



# The Tributary



A Newsletter of the Western Division, American Fisheries Society

Volume 25, No. 3, November 2001

## FINAL CALL FOR PAPERS 2002 - WDAFS Annual Meeting

### Toward Ecosystem-Based Management: Breaking Down the Barriers in the Columbia River Basin and Beyond

The 2002 Annual Meeting of the Western Division of the American Fisheries Society (WDAFS) will be held in **Spokane, Washington on April 27 to May 1, 2002**. The meeting, which will be convened jointly by the WDAFS, the Transboundary Group (comprised of a number of government, tribal, and non-governmental organizations with an interest in the transboundary portions of the Columbia River Basin), the Sustainable Fisheries Foundation, and the North Pacific International Chapter-AFS (NPIC), is entitled ***Toward Ecosystem-Based Management: Breaking Down the Barriers in the Columbia River Basin and Beyond***. This conference represents the third in a series of meetings that have been exploring new ways of cooperatively managing transboundary water, fish, and wildlife resources, primarily utilizing ecosystem- and watershed-based approaches.

The ***Toward Ecosystem-Based Management*** conference is intended to provide a major international forum for exchanging information and engaging in technical debates on a wide variety of issues related to transboundary management of natural resources in the Columbia River Basin and elsewhere in western North America. More specifically, this conference will enable participants to share new information, to report on the progress that has been made on the transition toward ecosystem-based management and salmon recovery, to build the partnerships needed to implement effective strategic planning processes, and to renew our shared commitment to sustainability. Importantly, the conference will also provide opportunities to identify the factors that are contributing to the success of resource management initiatives, to describe the challenges that we are facing in terms of fully implementing relevant programs, and to develop recommendations for further improving and coordinating such efforts in the future.

### Benefits of the Conference

The ***Toward Ecosystem-Based Management*** conference will yield a number of tangible scientific, environmental, social, and economic benefits. First, the conference will encourage and facilitate ecosystem-based management within the Columbia River Basin and, in so doing, advance the prospects for optimizing the use of aquatic and riparian resources among the various interests and user groups in the basin. The lessons learned in the Columbia River Basin will represent important models that can be applied elsewhere in western North America. Additionally, the conference will provide a forum for sharing information on a wide range of topics related to the management of transboundary water, fish and wildlife resources. Furthermore, the conference will bring together community groups, First Nations, non-governmental organizations, industrial interests, government agencies, and many others in a non-confrontational setting that will facilitate the building of strategic partnerships for implementing watershed-based planning and ecosystem-based management initiatives. By building on the successes of the previous two meetings, it should be possible to achieve lasting benefits relative to the management of natural resources in the basin. Finally, the conference will provide opportunities for fisheries scientists from throughout the west to attend symposia and technical sessions on a variety of topics related to sustainable fisheries management.

### Program Overview

The ***Toward Ecosystem-Based Management*** conference will be convened over a five day period in April, 2000 to facilitate participation by a wide array of delegates, including policy makers, scientists, resource users, First Nations, tribal organizations, community groups, and concerned citizens. The conference will be comprised of a number of integrated components, including:

- \* A series of ***Plenary Sessions*** that describe the purpose and structure of the conference, provide essential background information on ecosystem-based management and its applications, highlight key issues influencing sustainability, and identify the factors that are impeding progress toward ecosystem-based management.

(continued on page 3)

## Summary of 2001 Western Division Annual Meeting

The **Western Division AFS** met this year in conjunction with the AFS parent society annual meeting in Phoenix, August 19-23. The meeting was hosted by the Arizona-New Mexico Chapter, who did a spectacular job on arrangements, the Western Division AFS, and Arizona Game and Fish Department. The theme of the meeting was "***2001: A Fisheries Odyssey, The Journey of Science and Education Continues***". The theme addressed the future of aquatic resources as our odyssey continues into the first full year of the new millennium. Carl Burger, AFS President and our illustrious former Western Division President, presided over the meeting.

The meeting was packed with continuing education, section meetings, social activities, symposia, and technical sessions. Total attendance at the meeting was 1,144. Continuing Education Workshops drew 115 attendees. There were 433 great oral presentations and 83 posters.

### Western Division Highlights

Among the many other symposia and technical sessions, the **Western Division of AFS** and the **Sustainable Fisheries Foundation**, sponsored the highlight symposium of the meeting, entitled ***Can the Journey of Science and Education Lead to Fisheries Sustainability in North America?*** The symposium consisted of 22 excellent speakers who explored the most challenging sustainability issues to hopefully provide solutions to guide fisheries into the future. This 2-day session addressed human population growth, urbanization, the effects of broad landscape changes on fisheries, the biological, social, and economic impacts of overharvest, and new paradigms for management that account for ecosystem-wide effects. Invited experts recommended solutions that, in addition to improving fisheries science and management, will help move fisheries management to a new level of involvement with other societal sectors that often dramatically influence the success of fish populations, their habitats, and the fisheries they support. The contributors are submitting manuscripts to be published by AFS in a peer-reviewed book next year. For more information contact Don MacDonald ([sff-mesl@island.net](mailto:sff-mesl@island.net)) or Eric Knudsen ([eric\\_knudsen@usgs.gov](mailto:eric_knudsen@usgs.gov)).

The **Western Division Executive Committee** met on Sunday, August 19 and was attended by

(continued on page 7)

The **Tributary** is distributed to 3,711 WDAFS members and exists as a forum to present fisheries-related information. The editor is Mary Whalen. If you have information you would like to have included in **The Tributary**, please contact us at:

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Submissions for the next issue of **The Tributary** are due by January 1, 2002.

# President's Message



The Western Division is alive and well!! But, of course, we can always do better. In the first President's Message of my brief tenure, let me tell you about my vision for a few things I hope the Division can accomplish

this year. My frame of reference for what the Division should be focusing on is the AFS mission statement:

**"The mission of the American Fisheries Society** is to improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals."

This statement implies an incredible number of potential actions and activities that the Division could be engaged in. To follow the Keep It Simple principle, yet still make progress, I have identified four areas for focus this year.

**AFS involvement** – As in any other volunteer organization, it's always difficult to find people to step forward to participate in the numerous activities that can and will make WDAFS an effective vehicle for promoting aquatic stewardship and the professionalism required for healthy aquatic resources. Obviously there's no way to insist that people volunteer. But I believe that people can be attracted to participate through 1) exciting and diverse annual meetings, 2) professional networking and camaraderie, and 3) important stewardship issues. In each of these areas, WDAFS has unlimited potential, yet we haven't fully tapped into them. The EXCOM will be working to promote progress in all these areas and I encourage each of you to identify a role for

yourself in AFS and either volunteer or be ready to say yes when we call for your help.

