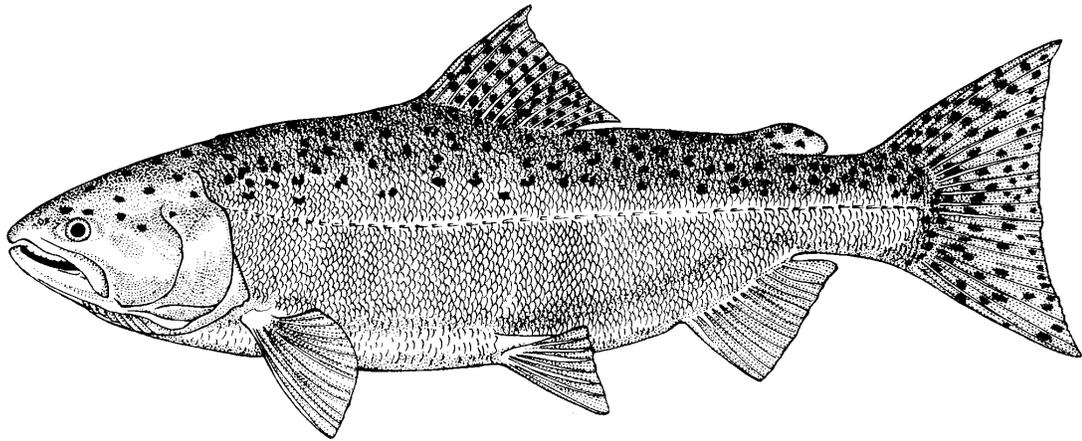




SALMON-TROUT ENHANCEMENT PROGRAM

Annual Progress Report
2001



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EXECUTIVE SUMMARY

This is a report on the activities and accomplishments of the Salmon-Trout Enhancement Program (STEP) from October 1, 2000 through September 30, 2001. Recognizing the value of citizen volunteers, STEP was created in 1981 by the Oregon Legislature. STEP is a volunteer-based program within the Oregon Department of Fish and Wildlife (ODFW) that seeks to rehabilitate and enhance the populations, habitat, and fisheries of native salmon, trout, and other fish managed by ODFW through the involvement and education of citizens. Given these goals which complement the objectives of the Oregon Plan for Salmon and Watersheds, STEP is an important component in fulfilling the Oregon Plan and has been working toward this for many years.

STEP is funded by the US Fish and Wildlife Service's Sport Fish Restoration Program and ODFW (75% federal with 25% state match), providing for 10 biologists and one ½-time coordinator. A Governor-appointed 13-member committee (STEP Advisory Committee, or STAC) advises the Fish and Wildlife Commission and ODFW on the STEP program. In addition to individual volunteers, sport clubs, angling organizations, watershed councils, soil and water conservation districts, schools, and other groups volunteer for, cooperate with, or have been formed for, the STEP Program. ODFW biologists (called "STEP Biologists") work with all types of volunteers on a variety of different projects. Volunteer projects and opportunities are defined by the diversity of fish resource management needs found throughout Oregon, and each of Oregon's watersheds has some fish management priorities that are unique. Thus, the focus of the STEP Program varies geographically across the state. Generally, activities can be grouped into four main categories:

- education and development (classes, information, printed materials, activities, and facility construction and maintenance)
- inventory and monitoring (characterization of fish populations and their habitat by conducting physical and biological stream surveys)
- habitat improvement (riparian and in-stream projects, including fish passage and hatchery-fish carcass placement), and
- propagation (culturing fish to supplement natural production and/or augment fisheries)

A summary of what was accomplished in each of these categories is:

- 44,827 people were exposed to STEP Program information at fairs, festivals, or other activities, while 9,506 people participated in STEP training, classes, tours, or workshops.
- volunteers spent almost 12,000 hours conducting creel surveys, culvert inspections, fish monitoring, and stream surveys across 768 miles of streams and rivers.
- 569 miles of waterways were improved for fish use by over 1,000 volunteers through fish passage, instream, riparian, and hatchery-fish carcass placement projects.
- over 5,000,000 chinook, coho, steelhead, and other species were released by STEP volunteers for enhancement or augmentation purposes; over 3,000,000 of these fish were also reared before release (i.e., fed and cared for) and almost 1,000,000 were marked with a finclip or coded-wire tag by volunteers. The classroom incubator

program, which is primarily an education program, released 173,888 unfed fry into Oregon waters. Finally, over 8,000 adult salmonids were handled for spawning and/or broodstock collection purposes.

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

- 7,939 youth in Oregon participated in 397 projects specifically for them; Oregon youth participated in 575 other projects which included both adults and youth.
- if volunteer hours and mileage are converted to dollar values and added to actual monetary donations of supplies and services, volunteers contributed \$2,777,809 to accomplish 1,276 STEP projects in 2001.
- 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 9,500 hours in other personnel time and \$364,000 in services and supplies toward STEP.
- 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 (\$2,777,809) and other ODFW contributions (\$364,000 plus personnel time) toward projects was very high in 2001 and shows the value of volunteer efforts for the fish resources of Oregon.

The following narrative describes each of the STEP Biologist Districts and then gives an overview and highlights of activities generated by volunteers for each of the four main components of the STEP Program:

- Development of the Salmon-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:

- STEP Biologists
- STEP Districts Map
- STEP Advisory Committee (STAC) Members
- STEP Fish Culture Facility List
- Partial List of Groups Involved with STEP

A complete report for each STEP District is available upon request.

STEP DISTRICT BACKGROUNDS

Northwest Region

North Willamette District*Dick Caldwell*

The North Willamette Fish District encompasses the Portland Metropolitan (Metro) Area that 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 basin on the west, the crest of the Cascade Range on the east, and includes the Molalla River basin in the Willamette Valley to the south.

Mid Willamette District *Gary Galovich*

The Mid Willamette STEP District is a geographically diverse area 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 fish resources yet the basin continues to support a diversity of fish species. 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 in this area is certainly upon the native salmonids, the program through its educational, monitoring and habitat efforts also recognizes and works extensively with the basin's many other native fish species.

Because the area is heavily populated, education and the dissemination of information are a primary component of program development in the mid-Willamette basin. Physical and/or biological surveys were conducted in most all of the major sub-basins in the District. 145 volunteers participated in 32 surveys with the majority of this effort going toward annual index spawning and snorkel surveys and the operation of fish traps. During the 2000-2001 contract year, STEP was involved with 16 habitat projects in eight of the District's sub-basins. Many of these were cooperative efforts with federal, city and county agencies, private industry or individual landowners. Efforts took place across the landscape on forested, agricultural and urban lands. 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 have 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 significantly to fish production goals.

South Willamette District.....*Jeff Ziller (District Biologist)*
Dan Van Dyke
Tom Murtagh
Richard Irish

The Springfield Field Office coordinates the volunteer effort to restore 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 species, the spring chinook salmon, is native to the area. Rainbow, cutthroat, and bull trout are also native to the upper Willamette.

In the Springfield Field Office, the District Fish Biologist is identified as the STEP biologist. The duties of the STEP biologist are split between the district fish biologist, two assistant fish biologists, and one half time assistant fish biologist. This approach allows flexibility for STEP efforts in the upper Willamette by providing four biologists to work directly with volunteers, and incorporates STEP throughout local management activities. This organizational structure also ensures that more projects of high quality and effectiveness are completed within District fish management objectives.

North Coast District..... *John L. Casteel*

The North Coast 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 programs are implemented by all of the fisheries staff in the district, with John Casteel responsible for coordinating and reporting activities. Different staff are involved in projects according to their specific geographic and job responsibilities. Volunteers in the district have a high interest and commitment to fish culture activities and operate two large rearing facilities, two net acclimation sites and one acclimation pond. The district also has a small hatchbox program using spring and fall chinook. Staff also work intimately with local Watershed Councils and local schools.

Mid Coast District *Tony Stein*

The Mid Coast STEP program 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 includes four major basins: the Salmon River, Siletz River, Yaquina River, Alsea River, and the Siuslaw River. There are also a number of large ocean tributaries that have significant salmon and trout populations including the Yachats River, Beaver Creek, Big Creek, Tenmile Creek and Cummins Creek. George Westfall, an ODFW biologist, performs STEP duties in the Siuslaw basin.

Southwest Region

Umpqua District *Laura S. Jackson*

Volunteers in the Umpqua Watershed participated in over 70 projects and contributed over 25,000 hours. Fish culture and education/development projects comprised most of the District's volunteer's efforts. Major groups contributing to the Umpqua included: Umpqua Fishermen's Association (UFA), Gardiner-Reedsport-Winchester Bay STEP (Gardiner STEP), Oregon Equestrian Trails (OET), Wolf Creek Job Corps, the Umpqua Fishery Enhancement Derby (Derby), Guides who fish the South Umpqua for winter steelhead, and the Umpqua Basin Watershed Council (UBWC). Financial support for projects was diverse. Funding to conduct several projects last year, and continue them into the coming year was successfully gained by support from: a) Survival of Unfed Fry: Douglas County, U.S. Fish & Wildlife Service, and ODFW's Restoration and Enhancement Program (R&E); b) Winchester Dam Viewing Area: Umpqua Community Development, R&E, Pinnacle Engineering, North River Boats, and RE Noah; and c) South Umpqua Winter Steelhead Broodstock/Acclimation: Cow Creek Tribe of the Umpqua Band of Indians, UFA, and R&E.

Tenmile, Coos, and Coquille District *Thomas J. Rumreich*

The Tenmile, Coos, Coquille STEP District is located on the Southern Oregon Coast. 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.

The District contains a diverse group of watersheds. Both the Coos and the Coquille River watersheds drain the coast range mountains. 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 obtaining direct citizen involvement in management programs to protect and enhance salmon and trout populations. Early in the development of the program 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. Habitat restoration projects are also an important component of the volunteer projects in the district. Large numbers of volunteers continue to be involved in the extensive fish cultural programs in the District. There are 10 broodstock development, 4 spawning, 20 egg incubation, 7 rearing, and 21 acclimation projects in the District. The fish cultural operations in the District involve the largest number of volunteers in recent years.

Lower Rogue District..... *Clayton F. Barber*

District Personnel are organized as follows. The District Biologist is responsible for responding to fish management issues within the district. The District biologist is assisted by two Natural Resource Specialist 2 positions. The first is the Habitat Protection Biologist, who is funded half on fish management and half under wildlife management. The second is the Salmon Trout Enhancement Program (STEP) Biologist who is funded by Sport Fish Restoration funds.

