Tribe of Indians, Tenmile Elementary School, and the Umpqua Fishery Enhancement Derby.

Education continued to be an important part of Umpqua STEP. The program expanded its Free Fishing Days events to include Lake Marie on the coast and participated in both the spring and fall Tsallia events. The spring event had school field days for all Reedsport 6th and 8th graders, while the fall Tsallia festival brought 4th and 5th graders from Roseburg, Sutherlin, Reedsport, Coos Bay, North Bend, and Florence. The program also completed the signage on the *Know Your Fish* kiosks, and worked with student job shadows from

Reedsport, Sutherlin, and Douglas High Schools. Student Conservation Aids (SCA's) at Happy Valley and Canyonville were able to attract several hundred school children to educational events at our fish traps and acclimation sites. The SCA's lived on site, worked with ODFW staff to operate the sites, and coordinated volunteers and educational events. Funds for the SCA's were provided by the UFA and the Umpqua Fishery Enhancement Derby. Altogether the Umpqua STEP district reached over 5,000 youths and 5,000 adults in education programs this year. For development projects, adults contributed over 9,000 hours of work.

Tenmile, Coos, and Coquille STEP

The primary method of program development in the Tenmile, Coos and Coquille STEP area is that of obtaining direct citizen involvement in management programs to protect and enhance salmon and trout populations. In 2003, a total of 89 volunteer projects were conducted in the district using over 4,900 volunteers. Volunteers were not only from the general public but also from school and youth programs. School groups and youth organizations provide the bulk of the volunteers involved in district programs.

A wide variety of projects were conducted that can be classified into four categories. These categories are habitat rehabilitation, stream surveys, fish culture, and information and education projects. The volunteers that have been involved in the district management programs not only have been contributors to protection and enhancement of our salmonid resources but have also gained insight into fisheries management issues that come as a result of direct involvement.

In addition to direct involvement, presentations and tours of enhancement sites provide a vehicle for dissemination of information about the requirements of salmon and trout populations. Presentations to local service clubs or other interest groups are instrumental in promoting conservation awareness and inspiring citizens to become involved in the STEP program. Tours are also valuable in that they provide an opportunity for the public to see a variety of enhancement projects.

Another method to obtain citizen involvement is the use of the media or reports. Dozens of reports on television and in the newspapers have presented STEP program projects to the public. This media coverage provides the greatest possible educational and outreach opportunity to the public. The World (Coos Bay) newspaper has been especially accommodating covering numerous stories about the STEP Program.

When STEP first began in the district, volunteers were only interested in operating hatchboxes in an attempt to seed streams that had poor numbers of spawning salmon and steelhead. Most of the eggs used in the district were foreign-stock eggs that were surplus to hatchery needs on distant rivers. The need was soon recognized that native broodstocks needed to be developed to provide suitable eggs for future recovery efforts. Facilities also needed to be constructed that would facilitate the development of these broodstock programs. Since the beginning of the program, an estimated 2.5 million dollars worth of facilities have been constructed by volunteers under the supervision and direction of the STEP biologists.

The largest and the most elaborate facilities are in the Coos River watershed. These facilities are designed to produce large numbers of fall chinook juveniles that are intended to replace

the production from the spawning habitat lost in the splash-dam era. These juvenile chinook are released as unfed fry or partially reared pre-smolts and are intended to complete their rearing in the underutilized Coos Bay estuary. This program has become an augmentation of the chinook to enhance fisheries in the watershed and in the ocean. This augmentation program has been very successful in that the fishery in Coos Bay has increased ten-fold. About half of the fish harvested in the basin are produced as a direct result of this program.

There are other augmentation programs in the district for coho and winter steelhead as well. All of these programs have been carefully designed to minimize the potential impacts on wild populations and to contribute to fisheries.

Early in the development of STEP in the district, education and outreach became an important element. We recognized that educating the public - particularly local children - would be an important tool to achieving the long term goals of the program. Education through outreach would increase awareness about requirements of salmonids so that the general public would be able to manage stream habitat to maximize salmonid productivity.

For the 13th year consecutive year, STEP volunteers continued work on the construction of the Millicoma Interpretive Center. This year the major project taken on by volunteers was the remodel of the main classroom at the facility. Volunteers changed the interior of the classroom wall to all wood. This gives the classroom the appearance of being a cabin. The numerous donated fish and wildlife mounts will be arranged into a variety of habitat themes. A new observation area was constructed by members of the Association of Northwest Steelheaders (ANWST). This observation area will also allow student visitors more areas where they can sit and eat their lunches. The Menasha Corporation, Bay Area Sportsmen's Association, the Oregon Wildlife Heritage Foundation, and the ANWST have all committed funds for these projects.

The Millicoma Interpretive Center continues to be a popular place for student groups and others to come and learn more about the life histories of salmon and steelhead. This past year the facility received its largest number of visitors since the facility began. Over 3,000 visitors came to participate in the programs at the site. The facility continued to receive a considerable amount of media attention in the past year. This past year the Outdoor Writer for The World newspaper wrote a story about the center. He had participated at the center as a child himself. This facility has become a valuable outreach tool.

One project that has been in the planning stages for over a year was the development of the Eel Lake interpretive site. This project was spearheaded by the Eel-Tenmile STEP group. Funds for the project were generated over a one-year period. The finished product are three interpretive panels that explain: 1) the purpose of the trap and acclimation pond, 2) the life history of steelhead in Eel Lake, and 3) steelhead scales and what you can determine from a single scale. The cost of the project was \$4,400

Also on Eel Lake, volunteers for the fourth straight year have held a fishing clinic on Free Fishing Weekend. This event features a course that children can take and learn everything from knot tying to fish identification. Once the children complete the course and the various stations they have a sure chance of catching a fish to take home. Volunteers with the STEP group rear 1,000 trout in a net-pen in Eel Lake specifically for the clinic. Children are

allowed to fish in the net-pen and the fishing is always very good. The trout are fed by the volunteers for a period of about three months prior to the event.

For the second straight year a video tour of district STEP projects was produced and aired on the local public access channel. The Bureau of Land Management Interpretive Specialist devoted several days to the production of this video. The estimated cost of the production of the video is \$25,000. The City of Coos Bay donated the “air time” which was valued at \$1,000. This year’s video featured the volunteer chinook projects throughout the district. This video production was very well received by the public. The production was aired numerous times.

Lower Rogue STEP

News releases were written for local newspapers, radio and TV stations. The objective was to recruit volunteer involvement, inform public of project results, and give volunteers recognition for their accomplishments.

Thirty five presentations were made at organized fisherman group meetings. Primary topics discussed were fish management policy, habitat problems and solutions, angling regulation, STEP guidelines, district management projects and volunteer recruitment.

Volunteer surveys were conducted through volunteer group newsletters and phone calls. The surveys were used to better understand interests of the group. The results of the volunteer survey will be used to develop projects best suited to each volunteer group. The survey is intended to create a stronger working relationship between ODFW and the volunteers.

Thirty six presentations were made at five local schools. Topics discussed included: salmonid life history, fish anatomy, fish culture, habitat protection and restoration. Many of the presentations had a field trip involved relative to the topics discussed.

Two meetings were held to discuss removal of an inoperable existing fish weir in the Chetco River basin. Topics of discussion included: feasibility, positive and negative effects on the fish habitat and utility of the structure. Currently the district is engaged in a public review process and will make a decision in the spring of 2004.

Free Fishing Day

On Saturday, June 7th the annual free fishing day event took place at Libby Pond. 40 kids registered for the event that was organized by ODFW. Curry Anadromous Fisherman volunteers sponsor the derby annually and were on hand to sign up kids 0-13 years of age.

The volunteers assisted the kids with fishing tips, instruction, registration and measurement of trout. Gold Beach Rod and Gun Club provided free hot dogs and drinks for the event. Each participant received a green ribbon. Forty participants caught over 100 rainbow trout during the derby. Thirty “trophy trout” were stocked by ODFW prior to Free Fishing Day. Trophy trout are large rainbow trout raised at Elk River Hatchery that average six pounds. This year, eight “trophy trout” were caught during the event and generated a whole lot of excitement.

Upper Rogue STEP

In 2003 the Upper Rogue STEP volunteers were involved in: one career fair (1 volunteer = 5 hours), one spawning survey class (10 volunteers = 70 hours), the planning of three instream habitat projects (1 volunteer = 19.3 hours), and data entry (1 volunteer = 192.9 hours). In addition, one volunteer generously donated 42 hours painting the office. While more individual projects were completed in this category last year (fifteen compared to seven in 2003), volunteers contributed 329.2 hours in 2003 compared to 49.5 hour in 2002.

Eastern Oregon STEP

Classroom Incubators

Rainbow trout eggs were distributed to 65 schools for classroom egg incubation projects. The focus of the “Egg to Fry Program” continues to be a trout education tool and not fish propagation. Classroom incubator fry are released to ponds without outlets or to water bodies stocked with the same stock of fish. This program is manageable only because volunteers from Bend’s Central Oregon Flyfishers, Sunriver Anglers and Klamath Falls’ Klamath Chapter Trout Unlimited and Klamath Country Flycasters are willing to provide both personnel and monetary support.

Kokanee Karnival

This year's Kokanee Karnival included 12 central Oregon elementary schools. Producing partners for the Kokanee Karnival include Central Oregon Flyfishers, Sunriver Anglers, Central Oregon Llama Association, ODFW and the Deschutes National Forest. The Kokanee Karnival provides:

- A one-week fall field trip program that provides an opportunity for students to observe kokanee spawning and learn about stream habitat up close.
- Field trips to hatcheries for instruction and demonstrations.
- Trout anatomy or dissection classes (trout provided by Fall River Hatchery).
- Delivery of trout eggs to classrooms for incubation during October, November or February.
- An angler education clinic providing three hours of instruction on angler ethics, fishing equipment, fish biology, and angling technique. After the classroom sessions, students enjoy a barbecue lunch before fishing in nearby Shevlin Pond.
- A community stewardship project (tree planting, storm drain marking, letter writing campaigns, pond cleanup).

Kokanee Karnival continues to receive exceptional support from both the volunteer community and our financial sponsors. Volunteers run the program in its entirety, with ODFW assuming a consulting role. A Kokanee Karnival Internet Web site is found at www.kokaneekarnival.org.

CHARACTERIZATION OF FISH POPULATIONS AND THEIR HABITAT IN STREAMS

Introduction

Volunteers assist the Department in conducting a variety of inventory, monitoring, and evaluation projects. A variety of fish species, including chinook, coho, steelhead, and trout, their habitat, and fisheries for them are characterized. The major types of characterization are:

- Creel survey
- Passage/culvert inspection
- Fish monitoring
- Stream (i.e. habitat) survey
- Miscellaneous (including water quality monitoring)

Volunteers use a variety of sampling gear to conduct this information gathering. Sampling gear used by STEP volunteers includes:

- Adult trap
- Backpack electrofisher
- Boat electrofisher
- Gill nets
- Hook-and-line
- Minnow trap
- Hoop trap
- Physicochemical samplers
- Rotary fish trap
- Seine
- Snorkel
- Sonar
- Telemetry equipment
- Angler interviews
- Video tape review
- Visual observation

Below is an overview of STEP fish population and stream habitat characterization activities from each STEP district. These summaries are not intended to be comprehensive but instead reflect the range of STEP activities in that area. Note that although a specific activity may be described for a particular STEP district, other districts may also be performing the same type of activities. A summary of stream/river distances characterized, volunteer participation, and other contributions by ODFW (non-STEP) can be found in under the “Characterization” category in Table 1 (Statewide Summary of STEP Participation).

Lower Willamette STEP

High Lakes Surveys

Volunteer members of WESTFLY, a Portland based on-line fly fishing group, surveyed the high lakes stocked by ODFW in the Mt. Hood National Forest. They collected basic catch

per unit effort and species information, as well as basic morphologic characteristics of the lakes.

Steelhead Creel Surveys

Steelhead creel information was collected with the help of volunteers in the Sandy River and Clackamas River Basins this past spring. This was a collaborative with the Oregon State Police.