**Inclusiveness** – There are currently about 3,700 dues-paying members in WDAFS. Yet, we all know there are many non-member fish biologists, scientists, and managers in the geographical area of WDAFS. How can we attract and serve those folks who have chosen to not join AFS or have let their membership lapse? The fisheries profession is extremely diverse with a wide variety of professional subdivisions. WDAFS has not done a great job of providing a diversity of program or committee activities – we have often been viewed as salmonid-centric. We need to create opportunities for a wide array of professional interests to increase participation. As one example, WDAFS and the Cal-Neva Chapter have recently set the stage to co-convene the 2003 annual meeting in San Diego with a program emphasizing marine fisheries. We hope this will attract the salty folks who may have previously felt left out. There are other segments of the fisheries profession to attract, but this will be a good start.

**Effective Committees** – WDAFS committees cover a wide array of topics to support the AFS mission. The Division serves the AFS mission on issues that support AFS throughout the western states, provinces, and territories, and Mexico. Committees serve both the procedural functions of WDAFS and aquatic stewardship throughout the Division. A recently revised ad hoc committee is the Grants Funding Program Committee, chaired this year by Past President Bill Bradshaw. Bill has established subcommittees for 1) soliciting additional outside contributions to expand the fund to its target of \$100,000, 2) investment strategies, and 3) defining criteria for grant awards. We are expecting a proposal from the Grants Committee that it become a standing committee, which will require a vote of the

membership. I will also be looking into revitalizing the committees concerned with native people and professional diversity.

**Procedural Housekeeping** – One important aspect of keeping WDAFS healthy and efficient is to institutionalize procedures so that successive leaders will clearly know what needs to be done and can efficiently take care of WDAFS business without missing important annual activities. I am hoping to add a "Procedures" section to the WDAFS web site that will describe what needs to be done each year. Many other AFS organizational units have a procedural document that contains guidance not found in the unit by-laws or rules, or that explain how the by-laws or rules are to be implemented. Improving the WDAFS procedures will allow future officers and other EXCOM members to be more efficient, freeing them for more effective involvement in meeting the AFS mission.

I am very excited about all the possibilities for WDAFS both this year and in the future – watch for further ramblings in upcoming newsletters. The next major event is the December **WDAFS retreat**, described elsewhere in this newsletter. We are also very excited about the Division's annual meeting in Spokane – please see the Final Call for Papers in this newsletter and on the web and consider contributing. The vibrancy of WDAFS depends on the level of commitment and involvement by its many members. So, I hope each of you will give careful thought about how you, AFS, and our fisheries resources can mutually benefit by your active involvement with AFS. Think about it, jump in, and get involved!

Eric Knudsen  
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## Chapter News

### 2002 BONNEVILLE AND IDAHO CHAPTERS JOINT ANNUAL MEETING POCATELLO, IDAHO

The Bonneville and Idaho Chapters will hold a joint Annual Meeting in 2002. Mark your calendars for Feb 28 to March 1 and 2, 2002 in Pocatello at the West Coast Pocatello Hotel. Reservations can be made by calling 800-527-5202 and requesting the Idaho Chapter American Fisheries Society special booking rate.

The meeting theme will be: The American Fisheries Society: What Are We Managing For? We will explore the issues: 1) are today's fisheries professionals forced to simply preserve species and 2) how do people fit into fish and habitat management equations? For more information, contact Steve Elle: 208 465-8404, selle@idfg.state.id.us

In addition to the annual meeting, the Native Fish Committee will offer a one-day symposium: Sinks Symposium: Exploring the Origin of Fish and Their Management in the Sinks drainages of Southeast Idaho. Jim Capurso, Bart Gamett, and Rob VanKirk are the organizers. The meeting is scheduled for Wednesday, February 26 from 8:00 a.m. to 5:00 p.m. The meeting is

presented without registration fees through sponsorship by the U. S. Forest Service. Pre-registration is required in order to plan for meeting room and breaks. More information about the symposium can be found at [www.fs.fed.us/sc/fish/symposium](http://www.fs.fed.us/sc/fish/symposium). Come learn about the geology and fisheries of a large portion of southern Idaho.

### MONTANA CHAPTER MEETING - BOZEMAN, MONTANA

The Montana chapter is meeting January 29 - February 1, 2002 at the Holiday Inn in Bozeman, MT. The first day is devoted to Continuing Education and is about "Photographing Fish and their habitat". The meeting is themed "Celebrating Montana's Fisheries Heritage". For more information, folks should contact Pat Byorth at (406) 994-6938 or [pbyorth@montana.edu](mailto:pbyorth@montana.edu).

### COLORADO/WYOMING CHAPTER MEETING - LARAMIE, WYOMING

Plans are starting to come together for the 2002 annual meeting. The meeting will be held in Laramie, WY on February 26 and 27 with a continuing education workshop to be held on the

28<sup>th</sup>. Additional information will be available on the website and in the upcoming newsletter, "The Angler". To volunteer for one of the many committees, please contact Rob Gipson ([rgipso@state.wy.us](mailto:rgipso@state.wy.us)).

### 35<sup>th</sup> JOINT ANNUAL MEETING Arizona & New Mexico Chapters of The Wildlife Society and Arizona-New Mexico Chapter of the American Fisheries Society

Ramada Inn Hotel & Conference Center  
Safford, Arizona  
February 7-9, 2002

#### First call for papers:

Mail All abstracts to:

Andy Clark, Program Chair, Arizona Game and Fish Dept., 5325 N. Stockton Hill Rd., Kingman, AZ 86401 Phone: 520-692-7730  
<[aclark@gf.state.az.us](mailto:aclark@gf.state.az.us)>

## 2002 - WDAFS Meeting (continued)

\* A series of *Symposia and Technical Sessions* that will provide participants with an opportunity to share information on a broad range of topics related to the management of water, fish, and wildlife resources. The technical sessions and symposia that will be incorporated into the program include:

- **Limitations to Implementation of Ecosystem Management.** Session Chair: Matthew Andersen (nrdwr.manderse@state.ut.us)
- **Youth Participation in Ecosystem Management Initiatives.** Session Chair: Stacy Barter (sbarter@cbt.org)
- **The Role of the Estuary in the Life History and Recovery of Columbia River Salmon.** Session Chairs: Daniel Bottom (Dan.Bottom@noaa.gov) and Charles Simenstad
- **Linking Fish Productivity to Habitat.** Session Chairs: Steve Cramer (cramer@sprcramer.com) and George Pess (george.pess@noaa.gov)
- **The Effects of Federal Dam Management on the Tribal Lands and Resources by Examining A Case Study in the Upper Columbia River Basin.** Session Chair: Richard Du Bey (rdubey@scblaw.com)
- **Snake River Fall Chinook Salmon Research - A Decade on the Road to Recovery.** Session Chair: Phillip Groves (pgroves@idahopower.com)
- **Assessing Watershed Condition at the Regional or Landscape Scale: Why do it and what will it get us?** Session Chair: Bruce Hansen (bhansen@fs.fed.us)
- **Developing an Ecosystem-Based Management Framework for Fish, Water and Associated Habitat in the Okanogan Basin.** Session Chair: Kim Hyatt (hyattd@pac.dfo-mpo.gc.ca)
- **Wildlife - Habitat Relationships in the Columbia Basin.** Session Chairs: Andy MacKinnon (andy.mackinnon@gems1.gov.bc.ca) and Peter Paquet (ppaquet@nwppc.org)
- **Partnership Development Through the Use of Cooperative Agreements.** Session Chair: Sunnome Madrone (sunnome@rcaa.org)
- **Aquatic Ecosystem Restoration Efforts in the Snake and Columbia River.** Session Chairs: Donald Martin (martin.don@epa.gov) and Mary Lou Soscia (soscia.marylou@epa.gov)
- **Legal Framework for Transboundary Resources Management.** Session Chair: Joe Mentor Jr. (mentor@mentorlaw.com)
- **When Restoration of One Native Fish Species Conflicts with Existing Native Fish Populations.** Session Chair: Hal Michael (michahm@dfw.wa.gov)
- **Fish - and Fish Managers - at Risk: Evaluating the Appropriateness of Models for Risk-Assessment and Decision-Making.** Session Chairs: Gretchen Oosterhout (gretchen@decisionmatrix.net), Pete Lawson, and Bob Lackey
- **Aquatic Habitat Guidelines in Washington: Improving the Market for Good Science and Practice in Stream Corridor Restoration and Management.** Session Chairs: Doug Pineo (dpin461@ecy.wa.gov), Ken Bates, Debby Sargeant, Cinde Barger, and Patty Lynch
- **Monitoring Recovery Efforts for Pacific Salmon: Considerations for Designing Regional and Site-Specific Monitoring Programs.** Session Chairs: Phil Roni (phil.roni@noaa.gov), Chris Jordan, and Steve Katz
- **Raising Awareness, Embracing Diversity and Understanding Ecological Interdependence: Using Grassroots to Promote Conservation of the Head Waters of the Columbia River and the Columbia River Wetlands.** Session Chair: Jennifer Rosewarne (rosej@rockies.net)
- **Wild Fish in Our Streams: A Local Government's View of Successful Salmon Recovery.** Session Chair: Joel Rupley (Joel.Rupley@co.clark.wa.us)
- **The Role of Smoltification in an Ecosystem-Based Life History.** Session Chairs: Robin Schrock (Robin\_Schrock@usgs.gov) and Rick Martinson
- **Adaptive Management in the Columbia Basin and Beyond: What Is It and Where Is It Happening?** Session Chair: Gregg Servheen (gservhee@idfg.state.id.us)
- **Partnering for Economic and Ecosystem Sustainability in the Intermountain Province.** Session Chair: TBA (info@lrf.org)
- **Livestock Management for Fishable Waters: A Catchment Approach.** Session Chair: Janice Staats (janice\_staats@or.blm.gov)
- **Freshwater Habitat for Recovery of ESA-Listed Species.** Session Chairs: Ashley Steel (Ashley.Steel@noaa.gov) and Tim Beechie (tim.beechie@noaa.gov)
- **Delisting Criteria and Recovery Planning for ESA-Listed Species within the Columbia River Basin.** Session Chair: Cleve Steward (csteward@stewardandassociates.com)
- **Integrating Site-Specific Objectives and Science into Effective Assessments of Ecosystem Health.** Session Chair: Greg Thomas (gthomas@g3consulting.com)
- **Watershed Health and Integrity: Environmental Quality in the Transboundary Reach of the Columbia River Basin.** Session Chair: TBA (info@sff.bc.ca)
- **Ocean - Climate Impacts on Salmon on Decadal Time Scales.** Session Chair: David Welch (welchd@pac.dfo-mpo.gc.ca)
- **Climate Change and Transboundary Water Management In Columbia Basin.** Session Chairs: Paul Whitfield (paul.whitfield@ec.gc.ca) and Stewart Cohen
- **Native American Ecosystem-Based Management Initiatives.** Session Chair: TBA (info@sff.bc.ca)
- **Social and Economic Considerations in Ecosystem-Based Management.** TBA (info@sff.bc.ca)
- **Community-Based Watershed Cooperation and Management.** TBA (info@lrf.org)
- **Breaking Down the Barriers to Building Effective Partnerships with Industrial and Economic Interests** (info@lrf.org)
- **Formation and Empowerment of Watershed Councils.** TBA (info@sff.bc.ca)
- **Water Quality Conditions in the Lake Roosevelt Watershed.** TBA (info@lrf.org)
- **Advances in Kokanee Management in the Columbia Basin.** TBA (info@lrf.org)
- **Incentives and Disincentives for Effective Habitat Protection and Management.** TBA (info@lrf.org).
- **Initiatives of the Columbia Basin Fish and Wildlife Program.** TBA (info@sff.bc.ca)
- **Wildlife Management Issues, Programs, and Research.** TBA (info@lrf.org)
- **Watershed-Based Fisheries Sustainability Planning in British Columbia and Washington.** TBA (info@sff.bc.ca)
- **Sub-Basin Planning in the Intermountain Province.** TBA (info@lrf.org)
- **Lake Roosevelt Issues and Solutions.** TBA (info@lrf.org)
- **Advances in the Management of Dissolved Gases in the Columbia River Basin.** Session Chair: Mark Schneider (mark.schneider@mercury.akctr.noaa.gov)
- **Addressing Endangered Species Concerns into Ecosystem-Based Management Initiatives.** TBA (info@sff.bc.ca)
- **Development and Implementation of White Sturgeon Recovery Plans.** TBA (info@lrf.org)
- **Applications of Selective Fishing Methods in Salmon Recovery Initiatives.** TBA (info@sff.bc.ca)
- **Case Studies in Water Use Planning.** TBA (info@sff.bc.ca)
- **Wild Fish Policy and Management.** TBA (info@sff.bc.ca)
- **Contributed Papers, and,**
- **Student Papers.**

(continued on page 4)



## 2002 - WDAFS Meeting (continued)

\* A series of *Poster and Exhibition Sessions* that will provide participants with less formal means of sharing information and making contacts with prospective partners.

\* A number of *Workgroup Sessions* that will provide participants with opportunities to cooperatively develop solutions to some of the key challenges that are impeding progress toward ecosystem-based management of transboundary water, fish, and wildlife resources.

\* Opportunities for convening impromptu and planned meetings of topical groups (e.g., total gas pressure) and watershed groups to explore common interests and needs.

\* A closing *Plenary Session* that will summarize the results of the conference and help participants identify the next steps that need to be taken to support the transition toward ecosystem-based natural resource management.

The conference will also include a number of common luncheons, the WDAFS business meeting, the NPIC business meeting, socials, and a special banquet that will be hosted by the Columbia Basin First Nations and Tribes. With an anticipated attendance of more than 500 participants and an outstanding program, this is one meeting that you will not want to miss!

