



Western Division American Fisheries Society

The Tributary

A Newsletter of the Western Division of the American Fisheries Society, vol. 39, no. 1,

Contents

President’s Hook 1

Graduate Scholarship Program 4

FISHBIO Video Highlights Habitat Restoration – CalNeva Chapter 5

Western Native Fishes Committee updates; Database available for Use 6

Forest Fires and Trout Restoration - Utah Chapter 6

Words from the Students – WesternDiv Student Representative 9

WDAFS Chapter Challenge 10

President’s Hook

Hello Western Division AFS members and welcome to another year with AFS. I wish to express my thanks to all Western Division members for their dedication to the world’s oldest and largest scientific and professional organization whose mission is to advance sound science, promote professional development, and disseminate science-based fisheries information for the global protection, conservation, and sustainability of fishery resources and aquatic ecosystems. This should be an exciting year with AFS, come join the ride.

Some background information: Western Division AFS (WDAFS) officers move into their new roles after the annual AFS meeting. In this case, it was

the AFS meeting in Quebec, August 2014. Well, that means we all have been in office for a while now! Anyway, I would like to thank our Past President, Pam Sponholtz, for all her hard work and dedication to AFS and her excellent mentoring during her tenure with Western Division AFS (WDAFS), particularly during her Presidency. I would also like to welcome our new Vice-President Cleve Steward and the new Western Division Student Representative Jane Sullivan. Cleve and Jane are not new to AFS. The AFS annual meeting is also the time when AFS officers change positions. It should be an enjoyable time with Donna Parrish as AFS President. And I would like to thank our AFS Past President Bob Hughes (a westerner) for his past guidance and advocacy for the resource.

WDAFS is comprised of many committees. Each committee plays an important role in keeping WDAFS on track. So again, thanks to the many dedicated AFS members that have stepped into these committee leadership roles and for their assistance with accomplishing the 2014_15 WDAFS Plan of Work. The 2015-2019 AFS Strategic Plan goals, which provide guidance for our annual WDAFS work plan, focus on science, education, communication, networking, advocacy, and governance. As President I hope to focus work in all of these; however my priorities include recruiting and retaining AFS members, improving communication between AFS, Division and Chapters, learning the needs of Chapters and how the Division can assist, and promoting advocacy for the resource using sound science. To be successful I need your assistance. Please do not be shy in letting me know your thoughts on any of the AFS Strategic Plan goals or my priorities.

A bit of what has happened to date: At the Western Division EXCOM midyear meeting (December 6, 2014), EXCOM members reviewed my proposed budget. Good news for members, the approved budget includes many grants to students and professionals for travel to the Western Division AFS meeting in Oregon (August 16 – 20, 2015), small project grants, small travel grant for Western Division Award winners (including but not limited to Riparian Challenge, Award of Excellence, and Award of Merit), and an increase in student scholarship funds. The call for these grants (excluding the small project grant which closed in December) will be out shortly. Please take advantage of what WDAFS has to offer and apply for a travel grant. And before you do that, remember to become an AFS member and take advantage of the 50% discount AFS is offering. I realize that many of you receiving this newsletter are probably already members. But I know each of you know at least one other fisheries biologist that is not members of AFS yet...join now while the cost is less and reap the benefits!!

My President's Plan of Work includes a strong advocacy component. During the next couple

months, WDAFS will be reviewing the environmental concerns for two large projects. The first is the Susitna Dam which will be the second tallest dam in America and has been proposed in the heart of Alaskan wilderness. The Susitna River supports all five species of Pacific salmon (*Oncorhynchus* spp.), and includes globally significant populations of Chinook and Sockeye salmon (*Oncorhynchus tshawytscha* and *Oncorhynchus nerka*). The second project is the proposed Kerr-Sulphurets-Mitchell (KSM) mine located in the headwaters of the Unuk River in Canada and flows into Alaska. This is open pit and underground mine will require large quantities of cyanide and ground disturbing activities. The implementation of this mine will impact the Unuk, Bell-Irving and Nass watersheds; watersheds that support salmon. Questions to be asked when reviewing these documents certainly includes evaluating and using the best science to determine impacts to the aquatic system but also includes



determining if WDAFS involvement will make a difference, do the Chapter(s) support WDAFS involvement, and do the projects geographic boundaries and issues make it appropriate for WDAFS to be take action. So if there are

projects that you would like WDAFS to address, please let me know.

