

The Tributary

A Newsletter of the Western Division, American Fisheries Society

Volume 18, No. 1/November 1992

PRESIDENT'S CORNER

My thesaurus lists a number of synonyms for president including: head, chairman, dean, principal, chief and ruler. Roger forgot, perplexed, overwhelmed and scared. Tip O'Neil said Ronald Reagan was a lousy president but would have made an excellent king. King would be much easier than President—just smile, wave at the camera, and shake hands. I could handle that! I considered several slogans to describe my year in office: "no dues increase—read my lips," "a kinder gentler Division," or "blame Chase." I finally settled on "family values." Sound far fetched? Perhaps not! We are, in fact, a family of professionals who share many of the same values and concerns for fishery resources—probably the reason most of us pursued a career in fisheries to begin with.

Shared values were evident at the Western Division retreat held last summer in Colorado where leaders from most of the Chapters and Committees helped flesh out a Western Division action agenda for the year to come. Most importantly, we developed it together. A few of the topics that received top billing include: the status of Pacific salmon stocks, funding for Native American fisheries management, reauthorization of the Endangered Species and Magnuson Acts, reform of the 1872 Mining Law, riparian management on federal lands, and the problem of too few women and minorities in the fisheries profession. These are all important issues that deserve our attention and most are already being worked on by a Western Division committee.

Under the guidance of the Idaho Chapter, the Western Division EXCOM also developed criteria for issues selection and a procedure for dealing with issues (included later in this newsletter). This process was approved, on an interim basis, at the business meeting. In the meantime, the Parent Society has a committee exploring a Society wide process that should be available for consideration within a year. This should give

some comfort to those members who have expressed well meaning concern that we are operating without a system of checks and balances. The obvious trait that separates AFS from other interest groups is our professional training and understanding. I am convinced that the majority of our members do not favor standing on the sidelines waiting for our professional opinions to be solicited. Providing credible, scientifically valid information to decision-makers sends the positive message that we want the truth to be known and that the decision about to be made is important to fisheries. I see that as only enhancing the image of our profession and our Society.

That is not to say that our involvement should be limited to providing cold, hard, scientific facts. Emotions (within appropriate limits) are important expressions that let others know that we care. Some of our most esteemed predecessors and colleagues in the biology profession have written or spoken beautifully of their heartfelt concerns for natural resources. Names like Aldo Leopold, Phil Pister, and Jim Posewitz come to mind, to mention a few. These are people who understand (understood) not only science but humanness. Of course, our emotions should not overshadow or cause us to ignore factual information—they simply emphasize the human importance of the issue at hand. What is wrong with that? During the upcoming year I am very much looking forward to working with Don Chase, Randy Bailey, Carl Burger and the many excellent leaders in the Chapters and on the Committees. The opportunity to work with and get to know members of the Colorado-Wyoming Chapter in preparation for and during the 1992 annual meeting helped make last year more than worth the effort. Fish are important for many reasons and so are the people who work in fisheries.

Family values? Maybe not so far fetched after all!

—Glenn Phillips

1992-1993 WESTERN DIVISION AMERICAN FISHERIES SOCIETY COMMITTEE CHAIRPEOPLE AND OFFICERS

Internal Affairs

Audit - John Leppink
Equal Opportunity - Ken Hashagen
Newsletter -
Membership - Carl Burger
Nominations - Don Chase
Awards - Don Chase
Time & Place - Officers

Officers

President - Glenn Phillips
Present-Elect - Randy Bailey
Vice President - Carl Burger
Immediate Past President - Don Chase
Secretary-Treasurer - Christine Moffet

External Affairs

Riparian - Mark Gorges
Marine Fisheries - Mike Fradenberg
Native Peoples Fisheries - Joe Dossantos
Threatened & Endangered Species - Jerry Burton
Resolutions - Dennis Tol
Environmental Concerns - Kelly Hepler
Native Salmon Stocks - Pat Higgins
Habitat Inventory Procedures - Pete Bisson
Old Growth - David Fuller

The Tributary is distributed to 3,300 WDAFS

members and exists as a forum to present fisheries-related information. This issue of *The Tributary* is the last to be published

by editor Roger Ovink.

The new editor is Pat Dwyer.

If you have information you would like included in *The Tributary*, send it to:

Pat Dwyer, Tributary Editor
27 Border Lane
Bozeman, MT 59713

WESTERN DIVISION, AMERICAN FISHERIES SOCIETY

P.O. Box 428

Corvallis, Oregon 97339-0428

000073 DL 0612
CARL V. BURGER
4227 JAMES DRIVE
ANCHORAGE AK 99504

SOCIETY NEWS

ADVOCACY INTERIM GUIDANCE CRITERIA

Criteria 1. Is the issue pertinent to WDAFS goals? 2. Will WDAFS involvement make a difference? 3. Is there WDAFS membership support? 4. Does WDAFS have sound technical information? 5. Have minority opinions been solicited and presented? 6. Does the urgency of the issue warrant action without full membership approval? 7. Is WDAFS willing to follow through? 8. Are the geographic boundaries of the issue appropriate for WDAFS action?

