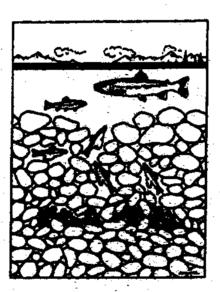
Volunteer Enhancement Source Handbook



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By Jim Waldvogel Del Norte County Sea Grant Advisor



compiled by:

Jim Waldvogel Del Norte Sea Grant Advisor

February 1990

Preface:

Expertise Codes

Volunteer anadromous fish enhancement programs are growing throughout the West from British Columbia to California. The enthusisam and hard work of thousands of volunteers to restore salmon, steelhead and trout resources is "paying off" with increased returns to many damaged watersheds.

As enhancement projects expand and improve, the need for technical information and assistance is vital. This handbook lists agency personnel who can be contacted by volunteers needing specific information. A topical coding has been used to list each individual's area of enhancement expertise.

Special thanks go to the Del Norte County Board of Supervisors, whose continuing support provided grant funds from the Coastal Resources and Energy Assistance Program. The Board's dedication to improving anadromous fisheries allowed me to make this publication available to enhancement volunteers.

IS - Instream Structures AE - Aquatic Ecology FD - Fish Diseases AS - Adopt-a-Stream FE - Fishery Engineering PC - Pond Construction BC - Broodstock Capture FG - Fish Genetics RH - Riparian Habitat CI - Classroom Incubation FM - Fishery Management SB - Salmon Biology EC - Erosion Control FP - Fish Passage SE - Spawning Estimates **EE - Enhancement Education** FR - Fish Rearing SH - Stream Hydrology **GE - Gravel Extraction EF - Enhancement Funding** SS - Stream Surveys EH - Estuarine Habitat HO - Hatchbox Operation WI - Water Issues **HP** - Hatchery Production FC - Fish Culture WP - Water Pollution

Community Advisors - BC, FC, FM, FR, HO, IS, SB, SS:

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^{*}Volunteers seeking enhancement information for steelhead and cutthroat trout in British Columbia should contact Regional Provincial Fisheries Biologists.

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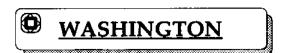
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Storm and Surface Water Utility
P.O. Box 90012
Bellevue, WA 98009-9012
206-453-4895

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Steve Seymour, LTF (EH, FC, FM, FR, HP, PC, SE) 2616 Kwina Road Bellingham, WA 98225 206-734-8180

(Free upon request)

"Stream Talk" - PIP newsletter
Department of Fisheries and Oceans
555 West Hastings St.
Vancouver, B.C. V6B 5G3

"Stream Lines"

Adpot-A-Stream Foundation Box 5558 Everett, WA 98201

"Totem" - Washington Department of Natural Resources
Washingotn Department of Natural Resources
Public Affairs Office
Cherberg Bldg. QW-21
Olympia, WA 98504-8411

"NEWS" - NW Indian Fisheries Comm. newsletter NWIFC "News" 6730 Martin Way E Olympia, WA 98506

"Northwest Renewable Resources Newsletter"

NRRC 1133 Dexter Horton Bldg. 710 Second St. Seattle, WA 98104

"Washington Coastal Currents"

Washington Department of Ecology Shorelands & CZM Program Mail Stop PV-11 Olympia, WA 98504-8711

"Northwest Fish Hatchery Newsletter"

Oregon Department of Fish & Wildlife Fish Culture Section 303 Ext. Hall Oregon State University Corvallis, OR 97331

"Restoration and Enhancement News"

R & E News P.O. Box 59 Portland, OR 97207

"Creek Currents"

Urban Creeks Council Newsletter 2530 San Pablo Ave. Berkeley, CA 94702 Oregon Sea Grant Extension Program - Hatfield Marine Science Center, Marine Science Drive, Newport, OR 97365; (503-867-3011)