The Lower Rogue District is part of the Rogue Watershed District. The Lower Rogue District includes coastal basins from Four Mile Creek near Bandon south to the California boarder (i.e. the following watersheds: 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 coastal tributaries).

The focus of the STEP program within the district is to utilize 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 volunteers engaged in STEP program activities in this District belong to one of two local STEP clubs: the "Oregon South Coast Fishermen", and the "Curry Anadromous Fishermen." Individuals within these clubs are primarily retired men and women who's interest is to do meaningful work and help restore fish populations within local watersheds. Aquaculture is a primary focus for the Curry Anadromous Fishermen, with activities evolving around operations at Indian Creek Hatchery. The South Coast Fishermen activities have been more oriented toward inventories and habitat enhancement. Both groups put education as a high priority, and they often cooperate with other local entities to accomplish common objectives.

Upper Rogue District..... *Charles A. Fustish*

The Upper Rogue STEP District includes the Rogue River Watershed upstream of the mouth of Mule Creek near river mile 48. The district ends east about 200 miles upstream where the river rises as a spring near Crater Lake. Approximately 400 thousand people live in the district providing an unlimited array of schools, service clubs, sportsman's clubs, and volunteers to assist in completing STEP projects to educate and to improve fish habitat throughout the basin.

Basin fisheries include salmon, steelhead, trout, and warm water fish species. 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 inhabit 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 254 and in the streams above the reservoir. Warm water fisheries abound in all the standing waters (reservoirs and backwater areas) of the Rogue River and tributaries. Primary species of warm water fish include largemouth bass, smallmouth bass, black crappie, bluegill, and brown bullheads.

The coho salmon is the only species in the district (listed threatened) on the Federal Endangered Species List. The district recommends against the stocking of species and races of salmonids not already present in the basin, and of warm water fish other than largemouth bass, black crappie, bluegill, and brown bullheads. While all the standing water bodies of the basin have warm water fish, ODFW has only participated in the stocking of two lakes in the basin (Applegate and Lost Creek Reservoirs). The district recommends against the stocking of private ponds with species other than rainbow trout and smallmouth bass and other warm water species not already present in the district.

This year's STEP activities in the Upper Rogue River basin focused on 2 areas. In the winter months educational opportunities for students and adults were highlighted with the classroom incubator program, talks to various groups, and training in habitat and spawner

survey methodologies. In the late winter 4 tree plants were aimed at improving riparian habitat in the long term, while logs were placed in 2 streams to increase the amount of large woody debris in the streams in the short term. Two projects were aimed at monitoring changes in the number of spawners and the amount of spawning gravel deposited because of the presence of the structures. Volunteers were provided to management and screen personnel when ODFW personnel were not available.

A total of 101 different volunteers participated in this year's activities. Trout Unlimited (TU) supplied 56, Rogue Flyfishers (RFF) supplied 15, 20 volunteers came from the public at large, 8 were from the Williams Creek Watershed Council (WCWC), and the Southern Oregon Flyfishers (SOFF) and Southern Oregon Bass Club (SOBC) each supplied one. These 101 volunteers worked a total of 1,399 hours and drove 6,429.4 miles to assist the STEP, management, and technical staff of the Upper Rogue Watershed during the 2000-2001 contract period.

Volunteer organizations donated \$6,025.52 towards the purchase of trees and shrubs for planting in the riparian zone, and logs were either donated (Boise Cascade) or purchased (by the Oregon Department of Transportation, or ODOT) for instream structures. Volunteers salvaged and moved over 8,000 stranded juvenile salmonids of which over 7,000 were coho salmon to cool flowing reaches where their chances for survival were greatly enhanced. In spite of all the time involved, the low water levels, and the high air temperatures (>100.0 degrees F.), only 2 steelhead were lost.

**High Desert Region
and
Northeast Region**

Eastern Oregon District.....*Patty Bowers*

The Eastern Oregon STEP District includes 18 counties and nearly 67,000 square miles. Organized into two ODFW Regions--Northeast and High Desert--it includes eight fish districts. In 1983, the first Eastern Oregon STEP Biologist was assigned to a position in The Dalles. The position now resides in Bend, with office time split between Bend and Hines.

Project definition and direction come from individual fish districts, based on their annual needs. The Eastern Oregon STEP Biologist coordinates volunteer activities for coldwater, warmwater, and all volunteer activities at hatcheries except for the Hatchery Host Program.

The STEP Biologist works with each district and hatchery to identify specific project needs requiring direct supervision and/or volunteer recruitment by the STEP Biologist. The project load is balanced among the districts and hatcheries based on the requests received.

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

Most of the Eastern Oregon STEP project recruiting is accomplished with assistance provided by 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 the Eastern Oregon STEP program. Recruiting information is also passed along to the Sunriver Anglers via their newsletter. Many individuals, schools, and members of other organizations like the Ochoco Chapter Trout Unlimited and Oregon Trout are also valuable participants in this program.

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 STEP Biologist on a quarterly basis.

During the 2000-2001 project year, 923 people participated in 121 volunteer activities in the Eastern Oregon STEP District. Volunteers donated 11,517 hours to STEP activities and \$15,240 (plus solicited grants and donations to support Kokanee Karnival in the amount of \$22,000). This translates to \$214,487 when volunteer hours are converted to real dollar equivalencies. Volunteer time is calculated at \$15.39 per hour, based on Year 2000 figures obtained from Independent Sector (<http://www.independentsector.org>) and added to the donation amount.

DEVELOPMENT OF THE SALMON-TROUT ENHANCEMENT PROGRAM (STEP)

Introduction

STEP Biologists and volunteers perform a variety of activities to develop the STEP Program and educate the citizens of Oregon about salmonid issues. This includes:

- Presentations (giving presentations to groups, teaching classes, conducting tours of projects, and holding workshops)
- Outreach (preparing displays for fairs and festivals, coordinating educational activities, and preparing written materials such as articles, news releases, websites, brochures, and Program publications)
- Coordination (holding project planning meetings and participating in technical groups)
- Miscellaneous (facility construction or maintenance and other activities)

Below are highlights of STEP development and education activities from the different STEP Districts. They are in no particular order and are intended to give an idea about the range of STEP activities for development and education. 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 outreach efforts can be found in under the “Development” category in Table 1 (Statewide Summary of STEP Participation) and Table 2 (Statewide Summary of Youth and Adult Volunteers).

Highlights

Kokanee Karnival – Eastern Oregon. This year's Kokanee Karnival included 12 Central Oregon elementary schools. The Central Oregon Flyfisher's Youth Education Chairman and a part-time coordinator help implement the program. Funding for the part-time coordinator position is provided through grants and sponsorship donations. Producing partners for the Kokanee Karnival include ODFW, Central Oregon Flyfishers, Sunriver Anglers, Central Oregon Llama Association and the Deschutes National Forest.

Kokanee Karnival has several different segments. The first is a two-week fall field trip program connecting schools receiving eggs for classroom incubators with wild fish spawning in a stream. During the first week, six schools visited the Metolius River and Wizard Falls Hatchery. Week two brought six different schools to Browns Creek and Fall River Hatchery for instruction. Both sites offer close-up viewing of spawning kokanee salmon and a variety of other native flora and fauna. Volunteer instructors use demonstrations and hands-on displays at both the stream and the hatchery. Fish stocking, using llamas and helicopters is demonstrated. A Native American provides insight into their cultural salmon heritage with story telling.

The second segment of Kokanee Karnival involves a classroom incubator project. Trout or kokanee salmon eggs are delivered to classrooms for incubation during October, November or February, depending on school request. Volunteers make arrangements with schools for aquarium set-up and equipment needs before eggs are delivered.

In April, an angler education clinic was completed with students from the Kokanee Karnival schools at Shevlin Park in Bend. The clinic included 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. Although associated with ODFW's Angler Education program, this year's volunteer hours spent in support of the Kids' Angling Clinic are reported through the STEP program.

Schools completed a fourth segment of the Kokanee Karnival program by participating in a community stewardship project. Tree planting, storm drain marking, letter writing campaigns, and a pond cleanup project were completed.

Approximately 1000 students and 50 adult chaperones enjoyed the 2000-2001 Kokanee Karnival experience. One hundred fifty volunteers contributed 2735 hours and 16,942 miles to this event. Event sponsors/grantors donated approximately \$22,000 to ensure the success of this aquatic education project throughout the year. Kokanee Karnival continues to receive exceptional support from both the volunteer community and our financial sponsors. The 'Karnival' is a tremendous event that pulls together volunteers, school children, public agencies, and sponsors to benefit fish and youth education. A Kokanee Karnival Internet Web site is found at www.kokaneekarnival.org. Kokanee Karnival receives oversight from a steering committee composed of members from each of the producing partner organizations. Volunteers run the program in its entirety, with ODFW assuming a consulting role.

Information Handouts – Umpqua. Volunteers in the Umpqua produced identification handouts to reduce accidental harvest of coho, created signs to explain fishery programs, and plan to create educational displays for some local boat ramps in 2002.

Internships – Mid Willamette. The STEP Program supervised interns from Oregon State University, hosted two job shadows for high school students, and served in the role of "mentor" for four additional high school students and their field projects.

Coos Bay Boardwalk Aquarium – Tenmile, Coos, and Coquille. One of the newest outreach projects that has been taken on by volunteers in the district, is the construction of an aquarium on the Coos Bay Boardwalk docks. This project has been planned for several years and under construction for the past three years. Both the Confederated Tribes and the City of Coos Bay committed \$5,000 each to the development of interpretive panels that are in the process of being placed on the aquarium. The aquarium gives visitors to the Boardwalk a "fish eye view" of salmon and other marine fishes. The aquarium was funded through a grant from the Bay Area Sportsman Association. This project has continued to receive great support and endorsement from the community.

STAC Meetings – STEP Coordinator. Meetings of the STEP Advisory Committee (STAC) are included in Program development. STAC members are appointed by the Governor of the State of Oregon. STAC, which advises the Fish and Wildlife Commission and ODFW on the STEP program, met 5 times during the contract period.

Program Research – Upper Rogue. A graduate student defended her Master's Thesis at Southern Oregon University on 30 November 2001. Her study compared attitudes of students, teachers and STEP Biologists on the classroom incubator program. Results will be distributed as soon as they are available.

Fishing Clinics – North Willamette. Three free fishing clinics including the “Passport to Fishing” event at Bonneville Fish Hatchery, one clinic sponsored by members of the Association of Northwest Steelheaders at Small Fry Lake and one clinic sponsored by volunteers assisting the Clackamas County Health Department were conducted in the Portland Metro Area. These free fishing events, including the “Passport to Fishing” Clinic at Bonneville Fish Hatchery celebrating it's seventh year, focused on the participating kids learning the proper techniques & instructions for fishing with the support of volunteers from sportsmen clubs assisting in this well received fishing clinic events.