Steps 1. Chapters or Committees recommend action to WDAFS EXCOM. 2. EXCOM reviews action relative to criteria, and: a. refers to committee, or b. solicits wider review of membership, or c. takes action as appropriate.

Possible actions 1. Send a letter of comment, 2. Draft a resolution, 3. Complete a position or policy paper, 4. Refer to international AFS, 5. Recommend an educational forum, 6. Action denied with justification.

WESTERN DIVISION ANNUAL MEETING HIGHLIGHTS

1992-93 Western Division Action Agenda items were developed during the July 11-12 Division retreat. Twenty-two subunit leaders and Division officers brainstormed about issues and tasks that need to be accomplished to implement the AFS Long-Range Plan. Paul Brouha provided a leadership orientation and AFS Policy and Planning Coordinator Pam McClelland described the Fisheries Action Network and the communications process it envisions. A Division advocacy management process was developed and recommended for adoption.

—continued on page 2

INSIDE HIGHLIGHTS

<i>President's Corner</i>	1
<i>WDAFS Officers</i>	1
<i>Meetings & Seminars</i>	2
<i>Eggs, Apples and Fish</i>	3
<i>This & That</i>	3
<i>Jobs</i>	4
<i>Publications</i>	4

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Executive Committee Meeting

Chapter activities and resolutions highlighted the July 13 Executive Committee Meeting. Humboldt Chapter leaders discussed plans to publish and distribute their paper "Factors in Northern California Threatening Stocks with Extinction." They hope the report will be a catalyst for cooperation in preserving and restoring salmonid runs that may be headed for extinction. The North Pacific International Chapter asked for Division involvement and direction in modifying their draft video concerning the Exxon Valdez oil spill and what individuals can do to reduce their use of oil-based products. The following Resolutions were considered: AFS support of 1872 Mining Law reform; creation of a two-tiered AFS membership (voting and nonvoting) system and standards to guide and control advocacy; and improving the Division's resolutions process.

Plenary Session

The plenary session on July 14 featured welcoming remarks by Bruce McCloskey, Deputy Director Colorado Division of Wildlife and Eddie Kochman, Chief of Fisheries. Elizabeth Estill, Regional Forester, U.S. Forest Service Region 2, gave an excellent preview of her planned ecological approach to multiple-use management of National Forest lands, and the keynote address by Charles Wilkinson, University of Colorado School of Law, addressed the making of natural resource policy in the modern West: the roles of lawyers, economists, scientists, and poets. Major actions taken during the business meeting on July 14 included the passage of the recommended advocacy-management process for the Division, confirmation of the intent to modify the North Pacific International Chapter's oil spill video, passage of resolutions and standing rule changes (the resolution to create two classes of AFS membership was modified to remove that section), and agreement to sign on to a list of organizations who are supporting protection of ancient forests.

Technical Sessions

Technical sessions July 14-16 were excellent and covered a diversity of topics including endangered fish conservation and sport fisheries, protecting and modeling instream flows, fish culture and disease, electrofishing injury, flow regulation and the Colorado River, National Forest fisheries research and management, fisheries research and management in National Parks, and cultural trout management.

Chapter of the Year

Congratulations to the Idaho Chapter: Western Division's Chapter of the Year. The many outstanding Idaho Chapter accomplishments included creating guidelines for issue involvement, developing and distributing 10,000 cultural trout posters to schools, participating in activities relating to the listing of Snake River salmon under the Endangered Species Act, holding the Chinook Smolt Survival Workshop, and developing a Chapter Action Plan based on the Society Long-Range Plan.

Award of Excellence

The Western Division's highest award was presented to Ted Bjorn. During Ted's many years of dedicated service to the fisheries profession, he has produced numerous valuable publications, among them works on salmon and trout which are used throughout the West as standard references. His reports in the early 1980s led to the listing of several salmon runs under the Endangered Species Act. Ted has consistently set a high standard for all fishery professionals to follow.

