



The Tributary

The Newsletter of the Western Division of the American Fisheries Society

Spring 2017
Vol 41 Issue 1



Photo: Joel Sartore, National Geographic, with Wade Fredenberg. Montana Bull Trout migrating – possibly to the WDAFS meeting in Missoula, May 22-25th?

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President's Hook

By Cleve Steward, WDAFS President

Those of you in charge, support AFS!

This section of the Tributary – The President’s Hook – is reserved for the President of the Western Division of the American Fisheries Society, who normally provides commentary and perspective that he or she feels would be of interest and benefit to members of the Division. No doubt the insights, exhortations, and amusing anecdotes of the President, of which I am the latest incarnation, are eagerly awaited and gratefully assimilated, and serve as an inspiration and beacon to WDAFS members young and old. Then again, maybe not.

Irrespective of the impact a President’s Hook article may have on readers, I’ve found the process of writing the column forces me to reflect on what might be relevant or useful, not just to me or my fellow officers, but to the diverse membership that makes up our organization. This may sound like a sure recipe for writer’s block or, worse yet, meaningless blather, but it normally turns out not to be the case. To be effective, a change in direction or focus is sometimes needed. In writing this article, I’ve decided to forego the usual and focus instead on a different audience; one that may not be as visible or vocal within the Western Division’s sphere of influence, but an audience that nevertheless indirectly yet substantively benefits from its existence. I’m referring, of course, to your boss.

So, without further ado, please clip out the letter at the end of this issue of the Tributary (excerpted at right) and provide it – surreptitiously if need be – to those who not only hold your future in their hands, but to those who set policy and priorities at the organization to which you belong.

Dear Colleague,

I have asked that this letter be conveyed to you knowing that its delivery by a trusted employee makes it more likely that you will read it. As President of the Western Division of the American Fisheries Society, and as a fisheries professional who is flirting with retirement, I am emboldened to address you directly about an issue of grave importance, the professional development and well-being of your employees, and, as I hope to persuade you, your own self. In the paragraphs that follow, I am going to tell you about the many benefits that accrue to being a member of the American Fisheries Society, the world’s largest and oldest professional organization of people who work in disciplines related to fisheries and aquatic sciences. I am also going to tell you how the services provided by AFS benefit you and the organization you represent. If you already know this to be true, and are involved and supportive of AFS, its members, and its mission, then read no more. However, if you doubt this fact, or if you would like to learn more about how AFS can strengthen and bring credit to you and your organization, please read on.

Established in 1870, AFS currently comprises over 8,000 members from around the world; of these, nearly half live in the western United States. AFS and the Western Division are populated by a diverse assemblage of managers, biologists, educators, economists, aquaculturists, and consulting professionals. Our 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.

Cleve’s letter is printed in full at the end of this Newsletter.

WDAFS Small Grant Update

2017 State of the Salmonids (SOS) Report: Fish in Hot Water

By Patrick Samuel, Conservation Program Coordinator, California Trout

Background In 2008, California Trout and the University of California, Davis published a report summarizing the status and trends of each of California's 32 native salmonids. Authors drew upon data from scientists and fishery managers to produce an analysis that painted a bleak outlook for persistence of trout and salmon in California: they estimated 65% of salmonid taxa faced extirpation in the next century.

New research, improved genetic information, more extensive and rigorous monitoring, and management actions throughout California have expanded since 2008, but historic drought (2012-2016), climate change, and increasing demand for limited water resources has stymied recovery of salmonids. In light of these changes, and with the support of the AFS Western Division Small Grants Program, California Trout and UC Davis partnered to review the latest scientific evidence to assess current salmonid status statewide. The updated report seeks to raise public, agency, and legislator awareness of declining salmonid populations across California, identify

actions to reverse their decline and advocate for implementation of specific actions to help restore populations.