And last, but not least, hold the date for our annual Western Division meeting. The 2015 meeting will be hosted by the Oregon Chapter AFS and will be a joint meeting with AFS. We are anticipating over 3,000 attendees. Check out the meeting website <http://2015.fisheries.org>. The call for symposia

closed in January with over 110 symposia submitted. Please review the symposia which will be posted on the website in February and consider submitting a presentation for a symposium or to the contributed paper session.

I'm very excited to be your Western Division President this year. Do not hesitate to contact me. And I look forward to seeing you in Portland if not sooner. Hilda
Hilda Sexauer, President

Annual Meeting Deadline for submittals is
March 13, 2015!



AMERICAN FISHERIES SOCIETY
PORTLAND, OREGON
145TH ANNUAL MEETING
AUGUST 16-20, 2015

Call for Contributed Oral Presentations, Posters and Invited
Symposia Oral Presentations is Now Open

Graduate Scholarship Program Increases to \$5,000 Application Deadline May 1, 2015

The Western Division is pleased to announce that applications for its graduate-level student scholarships are now being solicited. This scholarship program provides up to \$5,000 annually in scholarships to masters or doctoral students in the general area of fisheries science with one to three awards to individual students. Beginning in 2002, the Sustainable Fisheries Foundation established the William Trachtenberg Memorial Scholarship Fund, which augments the Western Division scholarship program. This fund provides up to \$600 annually to a graduate-level student conducting studies on fisheries sustainability. Applications for the Western Division scholarship program will automatically be considered for the Sustainable Fisheries Foundation scholarship program as well. An award committee of five fisheries scientists from the Western Division will make the decision regarding the award of scholarships from both programs. Selection criteria include demonstration of:

1. Excellent scholarship as evidenced by grades in rigorous course work during the last 60 hours as an undergraduate and during graduate studies.
2. Potential for future contributions to the fisheries profession through management, research, or teaching.
3. Significant progress toward attaining a graduate degree in fisheries science with a defined thesis or dissertation project.

The 2015 scholarships will be awarded at the annual meeting of WDAFS in Portland, Oregon, August 16-20, 2015.

APPLICATION CRITERIA AND PROCESS

1. Applicants must be a member of the American Fisheries Society or have submitted 2015 membership materials by the time of application. ***AFS Member number should be placed on application.***
2. Applicants must have completed one semester or two quarters in a graduate degree program at a university within the geographic boundaries of the Western Division.
3. Applicants must have a major field of study that is related to fisheries or aquatic science.
4. Applicants must submit an application package (electronically ***preferred***) that contains of each of the following:
 - A. A letter to the award committee that includes (***three separate items***):
 1. A brief description of the student's degree program and the anticipated date of completion.
 2. A statement of the applicant's career goals and reasons for applying for the scholarship (up to 200 words).
 3. A statement of the academic and professional activities and contributions to AFS and the fisheries science profession (up to 200 words).
 - B. Copies of a resume (including professional activities, pertinent publications, and scientific presentations) and graduate transcripts. Please list GRE scores in your resume; a copy of the original form is *not* necessary.
 - C. A one-page abstract outlining the goals, objectives, design, methods and expected outcome from the thesis or dissertation project.
 - D. Letters of reference from two faculty members (one must be the graduate students advisor) familiar with the student's background and abilities. Letters may be sent separately by the individual providing the reference.

The application package should be sent (postmarked) no later than May 1, 2015 to:

Bob Gresswell, Western Division Scholarship Award Committee
USGS-NOROCK
2327 University Way, Suite 2
Bozeman, MT 59715
406-994-7085
bgresswell@usgs.gov

FISHBIO Video Highlights Habitat Restoration – CalNeva Chapter

Erin Loury

Sometimes river habitats need a little intervention to alleviate critical bottlenecks that reduce fish survival and limit fish population size. FISHBIO recently produced a video called “Replenishing a River: Stanislaus River Honolulu Bar Restoration,” which chronicles an ambitious habitat improvement project on the Stanislaus River in California’s Central Valley.