Aquatic Inventory Surveys

Interns from the Oregon State University Fisheries and Wildlife Department and Portland State University conducted ODFW's Aquatic Inventory habitat surveys on Clear and Deep Creeks, two watersheds in the Clackamas Basin. The Clear Creek surveys will help identify areas in need of restoration and provide baseline information for effectiveness monitoring of the restoration projects. The Deep Creek surveys were funded through a grant from the Clackamas River Basin Council that will strengthen their assessment of this watershed and identify restoration priorities.

Mid Willamette STEP

During the 2003 reporting period, STEP again conducted physical or biological surveys in most all of the major sub-basins in the mid-Willamette area. Much of this effort was toward annual spawning surveys for native winter steelhead in the Cascade and Coast Range streams, and surveys for chinook in the larger Cascade river basins. Although only visual, the steelhead surveys are among the most difficult as they take place during the late winter and early spring when stream flows are often high or unpredictable.

The more popular of volunteer activities remains assistance with ODFW's annual summer snorkel surveys in the North Santiam, South Santiam and Calapooia basins. These surveys provide annual counts of returning adult salmon as well as estimates of the number of juvenile chinook and steelhead present in the rivers before their out-migration to the ocean. Of particular interest has been salmon production in those areas above the larger dams where, after having been excluded for many years, chinook have only recently been re-introduced. This includes the Breitenbush River and upper mainstem North Santiam above Detroit Reservoir and the upper South Santiam River above Foster Reservoir. To the volunteers, these surveys offer an opportunity to explore waters not often accessible to the public and provide them a view of the stream that is much different from that gained only from the surface.

STEP again led the district's small stream sampling effort through the construction and operation of hoop traps. Landowners, high school students, Watershed Council volunteers, and members of the Albany Chapter ANWST maintained traps at sites located throughout the basin. As new monitoring sites were identified or requested, Albany ANWST volunteers constructed additional traps allowing for expanded inventory efforts. The primary intent of this program has been to document the presence of cutthroat trout, juvenile salmon and/or juvenile steelhead in waters where little or no fish information exists and to get a sense of relative abundance. The effort has also yielded valuable life history information such as the timing or distance of migrations and has identified areas that are used by spring chinook salmon or winter steelhead for only juvenile rearing. The targeted waters may be seasonal and are typically in urban or low elevation agricultural areas. Often the streams have been

severely altered and receive little habitat protection because of perceived fishery value. The information has in-turn been used by cities, counties, watershed councils and others to develop habitat restoration and protection plans as well as to identify individual project opportunities.

In the higher elevation lakes of the Cascades, volunteers assisted in the fall with annual seine and gill net surveys. The surveys are used to gauge the health of each lake's fish population and to monitor the success of stocking programs. A new "high lake" effort this year included the operation of a fish trap in the tributaries that flow into Pamela Lake. For the past several years, ODFW has been looking at Pamela Lake as a potential source of native cutthroat trout that can be used for stocking other Cascade lakes. However, efforts to capture a sufficient number of spawning trout by trapping in the lake itself have yielded disappointing results. The tributary trap operated this past summer was successful at capturing spawning fish but it remains whether the much larger number of fish needed for broodstock can be obtained. As a remote site that can be accessed only by trail on foot, the Pamela project has been one of the more demanding for volunteers.

On the lower Calapooia River, a historic mill – Thompson Mill – has created both stream flow and passage concerns for anadromous and other native fish. Much political and social effort has gone toward resolving the many problems presented by the continued operation of the privately owned mill and the associated management of water. To provide the information needed to determine a "best solution", this past year ODFW again conducted physical and biological surveys of the associated channels and monitored fish behavior and movement at the water diversion structures. Several individual volunteers and the Albany Chapter ANWST assisted ODFW staff with these efforts that included stream habitat and seine surveys. This information is being used by an appointed "working group" that includes the landowner and a host of state and federal agencies to develop a management strategy that can maintain the existing complex of channels and meet water demands while still providing for the needs of fish.

Upper Willamette STEP

This year of trapping on Lost Creek completed a three-year project designed to provide data on species composition and relative abundance in Lost Creek, a tributary to the Middle Fork Willamette River. This effort matches similar trapping projects on the Mohawk River (McKenzie River) in 1992-1994 and on Little Fall Creek (Middle Fork Willamette River) between 1994 and 1996. The three streams are the largest water-bodies unaffected by dams in the lower portions of the two watersheds. Volunteers staffed a rotary screw trap for downstream migrants on Lost Creek starting December 5, 2002 and ending May 13, 2003. The trap captured 2,566 fish representing 10 different species. Redside shiner were the most numerous fish collected, followed by pacific lamprey ammocete, dace and cutthroat trout. A total of 127 cutthroat and 74 rainbow trout were collected, along with 41 juvenile spring chinook and 141 trout fry. Cutthroat and rainbow trout migrated in small numbers past the trap in January, February and March. Beginning in the fourth week of March, trout migration increased with peak migration occurring from early April through early May. STEP volunteers from the Lost Creek Watershed Group contributed an enormous amount of time to the effort and did a great job of monitoring the trap.

Upstream migrant hoop trap monitoring was once again a major STEP effort in the South Willamette Basin during the 2002-03 spawning season. The main goals of the hoop trap

program are to assess the species composition and relative abundance of fish in local watersheds and to provide a tool for public outreach and education. The traps target cutthroat trout and attempt to document relative abundance and timing of spawning migration. The traps are a great way to get individuals and groups involved in their local watershed and to give them a unique "hands on" experience working with their local fish populations. The volunteers primarily came from within the participating watershed council, but area schools and universities were also a source of volunteers. A total of six hoop traps were placed in area creeks. Three traps were placed in the Mohawk River (McKenzie River Basin), two in the Coast Fork Willamette River Basin and one in Lost Creek (Middle Fork Willamette River Basin). STEP Biologist Dan Van Dyke coordinated the project. There was a wide range in trapping effectiveness among the hoop traps. Trapping success is often dependent on the appropriateness of the site selection. Traps often need just the right conditions to fish effectively. Despite some difficulty, all of the traps were able to gather data and document cutthroat presence.

Surveys targeting chinook salmon juveniles were completed in May and June of 2003 on the Mohawk River. The goal of the surveys was to determine if adult spring chinook salmon released into the Mohawk River in fall of 2002 were successfully reproducing. The STEP project was completed with the help of five volunteers on three separate survey dates. Seven sites on the lower Mohawk River were surveyed on May 18, 2003 and May 25, 2003. An additional site on the Upper Mohawk River was surveyed on June 7, 2003. Sites were selected based on proximity to the adult release site, ease of access and landowner cooperation. Two survey methods were used. In the lower sections, pools were surveyed using a seine. In the upper section, pools were snorkeled by two person teams. The timing of the survey was chosen in order to attempt to document any juveniles before they migrated lower in the system and became more difficult to capture. Chinook juveniles were found at three out of the eight sites. A total of six juvenile chinook salmon were documented. Although the number of chinook was relatively low, the fact that we were able to document presence at all was enough to make the project a success.

An aquatic inventory habitat survey was completed on a 1.5-mile stretch of an unnamed tributary to Lost Creek in early September. The goal of the survey was to document habitat in the tributary prior to the placement of large woody debris into the creek. The data will be used to help demonstrate the changes over time to the creek brought about by the instream habitat project.

In order to help document bull trout use of Hills Creek Reservoir, an experienced angler was recruited to specifically target bull trout. The angler was able to catch two bull trout in Hills Creek Reservoir, one on March 15, 2003 and a second on April 3, 2003. Both fish were confirmed as bull trout. These were the first documented sightings of bull trout in Hills Creek Reservoir since 1993. One of the bull trout captured was PIT tagged by ODFW staff. Monitoring plans call for the installation of PIT tag readers into the Middle Fork Willamette River above Hills Creek Reservoir and additional tagging through hook and line surveys.

The Upper Willamette STEP district is organized in such a way as to provide significant support to basin fish management policy. STEP personnel and volunteers provide support and leadership to a variety of district activities in order to monitor and protect fish populations. Volunteers participated in five days of fish presence and upper distribution

surveys around the basin. Fish presence and upper distribution surveys have been done in order to clarify previous fish surveys, in response to private landowner and industrial requests, and for general information. Surveys consist of using a Smith Root electrofisher to determine fish presence. STEP has supported efforts to monitor bull trout populations in the McKenzie River and Middle Fork Willamette River Basins through day and night snorkeling surveys and spawning ground surveys. Volunteers participated in a total of five days of bull trout monitoring.

North Coast STEP

The North Coast district began the distribution of Volunteer Angler Log Books to assist in collecting data from anglers on coastal salmonid populations.

Mid Coast STEP

Mid-Coast volunteers conducted salmon spawning surveys, general stream surveys, and fish population surveys throughout the Newport STEP District. Lincoln City volunteers and the Hebo US Forest Service continued a steelhead and coho trap operation on the South Fork of Schooner Creek in the Siletz Basin. The objective is long-term monitoring of coho and steelhead populations at a basin scale. Yachats River area volunteers continued a water quality monitoring program in Yachats River and estuary. Newport STEP provided training and technical assistance on temperature monitors, protocols and site selection for the project. Yachats area volunteers also surveyed the Yachats River Basin for fall chinook and coho escapement and spawning distribution.

The Florence STEP Group had up to eight volunteers daily assisting an ODFW partner group monitoring a juvenile fish trap on Knowles Cr. The project was expanded to include some fall sampling of salmon movement out of this stream. The crew has participated every day for up to four months each spring and will now also participate during the fall to assist others with correct fish identification and fish handling techniques.

Hadsall Creek is surveyed monthly by several groups of students to map and review changes in the stream and recommend any changes to the areas in need of future restoration. A large log jam has developed and changed with just about every high water this past year. This jam continues to accumulate small woody material and is scouring a large hole under the jam.

Condon Creek has the entire 7th grade class from schools in Florence attend a day long workshop in the fall and again in the spring to understand the function and structure of a restored watershed. It is probably the highlight of many students for the entire school year.

Umpqua STEP

STEP volunteers continued their support of several research and monitoring programs. For the second consecutive year, volunteers and district staff participated in "head-hunting parties" on Brush Creek. Since 1999, Brush Creek has been the site of a study to evaluate the survival of volunteer released unfed coho fry. The otoliths (ear bones) of the fry were marked by chilling and warming the water while the developing coho were still at Rock Creek Hatchery. Approximately 200,000 marked unfed fry were released in 1999, 2000, and 2001. Each spring, district staff collected every 12th smolt at juvenile traps on Brush Creek so survival to outmigration could be determined. During the fall of 2001, the coho released in 1999 were scheduled to return - hence the "head hunting". Based on the preliminary

results, otolith-marked coho comprised about 50% of Brush Creek's smolt outmigration each year. In 2001, 53% of the adult coho returning to Brush Creek were otolith marked thus part of the unfed fry releases. In 2002, 47% of the returning coho were otolith marked. Volunteers and staff are ready again to go on head-hunting parties in 2003 to aid this study. More detailed analysis of the data remains to look more closely at survival estimates of the marked and unmarked fish and compare the results to a nearby "control" stream.

The Umqua Fishermen's Association (UFA) is also participating in another study to look at the survival of unfed coho fry and the differences between hatchery, wild, and native fish. Via the Conservation Hatchery Incentive Program (CHIP), the Umpqua Watershed is looking at the differences between the genetics and survival of hatchery x hatchery and wild x wild coho. Volunteers help spawn the one hundred pairs of each cross used for the study. A genetic sample and specific measurements of each adult are recorded. The eggs of each individual pair are incubated in separate baskets so the fecundity of each pair can be recorded, then cumulatively compared between hatchery and wild pairs. Once the eggs are eyed, the eggs are transported to hatchboxes and raised by UFA volunteers to the unfed fry stage. Egg and fry mortality is tracked to continue recording data for looking at survival. The unfed fry were released at specific locations on the Calapooya. When the coho return as adults in 2004 another genetic sample will be collected to look at survival, then yet another sample will be taken of outmigrating smolts in 2006 to look at what types of cross-breeding occurred during 2004 (H x H, W x W, H x W) and whether or not there are any differences in fecundity between the crosses. During the spring of 2003, UFA volunteers raised and released over 491,000 coho for this study. The 2003 brood will be the last year for the unfed fry releases.