Award of Merit

Morgan Busby, Willa Neilsen, Jack Williams, James Lichatowich, and William Meehan were the recipients of the Western Division's Award of Merit. Morgan was rewarded for his outstanding work as chair of the Chapter Marine Fisheries Committee and for revising the Division "book" and exhibiting it on several occasions, including the 1991 Fish Expo, thereby giving the society exposure well beyond the area of his Chapter. Willa, Jack, and Jim were recognized for their "Salmon at the crossroads..." article which appeared in Fisheries, and Bill was recognized for his work as editor of Influence of Forest and Rangeland Management on Salmonid Fishes and Their Habitats.

Riparian Awards

Riparian Awards were presented to U.S. Forest Service and Bureau of Land Management subunits as follows: USFS: Heber Ranger District, Uinta National Forest, Utah (North Garcia); Sequoia National Forest, California; Pacific Northwest Region, Oregon & Washington (John Anderson), BLM: Wells Resource Area, Nevada; Elko District, Nevada; Nevada

State Office (Billy Templeton). National Fisheries Program managers from both agencies (Harve Forsgren, USFS and Jack Williams, BLM) were on hand to receive the award for agency subunits who were not represented.

Robert L. Borovicka Conservation Achievement Award

Orville Daniels, Forest Supervisor of the Lolo National Forest in Montana, received one of two Robert L. Borovicka Conservation Achievement Awards. Orville's perseverance in achieving good multiple-use management—including protection and management of the fishery resources affected by the Lolo National Forest—and his sound and professional actions in the face of significant political pressure were cited in this annual award to an individual who is not a member of AFS. Idaho Governor Cecil Andrus also received the Robert L. Borovicka Award for his steadfast support for achieving flows necessary to restore valuable salmon and steelhead in the Columbia River. Governor Andrus has been a champion for fish despite political criticism. His support for implementation of the Endangered Species Act has been vital to fishery resources.

Best Student Paper Award

David Mike at Texas Tech received the Best Student Paper Award for his paper titled "Angler Catch Rate, Effort, and Satisfaction for a Community Put-and-Take Rainbow Trout Fishery."

1992 RIPARIAN CHALLENGE WINNERS

At the Annual Meeting in Fort Collins, Colorado in July the Western Division presented its 1992 Riparian Challenge awards for riparian achievements during calendar year 1991. The Western Division's annual Riparian Challenge encourages the U.S. Forest Service and the Bureau of Land Management to strive for excellence in riparian habitat management by giving agency personnel, managers and resource specialists, some recognition for on-the-ground accomplishments which are aimed at maintaining, restoring, and improving riparian ecosystems.

A total of 12 Forest Service Ranger Districts or National Forests submitted 33 projects, and 13 BLM Resource Areas submitted 47 projects in 1992. Awards were given to field offices for the on-the-ground work. The awards were given to the higher administrative offices based on the total submissions of their subordinate offices to recognize their managerial leadership and their financial and moral support. The following were the 1992 Riparian Challenge Award recipients in their respective categories:

U.S. Forest Service

- Heber Ranger District
- Sequoia National Forest
- Pacific Northwest Region

Bureau of Land Management

- Wells Resource Area
- Elko District Office
- Nevada State Office

The Pacific Northwest Region of the Forest Service was a repeat winner from 1991 as were each of the BLM offices.

PHYSIOLOGYII

Announcing the formation of the new Physiology Section in the American Fisheries Society. The purpose of the Section is to promote excellence in the science of fish physiology through improved communications between researchers and other professionals who want current information on physiological processes, tools and techniques. The Procedures Manual is near completion and will be mailed out along with a list of members in the first newsletter (look for it around Christmas).

"Physiology" was originally chosen as the Section's name because it encompassed a large realm of subdisciplines. For those who have filled out the Section's application form, you would have had the opportunity to check off any number of the 24 subdisciplines listed under the auspices of "Physiology." Included under this "umbrella" are: Acid-Base Regulation, Behavioral, Biochemical, Biomechanics, Cellular, Circulatory, Developmental, Digestive, Ecological, Endocrinology, Excretion, Growth, Histology, Ionoregulatory, Molecular, Muscular, Neurology, Nutrition, Osmoregulation, Reproductive,

MEETINGS & SEMINARS

1993 Pink and chum salmon workshop

First notice—call for papers! The 16th Pacific Pink and Chum Salmon Workshop will be held February 24-26, 1993 in Juneau, Alaska. The Steering Committee has relied in large part on the questionnaire completed by participants at the 1991 workshop in Parksville to identify the following areas of current research to be featured in the workshop. Fishery Management Biology Habitat Enhancement Contributed Papers/Poster Papers For more information, to make suggestions for the program, and to submit titles of your talks contact: Bill Smoker, Chair 16th Pink and Chum Workshop University of Alaska Fairbanks School of Fisheries and Ocean Sciences 11120 Glacier Highway Juneau, AK 99801 USA phone: 907/789-4444; fax: 907/789-4447

November 18-21, 1992

24th Annual Symposium of the Desert Fishes Council. Dobson Ranch Inn and Resort (Best Western), Mesa, Arizona. For info: Phil Pieter, Desert Fishes Council, P.O. Box 337, Bishop, CA 93515, 619/872-8751, or Paul Marsh, Center for Environmental Studies, Arizona State University, Tempe, AZ 85287-3211, 602/965-2977.