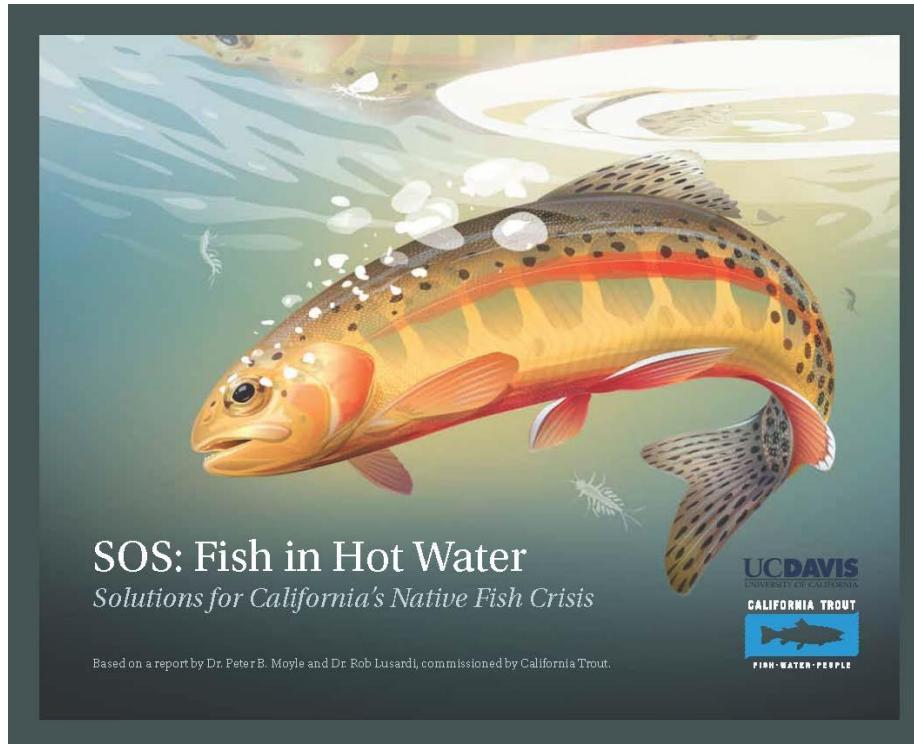
Methods Individual status accounts for each taxon were created by: 1) Compiling existing literature; 2) Writing detailed accounts of the biology and status of all 32 taxa; 3) Assessing threat factors; 4) Evaluating the status of each taxon using a set of standard criteria and scoring rubric; and 5) Peer reviewing by professional biologists to ground-truth findings. Peer-reviewed published literature, unpublished agency reports and/or grey literature, and interviews with approximately seventy-five professional biologists and experts provided the basis for these accounts.

The status of each taxon was determined using seven criteria: area occupied, estimated adult abundance, dependence on human intervention, tolerance, genetic risk, climate change, and an anthropogenic threat criteria that compiles vulnerability to various human stressors. All criteria were scored on a 1-5

scale: 1 being low and 5 being high. The seven criteria were equally weighted, added, and then averaged to produce an overall score for each taxon. A taxon scoring a 1 or 2 is regarded as being in serious danger of extinction, while a taxon with a score of 4 or 5 is regarded as reasonably secure for the immediate future. To account for differing levels and reliability of information available for taxa, a reliability index was developed, on a 1-4 scale, where 1 was unreliable and 4 was highly reliable.

Preliminary Results/Discussion

Despite considerable drought-related stress in California from 2012-2016, zero salmonid taxa have been *(SOS continued on page 4)*



(SOS continued from page 3)

extirpated since the 2008 SOS report was published. Only one taxon, bull trout (*Salvelinus confluentus*), was extirpated from California back in the 1970s. Analysis is ongoing, but preliminary results suggest that species abundance has generally declined across taxa since 2008. Salmonids with life histories reliant on coldwater habitat throughout warm summer and fall months, such as spring-run Chinook or summer steelhead, saw the largest declines in their respective statuses. Seventy four percent of the remaining 31 taxa are likely to be extinct in next 100 years or less if present trends continue. Seventy seven percent of taxa are worse off now than they were in 2008, while 10% saw some improvement. Final results will be

presented at the Western Division American Fisheries Society Meeting this May in Missoula, MT.

The main species accounts, including documentation and references, will be posted as a compilation of all taxa online (UC Davis website and www.caltrout.org). A condensed version for legislators, students, and the interested public will be printed and bound for distribution in April 2017, and an interactive multimedia platform will be housed on www.caltrout.org to share images, videos, description of threats facing salmonids, and conservation actions for each taxa to mobilize stakeholders into action.

FEATURED PHOTOS For the spring issue, we solicited the Division for photos to use on the Spring Tributary cover. In response, we received several fantastic shots. You will find these featured throughout this issue. Thank you to all who submitted photography. If you would like to submit a photo for consideration in a future issue, please contact Tracy at westerndivnewsletter@gmail.com.