Gardiner-Reedsport-Winchester Bay (GRWB) STEP has also continued to coded-wire-tag (CWT) fall chinook released in the Umpqua estuary to help the district learn more about chinook distribution and survival. The STEP group has been actively participating in the CWT program since 1996. This year the program marked 86,397 pre-smolts released in Winchester Bay. Since all of the CWT chinook also have their adipose-fin clipped, the tagging program also helps to evaluate hatchery stray rates in the lower Umpqua. The clipped fish also help local anglers recognize the efforts of GRWB. Acclimating the chinook in net-pens in Winchester Bay has also created a thriving bank fishery for recreational anglers. This September, over 98% of the 200 chinook collected for brood at the Winchester Creek trap (in Winchester Bay) were fin clipped. Another 400-plus fish were returned to the fishery, nearly all of which were fin-clipped.

In addition to acclimating winter steelhead at Canyonville, volunteers have assisted ODFW in evaluating the stray rates of the hatchery steelhead recycled downstream for anglers. Local volunteers help ODFW operate the Canyon Creek fish trap and load the portable tanks used for hauling the fish downstream. In 2002, about 12% of the radio-marked hatchery winter steelhead recycled from Canyon Creek to Roseburg strayed to the North Umpqua. In 2003, the hatchery fish were just recycled 12 miles downstream to Myrtle Creek. No radio-marked fish and only 3% of the floy-tagged fish strayed to the North Umpqua. Fifty-five percent of the radio-marked steelhead and 23% of the floy-tagged fish returned to Canyon Creek. In addition to helping at the Canyon Creek fish trap to recycle fish, a training session was held to teach volunteers how to radio-mark steelhead. Our hope was to tag steelhead at

the forks and see what percent returned to Canyon Creek with their initial movements. Only 2-hatchery steelhead were tagged, but both returned to Canyon Creek.

This year, ODFW staff, the SCA and volunteers also monitored streams within 10 miles above and 10 miles below Canyon Creek to look at stray rates of the returning hatchery steelhead. A total of 36 surveys were conducted on nine streams. Survey conditions were not perfect. However, with the exception of one hatchery steelhead observed in Cow Creek, hatchery fish were only documented in Canyon Creek. Ninety-one percent of the fish captured at the Canyonville trap were hatchery fish.

Tenmile, Coos, and Coquille STEP

The Tenmile watershed is a system that is dominated by several large lakes and numerous small streams that drain directly into the lakes. The lakes historically were used by juvenile coho for rearing. The system was the most significant producer of coho in Oregon. Warmwater game fish were introduced into the system in the 1940's and over time they eliminated the lake rearing capabilities of the coho in the lakes proper. This substantially reduced the population of coho throughout the watershed. Today the population is only a remnant of the former numbers of coho that used the basin. Now the only life history type that survives in the basin are the stream reared coho. This is a very limited habitat area relative to the lakes. Tenmile lakes currently have a small run of wild steelhead and a large hatchery population that are confined to releases in the lower watershed. No hatchery strays have been observed in wild steelhead spawning areas.

The Coos has three major rivers that drain into the largest estuary in Oregon. The watershed is 80% commercial forests. The large rivers are construed to be spawning limited for fall chinook. The rivers are characterized by long bedrock systems. The system was systematically splash-dammed beginning in the late 1800's. This practice of moving logs down river in the fall of the year removed the spawning gravel from the system. The very large estuary has a substantial potential for increased chinook rearing. Subsequently, the potential to increase the chinook population in the watershed is very good. The upper watershed and several small estuary tributaries have good habitat for coho and steelhead. Many of the agricultural practices in the lower watershed have changed the streams and have reduced the complexity of habitat. The rearing potential for coho has been dramatically reduced. The populations of wild coho and steelhead are still some of the best in Oregon. During this report period's spawning season, 35,000 adults coho spawners were estimated to be using the basin. This is over twice the escapement goal outlined in the Coos Basin Fish Management Plan.

The Coquille has four major forks which drain into a large intertidal stream that flows into a relatively small estuary. The South Fork is a different geology than the rest of the basin. The South Fork is a deep gravel system that has few bedrock areas. The North, East, and Middle Forks are sandstone dominated and have substantial reaches of bedrock. Good natural spawning habitat is still available in these streams. The Coquille River basin was also systematically splash-dammed. The basin is not considered to be gravel limited for fall chinook or for any other species. The Coquille watershed has very good populations of wild chinook, coho and winter steelhead. The basin also has hatchery programs for these species. Like the Coos and the Tenmile basins, the hatchery programs are primarily lower in the river system than the bulk of the wild salmonids spawning areas. There has been a concerted

effort to achieve a spatial separation from hatchery and wild populations. These programs are primarily operated by volunteers and are working well.

The tidewater portion of the Coquille River watershed historically was a willow dominated flood plain. This area was very important winter habitat for juvenile coho. This area was long ago converted to farmland that filled the flood plain and removed most of the willows. This critical habitat for the coho has, for the most part, been eliminated. Restoration work in the past decade has focused on restoring these types of habitats in the lower river. Though coho numbers are down from historic levels, the population is again still healthy.

Throughout the District, habitat for salmonids has been compromised because of culverts which block fish passage for adult and juveniles alike. Volunteers have expended a considerable amount of time and effort to correct these passage problems. More work is needed in the form of habitat surveys that identify problem culverts and the need for corrections.

Each stream within the three major basins has specific habitat limitations. Only detailed surveys can identify the problems so that they can be corrected if correction is needed.

The most important monitoring operations that volunteers are involved with each year are the fall chinook recruitment surveys that are conducted in the Coos and Coquille estuaries. In the Coos River basin volunteers release in excess of three million chinook juveniles annually. With the large numbers of fish released, an evaluation of the impacts on wild chinook is needed. One way to measure the impacts is to monitor the growth and abundance of chinook in the estuary. Researchers have indicated that if mean fork length of juvenile chinook at ocean entrance in the fall of the year is below 13 cm then the carrying capacity for the basin may be exceeded. This monitoring begins in the spring and continues through the fall of the year. STEP volunteers play a key role in this long-term monitoring project.

Lower Rogue STEP

Winchuck Screw Trap

In an effort to characterize populations of fall chinook on the Winchuck River, the Oregon South Coast Fishermen operated a downstream migrant trap located just upstream of tidewater on the Winchuck River. Operation of the trap represents the continuation of a 13-year database that has been a priority for the district. Oregon South Coast Fishermen have been operating the trap for the last five years. The information obtained is of great value to current management. This work would otherwise not be accomplished under current District staffing levels. The Lower Rogue District will utilize information obtained from trapping operations to help manage local populations.

The annual operation of the Winchuck trap project represents many volunteer hours in installing, maintaining, and removing the trap, as well as daily operations in counting, identifying, marking, and observation of recaptured fish. Weekly operations include a training session by the STEP biologist in trap operation, fish ID and marking techniques. Volunteers work in two-person teams to monitor the trap daily. Weekly expansion estimates for fall chinook salmon smolts are summarized throughout the migration period (June-August) to provide a population estimate. With supervision from the Oregon South Coast Fishermen, several youth from the local school district took time off from their busy summer schedule to also help make this a successful trapping season.

Huntley Park Seining

The Huntley Park seining operation represents a continuation of a 27-year data-base monitoring adult salmonids. The project takes place annually from July 15 through October 31 at Huntley Park on the lower Rogue River. The Huntley project is a high priority to the district and harvest managers.

A four person ODFW seasonal crew conduct the sampling annually. The Huntley Park data is used to monitor stock abundance, composition and hatchery/wild ratio of summer steelhead, coho and fall chinook salmon. Later in the season, wild fall chinook broodstock are collected for the STEP Indian Creek Hatchery facility.

During the 2001 season, 939 adult fall chinook were captured. In 2002, 1561 adults were captured. Both of these years resulted in record highs for the Huntley seining project. The 2003 season marked a capture of 2149 adult fall chinook, making this the record high catch for Huntley Park.

A number of STEP and local volunteers loyally showed up to assist in the record season. Volunteers assisted the crew in effectively sampling the numbers of fall chinook. The 2003 sixteen-week study included 47 days of data collection with approximately 537 hours of volunteer service.

Volunteers played a valuable role in aiding with many aspects of the study and the success of this record setting count.

Upper Rogue STEP

Volunteers spent 577.9 hours monitoring six projects in 2003 compared to 173.5 hours monitoring three projects in 2002. Most of the hours came from volunteers that helped monitor smolt outmigration (263 hours), fish salvage (199.5 hours), and 89.3 hours doing spawning fish surveys.

Volunteers also monitored stream habitat projects that were completed in Flat Creek and the West Fork of Evans Creek in 2002, 2001 in Rock Creek, and 2001 in Upper Grave Creek. In the winter of 2001-2002, gravel was deposited upstream of half of the nine structures placed in Flat Creek. However, over the winter of 2002-2003, large volumes of gravel were stopped by the 27 structures placed in Flat Creek after the fires of 2002. We believe that the success of this project is largely due to the fact that the fire caused higher peak flows and more gravel movement than would have occurred had the fire not burned most of the Flat Creek Watershed. Coho salmon carcass counts on the gravel that accrued after the first few freshets of the year were higher than either of the two previous years.

Eastern Oregon STEP

Upper Deschutes/Crane Prairie Reservoir Rotary Trap

A rotary trap, located on the Upper Deschutes at the inlet to Crane Prairie reservoir, was used to collect fish data on emigrations of trout fry as an index to wild redband production as well as brook trout production. A diminishing rainbow trout and largemouth bass fishery in the reservoir has raised concerns for biologists and anglers alike. As part of the Restoration and Enhancement Program (R&E) funded Crane Prairie food web study, it was important to

determine timing and size of trout fry entering the reservoir in order to identify potential piscivorous predators or competitors that might be limiting fry survival.

Volunteers from Central Oregon Flyfishers and Sun River Anglers were trained by ODFW biologists to identify trout fry, record biological data and operation of the rotary trap. Once trained, volunteers worked in pairs and recorded data 2-3 days a week.

*Deer Creek Population Size and Density of *Oncorhynchus mykiss*, S.F. John Day Basin*

Volunteers assisted biologists collecting biological data from multiple sampling sites on Deer Creek, a tributary to the South Fork John Day River. Crews consisted of a staff biologist and at least two volunteers. Fish were sampled using a two-pass depletion removal method with backpack electrofishers. Deer Creek is a significant spawning and rearing stream for *O. Mykiss* and density estimates were identified as necessary information in the John Day River Fisheries Management and Evaluation Plan.

*Deep Creek Population Size and Density of *O. mykiss*, N.F. Crooked River Basin*

As part of an ongoing evaluation of fish habitat and population trends in Deep Creek, ODFW staff and volunteers sampled multiple sites with backpack electrofishers. Volunteers from Central Oregon Flyfishers, Oregon Trout and Trout Unlimited assisted in the collection of biological data. Deep Creek provides significant trout habitat within a greater system that has been degraded by heavy grazing. However, grazing practices threaten the habitat in Deep Creek as well. By tracking this redband trout population, it is the hope, in conjunction with ranchers, anglers and other agencies, to find strategies to modify riparian grazing and reduce further damage to Deep Creek.

Klamath River Redband Trout Life History Study – Keno Dam to Oregon Border

In an effort to evaluate and learn more about the redband trout life history in the Klamath River, volunteers, including members of Klamath Flycasters and Central Oregon Flyfishers, assisted Klamath District fish biologists with hook and line sampling of redband trout in three identified reaches. Fish captured were anesthetized, sampled (length, weight, and scales taken) and then released. Information from this sampling effort, in conjunction with trapping and tagging juveniles, will be aimed at addressing hydropower impacts related to relicensing of the Klamath projects.