### Final Call for Papers

Persons interested in presenting a paper at the conference are requested to provide a title, list of authors and affiliations (indicating to whom correspondence should be directed; i.e., the presenter), and a brief abstract no later than **January 15, 2002**. Abstracts should be limited to 200 words in length and indicate your preference for a platform (i.e., oral) or poster presentation. Abstracts should be submitted by e-mail to Don MacDonald, Chair PPC at [info@sff.bc.ca](mailto:info@sff.bc.ca) or by regular mail to Don MacDonald, Chair PPC, Sustainable Fisheries Foundation, 24 – 4800 Island Hwy N, Nanaimo, British Columbia V9T 1W6. We will acknowledge receipt of your submission promptly by e-mail. Because the available space for platform presentations is beginning to fill up, authors are encouraged to contact the chair(s) of the most relevant technical session(s) or symposia for their topic in order to ensure that space is reserved for their presentation.

### Important Dates To Remember

**January 15, 2002** - Deadline for Submission of Abstracts

**March 1, 2002** - Deadline for Early Conference Registration

**March 15, 2002** - Deadline for Guaranteed Hotel Accommodations

**April 27, 2002** - Toward Ecosystem-Based Management Conference Begins

### To Register for the Conference

Registration forms are available on the WDAFS web site or cut and mail the registration form from this newsletter.

### Sponsorship Opportunities

This conference will bring together more than 500 delegates with an interest in ecosystem-based management in the Columbia River Basin. By sharing technical information and building strategic partnerships, these delegates will substantially advance the prospects for achieving sustainability within the basin. The conveners of this conference would like to invite you and your organization to support this initiative by becoming:

\* Keystone Sponsors (contributions of \$10,000 or more);

\* Presenting Sponsors (contributions of \$5,000 to \$9,999);

\* Activity Sponsors (contributions of \$1,000 to \$4,999); or,

\* Session Sponsors (contributions of up to \$999).

Conference Sponsors will be recognized in all conference informational materials, on the conference website, and at the conference venue. Those organizations that have *already pledged* their support include:

#### Keystone Sponsors

National Marine Fisheries Service;  
Northwest Power Planning Council;  
U.S. Bureau of Reclamation;  
U.S. Environmental Protection Agency;  
Columbia Basin Trust;  
Lake Roosevelt Forum;  
BC Hydro

#### Presenting Sponsors

Sustainable Fisheries Foundation;  
Lake Roosevelt Water Quality Council

#### Activity Sponsors

Mentor Law Group

#### Session Sponsors

Columbia River Fish Farms

## AWARDS NOMINATIONS NEEDED FOR PRESENTATION AT 2002 ANNUAL MEETING

The Western Division Awards Committee is seeking nominations for awards that will be presented at our 2002 annual meeting in Spokane, Washington, April 27 to May 1. The Division has five awards that recognize various outstanding contributions to AFS, our profession, and fisheries research, conservation and management. Names of past award recipients are posted on the Division website at [www.fisheries.org/wd](http://www.fisheries.org/wd).

#### Award of Excellence

This is the most prestigious award offered by the Western Division and it is intended to recognize sustained professional excellence. It is given annually to an AFS member who has demonstrated outstanding achievement and exceptional competence in fishery resource applications through monumental works, new methodologies, or multiple successful contributions that benefit our resources and profession. Successful nominees have usually excelled in research or management programs at the regional, national, or international levels. Other examples include fresh, innovative approaches to improving our understanding

of aquatic resources, and imaginative and successful programs in education at any level of teaching.

#### Award of Merit

This award is given to an AFS member(s) who has made a regionally significant and worthy contribution to our Division, our profession, or our fishery resources.

#### Award of Special Recognition

This award is given to an individual or to an entity making a significant contribution to the development and success of the Western Division.

#### Robert Borovich Award

This award is given annually to an individual who has significantly contributed to fishery conservation within the Division. The individual may be a non-member of AFS.

#### Conservation Achievement Award

This award is typically given to an entity (such as an agency, tribe, or organization) that has demonstrated a significant contribution to the conservation of fishery resources within the Division.

The Committee needs your help in identifying qualified candidates, and we hope you will consider this an opportunity to become involved and ensure that your peers receive the recognition they deserve. Please take a moment and think about people you know whose significant contributions and accomplishments meet the Division's award criteria, and who should be recognized.

Please submit all nominations, with any supporting documentation, electronically by **March 1, 2002** to Bill Bradshaw at [Bill.Bradshaw@wgf.state.wy.us](mailto:Bill.Bradshaw@wgf.state.wy.us). If you need more information contact Bill at WGFD, P.O. Box 6249, Sheridan, WY, 82801, 307-672-7418.

### Theodore (Ted) Clarence Bjornn

Ted Bjornn passed away 3 November 2001 at LDS hospital after a courageous battle with a peritoneal infection. Born 31 October 1932 to Clarence R. and Evelyn Bjornn of Bountiful, Ted was a Fisheries Professor at the University of Idaho and employed by the US Geological Service. Ted was known throughout North America as an expert in Pacific Northwest salmon, steelhead and trout. He was honored by several professional awards including the University of Idaho, Alumni Hall of Fame this year. Ted served on numerous panels and management teams for Columbia and Snake River salmon and steelhead. He graduated from Utah State University (BS), University of Idaho (MS) and University of Utah (PhD). He authored dozens of scientific publications on fisheries, including studies pioneering catch and release fishing regulations for trout streams. His career included service in the US Army, Idaho Department of Fish and Game, US Fish and Wildlife Service and US Geological Survey. He was a member of the American Fisheries Society since 1953. Ted was survived by his wife Dr. Christine Moffitt, AFS Past President.

A memorial service for Ted will be held at the University of Idaho University Auditorium in Moscow, 12 November at 10:30 am. For more details contact the Department of Fish and Wildlife Resources at 208-885-4006.

In lieu of flowers the family requests that donations be made in Ted's name to the American Fisheries Society's John E. Skinner Memorial Fund for students travel, LDS hospital, or to a charity of their choice

## Western Division Hats Still Available

Western Division hats sporting our beautiful logo were unveiled at the 2001 annual meeting in Phoenix, went like hotcakes, and became the fashion *de jour*. These hats will again be sold at the 2002 annual meeting in Spokane, but in the meantime, you can order yours for the unbelievably low price of only \$10.00. These stylish, comfortable, functional, and very classy hats are suitable for fishing, golfing, walking, report writing, or just about anything else you can think of, so be sure to order yours now. Send \$10.00 to Bill Bradshaw, c/o WGFD, P.O. Box 6249, Sheridan, WY, 82801 to receive your very own. Call (307-672-7418) or email ([Bill.Bradshaw@wgf.state.wy.us](mailto:Bill.Bradshaw@wgf.state.wy.us)) for more information.