Handicapped Fishing Days – North Coast. Tillamook Anglers used their Whiskey Creek rearing facility to host a fishing opportunity for disabled children. ODFW provided fish for the activity. Also, the Tillamook Bay Boat Club set up their acclimation net pen in Smith Lake at Camp Magruder. Every summer the camp hosts Camp UKANDU for kids with cancer. ODFW provided Rainbow Trout for the pen so that the kids could have a fishing opportunity at camp.

Outreach – South Willamette. In an outreach highlight during the report year, the District taught separate classes on Salmon Biology and Salmon Habitat as part of the Watershed Stewardship Education Program sponsored in Eugene by OSU Extension and the Oregon Watershed Enhancement Board. Over 30 watershed council members and interested landowners attended the classes and a field trip to highlight learning objectives in the field. Program classes covered a range of topics on watershed ecology taught by several speakers.

STEP Publications – Eastern Oregon. The Eastern Oregon STEP Biologist and a classroom teacher from Bend's Pilot Butte Middle School completed *the Educator's Resource Guide for Hatching Salmon and Trout in the Classroom*. The document was printed and distributed to STEP biologists in January 2001. Development of teaching kits to supplement these curricular materials is also under consideration. The *Fish Eggs to Fry* manual was completed and distributed to STEP biologists in January 2001. Work continued on *Why Wild: A Fish Genetics Unit For Teachers* with a review draft presented to Information and Education and Fish Division reviewers in April 2001. Completion of the document and printing were delayed because of several concerns with intent, organization, technical inaccuracies, and political sensitivities. The STEP Coordinator is working with the Eastern Oregon STEP Biologist to resolve these concerns. Work on the document will continue during early 2002.

Boat Slide Renovation – North Coast. Volunteers renovated and rebuilt two boat slides on the Wilson River.

STEP on the Web – Eastern Oregon. Volunteer opportunities with the Eastern Oregon STEP District were posted on the Internet for recruitment and informational purposes. Numerous inquiries were received for more project information. The web site is now part of the ODFW main web page, which increases visibility. As Internet use increases, web pages promise to be an effective tool to involve volunteers in

STEP projects and provide pertinent information to the general public. A future goal is to use volunteers to update and maintain the web site.

Information Mailing – South Willamette. Another highlight was the production of a mailing to approximately 1,000 landowners in the Dexter zip code. ODFW provided an insert detailing the results of fish surveys completed on Lost Creek (Middle Fork Willamette River) in 2000. Done in cooperation with the Lost Creek Watershed Group, the material included fish friendly tips for landowners and a request asking landowners to consider STEP projects on their property.

Watershed Council Liaison – Mid Coast. The Mid Coast STEP Biologist worked cooperatively with the Mid-Coast Watersheds Council and the Siuslaw Watershed Council as an active council member and ODFW liaison in:

- a) assessing local watershed conditions and developing an “Action Plan”;
- b) implementing best management practices;
- c) developing projects to protect and restore fish habitat and;
- d) informing and educating volunteer landowners and interested citizens.

Educational Fundraisers – Umpqua. Volunteers actively participate in a variety of educational fundraisers such as the Kid’s Pepsi Fishing Pond run by the UFA at the Sportsmen’s Show and the Salmon Derby run by Gardiner STEP. Volunteers assisted with five Free Fishing Day events in the District.

Electronic Reporting – Eastern Oregon. Two local volunteers assisted with development of write-protected electronic egg incubation project application and reporting forms and a small software program for reading and organizing electronically submitted report forms onto an Excel spreadsheet. This will allow STEP biologists to send the forms via email to schools. Schools can enter the data directly onto the forms electronically and email them back to the STEP Biologist. The software program reads the report forms and drops the information into an Excel spreadsheet, which the STEP biologist can use to enter and transmit data to Fish Propagation. The first field test of these documents and the process is occurring with the fall 2001 rainbow projects.

Millicoma Interpretive Center Construction – Tenmile, Coos, and Coquille. For the 11th year ODFW volunteers continue to work on the construction of Millicoma Interpretive Center. This year the major projects taken on by volunteers were the construction of two observation decks, a wheelchair accessible angling area, an interpretive trail, and a “hooks and ladders” obstacle course. Three of these projects were “Eagle Scout Projects” conducted by local youths. These are exciting new projects that have already received considerable financial support. The Menasha Corporation, Bay Area Sportsman’s Association, the Oregon Wildlife Heritage Foundation, and the Northwest Steelheaders have all committed funds for these projects.

Fish Biology/Dissection Classes – Eastern Oregon. Fish biology and dissection instruction continues to be popular with local schools. Volunteers taught thirty-nine fish dissection classes to more than 1000 students and their teachers. Participants learned about the external and internal parts of a salmonid. The class included information on fish adaptation, genetics, life history, coded wire tags, and angling tips. Scales were read with a microscope to determine the age of the fish. Time was also spent helping students interpret the Oregon Sport Fishing Regulations. A script

and curriculum for volunteers has been developed for volunteers who wish to assist with this project. A training course for potential fish dissection instructors was developed and implemented by volunteers in February 2001.

Teaching – South Willamette. The District participated in Oregon Trout's Salmon Watch, a coordinated effort to teach students about wild salmon through a curriculum and field trips to observe spawning salmon. The District participated as a member of the steering committee and participated in three field trips with individual schools.

Watershed Council Activities – Mid Willamette. 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 eleven Watershed 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 watershed assessment process.

FishWorks Newsletter – STEP Coordinator. The *FishWorks* newsletter for STEP and R&E (ODFW's Restoration and Enhancement funding program, which helps support some individual STEP projects) was published 3 times during the contract period and reaches over 5,000 individuals and organizations interested in STEP and R&E. This newsletter is partially paid for by STEP and covers newsworthy items and disseminates information for the Program.

Student Education – Tenmile, Coos, and Coquille. 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. The facility continues to receive a considerable amount of media attention in the past year. This has become a valuable outreach tool.

Apprenticeships – South Willamette. For the 6th consecutive year the District sponsored students in the ASE (Apprenticeships in Science and Engineering) program. This year two apprentices were chosen thanks to funding assistance from the program sponsor, the Saturday Academy. Chrissy Murphy and Will Overton assisted in a wide variety of research activities for bull trout, with extensive time spent conducting snorkel surveys at night for juvenile bull trout. Other work included reviewing fish passage videotapes from Leaburg Dam and helping in hatchery operations.

Apprentices in ASE complete and report on individual projects at an annual program symposium. Chrissy Murphy researched bull trout microhabitat in the upper McKenzie basin. Will Overton used minnow traps as an additional technique in continuing fish presence and relative abundance surveys on Lost Creek (Middle Fork Willamette), and then summarized other recent Lost Creek survey data as part of the project. Both students gained excellent insight into natural resource management activities, and both help achieve district objectives to promote diversity in the workplace by encouraging fish and wildlife management as a career goal.

Training – Mid Willamette. Seven training sessions were given for volunteers conducting both physical and biological surveys. New this year was STEP participation in Salmon Corps, a program aimed at providing training for Native American youth preparing for employment in the field of natural resource management.

Media Coverage – Tenmile, Coos, and Coquille. 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 opportunity to the public.

Recruitment and Information Activities – Mid Coast. Recruitment for the Newport STEP District consisted of two community-sponsored events. STEP program information and materials were displayed at the Schooner Creek Fair in Lincoln City and a Free Fishing Day event at the Salmon River Hatchery. Both events reached a total estimated audience of 240 individuals. Newport STEP also developed a STEP program and aquarium display at the Hatfield Marine Science Center in Newport that recorded 28,000 visitors during the time period.

Watershed Workshops – Eastern Oregon. Eastern Oregon STEP participated in two “Creeks and Kids” Watershed Education Workshops during this contract period. Approximately 50 participants from throughout the state experienced the workshop training. The Stream Scene: Watersheds, Wildlife, and People, STEP's curriculum package continues to serve as the basis for teaching students about fish and the habitat in which they live. Watershed education workshops have been taught since 1986. The continued high rate of participation in the program indicates a good return on workshop efforts. Teachers and watershed educators continue to request this training. Partners from the Oregon Plan for Salmon and Watersheds and the Jackson Bottom Wetlands Preserve provide key coordination efforts for this program. Watershed education workshops remain a high priority for STEP education efforts.

HGMPs – Umpqua. The STEP Biologist assisted with developing Departmental Hatchery Genetic and Management Plans (HGMP) for the Upper and Lower Fall Chinook Programs. HGMPs are required by the National Marine Fisheries Service where waters contain Endangered Species Act-listed fish. This also provided an opportunity to teach the respective volunteers more about their role in fish management.

Public Service – Mid Willamette. Because of the program's community involvement and experience with a variety of natural resource issues, the STEP Biologist served as an ODFW representative on several boards and commissions including the Corvallis Stormwater Master Planning Committee, the Northwest Center for Sustainable Resources Advisory Board, the Oregon Envirothon planning committee, several watershed council technical teams and the Oregon Watershed Enhancement Board Willamette Regional Review Team.

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, trout, and warmwater species, their habitat, and fisheries for them are characterized. The major types of characterization are:

- Creel Survey
- Culvert Inspection
- Fish Monitoring
- Stream (i.e. habitat) Survey
- Miscellaneous (including a fish predator survey)

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
- Physicochemical Samplers
- Rotary Fish Trap
- Seine
- Snorkel
- Sonar
- Video Tape Review
- Visual Observation

Below are highlights of STEP characterization activities from the different STEP Districts. They are in no particular order and are intended to give an idea about the range of STEP activities for development and education. 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) and Table 2 (Statewide Summary of Youth and Adult Volunteers).

Highlights

Rotary Fish Trap – South Willamette. The level of effort to collect fish presence and migration timing information on Lost Creek increased during the year, with volunteers staffing a rotary fish trap for downstream migrants between January 23rd and May 29th. Dace (species undetermined) were the most numerous fish collected, followed by cutthroat trout and redbreast shiner. A total of 252 cutthroat and 132 rainbow trout were collected, along with eight juvenile spring chinook. Downstream movement of trout jumped dramatically in mid-March, with one peak in late March and a second

larger peak in late April. STEP volunteers from the Lost Creek Watershed Group fished the trap.

Indian Creek Hatchery Monitoring – Lower Rogue. In order to better evaluate the effectiveness of the program at Indian Creek Hatchery, a 100% mark rate was imposed. This required the marking of additional 50,000 smolts using coded-wire tags and adipose fin-clips. The 100% mark is scheduled to continue at the hatchery for three to four years.