HABITAT IMPROVEMENT

Introduction

Volunteers have completed a large number of habitat improvement projects. These efforts either directly benefit salmonid habitat (instream work such as placement of large woody debris or spawning gravel and fish carcass placement for nutrient enrichment), indirectly benefit salmonids (riparian work which reduces temperatures and allocthanous input), or improve access to habitat (passage repair). The major types of habitat improvement described in Table 1 are:

- Passage Work
- Instream Work
- Riparian Work
- Instream and Riparian Work (both part of the same project)
- Hatchery Fish Carcass Placement
- Miscellaneous

Below is an overview of STEP habitat improvement projects from each STEP district. These summaries are not intended to be comprehensive but instead reflect the range of STEP activities in that area. Note that although a specific activity may be described for a particular STEP District, other Districts may also be performing the same type of activities. A summary of stream/river distances affected, volunteer participation, and other contributions by ODFW (non-STEP) can be found in under the “Habitat” category in Table 1 (Statewide Summary of STEP Participation).

Lower Willamette STEP

Clear Creek Restoration Projects

STEP has applied for and received grants from NOAA Fisheries / Fish America Foundation, Oregon Wildlife Heritage Foundation, and Portland General Electric to conduct restoration activities in Clear Creek in the Clackamas Basin. This project involves replacing fish passage barriers, placing large woody debris (LWD), and removing exotics and planting native species in the riparian zone. Volunteers are used in various aspects of these projects including monitoring, plantings, and basic landowner cooperation.

Carcass Placement

The eighth year of the stream nutrient enrichment project was completed with cooperation from ODFW (Sandy Fish Hatchery and Clackamas Fish Hatchery), the US Forest Service (Mt. Hood National Forest) and the US Fish and Wildlife Service (Eagle Creek Hatchery). The carcasses are intended to mimic historic run densities of spawning coho salmon in the system and to increase the nutrient levels in the stream for aquatic organisms. This year included a full scale monitoring project to identify the effects of the nutrient enrichment on watershed productivity. Parameters studied included nutrients, periphyton biomass, benthic macroinvertebrate biomass, smolt abundance, and carcass retention. Carcasses were distributed by helicopter in order maximize the quantity and accessibility of the river systems. Carcasses were dropped by helicopter into three tributaries to the upper Clackamas River and into three tributaries of the upper Sandy River. Hand placement also occurred in the Sandy, Clackamas, Molalla, Upper Tualatin and Yamhill basins. Volunteers from the

Association of Northwest Steelheaders (ANWST), students from David Douglas High School, Apha High School, Grant High School and members of SalmonCorps, the Tualatin River Keepers, and the Confederated Tribes of the Grande Ronde assisted in the distributing of carcasses.

Riparian Restoration

ODFW and Oregon Trout combined efforts with several high-tech companies in the Portland Metro Area that donated their employees for a day of community service. These “volunteers” were put to work planting native riparian vegetation along two sites in the Clackamas and Scappoose basins.

Mid Willamette STEP

Because much of the land in the mid-Willamette basin is privately owned, restoration efforts rely heavily on the cooperative participation of private landowners. In addition to efforts with other state, local and federal agencies, STEP works closely with watershed councils, industry, individuals and the more traditional landowner assistance agencies (Soil and Water Conservation Districts, Natural Resources Conservation Service, USFWS) to conduct stream nutrient enrichment, instream and riparian habitat, and fish passage restoration projects.

The placement of salmon and steelhead carcasses into area streams for nutrient enrichment is accomplished only through the efforts of volunteers and has surprisingly become one of the more popular STEP activities. This past contract year, salmon and steelhead carcasses that were used as brood for programs at Marion Forks and South Santiam Fish Hatchery were again placed in the Santiam and Calapooia basins. To replicate historic abundance and distribution, fish are placed in 14 different streams and across 167 miles. Because STEP and the hatcheries have only a very limited ability to store the carcasses, volunteers must make themselves available whenever and as often as the fish are spawned. Placement of the carcasses is done by hand and many are large or otherwise difficult to handle. Many of the treated stream reaches are also remote with difficult or very poor access. In those areas more visible to the public, volunteers are sensitive to public perception and answer the many questions that come from curious onlookers.

The total number of carcasses placed during the 2002-2003 contract period was, however, less than that of previous years. A relatively high occurrence of IHN in the summer steelhead spawned at South Santiam Fish Hatchery during December of 2002 and January of 2003 led ODFW pathologists to recommend that the carcass placement be terminated after the initial few spawns. As carriers of IHN, the carcasses would pose greater risk of infecting natural populations. In terms of the spring chinook program, during the late summer and early fall of 2003 the permits required by state and federal water quality management agencies were slow in coming. These permits were not in place until the end of September by which time most of the spawning at area salmon hatcheries had already taken place. Due to the limited ability to store frozen carcasses, only several hundred could be held until a later placement date.

Aside from carcass placement, STEP maintains a very active role in stream improvement efforts throughout the mid Willamette basin. Many other organizations are now involved in habitat restoration including cities, counties, other state and federal agencies, watershed councils, private industries, conservation groups, schools and individual landowners. STEP

works with all of these by identifying and prioritizing opportunities, bringing together project partners, providing project oversight or supervision, lending volunteers or perhaps only by offering much needed technical expertise. STEP is also in a unique position among these many entities in that it can bring all aspects of restoration under one program. These include pre and post project monitoring, technical guidance, equipment, labor, access to funding and outreach.

Restoration of fish passage remains a priority effort in the Willamette basin and STEP again this year worked closely with cities, counties and watershed councils to identify, prioritize and remove, replace or retrofit road crossings and dams that serve as barriers to fish migration. In Benton County, STEP monitoring activities have provided the fish and habitat information needed to identify and prioritize problem culverts. ODFW and the County now partner with the Marys River Watershed Council and private landowners to ensure that this effort is as comprehensive as possible. This has led also to the County offering cost share or match funds for projects on private lands. As an example, the County is now a partner in our efforts to restore passage at or remove the Thompson diversion dam on Beaver Cr in the Marys River basin. Because ODFW recommends that construction or culvert removal take place in de-watered stream sections, STEP and its volunteers have assisted the County Public Works Department with the salvage of fish from the affected stream reaches prior to a passage project.

In the City of Albany, STEP fish inventories led to the identification of priority passage restoration projects on Cox Creek and Periwinkle Creek, tributaries of the Willamette used by cutthroat trout, Pacific lamprey and rearing juvenile chinook salmon and steelhead. The most costly of the completed projects - a combination fish ladder and baffled concrete weir at the Water Street crossing of Periwinkle Creek - was finished this summer. STEP conducted the pre-project fish salvage and will operate a fish trap in the stream above the crossing this winter and spring to document restored upstream movement.

In the City of Dallas, STEP inventories and the persistence of the Polk County Sportsmen Club and the Rickreall Watershed Council have led the City to work toward restoration of passage on Forestry Creek, a tributary of Rickreall Creek. Forestry Creek has an impassable culvert on the lower reach and project engineers are looking at a ladder design similar to that referenced above on Periwinkle Creek. More problematic, however, is that further upstream the creek has been diverted from its natural channel and into an artificial ditch. Restoration will also require that some flow be directed back through the natural channel. STEP will in 2003-2004 operate a fish trap in lower Forestry Creek to document the extent of use by cutthroat trout and the suspected seasonal presence of rearing juvenile winter steelhead.

On a final note, STEP is working closely with the Long Tom Watershed Council and landowners in the Ferguson Creek subbasin on several coordinated stream habitat, riparian and passage restoration projects. The effort began with the Council's decision to take a more focused subbasin approach to habitat restoration. Ferguson Creek was chosen as the initial target stream because as a tributary of the lower Long Tom below Fern Ridge Reservoir it remains accessible to fluvial cutthroat trout migrating from the Willamette River. Last year, STEP at the request of the Council led a tour of several landowner properties to discuss fish needs, habitat condition, and restoration opportunities. Several landowners then asked that the Council and STEP work with them to develop projects on their lands. These include two

channel restoration efforts on agricultural lands, a large instream wood placement project on wooded rural/residential property, and a fish passage and riparian project on agricultural/forested land. All of the above projects were then combined in a single grant request submitted by the Council that has since been funded by the Oregon Watershed Enhancement Board. This in combination with a joint project between ODFW, the Council, the ACOE and a private landowner to restore passage on the mainstem of the Long Tom above Ferguson Creek is leading the effort to restore native trout fisheries in the lower Long Tom.

Upper Willamette STEP

Efforts in support of a riparian restoration project to restore native vegetation at the confluence of Lost Creek and the Middle Fork Willamette River in Elijah Bristow State Park have continued in 2003. The project was initiated in 2001 by the ODFW Upper Willamette STEP in partnership with the Lost Creek Watershed Group. Volunteers have been recruited from local high schools and colleges, the Cascade Family Flyfishers, the Northwest Service Academy, and local landowners. Volunteers planted roughly 225 Oregon ash seedlings, 100 big leaf maple and 25 valley-type Ponderosa pine on February 25, 2003. A second volunteer work party worked to clear brush around the plantings and add additional markers, and hand water selective plants. Drought conditions in 2003 have taken a toll on both seedlings and cuttings. Watering the site over the course of the summer remains the largest challenge facing the survival of the plantings. Presently the project must rely on hand watering to get water to the plantings. Volunteers were able to hand water several times over the course of the summer, which seemed to provide temporary relief. The ash and pine along with some of the smaller brush such as snowberry appear to have the best survival rates.

The Upper Willamette STEP District provided support to a multi-year, multi-partner riparian project spearheaded by the McKenzie Watershed Council. The project was begun in 2001 on private property along Cedar Creek in the Thurston area of Springfield. STEP District assistance included providing trees for the work and serving as field advisor during a planting day in early March. Plans call for STEP to continue their association and support of this project through consultation and assistance in recruiting volunteers.

A project located on a seasonal unnamed tributary to Lost Creek in the Middle Fork Willamette River Basin has been the site of considerable STEP efforts in the past year. The project was initiated in 2001 and is being done in cooperation with the landowner. The project is planned as a one-time placement of large woody debris into the small tributary. The project is designed to enhance fish habitat along this quarter mile stretch of private property. The instream structures were completed in early November 2003, just after the reporting year for this report. Extensive exotic plant removal and native replanting has also continued in 2003. In addition, a habitat survey using ODFW's Aquatic Inventory protocol was conducted along the length of the private property and extending up into adjacent BLM property. An upstream migrant hoop trap was used to monitor and assess local fish populations at this site during the winter and early spring. A fish presence survey was conducted early in the year to document the presence of native cutthroat trout. An important goal of the project is to present this project, once completed, as an example of what small landowners can do to improve both in-stream and riparian habitat on their property. Plans call for showcasing the work and results on the district website, conducting walking tours of the property and creating literature to document the process and results of the project.

The STEP brook trout removal project at Gold Lake had another successful year in 2002. Management plans for Gold Lake trout call for a variety of methods to limit brook trout population growth, and thus encourage rainbow populations. One method of population control employed is periodic trapping and removal of brook trout of all sizes. The McKenzie Flyfishers assisted in this project to trap, mark and transfer brook trout from Gold Lake to Charlton Lake. The trap net is set for a total of nine days. The net is pulled a total of four times over the course of the set and all fish are removed at each pull. Brook trout are marked and placed into a live pen to await transport. Rainbow trout are released back into Gold Lake unmarked. Fish are transferred from Gold Lake to Charlton Lake on the fourth and ninth days. A total of 1972 fish were captured in 2002, of which 1650 were brook trout and 322 were rainbow trout. The total number of brook trout removed from Gold Lake was 1561. The discrepancy was due to a problem with the live box lid that allowed close to one hundred brook trout to escape back into Gold Lake.

In an ongoing effort to control the pikeminnow population in Dexter Reservoir, Upper Willamette STEP has partnered with the Blackberry Jam Festival in Lowell to hold a pike minnow fishing derby in association with the festival in late July. The fishing derby was begun in 1995, and has proven to be very popular. The STEP contribution consists of setting a trap net in order to capture and mark ten pikeminnow with unique tags. Cash prizes are offered for the capture of the tagged fish. None of the fish tagged in 2003 were captured this year but a tagged fish from 2002 was caught. Unfortunately for the angler, no cash prize was awarded for this catch. The district is considering using the Blackberry Jam and several "non-winning" tags as part of a mark-recapture population estimate of the pikeminnow population in the reservoir.