November 19-21, 1992

Pacific Marine Expo. Washington State Convention Center, Seattle, Washington. For info: National Fisherman Expositions, 5 Milk Street, P.O. Box 7437, Portland, ME 04112-7437, 207/772-3005; Fax: 207/772-5059. 1993

January 3-4, 1993

Canadian Conference for Fisheries Research. Trent University, Peterborough, Ontario. For info: Dr. Daniel Boisclair, Biological Sciences Department, University of Montreal, P.O. Box 6128, Station A, Montreal, PQ H3C 3J7, 514/343/6762.

March 19-24, 1993

58th North American Wildlife and Natural Resources Conference. Omni Shoreham Hotel, Washington, DC. For info: L.L. Williamson, Wildlife Management Institute, 1101-14th Street NW, Suite 725, Washington, DC 20005, 202/371-1808.

April 13-15, 1993

International Symposium on the Biology and Management of Sablefish. Alaska Fisheries Science Center, Seattle, Washington. For info: Mark Saunders, Department of Fisheries and Oceans, Fisheries Research Branch, Pacific Biological Station, Nanaimo, BC V9R 5J, 604/756-7154; Fax: 604/756-7053.

Call for papers! August 28-September 3, 1992

1993 AFS annual meeting in Portland, Oregon
Announcing a series of symposia sponsored by the Physiology Section at the '93 AFS Annual Meeting in Portland, Oregon. The symposium will be broken into two half-day symposia and will consist of solicited and contributed papers.

Morning Session — 10 papers, 20 minutes each

- I. Stress and Environmental Physiology of Fishes: Compensatory Responses
- II. Stress and Environmental Physiology of Fishes: Performance Capacity

An appropriate beginning for the new Section would be to start with the question: What makes a fish - a fish? What is the connection between perturbation and survival? What are the adaptive changes that take place in response to environmental change? How does evolving in an aquatic environment make a fish so unique?

In addition, the Physiology Section will be responsible for a half-day general contributed paper session and a contributed poster session. An original and six copies of the abstract for each paper submitted for the symposia, general contributed paper session and contributed poster session must be received by December 1. Abstracts should be sent to: Colleen A. Caldwell, President AFS Physiology Section Box 936 La Crosse, WI 54602, (608) 783-6451.

THIS AND THAT AROUND THE WEST

ANIMAL RIGHTS IN ARIZONA

What do steel-jawed traps have to do with fish? In Arizona they could mean the end of all hunting and fishing - your state could be next! Proposition 200, the "Arizona Animal Rights Initiative" is ostensibly a bill to prohibit the use of steel-jawed traps on public lands in Arizona. This voters will decide in November, 1992.

The preamble to the initiative states: "That all wildlife in Arizona should be protected from inhumane exploitation"; "That it is the policy of Arizona that the public lands be safe and humane for all creatures found thereon"; "That it is the policy of Arizona that all wildlife be managed by humane and non-lethal methods." Since hunting and fishing are lethal means of taking wildlife, they could be prohibited by this law. Even "catch-and-release" fishing could be arguable inhumane.

Although it is stated in Section 2 of the initiative that "no restriction in Paragraph D shall prohibit the taking of wildlife with guns or other implements in hand", enforcement of Section 1 would disallow the use of not only guns, but also fish hooks, mouse traps, and any other means of taking wildlife considered to be "lethal." The Arizona Attorney General, and legal counsels for the International Association of Fish and Wildlife Agencies and The Wildlife Conservation Fund of America all believe that the policy declaration in its broadest sense will take precedence over the following statements. The Arizona Supreme Court has already ruled in *State v. Korzep* (1990) that the Declaration of Policy is the legislative intent that should be used in interpreting the law.

The Arizona Game and Fish Commission believes that passage of Proposition 200 would prohibit all recreational fishing, hunting, and trapping in Arizona. Loss of these activities would eliminate the primary funding source for law enforcement, protection, research, education and management programs for the State's wildlife.

The American Fisheries Society recognizes this initiative as the opening salvo in the Animal Rights Agenda to outlaw hunting and fishing in the United States. It is no coincidence that the chairman of the committee backing the initiative, "Arizonans for Safety and Humanity on Public Lands" is a lawyer for the Humane Society of the United States.