Information obtained from returns will be used to determine if modifying the release timing of fall chinook smolts can increase the survival at the Hatchery. The increased mark rate will also help the South Coast Fish District develop a better understanding of the interaction between hatchery and wild fish in the Lower Rogue. Funding for this program came from ODFW R&E Program funds. Volunteer help was used in recovering chinook snouts and CWT tags from the Rogue Bay fishery and at Indian Creek Hatchery this year.

Umpqua Research – Umpqua. The Upper Umpqua Fall Chinook and Coho Programs are restoration projects designed to increase salmon populations in underseeded areas. Since little is known about the actual utility of using hatchery fish for restoration purposes, these programs are being concurrently evaluated through a study to look at the survival of unfed fry and the new Conservation Hatchery Initiative Program (CHIP) genetic Pedigree Study of Hatchery and Wild Coho. Volunteers (UFA) are assisting both of these research studies, plus trying to conduct spawning ground surveys in areas of current releases.

Angler Logs – North Coast. A volunteer angler log was developed to assist anglers in collecting information on fish populations and angler activity. In particular, collecting information on hatchery:wild ratios and run timing is of particular interest for all basins in the district.

Cascade Lakes Surveys – Mid Willamette. Volunteer assistance with seine and gill net surveys of Cascade lakes. These waters are intermittently stocked with juvenile fish. The surveys help measure the health, growth and survival of the fish and the success of the stocking program.

Surveys – Mid Coast. Mid Coast volunteers conducted salmon spawning surveys, general stream surveys, and fish population surveys throughout the 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 area volunteers continued a water quality and macroinvertebrate survey of the Yachats River. 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.

Hoop Traps – Mid Willamette. Hoop traps were maintained and operated by landowners, high school students, Watershed Council volunteers, and members of the Albany Chapter of Northwest Steelheaders (ANWST). As new monitoring sites were identified, Albany ANWST volunteers constructed additional traps allowing for expanded inventory efforts. The primary intent has been to document the presence

of salmonids in waters where little or no fish data currently exists. The effort has also yielded valuable life history information such as the timing of migrations or identifying areas used by spring chinook salmon or wild steelhead for rearing. Most traps have been located in valley floor or foothill streams that flow through agricultural or urban lands, areas that have not traditionally been sampled for fish by management agencies.

Middle Fork John Day River Survey – Eastern Oregon. Ten volunteers spent 334 hours helping district staff collect fish population data from Davis Creek on the Middle Fork John Day River. Distribution (upper and lower limits), abundance, size, and age composition information were recorded. A key project objective was to locate bull trout in historical or suspected bull trout tributaries to the Middle Fork John Day River using the new American Fisheries Society's rare fish protocols. No bull trout were found in this stream, but important summer steelhead population information was obtained.

Lookout Point Reservoir Study – South Willamette. Several thousand juvenile spring chinook salmon in excess of production needs and capacities at Willamette Hatchery became an opportunity in the South Willamette Watershed District in mid-summer. The fish are being utilized in a project with two primary goals: to estimate survival rates for fish passing through the dam and turbines at Lookout Point Reservoir; and to estimate natural production of juvenile spring chinook from hatchery adult releases above all dams on the Middle Fork Willamette.

The first objective, marking all the fish with an adipose fin clip, was completed in early August. STEP volunteers from the Northwest Steelheaders, Middle Fork Willamette Watershed Association, and the Lost Creek Watershed Group assisted workers from the Corps of Engineers, the US Forest Service and ODFW in marking over 37,000 fish in two days of work at Willamette Fish Hatchery. The fish were reared at the hatchery through September, with a release planned when water temperatures begin to moderate in October.

Plans have been developed to set up a rotary fish trap below Lookout Point to collect fish passing through the dam. All live fish and mortalities will be counted and checked for fin marks. Injuries will also be recorded. Plans also call for trap nets to be set in the reservoir. The ratio of marked chinook from the hatchery release to unmarked chinook produced naturally by the adult release will allow for an estimate of the total number of juvenile chinook migrating from the Middle Fork Willamette Basin and rearing in Lookout Point Reservoir. The project has the potential to provide excellent information to guide fish management decisions on the Middle Fork Willamette River. Volunteer assistance has been planned for both sampling sites.

Malheur River Basin (Wolf Creek Watershed) Redband Trout Inventory – Eastern Oregon. Fifteen volunteers donated 550 hours to collect population data from redband trout in the Wolf Creek watershed (Malheur River Basin). Distribution, abundance, size, and age composition information was recorded. Data was collected from approximately 30 inventory sites and 21 upper limit designations were determined. Genetics samples were simultaneously collected. This cooperative effort involves ODFW, USFS, USFWS, BLM, the Paiute Tribe, and volunteers over a one-week period. As of the completion of this project, this partnership had completed a full inventory of the USFS Emigrant Creek (formerly Burns) Ranger District – the only

ranger district in the country with complete fish population information for the entire district.

Adult Fish Trapping – North Willamette. Two upstream migrant adult fish trapping projects continue in the fish district. Volunteers from the Scappoose Bay Watershed Council assisted in modifying and monitoring the adult fish trap at the Bonnie Falls Fish Ladder on the North Fork of Scappoose Creek. This trap is currently in operation and valuable information is being collected. Volunteers also assisted in trapping and sorting fish at the Marmot Dam Fishway on the mainstem Sandy River.

Juvenile Trap – Mid Coast. The Mapleton seventh-grade class, Florence STEP Group (FSG) and the Mapleton USFS continued a chinook, steelhead, cutthroat and coho juvenile trap operation on Knowles Creek in the lower Siuslaw River. The objective is long term monitoring of coho and steelhead populations at a large sub-basin scale. This the seventh year FSG provided supervision on the project. The Mapleton seventh-grade class submitted a proposal to their school board and formed a Mapleton Stream Team. The school board has acted and five FSG members are guiding the program.

Foster Lake Creel Survey – Mid Willamette. A volunteer conducted an intensive creel survey of the spring and early summer trout fishery on Foster Reservoir in the South Santiam basin. Concern has mounted recently regarding the potential impacts of the trout fishery on juvenile winter steelhead that migrate through and may rear in the reservoir. The South Santiam above Foster is an important area for native winter steelhead production.

Winchuck Rotary Fish Trap – Lower Rogue. In an effort to characterize populations of fall chinook on the Winchuck River, the Oregon South Coast Fishermen (OSCF) took on the operation of a downstream migrant trap just upstream of tidewater on the Winchuck River. Operation of the trap represents the continuation of an 11-year data base that has been a priority for the District. Oregon South Coast Fishermen have been operating the trap for the last two years. The information obtained is of great value to current management and the work would otherwise not be accomplished under current staffing levels. The South Coast Fish District will utilize information obtained from trapping operations to help manage local populations.

The annual execution of this project represents volunteer hours both in installing, maintaining, and removing the trap, as well as daily operations in counting, identifying, marking, and recounting fish. Weekly operations include a training session by the STEP biologist in trap operation, fish ID and marking techniques. Volunteers work in two man teams to monitor the trap daily, Monday through Friday. Weekly expansion estimates for chinook salmon are summarized throughout the migration period from June through the end of August to provide a population estimate.

Stayton Island Rotary Fish Traps – Mid Willamette. Volunteers assisted with expanded efforts to operate fish traps on the North Santiam River at Stayton Island and rotary fish traps below Detroit and Big Cliff Dams. The Stayton Island traps located on Upper and Lower Bennett Dams have allowed the district to better quantify the returns of native winter steelhead, hatchery summer steelhead and spring chinook salmon to the north Santiam basin. The rotary fish traps were used below Detroit and Big Cliff to measure the survival of juvenile salmon migrating downstream

through the reservoir and dam complex. In the fall of 2000, returning adult spring chinook were released into the upper North Santiam, historically the source of the majority of spring chinook production in the basin, for the first time since the dams were constructed several decades ago.

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 hatchery fish carcasses, creation of weirs, and placement of spawning gravel), indirectly benefit salmonids (riparian work which reduces temperatures and allocthanous input), or open habitat up for utilization (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 are highlights of STEP habitat improvement projects from the different STEP Districts. They are in no particular order and are intended to give an idea about the range of STEP activities for development and education. 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) and Table 2 (Statewide Summary of Youth and Adult Volunteers).

Highlights

Passage – Mid Willamette. STEP participated in a number of culvert replacement projects to improve fish passage. These included efforts with Benton County in the Marys and Luckiamute basins, work with the Campbell Group on a tributary to Wiley Creek in the South Santiam basin and assistance to the City of Albany on two urban streams. STEP was involved with various aspects of several fish ladder projects initiated in the Santiam, Calapooia, Rickreall, Marys and Long Tom River basin.

Port of Brookings Harbor Aeration Project – Lower Rogue. An Army Corps of Engineers (ACOE) study indicates that dissolved oxygen drops below critical levels during summer low flows in the Port of Brookings Sportboat Basin. The area within the boat basin is especially important habitat for juvenile fall chinook salmon, which have an extended estuarine life history. The availability of this summer rearing habitat may to be a critical limiting factor for fall chinook juveniles in the Chetco River.

The objective of the port aeration project was to bring the water quality back up to a level that will support juvenile salmonids rearing in the summer months by using aerators to oxygenate the water within the sport boat basin. The area within the sport boat basin would then be habitable by juvenile Chinook, and steelhead, as well as cutthroat trout.

Through a combination funding from California-Oregon Enhancement, Friends of the North Coast, and ODFW’s R&E Program, an aeration system was purchased at a

total cost of \$11,571.44. The Port of Brookings and Oregon South Coast Fishermen installed the aeration pump units as an in-kind contribution to the project valued at \$1,280. The aeration system is considered property of the Port, and will be maintained as part of the Port infrastructure. Once installed, the Port will take responsibility for pump maintenance and eventual replacement should they become sufficiently worn. The Port also agrees to operate the aerators from May until the end of October annually, as outlined by the ACOE study. The Port will cover the electrical cost of operating the pumps. The cost is estimated to be \$1,418 per year.

Because chinook salmon have an extended estuarine life history, it is likely that significantly increasing the available habitable portion of the estuary, will increase the total production or number of out-migrating chinook salmon. Upon entering the ocean it is assumed that this increased number of smolts will continue to survive at a rate similar to other smolts entering the ocean without any compensatory mortality. Since Chetco fall chinook are south migrating, commercial and sport fisheries in the Klamath Management Zone should benefit from increased fish numbers, as well as Oregon ocean sport and troll fisheries. The Chetco bubble fishery and in-river sport fishery should also benefit as well. Increasing the usable summer rearing habitat in the Port of Brookings Sportboat Basin should also benefit juvenile steelhead, resident and sea-run cutthroat trout, as well as other estuarine dependent species of fish and wildlife.