- 1. "Water, Water Everywhere: Marine Education in Oregon" (\$2.50)
- 2. "Clean Water, Streams and Fish: Elementary Curriculum" (\$10.00)
- 3. "Clean Water, Streams and Fish: Secondary Curriculum" (\$10.00)
- 4. "The Columbia River: Its Future and You. Teacher's Manual for Grades 5-8" (\$5.00) ORESU-E-85-001
- 5. "The Columbia River: Its Future and You. Teacher's Manual for Grades 9-12" (\$5.00) ORESU-E-85-002
- 6. "Gateway to the Pacific: The Columbia River. Teacher's Resource Book, Grades 5-7" (\$6.00) ORESU-E-86-001

British Columbia Teachers Federation - 2235 Burrard St., Vancouver, BC V6J 3H9; (604-731-8121) (add 20% surcharge)

- 1. "Salmonids in the Classroom" Primary, Grades 1-4 (\$40.00)
- 2. "Salmonids in the Classroom" Intermediate, Grades 5-7 (\$50.00)
- 3. "Salmonids in the Classroom" Secondary, Grades 8-10 (being revised)
- 4. Salmon Posters eight posters depicting lifecycle (\$15.00)
- 5. Egg-to-Fry Display display rack showing early life stages (\$15.00)
- 6. Life Cycle Puppets (\$40.00)

Salmon Enhancement Program (SEP) - Dept. of Fisheries and Oceans, 555 West Hastings St., Vancouver, BC V6B 5G3; (604-666-0384)

- 1. "A Manual for Classroom Incubation" (free)
- 2. Fact sheets on SEP and stream care (free)
- 3. Posters of the seven salmonid species (free)
- 4. Catalog of films, slide shows and video cassettes about salmonid fisheries and enhancement programs (free)
- "SEP Community Involvement Directory, 1989-90," lists PIP and CEDP projects

Oregon Dept of Fisheries and Wildlife - P.O. Box 59, Portland, OR 97207; (503-229-5426)

- 1. "Stream Ecology Unit"
- 2. "Riparian Monitoring Curriculum"
- 3. "Stream Survey and Riparian Monitoring System Data Collection Packet"
- 4. "Project Wild" Elementary and Secondary Curriculum
- "Aquatic Project Wild"
- 6. "The Stream Scene: Watersheds, Wildlife and People"

"Trout and Salmon Culture" - fish rearing manual (\$5.00); ANR Publications, University of California, 6701 San Pablo Ave., Oakland, CA 94608-1239; Pub. #4100

"Discovering Salmon" (\$3.00); Dog Eared Publicatons, P.O. Box 814, Corvallis, OR 97339

"The Estuary Book" and "The Creek Book" (\$7.00 group); Pacific Educational Press, University of British Columbia, Vancouver, BC V6T 1Z5; (604-228-5385)

"Life Cycle of the Salmon" (\$5.00); 125 pages; Pacific Science Center, 200 Second Ave. N., Seattle, WA 98109

"Fish Hatchery Ways and Means Manual" - Lyle Curtis, Salmon River Hatchery, Rt. 2, Box 41, Otis, OR 97368

"Adopting a Stream - A Northwest Handbook" (\$10.00); University of Washington Press, P.O. Box 50096, Seattle, WA 98145-5096; (1-800-441-4115)

"Salmon and Trout Education Program Curriculum Guide" (\$16.00); Monterey Bay Salmon & Trout Project, Matt McCaslin, 2524 Parker St., Santa Cruz, CA 95065; (408-458-3095)

"California Salmon and Steelhead: Our Valuabale Natural Heritage" - School Curriculum, Diane Higgins, 1271 Fieldbrook Rd., Arcata, CA 95521 (free to teachers)

"1989 Volunteer Resource Guide" (\$1.00); Adopt-A-Beach, 710 2nd Ave., Suite 730, Seattle, WA 98104

"Riverwork Book" (free); Rivers & Trails Conser. Asst. Program, NPS, Western Reg., 450 Golden Gate Ave., San Francisco, CA 94101; (415-556-5751)