## Seeking Entries for The Riparian Challenge Award

The WDAFS Riparian, Watersheds and Habitat Committee is seeking entries for the Western Division's 2002 Riparian Challenge Award. The US Forest Service and Bureau of Land Management in the States encompassed by the Western Division are invited to participate in the Riparian Challenge. The purpose of the award is to:

- **Encourage the Bureau of Land Management and the Forest Service to strive for excellence in riparian habitat management,**
- **Encourage both agencies to progress in on-the-ground accomplishments which when added together throughout the West, will significantly improve riparian systems,**
- **Recognize managers and resource specialists for their efforts in maintaining, restoring, and improving riparian ecosystems.**

We hope to receive a number of quality nominations from USFS and BLM offices this year representing their efforts in riparian management. If you are aware of a USFS or BLM project that you believe should be considered, please ask the appropriate USFS or BLM office to submit an entry form. Entries must document riparian habitat management efforts where resource values will be or have been improved. Winners will be selected in the following categories (dependant on the number of submissions received):

### BLM

- Best Resource Area
- Best District
- Best State

### Forest Service

- Best Ranger District
- Best National Forest
- Best Region

More information, along with entry forms and criteria for evaluating entries can be found on the Western Division AFS web site at <http://www.fisheries.org/wd/>. Click on *Committees* then on *Riparian, Watersheds and Habitat*. Because the annual meeting was moved from mid-summer to late April 2002, entries must be received no later than **February 18, 2002**.

## Division Grants Funding Committee Moving Forward

*During our most recent Western Division business meeting in Phoenix last August, Division members unanimously approved a proposal to establish a fund to promote long-term sustainability of our grants program. Background and procedural information about the proposal presented in Phoenix are posted on the Division website ([www.fisheries.org/wd/committee/grants/grants.htm](http://www.fisheries.org/wd/committee/grants/grants.htm)), but the complete text of the motion as introduced and approved reads:*

“Establish a Western Division Grants Fund with an initial infusion of \$50,000 from Western Division cash reserves.

Pursue a fund target of \$100,000 through investments, donations, periodic contributions from the Division, or other means and begin using interest from the Grants Fund to support the Grants Program upon attaining this target. Develop criteria for evaluating proposals and identify areas of emphasis for using these grant funds.”

A quick perusal of the motion should make it apparent that the EXCOM was directed to pursue three specific activities; investments, developing formal grants criteria, and fund raising. Subsequently, and pursuant to a commitment linked to the motion approved in Phoenix, President Eric Knudsen recently renamed the ad hoc Grants Funding Committee as the Grants Funding and Investment Committee. This committee is now charged with oversight of three sub-committees established to address the directives of the motion approved in Phoenix. Bill Bradshaw (Colorado/Wyoming) has been named Committee Chair and will coordinate activities of the sub-committees: Henry Booke (Oregon) will continue as the lead for investment planning, Ken Hashagen (Cal/Neva) now chairs the fund-raising sub-committee, and grants criteria will be developed by the Division Excom comprised of Division officers and Chapter Presidents.

Because all of this is viewed as a long-term endeavor, the Grants Funding and Investment Committee is also charged with formalizing and perpetuating its mission by seeking incorporation as a Standing Committee of the Western Division. Creating a new standing committee requires an amendment of our bylaws, and it is expected that this will be brought forth for membership consideration at the next annual business meeting in Spokane this spring.

And finally, anyone interested in helping the Division proceed with any of these three activities is asked to please contact Bill Bradshaw at 307-672-7418 or [Bill.Bradshaw@wgf.state.wy.us](mailto:Bill.Bradshaw@wgf.state.wy.us)

## We Need Officer Candidates for 2002

The Western Division is seeking candidates for Vice President and the Nominating Representative to be elected in spring, 2002, prior to the Annual Meeting. The Vice President ultimately advances to become Division President, while the Nominating Representative serves the Division for one year by identifying potential candidates for parent AFS Second Vice President. Successful candidates will assume their duties following the annual parent AFS business meeting, which typically occurs in August.

All candidates must be members in good standing for at least two years immediately preceding their nomination and must have attended an annual meeting of the Division in one of the preceding three years. Specific duties of elected officers as specified in the Division bylaws ([www.fisheries.org/wd](http://www.fisheries.org/wd)) are:

### Vice President

1. Assume the duties of the President-Elect if the President-Elect is absent, unable to act or assumes the Presidency.
2. Automatically become President-Elect at the conclusion of the Society's annual business meeting.

3. Coordinate the activities of the Division standing and technical committees and serve as liaison between the committees and the Executive Committee.
4. Ensure that committee products concerning advocacy and policy follow a review and action pathway through the Policy Review Committee, Environmental Concerns Committee, and/or the Executive Committee in accordance with the Division Advocacy Procedures and these Bylaws.
5. Serve as Chair of the Membership Committee.
6. Serve as a member of the Program Committee.

### Nominating Committee Representative

1. Search the Western Division membership for potential candidates to Society positions and aid their nomination.

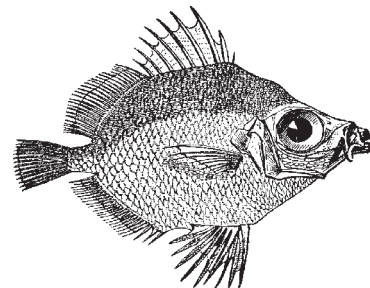
This is your opportunity to influence and support AFS, by either encouraging someone you admire and respect to step forward, or by volunteering yourself. Those interested in nominating someone or themselves to serve the Division in one of these exciting positions should contact Past President Bill Bradshaw by phone (307-672-7418) or email ([Bill.Bradshaw@wgf.wy.state.us](mailto:Bill.Bradshaw@wgf.wy.state.us)), or send an autobiographical candidate's statement by March 1, 2002 to:

Bill Bradshaw, Past President  
Western Division, American Fisheries Society  
C/o WGFD, P.O. Box 6249  
Sheridan, WY 82801

## Chinook Salmon Symposium at 2002 WDAFS meeting

### “Snake River Fall Chinook Salmon - Ten Years on the Road to Recovery”

A full day symposium with information covering incubation, rearing, Snake and Columbia River portions of juvenile outmigration, adult migration, supplementation programs, spawning surveys and habitat modeling, as well as recovery goals and evaluation, and the role of hatcheries in recovery will be presented. In all we will have 19 presentations from agencies and groups including the National Marine Fisheries Service, U.S. Fish and Wildlife Service, U.S. Geological Survey, Washington Department of Fisheries, Idaho Fish and Game, Nez Perce Tribe, Northwest Power Planning Council, Battelle Laboratories, and Idaho Power Company. The presentations will be followed by a panel question/discussion period. Overall, it should be a very informative and stimulating symposium (for fish geeks, anyway)!



# Salmon as Nutrient Pumps: New Lessons in Watershed Health

By Paul Hoobyar (reprinted by permission of Oregon Sea Grant from "Restoration", Issue No. 27)

## Introduction

Images of silver-sided salmon leaping over improbable falls or swimming against the current from the ocean to high mountain streams are central to how we in the Pacific Northwest define our region. And the symbolism of a species swimming upstream, against the odds, to mate and die reinforces our vision of ourselves as independent, tenacious, and committed to family and place. At a conference held in Eugene in May, scientists presented evidence of other, more practical, ways salmon provide benefits.