Boulder Weirs – Tenmile, Coos, and Coquille. Five boulder weirs were constructed on the West Fork Millicoma River. The construction of these weirs were facilitated by the Northwest Steelheaders Association and the Coos River STEP Association. These very large bolder weirs were intended to address the limited spawning habitat that are characteristic of the basin. These weirs averaged 100 feet in length. Gravel was also placed on some of these structures to speed the value of habitat restoration effort. At the end of the report period, numerous chinook were already using the spawning habitat that was created by these boulder weirs.

Carcass Placement – North Coast. Volunteers continued supporting the carcass placement program and distributed over 38,000 pounds of hatchery fish carcasses into District streams

Riparian Planting – North Willamette. Eight riparian planting projects were initiated in the Portland Metro Area. Members of the Friends of Beaver Creek, local school students, scouts and members of the City Parks Department conducted a continuing project along Beaver Creek. The Friends of Beaver Creek group donated native trees and a volunteer lunch to the project. Additional projects were conducted on Fanno Creek by the Fans of Fanno Creek, on Deep Creek by members of the Clackamas River Watershed Council, on Johnson Creeks sponsored by the Johnson Creek Watershed Council, on Mt. Scott Creek sponsored by Clackamas County Water Environmental Services along with the assistance of the Friends of Trees & the Friends of Mt. Scott/Kellogg Creeks, on Wee Burn Creek conducted by volunteers from the Riverkeepers Organization, in Rhododendron Meadows and on Scappoose Bay. These projects were conducted to stabilize stream bank soils and to provide shading for the streams.

Stream Cleanup – North Willamette. Students, scouts, and local citizen volunteers along Beaver Creek, Fanno Creek, and Wilsonville Pond conducted three Earth Day stream cleanup projects. Over fifty volunteers participated in the Beaver Creek Earth

Day stream cleanup project and donated approximately one hundred and fifty hours of volunteer time. The Stop Oregon Litter and Vandalism organization (SOLV), once again, provided grant money for a trash bin rental and garbage bags.

LWD – Upper Rogue. The STEP Biologist and volunteers developed projects to place large woody debris (LWD) in two streams of the basin in 2001. Boise Cascade requested help in adding large woody debris to a 1-mile stretch of their property on Upper Grave Creek to provide spawning and rearing habitat for steelhead. Oregon Department of Transportation asked for help looking for a project to mitigate for riparian habitat destroyed by the renovation of Robertson Bridge on the Rogue River near Grants Pass. ODOT designated about \$30,000 to complete the project. In 2001 we developed a project to place large woody debris in a 0.25 mile stretch of Rock Creek, a tributary to W. Evans Creek. While volunteers were used to monitor effects of the Grave Creek Project for Boise Cascade, ODOT and landowner Indian Creek were happy with just site specific photos for the next five years. We are currently planning a habitat project to spend the rest of the ODOT money on a 1-mile stretch of Indian Creek property on W. Evans Creek in 2002. We are also planning to place large woody debris on a 1/2-mile stretch of Indian Creek property on Elk Creek in the heart of the coho habitat near the California border.

Dam Removals – North Willamette. Two fish passage dam removal projects were completed in the district. Member of the Scappoose Bay Watershed Council organized the removal of a dam blocking fish passage in Milton Creek on private property owned by the McGlivra Family. The Johnson Creek Watershed Council and METRO sponsored the removal of a dam in Johnson Creek which blocked fish passage for more than sixty years. Both dam removal projects will have follow-up riparian planting project this fall.

Smith River Falls Passage – Umpqua. Work continued this summer to improve fish passage for coho and winter steelhead at the Smith River Falls. This project was supported by a grant from ODFW's R&E Program and used the assistance of Wolf Creek Job Corps to build forms and pour cement. A "back door" was created for the fish by adding two fishway steps on the backside of the present fishway. Thus, during high water conditions the fish can avoid the velocity barrier and come up the backside of the fishway.

Culvert Meeting – South Willamette. The District initiated a meeting with a Union Pacific Railroad official to brainstorm potential fish passage modifications at a large, 4 chamber culvert on Lost Creek, for consideration by Union Pacific. More discussions are planned with the goal of developing a cooperative project at the site.

Restoration – Mid Coast. Mid Coast habitat restoration projects were completed at School Fork (Yachats River), Ojalla Bridge (Siletz River) and the mainstem Yaquina River. Project activities included: instream wood placement, riparian release, tree and shrub planting, tree protection installation, riparian enclosures and culvert removal. Landowners cooperated in the design and layout for 2000/2001 projects and preparations for 2002/2003 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.

Carcass Placement – Mid Willamette. A relatively new component to STEP habitat restoration and enhancement efforts is that of salmon and steelhead hatchery carcass placement. Historically, when returns of naturally spawning salmon and steelhead were greater, the remaining carcasses provided a significant source of food and nutrients to the aquatic system. With the number of fish returning to spawn naturally in most streams now lower, it is recognized that the potential loss of available food and nutrients can in-part be compensated through the artificial placement of carcasses. A ready source exists using fish that have been spawned as broodstock at area hatcheries. During the 2000-2001 federal reporting period, STEP conducted three major carcass placement efforts with the extensive participation of both adult and youth volunteers.

Carcass Placement – North Willamette. The sixth year of the hatchery fish carcass placement project was completed with cooperation from the US Forest Service (USFS) Zig-Zag Ranger District. The project involved placing four hundred fifty adult coho salmon carcasses in Still Creek. The carcasses are intended to mimic historic run densities of spawning coho salmon in the system and to increase the food and nutrient levels in the stream for fish and other aquatic organisms. Volunteers from the Association of Northwest Steelheaders along with students from Grant High School, Reynolds High School, David Douglas High School & Central Catholic High School, assisted in the distribution of carcasses over a two-month period at designated locations in Still Creek. The STEP Biologist secured adult Coho Salmon carcasses from ODFW's Sandy Fish Hatchery and transferred the carcasses to the volunteers on a weekly basis. Students with the River Keepers Program conducted water quality analysis at the project sites in Still Creek where the carcass placement project took place. A second project was completed in the North Fork of Eagle Creek, Delph and Bear Creek. This project, in its fifth year, was a cooperative effort between ODFW, the Bureau of Land Management (BLM), and Eagle Creek National Fish Hatchery. Members of the Clackamas River Chapter of Trout Unlimited distributed 250 coho carcasses in the North Fork Eagle, Bear & Delph Creeks.

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 advise. 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.

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 type. Also, many projects had a dual purpose and served as education opportunities to increase public understanding of Oregon's aquatic resources and the environment.

- Spawning Adults
- Collecting Adult Broodstock
- 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 and/or Marking Fish (all activities included here involve feeding and caring for fish, though not all fish are necessarily marked)
- Acclimation of Fish before Stocking
- Stocking Fish
- Transferring Fish (collecting from one place and moving to another, including salvage work and stocking of ponds for fishing events)
- Miscellaneous Activities

Below are highlights of STEP fish culture projects from the different STEP Districts. They are in no particular order and are intended to give an idea about the range of STEP activities for development and education. 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) and Table 2 (Statewide Summary of Youth and Adult Volunteers). A summary of the numbers of fish released can also be found in Figure 1 (Fish Releases by Species and Stage) and Figure 2 (Fish Releases by STEP District and Stage).

Highlights

Tenmile Lake Broodstock Conversion – Tenmile, Coos, and Coquille. For the second year volunteers were involved in the conversion of the Tenmile Lakes steelhead program from a Coos River stock to a native stock. This was the most labor intensive broodstock development project that has ever been undertaken in the District. Native steelhead in the Tenmile Lakes basin are very difficult to capture because the bulk of the broodstock must be netted out of very large lakes. The collection efforts were only successful in capturing 0.25 steelhead per netting effort. Volunteers working in the Eel/Tenmile STEP Association devoted a tremendous amount of time and effort to make this conversion possible. Two more years of broodstock conversion are needed to make this conversion complete.

Volunteer Rearing – Tenmile, Coos, and Coquille. The District STEP Biologist coordinated the collection and distribution of salmon and trout eggs from ODFW hatcheries or STEP incubation facilities to volunteers. As a result, 189,000 fry and 2,005,000 pre-smolts and smolts were released from the 2000 brood year. For yearling salmon and steelhead, a total of 644,000 smolts of the 2000 brood year were released as well.

Fish Salvage – Upper Rogue. Historically many streams in the upper Rogue River basin dried up prior to the end of the summer. Researchers in the earlier 1970's found that the summer steelhead population of the middle Rogue River had adapted to using these streams for spawning and rearing habitat. Volunteers have been recruited to salvage juvenile salmonids from isolated pools and return them to running waters of these streams. The program has continued to expand over the past five summers.

Classroom Incubation – North Willamette. Two hundred thirty eight school classroom incubation projects plus one individual hatchbox project incubated and released over 120,000 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 Metro Area. The ANWST commitment to the schools includes the purchase of the incubation equipment (approximately \$4,000 this past year) and the delivery of the fish eggs to the individual schools participating in these classroom incubation education projects.

Lower Umpqua Fall Chinook Program – Umpqua. The Lower Umpqua Fall Chinook Program is a terminal fishery program designed to increase recreational angling opportunity in the Winchester Bay/Lower Umpqua area. Therefore, the program, run by Gardiner STEP, raises its chinook to the presmolt stage and acclimates them in netpens in Winchester Bay. For the last several years 100% of the fish released in the estuary have been coded-wired-tagged to provide more information on survival, harvest, and straying. Gardiner STEP has improved its brood holding, incubation, and rearing techniques and is now approaching their production goals. Only lower Umpqua fall chinook have been used for this program since 1998.

Acclimation Projects – Tenmile, Coos, and Coquille. Volunteers operated a total of 25 rearing or acclimation projects during the report period. Acclimation sites continue to be improved with each passing year. Sunset Middle School has adopted one of the acclimation ponds on the East Fork Millicoma as one of their projects. The two new acclimation ponds that were constructed in the Coquille River basin continued to be worked on during the contract period. The new pond on the North Fork Coquille has been problematic in that this pond was a new design. Volunteers have had a difficult time getting the pond to hold water. Most other acclimation ponds are constructed out of concrete. The pond on the North Fork was constructed out of wood. Many volunteer hours as well as student hours have been dedicated to repairing this pond. The new pond on the North Fork and the new pond recently constructed on the South Fork should increase angling opportunity in the basin.