Photo: Laura Tesler. A Chinook male rushes at the camera while fighting with other males over spawning females.

WDAFS Student Subsection Updates

BYU – IDAHO

We started off this semester with Idaho chapter AFS President Jay Hesse and past president Jim Chandler speaking to us about the value of AFS and the benefits that it can bring to students through its many programs. Their knowledge and insight spurred student interest in the Idaho Chapter and created valuable dialog for utilizing AFS programs in the subunit.

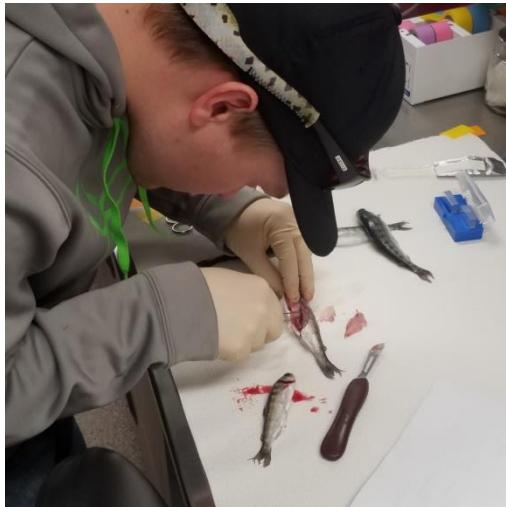


Photo: Devin Skidmore at the ICAFS Aquaculture Continuing Education course taking spleen and kidney samples.

We took ten students to the Idaho Chapter of the American Fisheries Society annual meeting in Boise this year. The annual meeting provided a great atmosphere for students to receive feedback and have meaningful discussions about the work they have been doing. Our students took full advantage of the meeting by attending short courses, presenting research, attending committee meetings, and listening to others present pertinent research. Four of our students gave poster presentations and one gave a poster and an oral presentation. Two of our own society members were recognized at the meeting. Eric Billman (adviser) received the outstanding mentor award and our past president Darcy McCarrick won Best Student Poster Presentation.

The subunit is working with Idaho Department of Fish and Game to set up a long term Yellowstone cutthroat trout monitoring program on the Teton River. It will take the effort of everyone in the subunit to accomplish. We will be celebrating our one year anniversary on April 22, 2017 and look forward to another outstanding year filled with seminars, activities, and research.



Photo: BYU-Idaho students taking a break from catching Kokanee on Ririe Reservoir during the annual ice fishing trip

UTAH STATE UNIVERSITY

The Utah State University Student Subunit and members of the Portneuf Student Subunit in Idaho heard from Dr. Nick Bouwes in November 2016 about using restoration as ecosystem experiments to better understand fish ecology. We also heard from the University of Washington's Dr. Daniel Schindler as part of the USU Ecology Center's seminar series in January 2017. Many members had the opportunity to dip net for Bonneville cisco during the Cisco Disco at Bear Lake, ID/UT on January 28, 2017.

(UTAH continued on page 6)

Don't forget to send your student subunit update to the Tributary!

westerndivnewsletter@gmail.com

The next deadline is June 8th.

(UTAH continued from page 5)



Photo: Utah State University AFS Student Subunit members warming up after dip netting for cisco at the Cisco Disco at Bear Lake, ID/UT.

Five graduate students and four undergraduate students presented their research at the Colorado, Wyoming, Utah Joint AFS meeting February 21 & 22, 2017 in Grand Junction, Colorado. Congratulations to students Colton Finch and Tyler Arnold for winning the best student presentation and the best student poster, respectively. We look forward to hearing from a Trout Unlimited representative next week and we are excited to host a college-wide clean-up of the lower Logan River in early April.

COLORADO MESA UNIVERSITY

The Colorado Mesa University Subunit has been very busy this year. We have about 20 active members. Last fall students, faculty and a U.S. Bureau of Reclamation presented at the monthly meeting. Our biggest event year was the Meet and Greet Job Fair.



Photo: Meet and Greet Job Fair: photo of professionals with secretary, president, and vice president of CMU subunit

Twenty-one professionals from multiple agencies (BLM, FWS, FS, CPW and more) attended and met with 70 students. We have participated in multiple volunteer opportunities (lake clean-up, canal salvage), and also fundraising opportunities (IF4 and F3T ticket, and t-shirt sales). This spring we have had presentations from Colorado Parks and Wildlife, and the U.S. Forest Service. In February, we attended a joint meeting for CO/WY/UT AFS Chapters, hosted in Grand Junction, CO. At the student social, students were given the opportunity to talk with professionals looking to hire this upcoming field season. The rest of our year will consist of hiking, fly casting in the quad, and a possible fly-fishing trip.