The project, jointly funded by the Oakdale Irrigation District (OID) and the Anadromous Fish Restoration Program, created vital habitat to improve the numbers of Chinook Salmon and Rainbow Trout/Steelhead rearing on the Stanislaus River. The new video highlights the success of this collaborative effort, and illustrates the valuable role of monitoring in both informing project design and evaluating restoration performance.

The Honolulu Bar restoration represents a collaboration between OID, the U.S. Fish and Wildlife Service, CBEC, River Partners, and FISHBIO. Thanks to 20 years of Stanislaus River fisheries monitoring data, we were able to identify juvenile rearing habitat availability as a limiting factor for salmon and steelhead production. Both rearing and spawning habitat have been substantially reduced in the Central Valley due to gravel mining and dam construction. The goal of the project was to create additional rearing habitat while also improving spawning habitat and restoring native vegetation.

Project efforts tackled many challenging features of the site resulting from decades of human alteration to the river. We dug down the elevation of Honolulu Bar’s in-stream island to allow shallow-water habitat to form under a broad range of flows. The material excavated from the island was then sorted, and 3,325 cubic yards of gravel were added to the main channel to augment spawning and rearing habitat. A side channel was also re-contoured to

improve connectivity and reduce fish stranding potential. Project partners removed nonnative plants that had completely overgrown the area, and planted native vegetation like cottonwoods, willows, and box elders.



Completed in 2012, the project is shaping up to be a successful restoration effort. The resulting 2.5-acre floodplain, which previously remained dry at all flows, now begins to inundate around 400 cfs, and is fully inundated at 1,000 cfs. Post-project monitoring has identified Chinook Salmon and Rainbow Trout/Steelhead fry using the newly created floodplain and improved side channel over a wide range of flows. Additionally, adult salmon are using restored areas more frequently than unrestored areas for spawning.

Ongoing monitoring will continue to measure fish response to habitat restoration and other actions intended to increase salmon production. Our new video brings the project to life by chronicling the site’s transformation. You can watch an inhospitable and overgrown pile of gravel evolve into a welcoming floodplain habitat, accompanied by interviews with OID and FISHBIO staff, at: <http://bit.ly/1K4TsnS>. And check out more FISHBIO films at <https://www.youtube.com/fishbiology!>

Western Native Fishes Committee updates; Database available for Use

Luke Schultz

Although the Western Native Fishes Committee has been relatively dormant for the last few years, we plan to rejuvenate the Committee's activity again in 2015. With Portland being the host city for the AFS and Western Division's annual meeting, we would like to capitalize on the energy from the meeting to generate renewed interest in the committee. Several notable past and developing activities for the group are worthy of mention.

Previously, the Committee was involved in the development of a database for all native fishes from waters within the Western Division (including much of Canada and Mexico). This database currently has 272 taxa, and is assessable through Data Basin (www.databasin.org), a non-technical mapping and analysis platform managed by the Conservation Biology Institute (www.consbio.org). Data from this site can be publically downloaded for use, and distribution data includes HUC-8 resolution. Short tutorials are available to get set up for use and to learn how to navigate the site. We encourage everyone to use the site, and provide feedback on its effectiveness.

The Committee currently has several new initiatives they hope to launch in the coming years, including the development of a publication fund to promote peer-reviewed science of native fish research. Right now we are working to develop a mission statement for the group and organize membership. We would like to invite other fisheries biologists, managers, and fish enthusiasts to participate in the further development of the Western Native Fishes Committee to support our goal of promoting the interest and conservation of these unique native fishes of the West.

At the Portland meeting, be on the lookout for an announcement of the Native Fish Committee

meeting and feel free to attend. If you have any questions or suggestions for the Committee, please direct them to the new Committee Chair, Luke Schultz (luke.schultz@oregonstate.edu). Similarly, if you would like to be involved in the Committee, contact Luke so that he can add you to the members. Other folks that have volunteered to help out with committee include former Committee chair (ericwagner@utah.gov), WDAFS Hilda Sexauer (hilda.sexauer@wyo.gov), and WY Game and Fish biologist Mark Smith (mark.smith2@wyo.gov).