North Coast STEP

Volunteers and watershed councils placed over 20 tons of salmon and steelhead carcasses in North Coast rivers and Lower Columbia River tributaries to improve basic productivity.

Mid Coast STEP

Mid-Coast habitat restoration projects were completed at Miller Creek (Yaquina River), Beaver Creek (Ocean tributary), North Depoe Bay Creek (ocean tributary), Crooked Creek (Alsea River), Big Rock Creek (Siletz River) and the mainstem Yaquina River. Project activities included: instream wood placement, riparian release, tree and shrub planting, tree protection installation, riparian enclosures, fish passage improvement, dike removal and culvert modifications. Landowners cooperated in the design and layout for 2002/2003 projects and preparations for 2004/2005 instream and riparian projects in the Siletz, Alsea, Yaquina and Yachats basins. The pre-project process included on-site meetings, site mapping, project cost estimations and grant writing. During this report period, STEP volunteer landowners have contributed and donated many pre and post project hours of labor, mileage and equipment to develop STEP projects.

Umpqua STEP

Habitat improvement projects in the Umpqua district are primarily done by two ODFW Habitat Biologists that work in cooperation with local watershed councils and landowners.

Tennile, Coos, and Coquille STEP

Habitat restoration projects are an important component of the volunteer projects in the district. Two habitat improvement projects were conducted by volunteers during the contract period. The Bay Area Sportsman Association funded the materials to construct a large juvenile fishway over Coos County Parks Department's Swimming Pool dam that is installed each summer in the North Fork Coquille River. Nearly a dozen volunteers devoted several days to the project that took over a year to complete. West Coast Contractors welded the aluminum fishway. The fishway was completed and installed the first day of the in-water work period. Juvenile salmonids were observed using the fishway on multiple occasions.

The second habitat improvement project was also the construction of a juvenile fishway into the Big Creek steelhead acclimation pond on the South Fork Coos River. This fishway was installed to provide juvenile fish passage into the Big Creek during the summer months. The South Fork Coos River is a water temperature limited stream in the summer months. The fishway installed into the pond allows juvenile salmonids the ability to move out of the South Fork into an area where they can obtain a thermal refuge. Other such juvenile fish passage projects on the South Fork have been extremely successful at providing thermal refuges for juvenile fish.

Salmon carcasses were again placed in numerous district streams during the report period. Researchers have determined that the marine derived nutrients (MDN) that salmon carcasses contain are extremely valuable to stream ecosystems. Volunteers and agency staff processed and placed 8,761 salmon and steelhead carcasses into 12 different streams. Most of these carcasses were returning fish to Coos Basin STEP Facilities. Many of these carcasses were placed into streams as part of an ongoing experiment to assess the long term impacts of these nutrients on salmon and steelhead populations. The benefits of these MDN are not limited to the stream ecosystem.

Lower Rogue STEP

Riparian Planting Maintenance

Curry Anadromous Fisherman adopted a reach of an existing tree planting project on Euchre Creek. This effort is intended to maintain growth of the plantings. The group cleared grass and non-native vegetation and maintained irrigation. Projects similar to this will be encouraged by the district to maintain the success of riparian planting projects.

Large Woody Debris Placement

With anticipation of the Jack Creek fish weir being removed, six large trees were placed to stabilize the bed load movement below the weir. The trees were donated by local landowners and ranged from 40 to 60 feet long (two having roots attached). South Coast Watershed Council provided the equipment and operator costs. The STEP Biologist and an Oregon South Coast Fisherman volunteer provided preparations and direction. Additional large wood placement and riparian plantings are anticipated upon the removal of the weir.

Carcass Placement

Volunteers with the Curry Anadromous Fisherman (CAF) assisted ODFW staff with placement of fall chinook carcasses. Fall chinook carcasses from the Indian Creek STEP facility have been used in lower Rogue tributaries for the previous six years. Sites chosen

were based on streams with lower adult spawning densities and recent habitat restoration improvements such as tree plantings and large woody debris placement. This effort is intended to increase the streams nutrient levels to maintain better growth of aquatic organisms.

Permits have been acquired for the Chetco basin and implementation of Chetco carcasses is expected for the fall of 2003.

Chetco River Clean Up

Students in the Alternative Youth Activities (AYA) program in Brookings participated in a Chetco River clean up. During the months of September and early October, an average of six students worked three hours per day and picked up ten yards of trash from Chetco River gravel bars. Oregon Division of State Lands donated funds for equipment and garbage disposal. Oregon South Coast Fisherman donated \$250 dollars for a trailer hitch and assisted in installation. Oregon State Parks and SOLV donated the garbage bags for the effort.

Over the last year, relationships have developed between STEP, Oregon South Coast Fisherman and Alternative Youth Activities coordinator and students. In addition to the clean up, Alternative Youth Activities students assisted in operation of the Winchuck screw trap. In the upcoming year, the Alternative Youth Activities coordinator would like to get students involved in natural resource projects. STEP is currently organizing a riparian restoration project that will fit their schedule and curriculum. Oregon South Coast Fisherman and STEP intend to foster the relationship with Alternative Youth Activities.

Upper Rogue STEP

Permit applications were completed for two projects to place large woody debris in the Sugarpine and Bitter Lick Creeks, two tributaries of Elk Creek, near Trail, Oregon. In the fall of 2001, logs were anchored with manila rope in Elk Creek (tributary to West Fork of the Illinois), Flat Creek (tributary to Elk Creek near Trail, Oregon), and the West Fork of Evans Creek (near the town of Rogue River). ODFW volunteers stabilized the logs with manila rope that was attached using staples. This stabilization technique was approved by the National Marine Fisheries Service for use in waters that contained threatened coho salmon.

A total of 2,150 coho salmon carcasses from Cole M. Rivers Hatchery were placed by volunteers in five creeks in the Rogue River basin used by coho salmon. Previously this project was done by the ODFW Watershed Council Liaison, Alan Ritchey, who recently transferred to the Charleston office. A new Watershed Liaison, Jay Doyno, was hired in February of 2003 and will take over this project in the fall of 2003. Members of the Southern Oregon Fly Fishers, Trout Unlimited, Rogue Fly Fishers, US Forest Service, the Upper Rogue Watershed Association (URWA), Williams Creek Watershed Council (WCWC), Middle Rogue Watershed Council (MRWC), Seven Basins Watershed Council (7BWC), the Southern Oregon Fly Fishers (SOFF), Girl Scouts of America, and public volunteers participated along with ODFW personnel.

Eastern Oregon STEP

Riparian Planting - South Fork Crooked River

Volunteers from Central Oregon Flyfishers and the Crooked River Watershed Council planted a 3-mile section of the South Fork Crooked River with hundreds of willow and

cottonwood trees. Volunteers contributed 300 hours of labor to this project. During the 1980's, the river supported a redband trout fishery but today, based on observation and electrofishing surveys, trout are not surviving. Vegetation along this three mile stream section has been heavily grazed by cattle and feral horses. The loss of vegetation has led to down-cutting of the creek and loss of floodplain. Owners of the property are mending their fence to protect the stream from further over grazing. STEP provided transportation, supervision and materials in support of this project. In addition, volunteers and the Prineville ODFW biologist sampled the fish in South Fork Crooked River.

FISH CULTURE

Introduction

STEP volunteers conduct all stages of fish propagation, including collecting and spawning adults, incubating eggs, and rearing, acclimating, and releasing fry, juveniles, or smolts. STEP volunteers work in conjunction with state hatcheries at one or many of the stages in the rearing cycle. They may receive eggs, fry, juveniles, or smolts from a state hatchery and rear and transfer or release them. They may simply receive smolts for acclimation before release or assist in broodstock collection. In a few locations where there are no state hatchery programs due to lack of hatcheries or hatchery capacity, STEP runs hatcheries which perform the entire rearing cycle from broodstock collection to release. Regardless of whether the STEP activities are carried out in conjunction with a state hatchery or not, STEP propagation activities must fall within ODFW management objectives and guidelines.

Oversight of STEP propagation projects occurs in a variety of ways. Initially, STEP propagation proposals go through an approval process at the local, Regional, and Fish Division levels within ODFW to ensure that the program is within Department objectives and policies regarding need and impact on wild fish. STEP propagation activities are integrally linked with ODFW fish management programs. Specific legal limitations (i.e., rules) regarding STEP also exist which, in addition to ensuring that the projects are in compliance with other applicable goals, policies, rules, and plans, limit the duration and size of projects. STEP propagation projects can only run from 3-5 years, depending on the type of project and species involved. Once this time period is up, the projects must be re-approved to continue. In addition, STEP propagation projects cannot exceed 100,000 fish without approval by the Commission. Despite certain STEP-specific legal requirements, STEP's importance to Oregon's fish resources does grant it some legal protection, such as not having to obtain water rights to operate a facility. Once a STEP project has begun, ODFW's STEP Biologists work with the volunteers to assure the facility complies with the applicable reporting and operating requirements for state facilities, in addition to those for the STEP Program. The STEP Biologists also help carry out the project logistically, work with other ODFW staff to coordinate cooperative propagation efforts, and provide technical advice. Most of the facilities which STEP groups utilize for propagation are funded, built, and run by the volunteers, with ODFW assistance and oversight.

The purpose of STEP propagation programs is to rehabilitate or supplement populations of naturally produced salmon and trout and/or augment fisheries with hatchery fish. Thousands of volunteers have assisted Oregon's fisheries through their involvement in STEP and their donation of money, materials, equipment, and countless hours of time and labor. Without these efforts, ODFW's propagation ability would be greatly diminished in certain areas.

The major types of fish culture (i.e., propagation) described in Table 1 are listed below. Note that effort and fish numbers are not included in more than one category. Also, many projects had a dual purpose and served as education opportunities to increase public understanding of Oregon's aquatic resources and the environment.

- Releasing Unfed Fry as part of the Classroom Incubator Program (the primary purpose of this program is education, but because fish are released into the wild it is included in this section)

- Releasing Unfed Fry as part of the Hatchbox Program
- Rearing Fish (all activities included here involve feeding and caring for fish, though not all fish are necessarily marked)
- Acclimation of Fish before Stocking
- Collecting Adult Broodstock
- Miscellaneous Activities (including volunteer help at ODFW hatcheries for maintenance, marking, stocking, and other duties, and salvage of wild fish)

Below is an overview of STEP fish culture projects from each of the STEP districts. These summaries are not intended to be comprehensive but instead reflect the range of STEP activities in that area. Note that although a specific activity may be described for a particular STEP District, other Districts may also be performing the same type of activities. A summary of release numbers, volunteer participation, and other contributions by ODFW (non-STEP) can be found in under the “Fish Culture” category in Table 1 (Statewide Summary of STEP Participation). A summary of the numbers of fish released can also be found in Figure 1 (STEP fish releases by species and stage of fish development) and Figure 2 (STEP fish releases by STEP district and stage of fish development).

Lower Willamette STEP

Classroom Incubation Project

One hundred and ninety four school classroom incubation projects plus one individual hatchbox project incubated and released over 80,000 unfed salmon and trout fry into sixteen lakes, ponds, & streams within the Portland Metro Area. Classroom egg incubation projects have a solely educational purpose and are intended to supplement fish life cycle discussions in the classroom. In addition, several local Chapters of the Association of Northwest Steelheaders (ANWST) as well as the local 4-H Program continued to sponsor classroom incubation projects in schools around the Portland Metro Area. The ANWST commitment to the schools includes the purchase of the incubation equipment and the delivery of the fish eggs to the individual schools participating in these classroom incubation education projects.

Mid Willamette STEP

ODFW fish propagation programs in the mid-Willamette basin have evolved greatly over the last decade. With greater emphasis now placed upon the restoration and conservation of the basin’s wild fish resources and the current federal listings of upper Willamette spring chinook salmon and winter steelhead under the Endangered Species Act, the STEP District’s fish culture program looks much different from that of the 1980’s. Concern surrounding the potential impacts of introduced fry upon native populations and the primary need for habitat enhancement in those streams identified as deficient in natural production has changed the focus of the program's efforts.