Over 60 researchers from Europe, Russia, Japan, Alaska, Canada, and the Pacific Northwest explained how anadromous fish carcasses contribute directly to the health of watersheds in the Northwest and other places around the world where salmon exist.

According to Robert Bilby, of Weyerhaeuser, 95 percent of a salmon's body mass accumulates in the marine environment. Salmon are the primary mechanism, Bilby noted, by which marine-derived nutrients are transported into freshwater habitats. Researchers know about these nutrient contributions because nitrogen and carbon atoms from oceanic sources have unique atomic signatures. These telltale atoms, or "isotopes," are stable and can be traced as they are absorbed into the flora and fauna in a watershed. (The American Heritage Dictionary defines an isotope as "one of two or more atoms, the nuclei of which have the same number of protons but different numbers of neutrons.") The researchers have tracked how returning salmon release a pulse of nutrients into our region's watersheds. Indeed, salmon were referred to as "nutrient pumps" because of the value they provide in this capacity.

## Watersheds on Steroids

No matter how many times these carbon and nitrogen atoms are transferred and absorbed from a salmon carcass to other aquatic and terrestrial species, researchers can track nitrogen 15 (N15) and carbon 13 (C13) as they are absorbed by other species. Aquatic insects that feed on decaying carcasses, emerging salmon fry that feed on the aquatic insects, and eagle and bear predators were all found to carry N15 and C13 in those watersheds where returning salmon were abundant.

For instance, Morgan Hocking, a university biologist, tracked dispersal of N15 and C13 through bear scat and urine in watersheds where salmon were present and in those where they were not. Hocking found that in those watersheds where an abundance of salmon return, spawn, and die, a corresponding abundance of marine-derived N15 and C13 existed in a host of aquatic and terrestrial insect populations that feed on the decaying carcasses or on bear scat and urine.

Several researchers, such as Rick Edwards with the U.S. Forest Service in Alaska, tracked the absorption of these marine nutrients into the hyporheic zone associated with rivers and streams. (The hyporheic zone is the area underneath the surface channel of a stream that is saturated with water.) Edwards found that salmon nutrients were retained in these zones for storage and subsequent release at a later time of year to insects and other species that live in these areas.

**"The flow of nutrients back upstream via spawning salmon ... plays a significant role in ... the overall productivity of salmon runs"**  
- Jeff Cederholm

Other researchers described how these nutrients are absorbed and retained by riparian vegetation and how the dispersal rates of these isotopes diminish the further away from the active stream channel researchers look.

In watersheds where marine isotopes were present, every species that preyed directly or indirectly on salmon showed statistically significant, positive effects. Aquatic and terrestrial insects, juvenile salmonids, bears, raptors, and other predator populations were all enhanced, both in terms of the number of individuals in each of these populations and, where measuring individual specimens was possible, the size and health of individual members. This fact is significant for salmon. When juvenile salmonids attain a larger size, their success in overwintering increases. Research shows that N15 and C13 supercharge the growth of juvenile salmonids. One presenter characterized those watersheds that have an abundance of marine-derived N15 and C13 as "watersheds on steroids" because of the measurable increase in the size and abundance of biological communities in which these isotopes are present.

## Implications for Management

This research has significant management implications. Commercial salmon harvesting and hatchery management in the West has been based on managing salmon populations for a maximum sustainable yield. As Eric Knudsen, a researcher with the USGS Alaska Biological Science Center in Anchorage, said in his presentation at the conference, "Salmon managers have traditionally assumed that, as long as sufficient spawners ascended streams to deliver the 'right amount' of eggs to the gravel, the salmon populations would provide an endless supply of excess for harvest."

The flaw in this approach became apparent with the collapse of salmon populations throughout the region in the 1980s and 1990s. The litany of woes that led to this collapse has been well documented: overharvesting, degrading of habitat and water quality, managing hatcheries for salmon productivity and genetic simplification, and raising barriers to fish migration. All of these activities, and more, have contributed to salmon declines.

To counter some of the effects of these practices, we have curtailed harvest rates, scaled back our reliance on hatcheries as the panacea for salmon survival, and begun to educate ourselves about watershed and salmon habitat ecology and restoration throughout the region. Understanding the role of marine-derived isotopes helps further the goal of sustaining and recovering watershed

health and native salmonid populations.

To sustain salmon throughout the region, strong, naturally spawning salmon populations are needed. To sustain such populations, we must protect and restore the watersheds that provide the freshwater habitats and food sources salmon require at various stages of their life cycle. The conference's presenters underscored the role of marine-derived nitrogen and carbon in this recovery process and its management implications.

**"Commercial fishing has diverted massive amounts of nutrients away from rivers."** - Jeff Cederholm

For instance, Jeff Cederholm, a biologist with the Washington Department of Natural Resources, noted that commercial fishing has diverted "massive amounts of nutrients" away from Washington and Oregon rivers and has been a "management disaster." Cederholm estimated that only 3 percent of the historic marine-derived nutrient biomass once delivered to these rivers reaches those streams today. Cederholm said that juvenile salmon feed directly on salmon carcass flesh, salmon eggs, and aquatic macroinvertebrates that may have previously fed on salmon carcasses. Research has discovered significant nutrient contributions from spawning salmon to the collector-gatherer macroinvertebrate community. Caddis flies, stone flies, and midges, for example, process the microbially conditioned salmon carcass flesh. Cederholm noted that a recent study of consumption of salmon by vertebrate wildlife identified 137 species of birds, mammals, amphibians, and reptiles that were predators or scavengers of salmon at one or more stages of the salmon life.

"The challenge for salmon, wildlife and land managers," Cederholm said, "is to recognize and account for the importance of salmon not only as a commodity resource to be harvested for human consumption, but also for their crucial role in supporting overall ecosystem health."

Cederholm suggested that salmon managers should begin managing salmon harvests using "ecologically-based escapement levels" that meet the functional needs of a watershed. Enough salmon should be allowed to survive in a watershed that the decay of their carcasses and consumption by predators can contribute to the watershed's ecological health, he said. Cederholm contended that this model should be developed

(continued on page 7)



Photo courtesy of Carol Ann Woody



## Salmon as Nutrient Pumps: New Lessons in Watershed Health (cont.)

as an alternative to an escapement model based solely on harvest and human consumption purposes.

Research by Robert Bilby indicated that a target absorption rate of marine-derived isotopes can be prescribed within a watershed. Bilby's research in the early 1990s began the scientific inquiry into marine-derived nutrients. His latest research focused on 26 watersheds in western Washington where spawning coho salmon carcasses were present. Bilby's findings indicated that N15 rates plateaued at about 0.15 kilogram of carcass mass per square meter of streambed area. However, he found no absorption increase above this level. This threshold may provide a carcass abundance target for managers to shoot for, at least in watersheds west of the Cascade Range.