Another purpose of these acclimation sites is to obtain a geographical separation between hatchery and wild steelhead populations. Separating hatchery and wild steelhead is valuable to reduce the potential impacts of the hatchery fish on wild populations. Volunteers now operate 12 steelhead acclimation ponds in the District that release a total of 270,000 steelhead smolts annually.

Stocking with Llamas and Horses – Eastern Oregon. Two backcountry fish stocking projects were completed during this reporting period. Twenty-nine volunteers spent 190 hours packing fish into Doris and Blow Lakes in the Oregon Cascades. Several of these volunteers were members of the Central Oregon Llama Association. The High Desert Trail Riders horse club (9 volunteers, 100 hours) from Klamath Falls stocked rainbow trout in Blue Lake in the Gearhart Wilderness Area in Klamath County.

Chinook Rearing – North Coast. The Tillamook Angler's Whiskey Creek STEP Hatchery produced 100,000 spring chinook presmolts and smolts for release into the Trask and Wilson Rivers.

Hatchboxes – Tenmile, Coos, and Coquille. New hatchbox sites were also set up as new streams were identified as being devoid of salmon and steelhead. Volunteer stream surveyors identified these streams. In all cases the streams had habitat deficiencies that have been or will be corrected in the future. Many of the new streams had culverts that blocked fish passage. These hatchbox plantings will continue to be conducted for a complete life cycle.

Wilson River Broodstock Collection – North Coast. Volunteer anglers collected over 100 wild winter steelhead for the Wilson River broodstock program.

Finclipping – Eastern Oregon. One hundred twenty-three volunteers spent 405 hours assisting Oak Springs Hatchery personnel with rainbow trout spawning and a variety of other hatchery projects.

White Sturgeon Transfer – North Willamette. For the third year, volunteers from the Oregon Bass and Panfish Club assisted in transplanting juvenile White Sturgeon trapped at the Bonneville Dam pool to the reservoirs above The Dalles and John Day Dams. The volunteer work involved capturing the juvenile fish in nets from a barge in the Columbia River, marking the fish, and transferring the fish to fish liberation trucks.

Data Entry – Tenmile, Coos, and Coquille. 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. About 275 hatchery records were completed and submitted. These records tracked adult, egg, and fry disposition. A volunteer key punches all of these records into the Department's Hatchery Information Management System. This is a very time consuming project for a single volunteer to accomplish.

Acclimation – North Willamette. The STEP biologist and volunteers were involved with six acclimation projects, conducted during the fall and spring of 2000/2001, throughout the North Willamette Fish District. Sixty-eight students and local volunteers generated 254 hours of time in completing these acclimation projects. In addition, private landowners operated and assisted with acclimation projects on their private property including; the Cassidy Acclimation Pond, the net-pen acclimation project at Larson's Marina and the Oregon Museum of Science and Industry (OMSI) project. ODFW and Federal hatcheries transferred 288,000 salmon and steelhead smolts to these six acclimation projects in the district. The acclimation projects were located in several sites including; the Portland Harbor Net-Pen Project in the Willamette River located at the OMSI dock near the Submarine, the Clackamette Cove Net-Pen Project located near the mouth of the Clackamas River upstream from Clackamette County Park, Larry Cassidy's Acclimation Pond which is located on private property adjacent to the Clackamas River near Barton County Park, and the Duane Larson Net-Pen Project located at Larson's Marina in Multnomah Channel.

Table 1. Statewide Summary of STEP Participation. "Category" corresponds with the different sections of the report. See the report text for a description of what project types are included in each specific activity within a category.

Category	Activity	Projects	Measure*	Volunteers/ Participants	Volunteer Contribution				ODFW Contribution	
					Hours	Mileage	Donations (\$)	Total (\$)**	Hours	Funds (\$)
Development										
	Outreach**	37	NA	44,827	36,162	16,772	22,550	28,337	0	0
	Articles	19	NA	staff					0	0
	Brochures	5	NA	staff					0	0
	News Releases	5	NA	staff					0	0
	Publications	3	NA	staff					0	0
	Web Sites	5	NA	staff					0	0
	Other	4	NA	staff					0	0
	Presentations**	148	NA	9,506	174,791	815	1,876	2,158	0	0
	Coordination	51	NA	588	3,484	1,850	360	54,618	0	0
	Miscellaneous	33	NA	919	19,321	630	8,740	306,308	0	0
	TOTAL	310	NA	55,840	22,805	20,067	33,526	391,421	0	0
Characterization										
	Creel Survey	5	0	18	881	400	124	13,821	0	0
	Culvert Insp.	10	14	64	158	180	0	2,494	16	0
	Fish Monitoring	113	688	580	8,222	25,354	6,679	141,963	4,353	66,080
	Stream Survey	29	63	166	2,665	1,331	3,666	45,140	36	0
	Miscellaneous	1	3	1	40	400	0	754	0	0
	TOTAL	158	768	829	11,966	27,665	10,469	204,172	4,405	66,080
Habitat										
	Passage Work	16	174	59	1,910	1,100	491	30,265	580	12,375
	Instream Work	19	6	72	897	1,511	22,141	36,467	25	2,050
	Riparian Work	49	27	292	2,136	5,774	18,631	53,497	96	3,075
	Instr./Ripar.	11	3	407	1,071	60	3,750	20,254	0	0
	Carcass Plcmt.	44	359	244	1,307	3,390	124	21,409	5	0
	Miscellaneous	2	0	13	178	300	11,572	14,415	0	3,000
	TOTAL	141	569	1,087	7,499	12,135	56,709	176,307	706	20,500
Fish Culture										
	Brood Collection	22	7,573	589	5,523	4,355	13,102	99,604	140	22,450
	Spawn	10	1,065	87	667	1,012	350	10,965	470	8,100
	Classroom Incubator	476	173,888	8,255	36,748	1,703	12,305	578,444	500	1,335
	Hatchbox	47	1,104,728	843	6,496	16,918	12,944	118,754	840	20,770
	Rear/Mark	49	3,193,872	3,583	57,344	64,942	64,790	969,719	0	126,664
	Acclimation	30	413,003	477	8,160	10,143	13,783	142,865	0	76,200
	Stock	18	238,417	273	2,640	7,440	3,567	46,763	40	14,204
	Transfer****	8	23,383	256	831	13,588	4,399	21,876	32	40
	Miscellaneous	7	193	132	1,048	1,420	300	16,919	2,368	8,250
	TOTAL	667	5,156,122	14,495	119,457	121,521	125,540	2,005,909	4,390	278,013
TOTAL		1,276		72,251	161,727	181,388	226,244	2,777,809	9,501	364,593

NOTES

"ODFW Contribution" only includes time and funds NOT funded by the STEP Sport Fish Restoration grant.

* For "Characterization", the measure is distance surveyed (miles). For "Habitat", the measure is distance affected or restored (miles). For "Fish Culture", the measure is number of fish. There is no direct measure of "Development" other than participants and their time.

** For "Outreach" and "Presentations", hours are for the individuals receiving the information and this time is not included in the "Total" value of volunteer contributions.

*** "Total" volunteer contribution is the combined value of volunteer hours, mileage, and donations. Volunteer hours were given a value of \$15.39 / h (a national volunteer average) and mileage was assumed to be worth \$0.345 / mile, which is the State of Oregon re-imbursment level.

**** "Transfer" refers to collecting fish from one place and moving them to another; this includes salvage work and stocking of ponds for fishing events.

Table 2. Statewide Summary of Youth and Adult Volunteers. "Category" corresponds with the different sections of the report. "Mix" includes activities where both adults and youth participated.

Category	Group	Projects	Measure*	Volunteers/ Participants	Volunteer Contribution				ODFW Contribution	
					Hours	Mileage	Donations (\$)	Total (\$)**	Hours	Funds (\$)
Development										
	Youth	60	NA	4,838	170,678	75	150	2,626,911	0	0
	Adult	169	NA	4,271	30,244	2,840	10,776	477,211	0	0
	Mix	81	NA	46,731	32,836	17,152	22,600	533,864	0	0
	TOTAL	310	NA	55,840	22,805 **	20,067	33,526	391,421 **	0	0
Characterization										
	Youth	113	618	381	6,275	23,188	5,925	110,498	2,904	41,036
	Adult	28	120	217	2,700	4,297	1,745	44,781	1,327	25,044
	Mix	17	30	231	2,991	180	2,799	48,893	174	0
	TOTAL	158	768	829	11,966	27,665	10,469	204,172	4,405	66,080
Habitat										
	Youth	104	422	680	4,555	9,864	32,357	105,862	155	10,000
	Adult	34	124	215	2,507	2,271	22,527	61,894	546	10,500
	Mix	3	23	192	437	0	1,825	8,551	5	0
	TOTAL	141	569	1,087	7,499	12,135	56,709	176,307	706	20,500
Fish Culture										
	Youth	120	206,461	2,040	45,054	108,786	67,729	798,642	3,346	193,054
	Adult	73	3,363,979	5,609	36,375	12,370	52,281	616,360	544	83,264
	Mix	474	1,585,682	6,846	38,028	365	5,530	590,907	500	1,695
	TOTAL	667	5,156,122	14,495	119,457	121,521	125,540	2,005,909	4,390	278,013
ALL										
	Youth	397		7,939	226,562	141,913	106,161	3,641,913	6,405	244,090
	Adult	304		10,312	71,826	21,778	87,329	1,200,246	2,417	118,808
	Mix	575		54,000	74,292	17,697	32,754	1,182,215	679	1,695
	TOTAL	1,276		72,251	161,727	181,388	226,244	2,777,809	9,501	364,593

NOTES

"ODFW Contribution" only includes time and funds NOT funded by the STEP Sport Fish Restoration grant.

* For "Characterization", the measure is distance surveyed (miles).

For "Habitat", the measure is distance affected or restored (miles).

For "Fish Culture", the measure is number of fish.

There is no direct measure of "Development" other than participants and their time.

** For "Development", hours for the individuals receiving outreach or presentation of information have been removed from the "Total" hours and the "Total" value of volunteer contributions.

These hours are included in the "Youth", "Adult", and "Mix" information however.

*** "Total" volunteer contribution is the combined value of volunteer hours, mileage, and donations.

Volunteer hours were given a value of \$15.39 / h (a national volunteer average) and mileage was assumed to be worth \$0.345 / mile, which is the State of Oregon re-imbusement level.