"The Magnificent Journey" (free); Salmon life cycle and poster. Bonneville Power Administration, P.O. Box 3621, Portland, OR 97208; (503-230-4981)

"Aquatic Resources Education Curriculum" (\$10.00); Order Dept., Kendall Hunt Pub. Co., P.O. Box 539 Dubuque, Iowa 52001; (1-800-338-5578)

"Clean Water, Streams and Fish" (\$14.00); Elementary and Secondary Curriculum, Washington State Office of Environmental Education, 17011 Meridian Ave., Seattle, WA 98137

"Living in Water - An Aquatic Science Curriculum" (\$4.00); grades 4-6; National Aquarium in Baltimore, Dept. of Education & Interpretation, Pier 3, 501 E. Pratt St., Baltimore, MD 21202

"Rivers and Streams, Habitat Pac"/"Estuaries and Tidal Marshes, Issues Pac" (\$8.00 each); National Institute for Urban Wildlife, 10921 Trotting Ridge Way, Columbia, MD 21044

"Save Our Streams" (free); Izaak Walton League of America, 1701 N. Fort Myer Dr., #1100, Arlington, VA 22209

"Washington School Aquatic Ecology Program" - Teachers guide (free); Jeff Self, Eureka City School, 3200 Walford Ave., Eureka, CA 95501

"Directory of National Citizen Volunteer Environmental Monitoring Program" (free); EPA 503/9-89-005; Virginia Lee, Coastal Resources Center, School of Oceanography, University of Rhode Island, Narragansett, RI 02882; (401-792-6224)

"Stream Care Guide, for Streamside Property Owners and Residents," 1987 (free); RCAA, P.O. Box 1347, Eureka, CA 95502-1347

"Stream Enhancement Guide;" 1980; Dept. of Fisheries and Oceans, Vancouver, BC

"California Salmon and Steelhead Restoration Conference Proceedings;" Sea Grant Ext., U.C. Davis, Davis, CA

1st Conference - 1983

2nd Conference - 1984

3rd Conference - 1985

7th Conference - 1989

8th Conference - 1990

"Stream Rehabilitation Manual;" 1988; Oregon Chapter American Fisheries Society

"Management of Streambank Zones in Northeastern California;" 1987; Wildlands Res. Center, U. of California, Berkeley, CA

"Life History and Persistence of Anadromous Fish Stocks in Relation to Stream Habitats and Watershed Classification;" 1988; Oregon Dept. Fish & Wildlife, Portland, OR

"Pacific Northwest Stream Habitat Workshop;" Proceedings, 1984; Coop. Fish Unit, Humboldt State U., Arcata, CA

"Propagation, Enhancement and Rehabilitation of Anadromous Salmonid Populations and Habitat Symposium;" Proceedings, 1981; Coop. Fish Unit, Humboldt State University, Arcata, CA

"Methods for Evaluating Riparian Habitats with Applications to Management;" 1987; USFS, Intermountain Res. Station, Ogden, UT

"Indexed Bibliography on Stream Habitat Improvement;" 1986; USFS, Intermountain Res. Station, Ogden, UT

"Techniques for Increasing the Natural Production of Anadromous Salmonids;" 1979; Redwood Science Lab, Arcata, CA

"Compendium of Low-Cost Pacific Salmon and Steelhead Production Facilities and Practices;" 1984; Bonneville Power Admin., Div. of Fish & Wildlife, Portland, OR

"Effects of Stream Alterations on Salmon and Trout Habitat in Oregon;" 1985; Oregon Dept. Fish & Wildlife, Portland, OR

"Manual of Stream Channelization Impacts on Fish & Wildlife;" 1982; U.S.F.W.S., Kearneysville, West Virginia

"Methods for Evaluating Stream, Riparian and Biotic Conditions;" 1983; USFS, Intermountain Res. Station, Ogden, UT

"Habitat Disturbance and Recovery," Proceedings, 1982; California Trout, San Francisco, CA



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