At the annual business meeting of the Western Division of AFS in Ft. Collins, Colorado, a motion was passed to send a letter opposing Proposition 200 and supporting "Arizonans for Wildlife Conservation," a coalition of conservation and sportsman groups organized to fight Proposition 200. The Arizona-New Mexico Chapter has also expressed their support in fighting this initiative. For more information, write Arizonans for Wildlife Conservation, 2916 N. 40th Street, Phoenix, Arizona, 85013.

—Sue A. Morgensen Pres., AZ-NM Chapter



—Physiology, continued from page 2

Sensory, Stress, Ecotoxicology, etc.etc.etc. The multi-subdiscipline approach will provide a forum for basic fish biologists in AFS to gather under one roof and establish a network amongst ourselves. If your area(s) of interest fall within the scope above, there is room at the table for you.

Although still in its "larval phase," the Section will soon be confronting challenging issues. If you are interested in joining the Physiology Section, please contact: Colleen A. Caldwell National Fisheries Contaminant Research Center 2630 Santa Reed Road La Crosse, WI 54602 Phone (608) 783-6451 FAX (608) 783-6066 Please do not forget to check the box next to Physiology Section when renewing your AFS membership!

EGGS, APPLES, AND FISH

An Opinion by Tim Goeman

The fisheries manager watches the irate resort owner drive away from his office. The last two hours have not been pleasant. The resorter wanted walleye stocked in his lake. The manager's best efforts at explaining adequate natural reproduction, exploitation, harvest, year class variability, and recruitment seemed to fall on deaf ears. Finally the resorter stormed out with a threat of going to the governor. The manager wondered at the lack of progress fisheries professionals have made in communicating sound fisheries principles to the fishing public.

Meanwhile, in a separate building only 100 yards away, the assistant fisheries manager has begun his fourth hatchery tour of the afternoon for local school children. The batteries of eggs always intrigue the wide-eyed youngsters. The egg-take has been good this year. The hatchery is running at near-full capacity. Soon millions of fry will emerge.

These scenarios are guaranteed to continue until fisheries professionals begin realistically assessing the long-term costs of the way we do business. What has the fisheries manager really communicated to his clientele when the most significant public relations effort of the year is the hatchery tour? The message conveyed is 1) that fish come from hatcheries; 2) that habitat degradation is so severe that naturally spawning populations are inadequate or no longer exist, and 3) that the long-term health of the fishery resource depends on hatchery technology. Fisheries professionals are quick to pontificate about the value of habitat protection, watershed management, and preserving genetic integrity of fish stocks. But when was the last time a school group was guided on a tour that emphasized habitat and the importance of this ecological component?

It's so easy to give a hatchery tour. It's convenient for everyone. It always gets rave reviews and it helps give a fisheries program some visibility. The long-term costs, however, reach far beyond the mere dollars and cents of a cost-benefit analysis. I am convinced the real costs show up years later when the child has taken ownership of his parent's resort, a poor year of fishing starts cutting into his profits, and he remembers his third grade field trip of years earlier. Is it really so amazing that the resorter will not believe the fishery manager's reasoning for not stocking fish?

Well-managed hatchery and stocking programs do have a place in fisheries management, but only as they fit within a sound ecological plan that has fully considered the long-term integrity of the resource. Hatchery and stocking programs are not an excuse for habitat loss and poor fisheries management. Such programs merely serve as treatments for symptoms rather than remedies for the real problems. Our clientele need cures, not pain-killers. (For an enlightening commentary on hatcheries and the future of our fisheries see Fisheries Vol. 17, No. 1 (1992), pages 508.)

At least three times during my short fisheries career of about 15 years, Aldo Leopold's land ethic has emerged in an effort to give new life to natural resource management. One reason his thoughts are still valid today is that most people are urban dwellers with little practical appreciation for natural and wild processes. The facts, for most people, eggs come from the dairy case, apples from the produce aisle, and fish from the hatchery. The fisheries manager can change some of this thinking, if we change the way we do business.

Editor's note: This opinion was written for the Minnesota Chapter Newsletter (July 1992). I think Tim makes some good points that you might like to read.

HEAVILY FISHERD STOCKS SHOWING QUICKER SEXUAL MATURATION

The National Marine Fisheries Service's Northeast Fisheries Science Center has documented the maturation rates of 29 stocks of 19 species of Northeast finfish collected during 1985 to 1990. Many of the stocks showed significantly quicker maturation during 1985 to 1990 than they did during earlier time periods. This quicker maturation during a period of heavy fishing pressure may be an illustration of a phenomenon which has been observed in other fisheries ecosystems: 1) heavy fishing removes a large portion of a fish population; 2) remaining fish have proportionately more prey to eat; 3) increased

feeding increases individual growth rate; and 4) faster growth rate triggers sexual maturation at a younger age or smaller size.