Figure 1. Fish Releases by Species and Stage. Releases of fish include those from the “Classroom Incubator”, “Hatchbox”, “Rear/Mark”, “Acclimation”, “Stock”, “Transfer”, and “Miscellaneous” activities listed in Tables 1 and 2. “Pre-Smolts” include all fed fish prior to the smolt stage (e.g., fed fry, fingerlings, etc...).

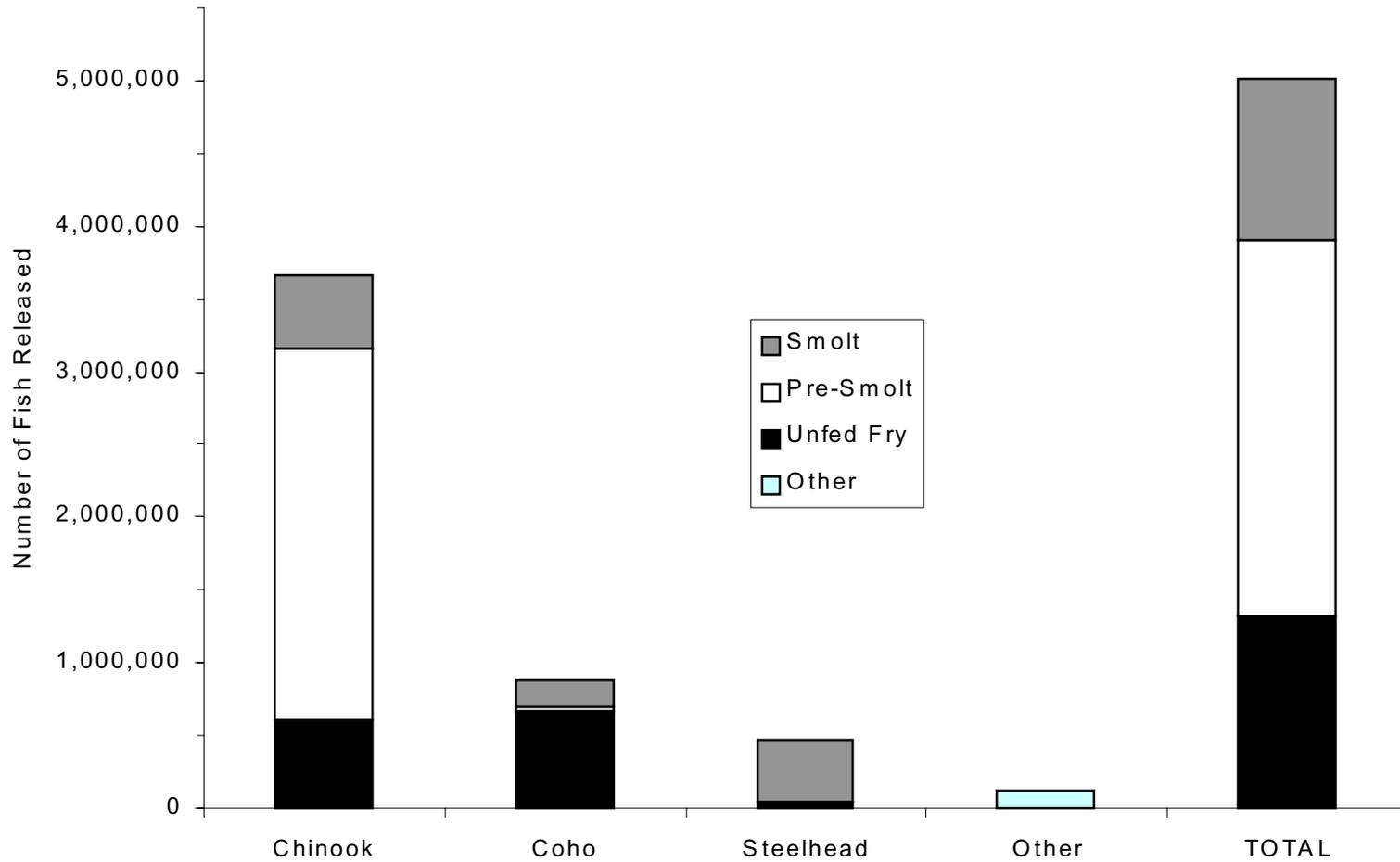
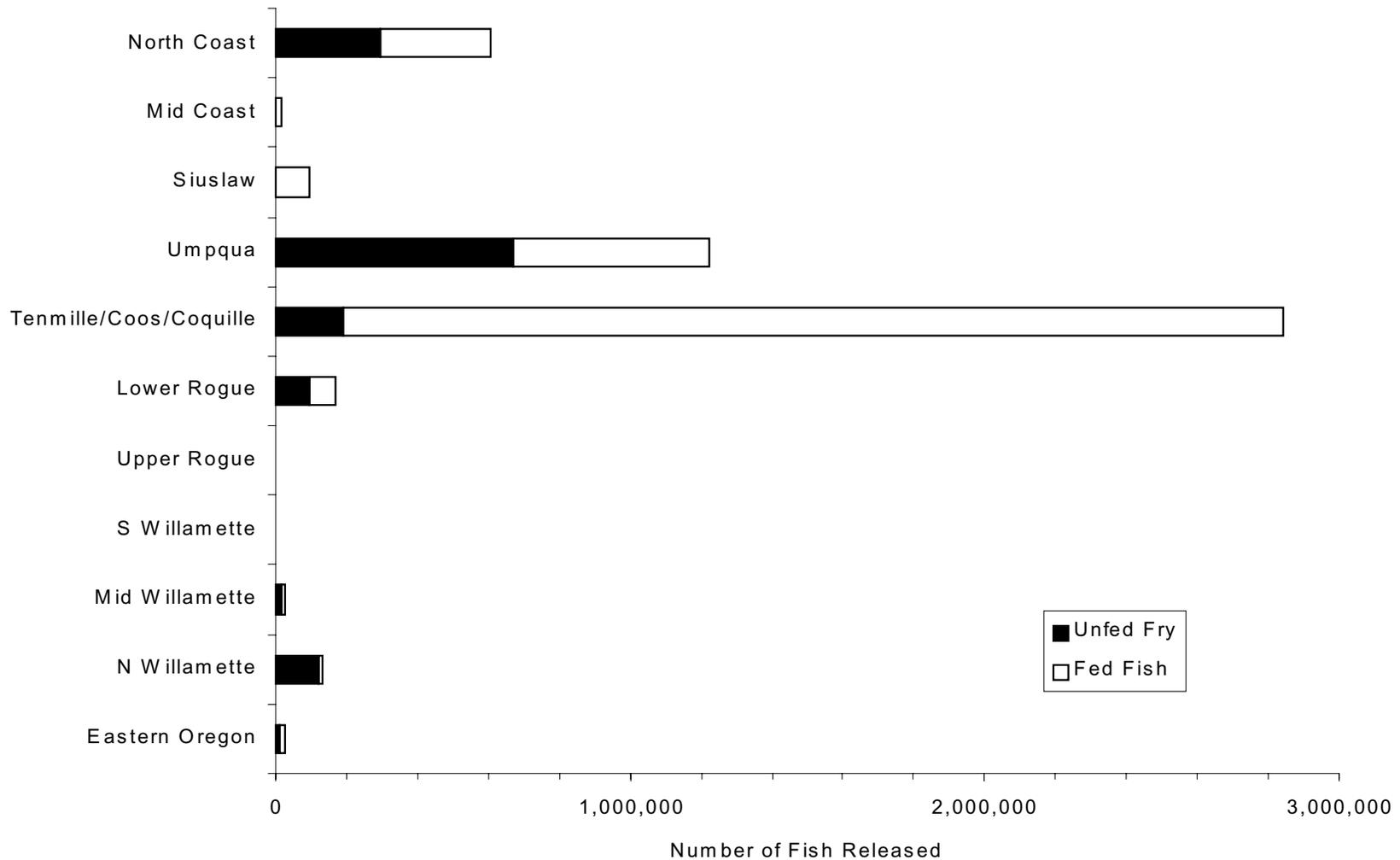


Figure 2. Fish Releases by STEP District and Stage. Releases of fish include those from the “Classroom Incubator”, “Hatchbox”, “Rear/Mark”, “Acclimation”, “Stock”, “Transfer”, and “Miscellaneous” activities listed in Tables 1 and 2.



APPENDICES



SALMON-TROUT ENHANCEMENT PROGRAM

STEP Biologists

Lower Rogue District:

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Eastern Oregon District:

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STEP Biologist (541) 388-6363
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Umpqua District:

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STEP Biologist (541) 440-3355
4192 N. Umpqua Hwy Fax: (541) 673-0372
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South Willamette District:

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Dan Van Dyke Phone: (541) 726-3515x28
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Daniel.J.Vandyke@state.or.us

Tenmile, Coos, and Coquille District:

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Mid Coast District:

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STEP Biologist Cell: (541) 991-7838
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Oregon Department of Fish & Wildlife

Salmon-Trout Enhancement Program

STEP District Boundaries



- ★ Headquarters
- △ Regional Office
- Watershed District Office
- Field Office
- - - Region Bdy.
- ▭ Step Boundary





SALMON-TROUT ENHANCEMENT PROGRAM

Advisory Committee (STAC) Members

LOCATION	REPRESENTATIVE	APPOINTED
Garibaldi – Pacific City	Russ Patterson	6/1/95
Lower Willamette – Portland Metro	Bob Roth	6/1/97
Lower Willamette – Portland Metro	Lynn Wilson-Dean	6/1/95
Lincoln City – Florence	Ron Gerber	6/1/95
Seaside – Astoria – Lower Columbia	Doug Ray	10/1/01
Mid Willamette Valley	Cindy Heller	8/1/01
Upper Willamette Valley	Ralph Perkins	6/1/97
Roseburg	Dave Grosjaques	6/1/95
Reedsport – Bandon	Dave Peters	6/1/95
Gold Beach – Brookings	Dick Sutter	2/1/01
Medford – Grants Pass	Wayne Brown	6/1/95
NE Oregon	Paul Cilvik	6/1/97
Central – SE Oregon	Dick Mayer	2/1/01

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

STEP Fish Culture Facilities (Hatcheries and Acclimation) throughout Oregon in 2001