Jim Martin, who was the fisheries manager for the Oregon Department of Fish and Wildlife (ODFW) in the 1990s, has thought about the management implications of using an ecologically based approach to escapement. Martin thinks that in those watersheds that have depleted salmon populations more escapement is needed to meet nutrient goals. "But it's not exactly clear," Martin said, "when enough [nutrient] is enough. From a management perspective, should you be trying to jam as many nutrients as possible into a watershed, or should you try to find some efficiencies and avoid diminishing returns?"

Martin suggested that management may need "to create a matrix, based on a watershed-by-watershed and species-population basis, that examines what the needs are for a given watershed (ecologically and for the species and populations)."

**Watersheds with an abundance of marine-derived nutrients act like they're on steroids**

"For instance," he explained, "in some watersheds, the management regime will necessarily be based on ecological needs of the ecosystem and the salmonid populations. However, for managers looking at watersheds where the ecosystem is in healthy condition and salmon populations are robust, the emphasis may be on the economic considerations."

### Where Do We Swim from Here?

How policy addresses the nutrient findings may influence the success of our restoration efforts over time. In the meantime, researchers from around the globe continue to gather data on ways that N15 and C13 affect how salmon and other species recover and maintain healthy populations.

In fact, according to Barry McPherson, of ODFW, the state's fisheries agency has already made significant changes to its management policy with respect to placing salmon carcasses in streams. "The number of carcasses placed in streams increased from about 1,000 in the 1996-1997 season to over 12,000 in the 1999-2000 season for a total of 25,000 over 5 spawning seasons," McPherson said. He also noted that salmon carcass placement during the 2000-01 season exceeded placement for any other year, but those numbers won't be available until later this year.

The department's decision to place so many salmon carcasses in streams in western Oregon, McPherson said, is based on the research that "has shown the benefit of salmon carcasses in natural cycles of nutrients in watersheds."

Scientists are learning that nutrients move in a cyclical pattern in watersheds. Although the largest volume of a watershed's nutrients—those from the leaves, needles, branches, bark, and trunks of trees, as well as from terrestrial animal sources—move downhill and downstream, scientists are finding out that the comparatively small volume of marine-derived nutrients brought into a watershed by salmon plays a pivotal role in the overall health and vitality of a watershed. What impact this will have on hatchery and harvest policies remains to be seen.

## Summary of 2001 Western Division Annual Meeting (continued)

all the Division Officers and many Chapter presidents or their proxies, and the quorum required to conduct business was easily surpassed. The meeting included brief Chapter reports and discussion of activities to strengthen the Division. Much discussion and several votes revolved around refinement of the Western Division Grants Funding Program resolution to be presented to the membership for vote at the annual Business Meeting the following Tuesday (see below for final details). In addition, the EXCOM approved distribution of 2001-2002 Western Division grant funding as follows: Colorado/Wyoming Chapter Student Scholarship Fund support - \$1,000; Ian Tatum/Portland State University "Stock Identification of Hood River Steelhead From Scale Pattern Analysis" - \$300; and Sustainable Fisheries Foundation support for the symposium "Can the Journey of Science and Education Lead to Fisheries Sustainability" - \$5,000. Please see the draft minutes of the 2001 EXCOM meeting at [http://www.fisheries.org/wd/minutes/meeting\\_minutes.htm](http://www.fisheries.org/wd/minutes/meeting_minutes.htm) for further details.

The Western Division Annual Business Meeting breakfast was held on Tuesday, August 21. The food was excellent and the affair drew over 400 participants. President Bill Bradshaw chaired the meeting. During that meeting, the Western Division presented its annual awards and scholarships.

Western Division Award winners were:  
**Award of Excellence:** Jim Martin  
**Award of Merit:** Brad Shepard  
**Award of Special Recognition:** Paul Evans, Allen Bingham, Venice Beske  
**Robert L Borivicka Conservation Achievement Award:** the Honorable David Andersen  
**WD Chapter of the Year Award:** Oregon Chapter

Western Division Eugene Maughan Scholarship Winners were:

Eileen Ryce, Montana State University  
Darin Jones, University of Idaho  
Michelle Koehler, University of Washington  
Jack Picollo, University of Alaska

Winners of the annual WDAFS elections were announced: **Tom McMahon** of Arizona was elected **Vice President**, and **Monica Hiner** from California was elected **Secretary/Treasurer**. Thanks were also given to candidates Ed Cheslak

and Chuck McAda for their willingness to run for WDAFS office.

The membership also unanimously passed an important resolution directing the EXCOM to establish a long-term **Western Division Grants Funding Program**, which has been promoted and guided by President Bill Bradshaw. In short, \$50,000 of the approximately \$100,000 in Western Division savings, will be moved to an investment account. The goal is to elevate the investment account to a principal balance of \$100,000 through further fund-raising activities. The proceeds from the investment account will be used to fund the annual Western Division Grants Funding Program. Previously, this program has distributed about \$10,000 per year to worthy aquatic stewardship causes, but was funded from the annual Western Division revenue stream. Once the investment fund reaches the target goal of \$100,000, its annual earnings will support the annual grants program, thereby freeing up the approximately \$10,000 currently used for that purpose each year.

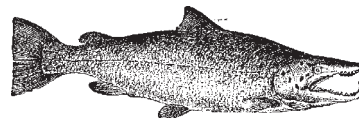
A truly memorable feature of the meeting was an evening at the Corona Ranch where among, many other great festivities, attendees witnessed their very own WDAFS luminaries, such as Carol Ann Woody and Ed Jarhke, chase down and tackle a gangly calf in the rodeo arena. Why would they do that, you ask? Well, to dress the calf in bloomers, of course. The Arizona-New Mexico Chapter sure knows how to throw a party!!

Now the Alaska Chapter will have the honor of trying to top that wild west show in 2005, because they won the bid to host the annual parent society in Anchorage that year. Discussions are already underway to have The Western Division co-convene with the Parent Society again in 2005 when the Society holds its annual meeting in Anchorage.

## Summary of a special session from the AFS annual meeting in Phoenix:

### Historical Changes in Fish Assemblage Structure in Large Rivers

This was a day-long symposium chaired by John Rinne (USFS). Presentations included the Gila, Rio Grande, Colorado, Platte, Arkansas, Alabama, Sacramento, San Joaquin, Columbia, and Willamette Rivers, as well as Alaska. Increases in alien and listed fish species were reported for most rivers; these were related to changes in physical habitat structure and flow that favored some life history strategies over others. The situation was most problematic in the desert southwest rivers and least in Alaska. Great Plains rivers differed from the others in experiencing increased amounts of riparian trees and large woody debris with increased flow regulation. The Willamette differed in undergoing increases in sensitive fishes and decreases in tolerant fishes, largely as a result of improved wastewater treatment. Several of the presenters agreed to prepare manuscripts this year for subsequent publication as a special journal issue. For further information, check the abstracts on the AFS website or contact John Rinne. -by Bob Hughes



## Registration Form for WDAFS meeting Spokane, April 27 – May 1, 2002

Please Note: Registration fees include admission to all sessions, lunches and refreshments on the five days and the banquet.