This phenomenon has been virtually unnoticed by commercial fishermen because the quicker maturation largely began after the Regional Fishery Management Councils adopted conservation measures in the mid-1980s which, among other things, prevented fishermen from keeping (and thus cutting open and observing) smaller/younger fish. For more information, contact: Loreta O'Brien at (508) 548-5123.

FOREST SERVICE TEAM TO SEEK IMPROVEMENTS IN SALMON HABITAT

In response, in part, to the findings of the American Fisheries Society (AFS) that naturally producing stocks of Pacific salmon and steelhead are at risk of extinction in many areas from California to Alaska, the U.S. Department of Agriculture's Forest Service has established a team of scientists and fisheries specialists to develop new measures for improving salmon and steelhead habitats on National Forest System lands throughout the western United States, including Alaska.

Of more than 400 naturally reproducing salmon and steelhead stocks in Washington, Idaho, Oregon, and California recently evaluated by the AFS, 214 were judged to be at high or moderate risk of extinction and another 54 were of special concern. Diminishing stocks are attributed to a combination of hydroelectric development and operations, harvest, hatchery influences on disease and genetic fitness, and deteriorating habitat conditions. Habitat conditions on National Forest System lands are important to conserving many of the at risk stocks, and can help moderate the rate of decline for stocks threatened primarily by non-habitat factors.

The Forest Service has been actively managing salmon and steelhead habitats for many years. The Agency's \$29 million anadromous fisheries budget includes habitat protection, restoring spawning and rearing habitat, building fish ladders for migrating fish, and research to increase understanding of fish habitat needs. For more information, contact: Len Carey at (202) 205-1782.

COUNCIL APPROVES STRATEGY TO REBUILD COLUMBIA RIVER BASIN SALMON RUNS

The Northwest Power Planning Council, meeting September 9 in Boise, Idaho, approved a comprehensive strategy to enhance the survival of salmon in the Columbia River Basin at every stage of their life cycle.

"This is a world-class action," Council Chairman Ted Hallock of Oregon said. "No region of any country in the world has developed as complete a plan to protect a natural resource and an ecosystem."

Seven of the eight Council members who represent the four Northwest states and governors, voted in favor of the strategy. John Brenden, one of Montana's two members, voted no, citing concerns about uncertainties in the plan and its ultimate cost.

The Council began developing the strategy last year in response to a request from the governors and the Northwest congressional delegation to prepare a regional salmon rebuilding plan. The council developed its strategy in the form of amendments to the Columbia River Basin Fish and Wildlife Program.

Actions in the strategy will be carried out by state and federal agencies and, in some instances, private landowners. Financing will come largely from Bonneville Power Administration rates. Sharing the cost is a key part of this program; therefore, other sources also will be used. For example, Congress gave preliminary approval earlier this year to nearly \$100-million in salmon-protection measures.

Key elements of the Council strategy include:
Enhanced protections for salmon migrating past Columbia and Snake River dams;
Further limits on salmon harvests, and a focus on improved fishing techniques to better target abundant runs;

—continued on page 4

—This and That continued from page 3

Improved salmon habitat;

Improved hatchery practices to reduce disease and protect naturally spawning salmon.

Council members worked closely with the National Marine Fisheries Service in developing the salmon strategy. The Service is preparing recovery plans for three runs of Snake River salmon that have been placed on the federal endangered species list.

"If the Council strategy is adopted by the National Marine Fisheries Service, our region can move ahead with a massive salmon recovery effort without destroying the economic fabric of the Northwest," Hallock said. (NW Power Planning Council "Update" Volume 9, No. 10; October 1992.)

THE W. ALTON JONES FOUNDATION

A study of the East Cascades has been funded by the W. Alton Jones foundation to assess which watersheds need to be protected to maintain terrestrial old growth ecosystems and salmonid stocks at risk. The North Pacific International and Oregon Chapters of AFS plan to identify the watersheds and prepare interim management guidelines to be applied until national forest plans can be amended to provide long-term protection. Leading the study is The Wildlife Society, which also includes the Society for Conservation Biology, American Institute of Biological Sciences, the American Ornithologists Union, and the Ecological Society as well as AFS. These reports are expected to form the scientific basis for ancient forests protection legislation that is currently being considered.

THE CENTER FOR AQUATIC PLANTS

The Aquatic Plant Information Retrieval System (APIRS) has been introduced, containing citations for research papers and books and can generate bibliographies on specific topics upon request using keywords, species, names, and subject categories. Contact The Center for Aquatic Plants, 7922 N.S. 71st Street, Gainsville, FL 32606 (904) 392-1799.