Currently, all egg incubation projects within the District are for educational purposes only and are not intended to contribute to fish production goals. This will, however, change in 2003-2004 as STEP fry will be used in an effort to assess the potential for re-introducing spring chinook to the Middle Santiam and Quartzville Creek above Green Peter Dam.

During the 2002-2003 reporting period, schools from both rural and urban areas participated in 58 egg incubation projects raising rainbow trout and spring chinook salmon fry. Rainbow trout reared by the schools were released at a number of selected locations scattered

throughout the valley including reservoirs and many local, isolated ponds. The fry stocking program in the ponds has had surprising success with the establishment of two quality trout fisheries where none had before existed. Spring chinook fry were released into the North Santiam, South Santiam and Calapooia River basins. As a means of fostering further public involvement with ODFW's educational efforts along urban streams, many Salem area schools released their spring chinook fry into Mill Creek.

STEP attempts to maintain close contact with each of the participating schools. Eggs are delivered to each classroom by ODFW staff or, in many cases, STEP volunteers where a brief presentation or question/answer period helps to prepare the students for the project and convey the importance of their effort. The presence of an ODFW Fish Biologist or STEP volunteer in the classroom helps the students to realize that their effort extends beyond the school and includes many other individuals and organizations.

Individual volunteers, members of the Senior Fishing Buddies, and members of the Albany Chapter ANWST now assist with the classroom egg incubation program. These volunteers have recruited and "adopted" a number of schools in their local areas. To these schools they provide information and incubation equipment, lend technical expertise and assist during field trips to the release sites. The Senior Fishing Buddies have been particularly active in the Salem area where, with financial assistance from a STAC Mini Grant, they have placed incubators in ten schools.

It is conservatively estimated that the classroom incubator program reached well over 1,000 students in the STEP District this past year. It is likely that the actual number even exceeds this as many projects involve multiple classes or, in the case of smaller communities, the entire school. Many of these projects have benefited from significant donations of equipment, or funds to buy equipment, from numerous groups and individuals within the local communities or from sponsoring groups, thus furthering STEP's outreach efforts.

Upper Willamette STEP

District management objectives for the alpine lakes fisheries rely heavily upon volunteers to provide the support necessary to stock these sites. In 2003 a small number of alpine lakes were stocked using volunteers to backpack cutthroat trout fry into the sites. This opportunity continues to be one of the most popular volunteer STEP projects in the district. Volunteers included a local Boy Scout troop, students from the University of Oregon and Lane Community College and individuals from the general public recruited via the district website. Over 4,000 cutthroat fingerlings were stocked into seven lakes over the course of the summer.

The classroom egg incubator program remains a popular program in local schools. Approximately 9,000 spring chinook eggs were incubated in 80 classroom incubators during the reporting period. The program serves as a tool to facilitate learning and discussion of salmonid life history and conservation issues in the classroom. Volunteers helped construct displays showing the development of salmon from eggs to fry to help students understand what they are seeing. The fish were liberated as fry at various sites in the upper Willamette.

STEP volunteers from the Emerald Empire Chapter of the Association of Northwest Steelheaders continue to operate a winter steelhead rearing facility. Located near Lorane in

the Siuslaw watershed, the Letz Creek facility is dedicated to native broodstock development and fishery supplementation. Springfield STEP provides assistance to the Letz Creek volunteers and the North Coast Fish District of ODFW.

The volunteer effort at Letz Creek is the largest single STEP program locally. Volunteer site manager Cindy Heller and crew put in long hours in support of Oregon's fish resources. The program raises steelhead smolts released into the Siuslaw River, and exposes volunteers to important resource issues. Volunteers contributed over 4,000 hours to rear, fin-clip and release the fish. A river otter predation problem has developed in the past several years at Letz Creek, limiting the numbers at release. An estimated 8,000 smolts were released this year. An electric fence installed in early 2001, along with other methods, appears to have controlled losses to a manageable level.

Springfield STEP recruited volunteers to mark rainbow trout fingerlings to be stocked into Hills Creek Reservoir southeast of Eugene. The goal of the project is to maintain a popular sport fishery at Hills Creek Reservoir while increasing protection for wild bull trout and other native trout. A regulation change in 2004 to allow only marked hatchery trout to be retained from the fishery makes this volunteer effort critical. Over 42,000 rainbow trout fingerlings were marked over a four days during mid April. A total of 25 volunteers contributed over 200 hours and 500 miles to the effort.

Springfield ODFW STEP personnel have continued to work with the McKenzie River fishing guides in 2003 to stock the McKenzie River with legal size rainbow trout. The Springfield office coordinates the effort between the Willamette Hatchery, Leaburg Hatchery and the McKenzie River Guides to ensure that over 35 continuous river miles of the McKenzie River are stocked with legal trout. The guides are used to run the district stocking boat down the river while the biologist meters out the fish. A total of 16 stocking trips were completed from late April to late August. Ten guides contributed 16 days and over 130 volunteer hours this past season.

North Coast STEP

Nestucca Anglers continued to operate the Rhoades Pond fall chinook rearing facility on Three Rivers producing approximately 100,000 smolts for release into the Nestucca System. Hundreds of volunteers spent over 2500 hours raising these fish, not including the fin-clipping, a one day event that involves over 100 volunteers.

Whiskey Creek Hatchery was once again run by the Tillamook Anglers, producing approximately 80,000 spring chinook for release into the Trask and Wilson River, and hatching another 45,000 fall chinook for release. Numerous volunteers put in over 2500 hours of their time, not including the hundreds of volunteer hours involved in fin-clipping. The Tillamook Anglers were also responsible for monitoring and feeding thousands of steelhead and spring chinook smolts at Hughey Creek acclimation pond.

The Nestucca River wild winter steelhead broodstock program led to the successful collection of 25 pairs by Nestucca Anglers. Nestucca Anglers volunteers also spent over 100 hours helping hatchery staff collect steelhead and salmon by seining Three Rivers and operating the Cedar Creek Hatchery trap. Over 250 hours were spent recycling fish to ripen potential broodstock and increase angling opportunity.

The Wilson River wild steelhead broodstock collection was also successful, with thousands of hours donated by anglers, collecting over 130 adults for the program. Volunteers included members of the ANWST, Tillamook Anglers, and Tillamook Guides Association.

Mid Coast STEP

Newport area volunteers and students from Oregon State University assisted ODFW with the capture of wild adult chinook broodstock in the Yaquina River for the Yaquina Bay Hatchery. This project is a cooperative adult capture and acclimation release site operated by the Port of Newport with assistance from ODFW and local volunteers. The goal is to generate a small sports fishery inside Yaquina Bay.

The Depoe Bay Salmon Enhancement Commission continued a coho supplementation project on North Depoe Bay Creek. Eggs are incubated and fry short term reared in floating net-pens to around 2 grams each at a hatchery site located above the Depoe Bay reservoir dam. Pre-smolt fry are fin-clipped and then released into the City of Depoe Bay reservoir to rear naturally.

Newport STEP provided technical assistance and equipment in developing a coho conservation hatchery with the Siletz Tribe at Rock Creek on the Siletz River. The program is designed to spawn limited numbers of wild coho adults from selected Siletz River streams and release their offspring into tributaries where wild coho are absent or present in extremely low numbers.

Alsea River fishermen assisted ODFW in the collection of wild winter steelhead by drift boat angling. This STEP project will develop and maintain a new hatchery steelhead brood stock from Alsea Basin wild winter steelhead to enhance the sport fishery.

Sixteen teachers participated in the STEP classroom incubation program using local steelhead and coho salmon stocks to observe and participate in the development process of salmon eggs and fry and gain a better understanding of fish habitat needs.

The winter steelhead smolt acclimation projects at Whittaker Creek and Greenleaf Creek have been very successful at reducing the straying of hatchery steelhead into wild fish spawning areas. The rates of return have also significantly improved in the past 2-3 years with the consistent care and feeding of these fish during the two weeks of the project. The Siuslaw River is returning more and larger winter steelhead to the fishery because of the program's assistance from the volunteers in the acclimation of these fish.

STEP volunteers spent the majority of their efforts this year on the collection of winter steelhead broodstock at five fish traps in the Siuslaw Basin. As in past years, this was a tremendously successful program that met egg production needs producing up to 100,000 smolts for the hatchery steelhead program. A large amount of the public education program is also tied into this project.

The volunteers also trapped coho salmon at Little Woahink Lake and Munsel Creek traps. The program at Little Woahink traps coho, and volunteers physically move them over a dam that blocks all fish passage upstream. At Munsel trap, the group counts and passes coho over

a dam and then monitors an artificial spawning channel for fish use. Results to date show the fish passed above the Munsel trap mostly find and utilize the spawning areas throughout the stream and in the artificial spawning channel.

Umpqua STEP

STEP volunteers in the Umpqua Watershed raise fish for an upper Umpqua fall chinook restoration program and a lower Umpqua terminal fishery. Chinook raised in the upper Umpqua are intended to help restore runs in areas which have adequate habitat, but which currently have low returning adult numbers. Presently the program is releasing fall chinook in the Calapooya which has averaged about 1 fish/mile on spawning ground surveys. Releases began in 2000 and will continue until 2004. The UFA, which raises the chinook, hopes to restore the Calapooya to a run of about 11 fish/mile. UFA members and local volunteers help district staff collect brood at Happy Valley fish trap on the South Umpqua. They then assist Rock Creek Hatchery with spawning the fish. After the eggs are eyed they are allocated out to different sites where they are raised in hatchboxes. Approximately 25% of the chinook are released back into the South Umpqua as payback, while the remainder are released in the Calapooya. This summer the UFA applied for a R&E grant to CWT and fin-clip fall chinook released in 2004 to learn more about the survival and stray rates of their fall chinook.

The GRWB program has its own hatch house and operates a series of traps for collecting brood in addition to receiving chinook from the Smith River Falls fishway. Brood fish collected are taken to the Gardiner facility and held in raceways on site until spawning. With the assistance of the STEP Biologist, GRWB members spawn, tray and pond the fall chinook on site. When the fish used for the terminal fishery are larger than 200 fish/pound and have been coded-wire-tagged, they are transported to Winchester Bay and acclimated to the bay in net-pens. Brood collection was a challenge in 2002 since large numbers of coho flooded the Winchester Creek trap before we could capture an adequate number of female chinook. GRWB and ODFW then worked to collect brood from Mill Creek, Camp Creek, Spencer Creek, the North Fork of Smith River and Smith River Falls. A Veteran's Day rain raised water levels over two feet, washing out two traps to add to the challenge. The program was successful in spawning about 33 pair and traying over 141,000 green eggs. This was enough eggs for successfully rearing and releasing over 96,000 pre-smolts from the Winchester Bay net-pens. The program also tried an experiment of net-penning fry, but not feeding them. The fry were successfully transferred from the hatchhouse to the net-pens in salt water. However, there was not enough natural food available in the net-pen for the fry to grow thus they were released in April.

The City of Canyonville, fishing guides, SCA intern, local volunteers, UFA and district staff worked together for another successful year of the South Umpqua winter steelhead program. Guides helped collect about 17% of the fish used for the brood stock for the program. Meanwhile the other volunteers helped acclimate and release 65,949 winter steelhead smolts at Canyonville and 11,536 smolts at the new Seven Feathers site. This year the fish trap on Canyon Creek adjacent to the acclimation site had 462-winter steelhead return. About 91% of these fish were of hatchery origin.

Tennile, Coos, and Coquille STEP

Large numbers of volunteers continue to be involved in the extensive fish cultural programs in the District. There are 10 broodstock development, 4 spawning, 22 egg incubation, 7 rearing, and 22 acclimation projects in the District. The fish cultural operations in the District have involved the largest number of volunteers in recent years.

Broodstock collection and development programs in the District continue to be a success overall. A significant amount of time is donated by volunteers involved in the collection of naturally produced salmon and steelhead for incorporation into hatchery programs. The collection of naturally produced salmonids is always very labor intensive. For the past 16 years a significant proportion of the steelhead have been acquired through angler donations. In the Coos River basin, about 60% of the steelhead broodstock was donated by anglers. Angler donations are a slow, time-consuming process that involves many volunteers.