PORTEUF-IDAHOS STATE UNIVERSITY

On January 28th the AFS Portneuf student sub-unit at Idaho State University held their annual ice fishing derby on the world class fishery American Falls Reservoir in southern Idaho. This event is the sub-unit's largest fundraiser and typically draws 40-50 participants from the surrounding area. This year, 45 participants contended for the top prize of \$500 for the longest rainbow trout, and \$100 for the longest yellow perch. Despite the cool temperature, ice fishers enjoyed a sunny day full of hot fishing. The trout that took home the top prize was a 21.5 inch fatty and the winning perch clocked in just over 10 inches. The group will be holding the event again next year and they invite all you fishy folks in the area to come have a shot at some big fish and show your support for the Portneuf student sub-unit.



Photo: The Portneuf student subunit's ice fishing derby. Photo by Jade Ortiz

Voices and Vices

You don't always have to bring your "A game"

By Jim Bowker

"This American Fisheries Life" is a new feature of the Tributary Newsletter. Each issue will be written by one of your WDAFS colleagues on a topic somehow related to fisheries or AFS, and at the end, they will "tag" a colleague to be responsible for the feature in the next issue. We've modeled "Life" after the Montana Chapter's "Tag, You're It" feature and would like to thank MTAFS for allowing us to borrow their idea for the Tributary.

Have you ever gone to an event knowing that you will only know a few, if any, of the people that are going to be there? I'm thinking about a wedding I went to years ago where my date was in the bridal party and I didn't know a soul there. How about a professional gathering you've been invited to attend where you're the newcomer and it seems like everybody else has known each other for years? In times like this, you need to bring your "A game" and try to engage in some kind of meaningful conversation, hoping that you'll connect with a couple of folks. Those who know me know that I'm not too shy in a crowd, but I still find that these types of situations can be pretty stressful if you bring something less than your A game.

One of our responsibilities as WDAFS officers is to attend a couple of Chapter meetings as specified by the current President. I was recently thinking back to the Chapter meetings that I have attended during my 4-year term as a Western Division AFS officer: I have attended meetings of the Alaska, California/Nevada, Arizona/New Mexico, Montana, Oregon, and Idaho Chapters of AFS and feel privileged to have had that opportunity. At each of these fantastic meetings, I learned quite a bit, had the opportunity to talk about what the WDAFS and AFS can do for the Chapters and members, and met a lot of great people. That said, before most of them, I found myself feeling that familiar dread of walking into a room full of people where I'd only know 1 or 2. To make matters worse, the 1 or 2 people I did know were usually on the Chapter's Excom and would be up to their eyeballs in the meeting—they wouldn't have much time for

small-talk with me! As I approached the registration area or walked in to the welcoming social, I usually didn't readily recognize anybody! "Better bring your A game," I kept reminding myself. To my delight, attending a Chapter meeting on behalf of the Western Division is one of those times when you don't need to necessarily be at the top of your socialization and networking game to connect with your fellow fisheries professionals.

It's been so cool to be welcomed to various Chapter meetings throughout the West. When I picked up my name tag at the California/Nevada meeting, it included a ribbon that read "Superstar." When I walked into the "How to get into Grad School and Get a Job" CE course at the Arizona/New Mexico meeting, one of the officers bounded out of his chair at the front of the room to greet me and introduce me to the class. These folks made sure there was space at their table for the banquet and seemed to always say "Jim, over here!" The Oregon Chapter folks insisted that I join them for the annual Excom dinner the night before things got rolling in the annual meeting. I found that at each meeting I attended, the Chapter folks made sure that I felt welcome, that I was a part of their Chapter family. I was given time at the microphone during an Alaska Chapter meeting fishery film festival, during the Idaho Chapter mentor social, and at various times at other Chapter meetings to say a word or two, sometimes about the WDAFS and sometimes about something totally unrelated. I know that much of my experience at Chapter meetings is because I was there representing the Division, but throughout the meetings, I saw countless examples of friendly folks reaching out, engaging others, and making everyone feel welcome. As I'm reflecting a bit on the Western Division Chapter meetings that I've been able to attend, the coolest thing is the connections I've made, how my network has expanded, and how much I appreciate the folks who made that so easy to do.