Breeding male mountain sucker *Catostomus platyrhynchus*.

Forest Fires and Trout Restoration - Utah Chapter

Colton Finch

During the summer of 2010, lightning ignited the Twitchell Fire in the Tushar Mountains of south-central Utah. Before fall rains extinguished the

Channel aggradation and vegetation loss due to the 2010 Twitchell Fire.



blaze, it burned 18,000 hectares of montane forest, including important high-quality stream habitat for Bonneville Cutthroat Trout, *Oncorhynchus clarkii utah*. Post-fire habitat conditions, especially debris flows and channel alterations, eliminated nearly all fishes from the burned area (Figure 2). The Twitchell Fire is not exceptional; wildland fire is occurring with increasing frequency in western North America. Despite the potential threat of fire to fish conservation, the effects of fire on stream fish habitats and populations has only been qualitatively described. Colton Finch, a PhD student at Utah State University, is part of a team enumerating the effects of wildland fire on coldwater stream ecosystems as part of a cooperative research project including Utah Division of Wildlife Resources, the U.S. Forest Service, and the USGS Utah Cooperative Fish and Wildlife Research Unit.

The research team is describing the watershed effects of wildland fire by taking detailed measurements of pool depths, water velocities, stream widths, substrate size, overhead cover, and coarse woody debris within numerous 100-m index sites in both burned and adjacent unburned streams. Then, a National Science Foundation grant through the National Center for Airborne Laser Mapping will provide bathymetric lidar data to complement field surveys and expand inference to a watershed scale (40 km²). This wealth of data will allow the research team to quantitatively describe the effects of forest fire and subsequent geomorphic change on availability of important trout habitat at a scale relevant to management goals.

Results of the Twitchell Fire study will help accelerate biological recovery of streams in the burned area, which will be the largest watershed in Utah devoid of exotic species. The restoration of this native fish community will be a large step forward in conservation of Bonneville Cutthroat Trout, as well as sensitive non-game species such as Southern Leatherside Chub, *Lepidomeda copei*, and other native fishes such as Spotted Sculpin *Cottus*



Bonneville cutthroat trout in a beaver pond in the Tushar Mountains of south-central Utah.

bairdii, Mountain Sucker *Catostomus platyrhynchus*, and Speckled Dace *Rhinichthys osculus*. As fire occurrence and scale continues to increase due to legacy fire suppression, climate change, or other factors, the opportunistic watershed restoration typified by Utah State University's research offers a valuable conservation tool in increasingly challenged stream ecosystems.

Newsletter Items Needed!

The Western Division of the AFS wants to know what *your* research group, management agency, chapter, student subsection, company, *whatever* is up to! Feel free to submit brief summaries of your research, new technologies, or even book reviews of fisheries or fisheries habitats to the newsletter editor.

Email your contributions to:

westerndivnewsletter@gmail.com

Thanks!

Western Division Officers, Student Representative and Committees

OFFICERS:

President: **Hilda Sexauer**, Hilda.Sexauer@wyo.gov
President-Elect: **Jim Bowker**, Jim_Bowker@fws.gov
Vice President: **Cleve Steward**, Cleve.Steward@gmail.com
Secretary-Treasurer: **Travis Neebling**, Travis.Neebling@wyo.gov
Past President: **Pam Sponholtz**, longfin@infomagic.net
Student Rep.: **Jane Sullivan**, jysllivan@alaska.edu

COMMITTEES:

Investment Sub-Committee

Henry Booke

WD Membership Committee

Cleve Steward

Meeting Program Chair

Jim Bowker

AFS Nominating Committee Representative for WD

Bob Gresswell

Archivist

Eric Wagner

Audit Committee

Michael Mills

Environmental Concerns Committee

Lori Martin

Time and Place Committee

Dave Lentz

Western Native Fishes Committee

Luke Schultz (Chair)