The STEP Biologist coordinated the collection and distribution of salmon and trout eggs from ODFW hatcheries or STEP incubation facilities to volunteers. As a result, 847,668 fry, 2,308,126 pre-smolts and smolts were released from the 2002 brood year. For yearling salmon and steelhead a total of 549,375 smolts of the 2002 brood year were released as well. The Fish Culture Division of ODFW tracked the distribution of eggs and required the necessary egg disposition records to be entered into the ODFW hatchery record system. The tracking of such a large fish cultural program is very time consuming for volunteers and agency staff.

The STEP Biologist provided fish cultural assistance to volunteers at 22 incubation sites. This fish cultural assistance is demanding because of the complexity and magnitude of the incubation programs in the District. Many of the cooperators incubating eggs are new each year and need special attention. Egg incubation is a complicated process. During the report period, one incubation site for the second year in a row incubated over one million fall chinook eggs at a time.

Again this year the number of classroom egg incubation projects also increased in the district. Two new classroom aquaria were purchased for area schools. The combined cost of these aquaria was \$2,000. This investment was well worth it in that these aquaria were well received by the schools. Madison and Millicoma Middle School were the recipients of the new incubators. The students at these schools were thrilled to watch the drama of eggs transforming into fry. Madison Elementary School was so thrilled with their new incubator that they featured the aquarium and the entire project on the home page of their web site. This increased the exposure of the project to the public.

The Coos River fall chinook augmentation program has also continued to be a success. A statistical creel survey that was conducted in 1999 determined that about 50% of the chinook harvested in the Coos River Basin originate at one of the three STEP rearing stations. While the contribution of hatchery chinook to the fishery is very high the incidence of hatchery chinook straying in to wild chinook spawning areas is relatively low. The Department's Research and Development Section has been utilizing the STEP trap on the South Fork Coos River to conduct a population estimate of chinook in that river. Through their research, they have determined that less than 5% of the chinook that spawn in that river are hatchery strays.

This has been important to document the number of hatchery fish spawning with wild chinook.

A total of 470 volunteers have been involved in rearing programs in the District. Fin-marking of the reared fish demand a larger number of participants than any other volunteer project. Nearly 100,000 salmon and steelhead were again marked this year in an effort to evaluate the success or impact of the various release groups. Volunteers marked all chinook that are released from the Millicoma Interpretive Center and the steelhead that are released from the Noble Creek STEP facility. Student groups provide most of the labor in completing this task. Since the program began, students have marked over one million chinook in the Coos River Basin. Schools spend a considerable amount of money providing their students for marking fish. A single school once spent over \$5,000 for transportation and substitute teachers for a single fin-marking project.

Volunteers operated a total of 26 rearing or acclimation projects during the report period. Acclimation sites continue to be improved with each passing year. The steelhead acclimation pond on Hodges Creek underwent a very extensive reconstruction operation. Volunteers devoted days to constructing new concrete wing walls to stabilize the structure. This facility was damaged in 1996 when a 200 year flood pushed the 43,000 pound structure downstream several yards.

Volunteers operated a new chinook acclimation pond on Hatchet Slough on the lower Coquille River. This new pond is several miles upstream from the existing pond at Sevenmile Creek. By being further upstream, this new pond location provides anglers a better opportunity to harvest chinook returning to this site.

These acclimation ponds have increased angling opportunity in the district. Another purpose of these acclimation sites is to obtain a geographical separation between hatchery and wild steelhead and salmon populations. Separating hatchery and wild steelhead is valuable to reduce the potential impacts of the hatchery fish on wild populations. Volunteers now operate 13 steelhead acclimation ponds in the District that release a goal of 270,000 steelhead smolts annually.

Lower Rogue STEP

Chetco Brood Stock Collection

The Chetco fall chinook program is facilitated at Elk River Hatchery using locally collected fish from the Chetco River. Fall chinook broodstock are wild stock collected on the Chetco River annually in the fall. Fish are collected from the Chetco River and held at Elk River Hatchery for spawning. Resulting offspring are incorporated into the smolt program.

The goal for the current program is an annual collection of 300 adult fall chinook. The program results in the production of 150,000 smolts being reared at Elk River Hatchery. Although the production goals could be accomplished with a smaller number of collected adults, using 300 adults for this program insures greater genetic diversity.

Volunteers are used in the broodstock collection phase of this project. Fall chinook broodstock are collected out of the Chetco River at two locations: Morris Hole and Tide Rock. These are two large pools at the head of tidewater where fish stage and wait for the

first fall rains. A large beach seine is used to encircle and capture the fish. The seine is deployed using a motorboat to encircle the pool. The net is retrieved by hand with help from volunteers. Volunteers help work the fish up, take data, and pack the fish from the net to a nearby fish stocking truck operated by Elk River hatchery staff.

Chetco Winter Steelhead

Oregon South Coast Fisherman organized an effort to angle for wild winter steelhead broodstock for the Chetco River steelhead smolt program. While this project is in its experimental stages, volunteers successfully collected a number of steelhead. With the limited success, there has been discussion to concentrate efforts during the annual steelhead derbies. The concept is to get the derby folks onboard and have them donate their catch.

Indian Creek (Lower Rogue)

Wild fall chinook broodstock were collected in the lower Rogue. The chinook are transported and spawned at Indian Creek STEP facility. The resulting offspring were incorporated into a smolt program for the purpose of supplementation of the lower Rogue stock. A total of 80,242 fall chinook were reared to smolts by volunteers and released into the Rogue River estuary. Smolts reared at Indian Creek are marked with coded-wire tags to monitor ocean contribution and returns. Excess eggs collected for the smolt program are released as unfed fry. This year, 77,296 fall chinook fry were reared at Indian Creek Hatchery and released as unfed fry into Edson Creek, Foster Creek and Saunders Creek (lower Rogue tributaries).

Euchre Creek Hatchbox

Boy Scouts released a total of 9,860 fall chinook into Pea Creek, a tributary of Euchre Creek. An existing rehabilitation plan allows the incubation and release of 10,000 fry of Elk River stock. This program will continue until the status of Euchre Creek fall chinook is determined and a rehabilitation plan is developed. The fry released in 2003 (2002 brood year) were from Elk River stock.

Upper Rogue STEP

The classroom incubator program was once again in full swing by late October as in previous years. A total of 24 teachers had incubators in the classroom from late October until winter vacation. A total of 8,700 spring Chinook salmon eggs were distributed to classrooms in the Medford and Grants Pass areas, of which 5,958 were released into the Rogue River near Grants Pass and Touvelle Bridge around winter break. The classroom incubator program has stabilized at 20-25 classrooms and with less than 10,000 eggs distributed. Many teachers that used to participate no longer have sufficient funds or time.

Eastern Oregon STEP

Backcountry Fish Stocking

Volunteers stocked three backcountry lakes during this reporting period. Twelve volunteers from the High Desert Trail Riders used their mules and horses to carry 3,000 rainbow trout fingerlings to Blue Lake in the Gearhardt Mountains. The Blue Lake rainbow trout fishery continues to provide very good angling opportunities for those seeking a backcountry trout fishing experience.

The second backcountry fish stocking project occurred at Doris and Blow Lake in Central Oregon's high Cascades. With the help of the Central Oregon Llama Association, 3,000 fingerlings were packed on Llamas, carried 2.5 miles and released in these popular trout angling lakes.

Rainbow Trout Mortality Study—Crane Prairie Reservoir

Volunteers assisted ODFW biologists marking 9,000 adult rainbow trout bound for Crane Prairie Reservoir. Trout were marked with fluorescent dye in groups of 3,000 during a two month period for the purposes of sequential trout population estimates and ultimately survival estimates. Fish were sampled at night with variable mesh gill nets. Results from the study are pending. This study is one piece of an ongoing investigation of fisheries dynamics of Crane Prairie Reservoir.

Table 1. Statewide Summary of STEP Participation.

Category	Activity	Projects	Measure	Youth				Adult				Volunteer Contribution Total (\$)	ODFW Funds (\$)
				Number	Total Hours	Mileage	Donation (\$)	Number	Total Hours	Mileage	Donation (\$)		
Development	Education	246	13,566	1,039	8,851	2,205	7,585	1,162	8,084	6,930	40,100	322,823	5,800
	Construction/Maintenance	18	285	0	0	0	200	137	4,820	2,316	33,371	111,777	350
	Miscellaneous	6	6	0	0	0	0	3	240	280	0	3,954	20
	Total	270	13,857	1,039	8,851	2,205	7,785	1,302	13,144	9,526	73,471	438,554	6,170
Characterization	Fish	143	1,030	282	1,211	104	420	616	10,360	21,898	3,374	197,536	30,485
	Habitat	13	11	20	40	40	0	28	235	1,120	255	5,094	0
	Miscellaneous	5	10	0	0	0	0	38	180	455	0	3,055	0
	Total	161	1,051	302	1,251	144	420	682	10,775	23,473	3,629	205,685	30,485
Habitat	Carcass Placement	51	491	296	1,097	454	500	290	1,513	2,295	3,000	46,386	2,200
	Instream Work	33	10	28	56	0	0	49	307	870	1,060	7,204	0
	Passage Work	20	0	0	0	0	0	29	525	325	2,900	11,445	370
	Riparian Work	45	75	17	68	0	0	212	1,547	4,527	2,536	30,109	0
	Miscellaneous	42	23	6	396	0	0	141	450	1,175	2,450	16,457	30
	Total	191	599	347	1,617	454	500	721	4,342	9,192	11,946	111,601	2,600
Fish Culture	Classroom Incubator	566	220,345	10,708	19,262	230	6,890	393	2,744	2,958	11,700	372,950	1,023
	Hatchbox	38	1,897,330	529	2,011	663	354	163	5,529	8,854	7,210	132,055	780
	Rear	26	2,955,177	570	2,900	395	2,825	569	11,654	15,955	36,425	278,809	4,615
	Acclimation	20	1,013,400	156	523	345	860	146	2,119	720	6,375	50,028	2,205
	Brood Collection	27	4,412	2,738	17,086	2,060	7,850	861	24,675	17,110	47,079	732,190	20,846
	Miscellaneous*	20	66,578	62	185	800	0	282	1,904	4,540	250	35,728	150
	Total	697	6,157,242	14,763	41,967	4,493	18,779	2,414	48,625	50,137	109,039	1,601,760	29,619
Total		1,319		16,451	53,686	7,296	27,484	5,119	76,885	92,328	198,085	2,357,600	68,874

Notes:

Measures are as follows: Development - number educated;
 Characterization - distance surveyed in miles (if point sampling occurred, such as with a trap, no mileage is included);
 Habitat - distance restored in miles (if point restoration occurred, such as with passage improvement, no mileage is included);
 Fish Culture - number of fish.

ODFW Funds includes funds in addition to the STEP Sport Fish Restoration grant.

Volunteer Contribution Total is the combined value of volunteer hours, mileage and donations. Volunteer hours were given a value of \$16.05 per hour (a national volunteer average) and mileage was assumed to be worth \$.365 per mile which is the State of Oregon re-imbursement level.

* Miscellaneous fish culture includes volunteer help at ODFW hatcheries (e.g., maintenance, marking, stocking) and salvage of wild fish.

Figure 1. STEP fish releases by species and stage of fish development.