—Meetings, Seminars continued from page 2

Short-Course on landfills and groundwater quality protection issues

Municipal solid wastes (sanitary) landfills present highly significant causes of groundwater pollution. The "new generation," state-of-the-art, lined "dry tomb" landfills being constructed today can at best only postpone pollution. Drs. G.Fred Lee and Anne Jones-Lee have developed a one-day short-course that addresses landfills and groundwater quality protection issues. In addition to presenting a discussion of problems with current approaches for managing municipal solid wastes, the short-course identifies alternative methods of solid waste management that do not lead to groundwater pollution.

This short-course is being offered on the dates listed below.

December 2 & 3

Orlando, FL. National Ground Water Association (NGWA) (co-taught by M. Apgar) (1993).

January 19

New York City, NY. American Society of Civil Engineers (ASCE).

January 21

Atlanta, GA. American Society of Civil Engineers (ASCE).

Spring 1993

Chicago, IL. American Society of Civil Engineers (ASCE). For further information on course content, please contact: Dr. G. Fred Lee G.Fred Lee & Associates 272298 East El Macero Drive El Macero, CA 95616-1005 TEL: 916-753-9630 FAX: 916-753-9956.

For registration information, contact identified organization/society: UCLA University Extension, Margaret Hamilton, 310-825-7093 UC Berkeley University Extension, Diane Walcott, 510-643-7143 UC Santa Barbara University Extension, Judy Weisman, 805-893-3697 AWWRA, Mike Fink, 301-493-8600 NGWA, Comic Safreed, 614-761-1711 ASCE, Ann Marie Deppre, 212-705-7959.

Intermountain Fisheries Abstracts

The 1992 edition of the Intermountain Fisheries Abstracts is out! For those of you not familiar with IFA, it is one avenue the Idaho Chapter is using to tray and keep fisheries professionals abreast of work being done in the intermountain west. Over 200 reports, articles, and theses were abstracted this year, covering work in Idaho, Montana, Wyoming, Utah, Oregon, and Washington. To order your copy (also available in 5 1/4 inch floppy disk, WordPerfect 5.1), please send \$5 plus \$1 for shipping and handling to: Mike Rowe, Fish. Depl., Shoshone-Bannock Tribes, P.O. Box 306, Fort Hall, ID 83203.

Fly-Fishers' New Guide To Favorite Streams

The new edition of *Rivers to Remember*, by Frank Raymond, tells of progress being made to restore the Upper Sacramento a year after the disastrous Camera Loop Toxic Spill in one of California's great trout fisheries. It brings up to date information on fishing, camping, and exploring the rivers and streams of our great Northwest. More than a fishing guide, this expanded edition provides a glimpse into California history with the insight of a devotee of nature's marvels on the state's waterways. Written with good humor that informs as it entertains, this unique little book tells of a float trip on the Trinity River, Eagle Lake's trophy trout, a junket through the countryside in which John Steinbeck's Camery Row was set, and other adventures the author has had in his decades-long pursuit of his hobby, fly-fishing. Raymond is a charter member of the Outdoor Writers Association of California (OWAC), and won this organization's award for Best Magazine Feature in 1990. For purchase information contact FER Publishing, PO Box 492008, Redding, CA 96049-2118.

The U.S.F.W.S. 1993 Training Catalog

Chief of Training and Education, John R. (Rick) O. Lemon reports, "This year's catalog introduces several new courses...Assess your needs and talk with your supervisor or mentor about an individual development plan." He also recommends the course entitled, "Managing Personal Growth," a course that will help assess developmental needs and provide skills for improving performance.

A FAREWELL FROM THE EDITOR

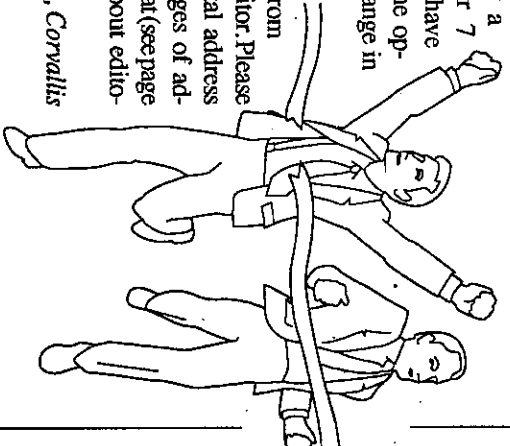
Since March 1988 I have been the editor of the WDAFS newsletter. In this time the newsletter has expanded to three issues a year, changed in format from 8.5x11-inch type-written pages, to a 4-page, desktop published newspaper format and changed *The Tributary* mashed.