Awards Committee

Pam Sponholtz

Electronic Communications and Newsletter

Webmaster

Travis Neebling

Newsletter Editor

Steve Ranney

List-server coordinator

Dave Lentz

Maughan-Trachtenberg Scholarship Committee

Robert Gresswell

Riparian, Watersheds, and Habitat Committee

Tracy Wendt

Student Committee

Jane Sullivan

Upcoming Chapter Meetings

February 24 – 27:	CO/WY Chapter, Fort Collins, CO
February 24 – 27:	MT Chapter, Great Falls, MT
March 4 – 6 2015:	ID Chapter, Boise, ID
March 24 – 26, 2015:	UT Chapter, Moab Valley, UT
April 8 – 9, 2015:	CALNEVA Chapter, Santa Cruz, CA
August 16 – 20, 2015:	OR Chapter, Portland, OR
October or November, 2015:	MX Chapter, La Paz, Baha Sur, Mexico

Words from the Students – WesternDiv Student Representative

It's been a busy first year as the new WDAFS Student Representative! Let me take an opportunity to introduce myself and let you know what I've been up to in the last six months. I am a Master's student at Lena Point in Juneau, Alaska, a remote campus of the University of Alaska Fairbanks. I am working on a Master's project with Dr. Gordon Kruse studying the causes of declines in size-at-age of Pacific halibut, an issue that has resulted in stock declines. I am the first student representative from Alaska and believe this is a great opportunity to connect students in Alaska, Canada, Mexico, and the "Lower 48."

My first project as student representative was to help organize the 2015 WDAFS Student Colloquium, which was hosted by the Utah State University Student Subunit on the shores of Bear Lake in Garden City, UT on February 11 – 13. We had a great turnout of about 25 students from 5 Western Division states, including Alaska, Colorado, Idaho, Utah, and Wyoming. The Colloquium was packed with workshops on communicating science and applying for federal jobs, a mentoring session with local biologists from Utah Department of Wildlife Resources, the Forest Service, and Trout Unlimited, and a full day of student presentations and feedback sessions.

Students strongly benefit from the annual student colloquium by building networks, receiving feedback on the interim stages of research projects, and practicing presenting. Thank you for the generous support from the Western Division, AFS Education Section, Utah AFS, Cal-Neva AFS, Utah State University, and Biomark, as well as the time and guidance of many AFS professional members.

I am currently on the hunt for a student subunit to host the 2016 WDAFS Student Colloquium! If you're interested, please email at wdafs.student@gmail.com!

Next time we will talk about student subunit metrics, including membership and fundraising tips, so stay tuned!

-Jane Sullivan



Natura Richardson

WDAFS Chapter Challenge

Hilda Sexauer, President

As a member of the Fund Raising Committee for AFS2015 I would like to propose a Challenge to each Chapter. And yes, there is an incentive to participate!!

How about donating a fishing trip, a gift certificate, whitewater rafting trip, a guided hunting trip, cast and blast trip, tour of your favorite place (or second favorite place), fishing gear, whatever – use your imagination? You can donate multiple trips! No limitations. The incentive to donate a great trip that highlights your Chapter, whichever Chapter's donation that is auctioned off for the highest amount, will receive 50% of the proceeds from that sale. To participate, please send a single page word document describing the trip, gift certificate or experience to hilda.sexauer@wyo.gov. Most proceeds from the silent auction goes towards the Skinner Memorial Award. Be sure to include the Chapter you belong to with your submission.

Thank you and I look forward to bidding on many unique trips our Division has to offer!!



AFS. The Society That Made Fish Famous!

Reach Out and AFS Someone.

Help Engage New Members
Share This Special

- **\$200 off** registration at the annual meeting
- **Discounted price** on all AFS journals
- **30% discount** on dozens of AFS books
- **12 free issues** of Fisheries magazine
- **Member-only access** to website features, including our searchable member directory
- **Special rates** for professional certification
- *and more!*

A hand is holding a large red circular sign. The sign has the AFS logo at the top, which includes the text 'AMERICAN FISHERIES SOCIETY' and a stylized 'AFS' logo. Below the logo, the text reads 'Welcome to AFS' and '50% OFF' in large white letters. Below the sign, the text reads 'This offer is good from Jan. 12- Mar. 12, 2015' and 'Contact eprzygod@fisheries.org'.

50% off the regular dues price
FOR NEW MEMBERS ONLY!