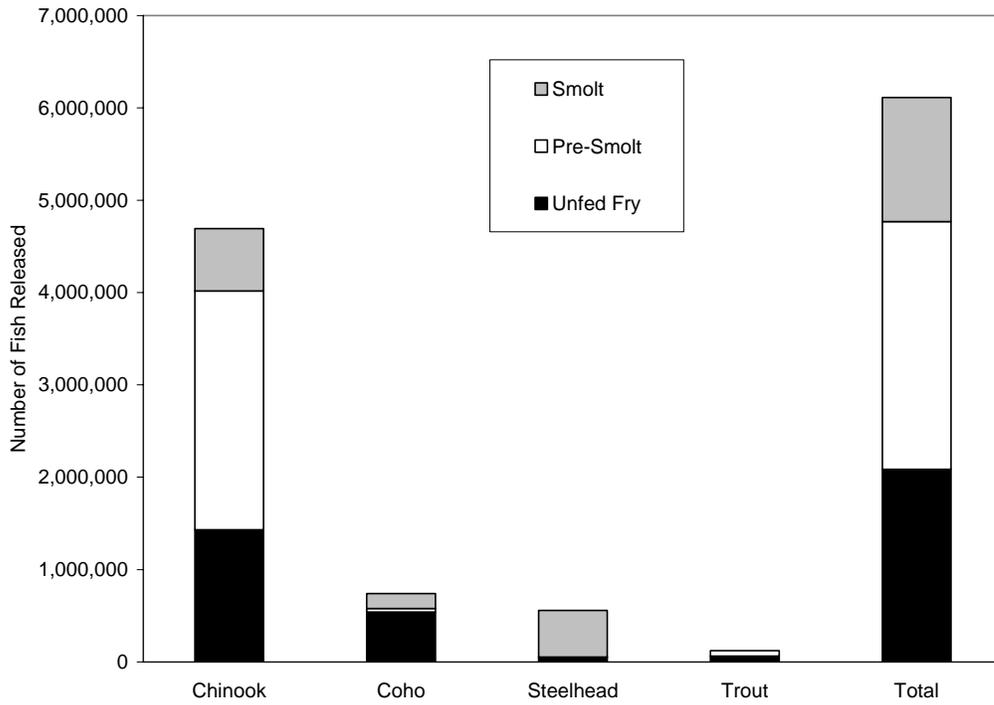
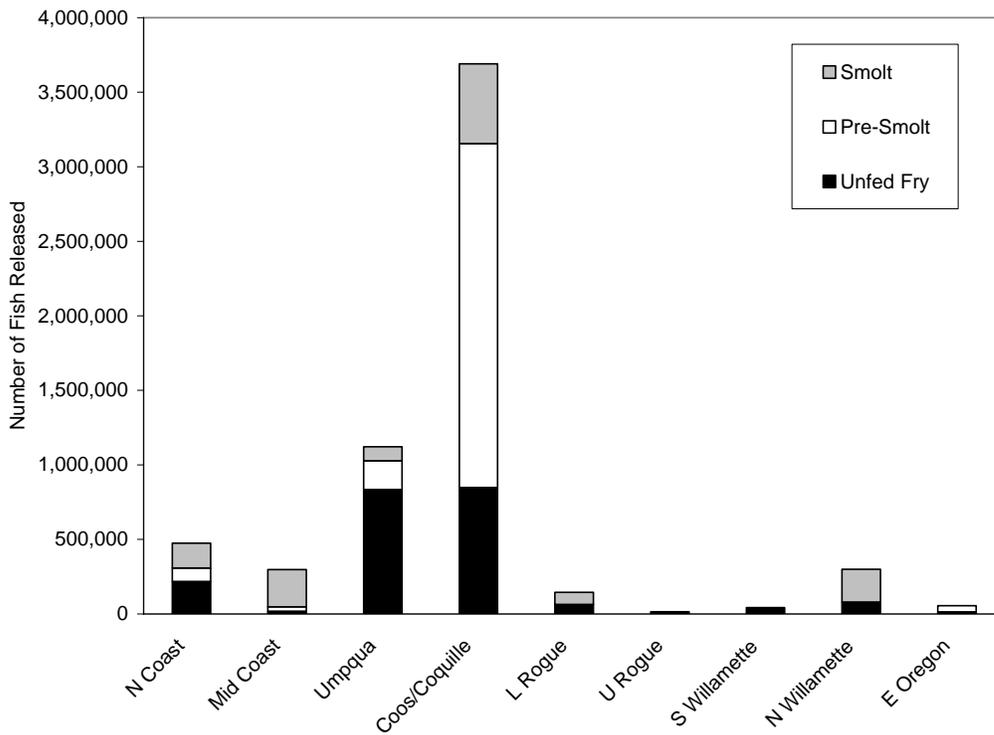


Figure 2. STEP fish releases by STEP district and stage of fish development.



APPENDICES



Salmon-Trout Enhancement Program

Gary Galovich Statewide STEP Coordinator 3406 Cherry Avenue NE, Salem, OR 97303
Phone: (503) 947-6232 E-mail: Gary.M.Galovich@state.or.us

Eastern Oregon Regions:

Jennifer Bock STEP Biologist 61374 Parrell Road, Bend, OR 97702
Phone: (541) 388-6363 E-mail: Jennifer.A.Bock@state.or.us

Lower Rogue District:

John Weber STEP Biologist P.O. Box 642, Gold Beach, OR 97444
Phone: (541) 247-7605 E-mail: John.A.Weber@state.or.us

Mid Coast District:

George Westfall STEP Biologist P.O. Box 352, Mapleton, OR 97453
Phone: (541) 902-1384 E-mail: westfallgm@juno.com

Tony Stein STEP Biologist 2040 SE Marine Science Dr., Newport, OR 97365
Phone: (541) 867-0300x253 E-mail: tony.stein@oregonstate.edu

Mid Willamette District:

Vacant STEP Biologist 7118 NE Vandenberg Avenue, Corvallis, OR 97330
Phone: (541) 757-4186x251 E-mail:

North Coast District:

Tracy Holton STEP Biologist 4909 Third Street, Tillamook, OR 97702
Phone: (503) 842-2741 E-mail: Tracy.D.Holton@state.or.us

North Willamette District:

Darlene Siegel STEP Biologist 17330 SE Evelyn Street, Clackamas, OR 97015
Phone: (503) 657-2000x232 E-mail: Darlene.Siegel@state.or.us

South Willamette District:

Jeff Ziller STEP Biologist 3150 E. Main Street, Springfield, OR 97478
Phone: (541) 726-3515x26 E-mail: Jeffrey.S.Ziller@state.or.us

Erik Moberly STEP Biologist 3150 E. Main Street, Springfield, OR 97478
Phone: (541) 726-3515x28 E-mail: Erik.R.Moberly@state.or.us

Tenmile, Coos, and Coquille District:

Tom Rumreich STEP Biologist P.O. Box 5430, Charleston, OR 97420
Phone: (541) 888-5515 E-mail: Thomas.J.Rumreich@state.or.us

Umpqua District:

Laura Jackson STEP Biologist 4192 N. Umpqua Highway, Roseburg, OR 97470
Phone: (541) 440-3353 E-mail: Laura.S.Jackson@state.or.us

Upper Rogue District:

Chuck Fustish STEP Biologist 1495 E. Gregory Road, Central Point, OR 97502
Phone: (541) 826-8774 E-mail: Chuck.A.Fustish@state.or.us



Salmon-Trout Enhancement Program

Representing	Member	Appointed	Term Expires
Garibaldi – Pacific City	Russ Patterson	6/1/95	5/31/05
Lower Willamette – Portland Metro	Norman Ritchie	10/1/03	9/30/07
Lower Willamette – Portland Metro	Kaitlin Lovell	8/1/03	7/31/07
Lincoln City – Florence	Tom Petersen	8/1/03	7/31/07
Seaside – Astoria – Lower Columbia	Doug Ray	10/1/01	9/30/05
Mid Willamette Valley	Cindy Heller	8/1/01	7/31/05
Upper Willamette Valley	Ralph Perkins	6/1/97	5/31/05
Roseburg	Dave Grosjaques	6/1/95	5/31/05
Reedsport – Bandon	Armand Pena	8/1/03	7/31/07
Gold Beach – Brookings	Dick Sutter	2/1/01	1/31/05
Medford – Grants Pass	Wayne Brown	6/1/95	5/31/05
NE Oregon	Paul Cilvik	6/1/97	5/31/05
Central – SE Oregon	Dick Mayer	2/1/01	1/31/05

Note: A maximum length-of-service policy of two 4-year terms was implemented in 1996.

Partial List of STEP Participants

This list comprises cooperating or participating with the STEP Program in 2003. Due to the large number of STEP participants, it is possible that some groups were inadvertently left off of this list. Please contact the STEP Coordinator at 503-947-6232 if your group has been overlooked. The hundreds of elementary, middle, and high schools participating in classroom incubator or other educational activities were not included in this list. Although we appreciate all of their efforts, the names of the thousands of affiliated and unaffiliated individuals volunteering with the STEP Program were also not included.

Organizations and Companies

- 4-H
- Americorps
- ANWST - Association of Northwest Steelheaders
- ANWST - Albany Chapter
- ANWST - Emerald Empire Chapter
- ANWST - McLaughlin Chapter
- ANWST - Salem Chapter
- ANWST - Sandy Chapter
- ANWST - Tualatin Chapter
- Backcountry Horsemen
- Bandon Fishermen's Association
- Bay Area Sportsmen's Association
- Boise Cascade
- Boy Scouts of America
- Campbell Group
- Central Oregon Flyfishers
- Central Oregon Llama Association
- Coos River STEP
- Coquille River STEP
- Curry Anadromous Fishermen
- Depoe Bay Salmon Enhancement Commission
- Discovery Center
- Ducks Unlimited
- Ed Wood Engineering
- Eel STEP
- Fish & Feathers Club
- Florence STEP
- Gardiner-Reedsport-Winchester Bay STEP
- Girl Scouts
- Hatfield Marine Science Center
- Izaak Walton League
- Kid's Zone
- Klamath Flycaster
- McKenzie River Flyfishers
- Medford Eagles
- Miami Anglers
- Millicoma STEP
- Mohawk River Partnership
- Mount Hood Community College
- Mount Hood Nordic Club
- Natural Resource Conservation Service
- Nestucca Anglers
- North Santiam River Guides
- Opal Springs Facility
- Oregon South Coast Fisherman
- Oregon State University
- Oregon Trout
- Oregon Wildlife Heritage Foundation
- Passport to Fishing Volunteers
- Pepsi
- Pixel Works
- Polk County Sportsmen
- Portland State University
- Rainland Flycasters
- Rockaway Lions Club
- Rogue Fly Fishers
- Rogue River Guides Association
- Salemtowne
- Salmon Corps
- Santiam Flycasters
- Senior Fishing Buddies
- Siletz Tribe
- Simpson Timber
- South Coast Fisherman
- Southern Oregon Fly Fishers
- Southwestern Oregon Community College
- Starker Forests
- Student Conservation Association
- Tenmile STEP
- Tillamook Anglers
- Tillamook Bay Yacht Club
- Trout Unlimited
- Tualatin River Keepers

- Umpqua Fishermen’s Association
- Umpqua Fishery Enhancement Derby
- Westfly
- Wolf Creek Job Corps

Government

- Benton County
- Bureau of Land Management
- City of Albany
- City of Canyonville
- City of Corvallis
- City of Dallas
- City of Depoe Bay
- City of Lincoln City
- City of Newport
- City of Salem
- City of Sweet Home
- City of Waldport
- Confederated Tribes of the Grande Ronde
- Lane County
- Lincoln County Conservation District
- Lincoln County Road Department
- Lincoln Soil and Water Conservation Council
- National Marine Fisheries Service
- National Oceanic and Atmospheric Association
- Oregon Department of Corrections
- Oregon Department of Environmental Quality
- Oregon Department of Forestry
- Oregon Department of Transportation
- Oregon Division of State Lands

- Oregon Parks and Recreation Department
- Oregon State Police
- Oregon Youth Conservation Corps
- Pacific States Marine Fisheries Commission
- US Army Corps of Engineers
- US Fish and Wildlife Service
- US Forest Service

Watershed Councils

- Calapooia Watershed Council
- Coast Fork Willamette River Watershed Council
- Crooked River Watershed Council
- Glenn/Gibson Watershed Council
- Long Tom Watershed Council
- Lost Creek Watershed Group
- Lower Nehalem Watershed Council
- Marys Watershed Council
- Mid Coast Watershed Council
- Middle Fork Willamette Watershed Council
- Middle Rogue Watershed Association
- Rickreall Watershed Council
- Seven Rivers Watershed Association
- Siuslaw Watershed Council
- South Santiam Watershed Council
- Umpqua Basin Watershed Council
- Upper Nehalem Watershed Council
- Upper Rogue Watershed Association
- Yachats Watershed Council