I have endeavored to provide a variety of articles of interest to fisheries professionals not only from the western United States but the rest of the world as well. I have tried to balance the editorial content to reflect the changing nature of our profession, from academic and research-oriented perspectives, to legislative and consulting issues that affect our profession and our everyday lives.

I have enjoyed the challenge of assembling and editing this newsletter. I have looked forward to reading the various news articles and materials about fisheries from around the nation and the world and have enjoyed talking with many of you on the phone and at AFS meetings. I have also enjoyed knowing I have contributed a part, albeit small, to the promotion and continuing education of the members of our professional organization.

I am beginning a sabbatical leave for 7 months in 1993 and have decided that this is the opportune time for a change in the editor position of *The Tributary*. The next issue is coming from Pat Dwyer, the new editor. Please note the new submittal address for articles and changes of address. Please contact Pat (see page 1) for information about editorial deadlines.

—Roger W. O'vink, Corvallis

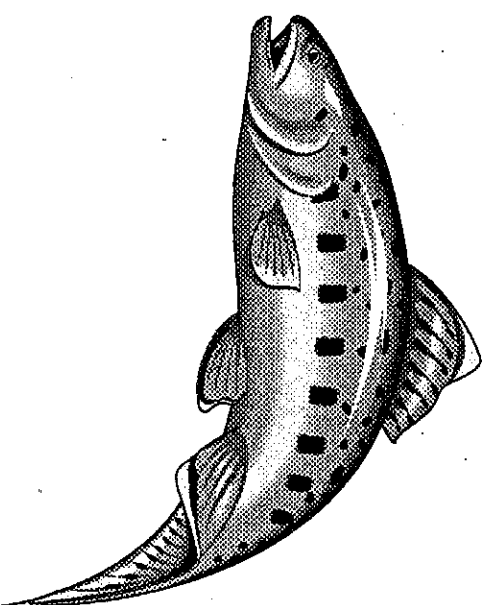


Grab Your Fly Rod!

Springs of Virginia: A Guide to Spring Management and Protection, by the Virginia Water Resources Research Center, is available. For a copy contact Louis Helfrich, Department of Fisheries and Wildlife, Virginia Tech, 152 Cheatham Hall, Blacksburg, VA 24061, phone (703) 231-5059.

Bull Trout Workshop Proceedings

Copies of the proceedings of a 1989 workshop on the life history, distribution, and status of bull trout *Salvelinus confluentus* populations are still available. The workshop, sponsored by the Natural Production Committee, was attended by 45 fisheries professionals from four states and 11 agencies and companies. Co-editors Philip Howell and David Buchanan write, "While many of Oregon's bull trout populations are at risk, we are optimistic, albeit somewhat naive, that we can maintain the healthy populations, recover some of the depressed populations, and perhaps even reintroduce bull trout in a few of the suitable areas where they are now extinct." They caution, however, that this is not possible "unless the management of bull trout and their habitats are substantially changed." The Proceedings of the Gearhart Mountain Bull Trout Workshop is a call for management change. Cost of the volume is \$5 plus \$1 postage and may be ordered by mail through Oregon Chapter AFS (P.O. Box 722, Corvallis, OR 97339) or by contacting David Buchanan (737-7634).



JOBS

Commercial Fisheries Staff

Vessel and gear technology academic staff required who will enthusiastically provide practical experience to Fisheries Science degree candidates. Traditional skiff and dhow fisheries, an industrial fleet and University-operated vessels are available for study of diverse commercial fisheries. Candidates should have *hands-on experience in vessel and/or gear technology* (i.e. maintenance, refitting, operating, gear fabrication and fish handling). Coastal resources exceptional, living standards high and cost of living modest.

Please supply resume with detailed teaching and practical experience, photocopy of passport information (date and place of issue, birth, countries visited in past year), fax or telephone numbers. Contact HOD, Fisheries Science and Technology, Sultan Qaboos University, Box 32484 Al-Khod, Muscat Sultanate of Oman Fax: 011-968-513254; telephone, 011-968-515248.

Fisheries Consultant

B. C. Hydro and Power Authority and B. C. Environment are undertaking a joint, multi-year initiative to compensate for fish habitat losses resulting from hydroelectric development in the upper Columbia River. A variety of fisheries inventory, monitoring, enhancement and public information/education contracts are planned. Parties interested in this work are invited to submit their qualifications and inquire to Mica Fisheries Compensation Program, c/o B. C. Environment, 617 Vernon St., Nelson, B. C., Canada V1L 4E9. Attention Colin Spence, 604/354-6344.