District	Facility	Stream	Location/River Mile (RM)	Type	Species
Eastern Oregon	Opal Springs	Crooked River	6	Rearing	Rainbow
N. Willamette	Clackamette Cove Net Pens	Clackamas River	0.2	Acclimation	Steelhead, Chinook
N. Willamette	Cassidy Pond Net Pens	Clackamas River	10	Acclimation	Steelhead, Chinook
North Coast	Warrenton High School	Skipanon River tidewater	0.5	Rearing	Steelhead, Chinook, Coho
North Coast	Astoria High School	Spring Creek	Youngs Bay	Rearing	Coho
North Coast	Rhoades Pond	Three Rivers	5	Rearing	Chinook
North Coast	Trask Net Pen	Trask River	5	Acclimation	Chinook
North Coast	Whiskey Creek	Whiskey Creek	0	Rearing	Chinook
North Coast	Hughey Creek	Wilson River	5	Acclimation	Steelhead, Chinook
North Coast	Gobel Pond	Wilson River	8.5	Acclimation	Steelhead
North Coast	Wilson Net Pen	Wilson River	0.5	Acclimation	Chinook
Mid Coast	Depoe Bay	N.Depoe Bay Creek	1.5	Rearing	Coho
Mid Coast	Lhuuke Illahee (Siletz Tribe)	Rock Creek	4	Rearing	Coho
Mid Coast	Siletz School SMILE Project	Sam's Creek	0.1	Rearing	Coho
Mid Coast (Siuslaw)	Ackerly Creek	Ackerly Creek	0.1	Spawning Channel	Steelhead, Coho
Mid Coast (Siuslaw)	Greenleaf Creek	Greenleaf Creek	0.1	Acclimation	Steelhead, Coho
Mid Coast (Siuslaw)	Letz Creek	Letz Creek	1.5	Rearing	Steelhead, Coho
Mid Coast (Siuslaw)	Little Woahink Lake	Little Woahink Creek	0.1	Rearing	Coho, Cutthroat
Mid Coast (Siuslaw)	Munsel Creek	Munsel Creek	1	Rearing	Steelhead, Coho, Cutthroat
Mid Coast (Siuslaw)	Whittaker Creek	Whittaker Creek	0.1	Acclimation	Steelhead, Coho
Umpqua	Rummel Hatchboxes	Barrett Creek	4 mi. SW of S.Umpqua (RM 28)	Hold, Acclimation	Chinook
Umpqua	Canyonville	Canyon Creek	S. of Canyonville	Acclimation	Steelhead
Umpqua	Johnson Hatchboxes	Cooper Creek	Cooper Crk Reservoir near Sutherlin	Hold, Acclimation	Chinook, Coho
Umpqua	Cow Creek	Cow Creek	Galesville Reservoir	Acclimation	Steelhead
Umpqua	Hane Hatchboxes	Fall Creek	3 RM up Little R. on N Fk Umpqua	Hold, Acclimation	Coho
Umpqua	Gardiner STEP	STEP Creek	Umpqua RM 10, below Gardiner Res.	Rearing	Chinook
Umpqua	Salmon Harbor	Winchester Bay - Umpqua	1	Acclimation	Chinook
Coos, Coquille	Beaver Creek Pond	Beaver Creek	0.1	Acclimation	Steelhead
Coos, Coquille	Blossom Pond	Blossom Creek	0.5	Acclimation	Chinook
Coos, Coquille	Catching Slough	Catching Slough	1.2	Acclimation	Chinook
Coos, Coquille	Coquille High School	Cunningham Creek	0.5	Rearing/Acclim.	Chinook
Coos, Coquille	SHED	Daniels Creek	3.8	Rearing	Chinook
Coos, Coquille	Hodges Creek Pond	E. F. Millicoma	3.5	Acclimation	Steelhead
Coos, Coquille	Rodine Creek Pond	E.F. Millicoma	4.5	Acclimation	Steelhead
Coos, Coquille	Eel Lake Trap	Eel Lake		Acclimation	Steelhead
Coos, Coquille	Eel Lake Net Pen	Eel Lake		Rearing	Rainbow
Coos, Coquille	Hantz Creek Pond	Hantz Creek	0.4	Acclimation	Steelhead
Coos, Coquille	Morgan Creek	Morgan Creek	0.5	Rearing, Acclimation	Chinook
Coos, Coquille	Lavern Pond	N. F. Coquille	28	Acclimation	Steelhead
Coos, Coquille	Noble Creek	Noble Creek	0.5	Rearing, Acclimation	Steelhead, Chinook, Coho
Coos, Coquille	Saunders Creek Pond	Saunders Creek	0.1	Acclimation	Steelhead
Coos, Coquille	Sevenmile Pond	Sevenmile Creek	0.5	Acclimation	Chinook
Coos, Coquille	Big Creek Pond	South Coos River	9	Acclimation	Steelhead
Coos, Coquille	Charleston Pond	South Slough	0.2	Acclimation	Coho
Coos, Coquille	Millicoma Interpretive Center	W. F. Millicoma	10	Rearing, Acclimation	Steelhead, Chinook
Coos, Coquille	Woodard Creek Pond	Woodard Creek	0.2	Acclimation	Steelhead
Lower Rogue	Indian Creek	Indian Creek, Rogue Bay	0.25	Rearing	Chinook

Partial List of Groups Involved with STEP

This list comprises groups cooperating or participating with the STEP Program in 2001. 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 503-872-5252x5429 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 Camp
- Alsea Bay Interpretive Center
- Association of NorthWest Steelheaders (ANWS)
- ANWS - Albany Chapter
- ANWS - Central Coast Chapter
- ANWS - Emerald Empire Chapter
- ANWS - McLaughlin Chapter
- ANWS - Sandy Chapter
- ANWS - South County Chapter
- ANWS - Southwest Chapter
- ANWS - Tualatin Chapter
- Bay Area Sportsman Association
- Beaver Creek Community
- Boise Cascade
- Boy Scouts of America
- British Columbia Volunteer Conference
- California-Oregon Enhancement
- Camp UKANDU
- Cascade Family Flyfishers
- Central Oregon Flyfishers
- Central Oregon Intergovernmental Council
- Central Oregon Llama Association
- Coos River STEP
- Coquille STEP Association
- Curry Anadromous Fishermen
- Depoe Bay Salmon Enhancement Commission
- Deschutes Valley Water District
- Douglas Timber Operation
- Ducks Unlimited
- Elderhostel
- Florence STEP
- Friends of Beaver Creek
- Friends of Garden Lake Park
- Friends of Old McKenzie Hatchery
- Friends of the North Coast
- Gardiner STEP
- Hatfield Marine Science Center
- HeadStart
- High Desert Trail Riders
- High Twelve
- I Fish
- Illinois Basin Interest Group
- Jobs For Fishermen
- Klamath Country Flycasters
- Klamath Guides
- Larson's Marina
- Lebanon Kiwanis
- Lincoln Soil and Water Conservation District
- Little Creek Association
- Little Whale Cove Association
- Lost Creek Watershed Group
- McKenzie Flyfishers
- Menasha Corporation
- Miami Anglers
- Millicoma River STEP
- Mt. Hood Community College
- National Guard Youth Challenge
- Natural Resource Conservation Service
- News-Times
- North Coast Land Conservancy
- North River Boats
- Northwest Service Academy
- Northwest Youth Corps
- OBEC Consulting Engineering
- Oregon Bass and Panfish Club
- Oregon Environmental Education Association
- Oregon Equestrian Trails
- Oregon Equestrian Trails
- Oregon Hunters Association
- Oregon Institute of Marine Biology
- Oregon Museum of Science and Industry (OMSI)
- Oregon State Fair
- Oregon State University
- OSU Extension Service
- OSU Extension Service's Watershed Stewardship Education Program
- Oregon Trout
- Oregon Watersheds
- Oregon Wildlife Heritage Foundation
- Oregon Youth Conservation Corps

- Outdoor School
- Outward Bound
- Panther Creek Association
- Pepsi
- Pinnacle Engineering
- Polk County Historical Society
- Polk County Sportsmen
- Port of Brookings
- Portland General Electric
- Rainland Flycasters
- RE Noah Construction
- Rogue FlyFishers
- Rotary Club
- Rotary Club (Coos Bay)
- Salmon Corps
- Salmon Watch
- Santiam Flycasters Fair
- Senior Fishing Buddies
- SMILE
- South Coast Fishermen
- Southern Oregon Bass Club
- Southern Oregon Flyfishers
- Southwestern Oregon Community College
- Stellar Project
- Stop Oregon Litter and Vandalism (SOLV)
- Sunriver Anglers
- Superior Lumber
- Tenmile STEP
- The Campbell Group
- Tillamook Anglers
- Tillamook Bay Boat Club
- Tillamook County Fair
- Trout Unlimited
- Umpqua Fish Enhancement Derby
- Umpqua Fishermen's Association
- Union Pacific Railroad
- West Eugene Kiwanis
- Weyerhaeuser
- Willamette Valley Anglers
- Wolf Creek Job Corps
- Yamhill Soil and Water Conservation District
- Yaquina Basin Team

WATERSHED COUNCILS

- Coast Fork Willamette Watershed Council
- Ecola Watershed Council
- Glenn/Gibson Watershed Council
- Lower Rogue Watershed Council
- Luckiamute Watershed Council
- Marys River Watershed Council

- McKenzie Watershed Council
- Mid-Coast Watersheds Council
- Middle Fork Willamette Watershed Council
- Nestucca-Neskowin Watershed Council
- Nicoli Watershed Council
- North Santiam Watershed Council
- Rickreall Watershed Council
- Salem Area Watershed Councils
- Scappoose Bay Watershed Council
- Siuslaw Watershed Council
- Tillamook Bay Watershed Council
- Umpqua Basin Watershed Council
- Upper Nehalem Watershed Council
- Williams Creek Watershed Council
- Wolf Creek Watershed Council
- Yachats Watershed Council

GOVERNMENT

- Benton County
- Bureau of Land Management
- City of Albany
- City of Coos Bay
- City of Dallas
- Clackamas County Health Department
- Clackamas Cnty. Water Environmental Services
- Confederated Tribes of the Coos, Lower Umpqua, and Siuslaw
- Cow Creek Tribe of the Umpqua Band of Indians
- Douglas County
- Eagle Creek National Fish Hatchery
- Lincoln City
- Lincoln County Road Department
- Nevada Division of Wildlife
- Oregon Department of Corrections
- Oregon Department of Environmental Quality
- Oregon Department of Forestry
- Oregon Department of Transportation
- Oregon Parks and Recreation Department
- Oregon State Police
- Oregon Watershed Enhancement Board
- Siletz Tribe
- United States Fish and Wildlife Service
- United States Forest Service
- USFS - Deschutes National Forest
- USFS - Hebo
- USFS - Mapleton
- USFS - Wallowa National Forest Visitor's Center
- USFS - Zig-Zag Ranger District
- Washington Department of Fish and Wildlife