Name: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ Prov./State: \_\_\_\_\_ Postal/Zip Code: \_\_\_\_\_  
Phone: (\_\_\_\_) \_\_\_\_\_  
Fax: (\_\_\_\_) \_\_\_\_\_  
E-mail: \_\_\_\_\_

Early Registration (On or Before Feb. 28/02)

Canadian Funds	U.S. Funds
<input type="checkbox"/> Individual \$295.00	<input type="checkbox"/> Individual \$195.00
<input type="checkbox"/> Student \$195.00	<input type="checkbox"/> Student \$125.00

Regular Registration (After Feb. 28/02)

Canadian Funds	U.S. Funds
<input type="checkbox"/> Individual \$425.00	<input type="checkbox"/> Individual \$275.00
<input type="checkbox"/> Student \$275.00	<input type="checkbox"/> Student \$175.00
<input type="checkbox"/> Extra Banquet Tickets \$40.00	<input type="checkbox"/> Extra Banquet Tickets \$25.00

Exhibitor Registration (does not include admission to sessions, lunches, or banquet)

Canadian Funds	U.S. Funds
<input type="checkbox"/> Table (6' x 2') \$195.00	<input type="checkbox"/> Table (6' x 2') \$125.00
<input type="checkbox"/> Booth (8' x 10') \$450.00	<input type="checkbox"/> Booth (8' x 10') \$295.00

### Method of Payment

Cheque       Money Order       Visa

Cheque or money order in the amount of \$ \_\_\_\_\_ enclosed.

Visa Acct. No. \_\_\_\_\_

Amount \_\_\_\_\_ Signature \_\_\_\_\_

\$ \_\_\_\_\_ Additional tax deductible donation to the Sustainable Fisheries Foundation

### Call for Volunteers

- Yes, I would like to chair a technical or contributed papers session.  
 Yes, I would like to help coordinate the poster/exhibition session.  
 Yes, I would like to help coordinate conference registration.  
 Yes, I would like to help coordinate audiovisual equipment.

Students volunteering to help with registration and/or audiovisual equipment during sessions, can have their registration fees waived if they work for a total of four 4-hour blocks of time (total commitment is 16 hrs).

Please mail of fax this form to:  
Sustainable Fisheries Foundation  
#24 - 4800 Island Highway North  
Nanaimo, British Columbia, V9T 1W6  
Phone: (250) 729-9623 Fax: (250) 729-9628

## NEWS FLASH! 2003 WDAFS Annual Meeting Plans Underway for San Diego

The 2003 Annual Meeting of WDAFS will be co-convened with the Cal-Neva Chapter in San Diego sometime in April. In an effort to draw a presently underrepresented segment of fisheries science to AFS, the emphasis of the 2003 meeting will be on marine and estuarine fisheries although, as always, there will be topics of interest to everyone. We already have high interest from a variety of groups and individuals who want to sponsor sessions and get involved. Stay tuned to subsequent newsletters and the web site for further developments and a Call for Symposia and Papers. Please contact Dave Manning at 707-547-1988 to help organize the meeting and Tom MacMahon at 602-789-3216 to help with the program.

## Summary of a major USEPA research project:

### USEPA Western Stream & River Survey

The research and regional offices of the USEPA in collaboration with state water quality or fishery agencies, universities, contractors, and the USGS have completed the second year of a four-year survey of streams and rivers in 12 conterminous western states. Over 1000 sites were selected through use of a randomized systematic sampling design, and these will be surveyed to evaluate their ecological integrity. Indicators for doing so include quantitative samples of fish (including pathogens & tissue contaminants), zoobenthos and diatom assemblages; physical habitat structure; water quality; riparian condition; and catchment land use and land cover. States included are Arizona, California, Colorado, Idaho, Montana, Nevada, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming. The objective of the survey is to make statistically valid assessments of all streams in each state, as well as in the major basins, ecoregions, and USEPA regions comprising the survey area. For further information (and an example report for the Mid-Atlantic Highlands), contact John Stoddard (stoddard.john@epa.gov or 541 754 4441). - by Bob Hughes

## Scholarship fund established in Wyoming

Thanks to the generosity of two Wyoming Game and Fish Department Commissioners, a scholarship fund will be established earlier than anticipated for both the University of Wyoming and Colorado State University. The commissioners donated a special elk license that combined brought in close to 15,000 dollars. A \$500 scholarship will be awarded to one student from each university starting the fall of 2003. To jump-start the program, a \$1,000 grant was awarded from the Western Division. Students and chapter members will see the benefits of their work in the fall of 2002. The CO/WY chapter is grateful for the grant.

## WDAFS Retreat – Portland, December 3-4, 2001

There is such a thing as a free breakfast — It will be included in your room rate at the Second Annual Western Division AFS Retreat, December 3-4 at the Alderwood Inn at the Portland Airport. The purpose of the retreat is to bring together the WDAFS EXCOM, Chapter leaders, WD committee chairs, and anyone else interested in the Western Division, to a dedicated work session for satisfying the AFS mission: "to improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals".

### The Meeting:

Monday, Dec 3, 1 PM - 5:30 PM and  
Tuesday, Dec 4, 8 AM - 4 PM (Don't forget to allow some extra time after the meeting when making your return air reservations.)

A meeting agenda will follow, and be on the web, but some of the topics we'll work on include:

- Time and Place of Future WD meetings
- Re-energizing Committees
- The Grants Funding Program
- WDAFS web site
- Increasing membership

### The Hotel:

The Alderwood Inn is a new, relatively small facility very close to Portland Airport (but out of the flight path). Rooms are \$65 for one person or \$72 for two. The hotel has standard amenities and is next to a public golf course. Please see their web site at <http://www.alderwoodinn.com>. Make reservations by calling 1-888-987-2700 and specify that you are with "American Fisheries Society" to get the \$65 rate. The block of rooms at that rate is for Dec 3 but they will honor the same rate for several nights before and after.

### Meals and Refreshments:

A full breakfast buffet is included in the room rate. If you don't stay at the hotel, the breakfast buffet is \$7.95. Monday afternoon, Tuesday morning and afternoon breaks will include refreshments in the meeting room. Lunch on Tuesday will be a buffet served in the restaurant directly adjacent to the meeting room, with buffet food brought back to our meeting room. The full lunch buffet cost is \$9.30 pp and we have agreed to pay that price for all meeting attendees (plus WD pays for break refreshments) to help us get the meeting room for free. We'll be investigating alternatives for Monday evening social/dinner.

We hope every chapter will be represented at the Retreat. Anyone interested in becoming involved in WDAFS activities is invited to attend this important WD retreat. For further information, see the web site or contact Eric Knudsen at [eric\\_knudsen@usgs.gov](mailto:eric_knudsen@usgs.gov) or 907-786-3842.