(Voices continued on page 9)

Anglers compete with birds for trout in southern Idaho

By Luciano Chiaramonte



Photo: Double-crested Cormorant forage in and around Blackfoot Reservoir in southeast Idaho.

Many fish-eating birds in North America experienced significant declines in the mid-20th century due to pesticides and human persecution. After protections like the Migratory Bird Treaty Act and restrictions on pesticides were enacted, species such as Double Crested Cormorants and American White Pelicans increased in abundance and geographic distribution. Increases in aquaculture production have provided more foraging opportunities at hatcheries and in the waters where the fish are released. Some of these waters also have become sites for new nesting colonies. As a result, the effects of avian predation on fish have become a noteworthy concern for many fisheries managers.

One method of measuring predation of fish is to stock tagged fish and then search for tags in areas where birds nest or roost in high numbers. The number of tags recovered can give you a minimum estimate of predation, but it is important to account for consumed tags that were not recovered. In Idaho,

researchers documenting pelican predation of wild adult cutthroat trout and stocked hatchery trout estimated tag recovery efficiency by directly feeding tagged fish to pelicans and correcting minimum estimates accordingly. Predation on wild Cutthroat trout in the Blackfoot River was documented as high as 60%. Pelican predation on hatchery rainbow trout among several reservoirs averaged 18% and ranged up to 48%, often exceeding angler catch. Furthermore, the study on hatchery trout also showed that Double Crested Cormorants potentially consumed as many or more fish than pelicans. The researchers were not, however, able to feed tagged fish to cormorants and estimate tag recovery efficiency, thus resulting in a minimum predation estimate.

We sought an alternative method for estimating total predation by cormorants and pelicans. Our study used a combination of radio and PIT tagged fish for estimating predation, as well as T-bar anchor tags for estimating angler catch. During 2015 and 2016, we stocked approximately 4,500 catchable sized trout tagged with PIT and T-bar anchor tags into several reservoirs in southern Idaho, all within foraging range of cormorants and pelicans. A total of 285 fish were tagged with radio and PIT tags. Radio tags were tracked at each waterbody throughout the summer. Bird surveys at the study locations were also conducted weekly. After nesting season was over and most of the birds had fledged and migrated, tag recovery efforts were focused on the nesting sites. Fish that were double-tagged with radio and PIT tags were used for estimating tag recovery efficiency. Because the likelihood of recovering a radio tag eaten by a bird is very high compared to PIT tags, we used the ratio of PIT:radio recoveries in double-tagged fish to correct our minimum predation estimates based **(BIRDS continued on page 9)**

(BIRDS *continued from page 8*)

on PIT tag recoveries. We attributed bird specific predation to the type of nest where the tag was recovered. If recovered in an ambiguous location, the tag was assigned a specific predator based on relative bird abundance from surveys.

Across both years, minimum avian predation based on PIT tag recoveries averaged 21% and 27% based on radio tag recoveries. However, by estimating tag recovery efficiency, corrected predation rates averaged 37% (range 11-100%). Angler catch averaged a mere 13% in these same waters where avian predation was estimated. Predation specifically attributed to Double-Crested Cormorants ranged from 2-63%, whereas pelicans consumed an estimated 6-24% of trout stocked. Predation by Great Blue Herons and Ospreys never exceed 9%.

This study demonstrates that radio tags can be used in conjunction with PIT tags to estimate tag recovery rates and adjust minimum predation estimates. The high predation rates by cormorants compared to angler catch shed a greater understanding of the effects that piscivorous birds are having on Idaho's fisheries.

(VOICES *continued from page 7*)

It's that time of year where we're all trying to find qualified folks to run for office and as the WDAFS Nominating Committee chair, I'm in the same boat. The chance to get to different Chapters meetings, having the financial support from the Western Division to attend, and how many cool people you will meet along the way that will go the extra mile to make you feel like family—this is all a major part of my sales pitch to prospective candidates. To my extended fisheries family throughout the West...I say thank you. I might have had my "A" game ready to go, but you made me feel right at home from the beginning!

That's all I have to say about that. Next up? How about **Pam Sponholtz** – You're up!

FEATURED PHOTOS

Ron Wong, Quilcene National Fish Hatchery in Quilcene, WA, submitted these photos of coho salmon sac fry (view looking up at the bottom of a beaker).



SAVE THE DATE!

April 20-22

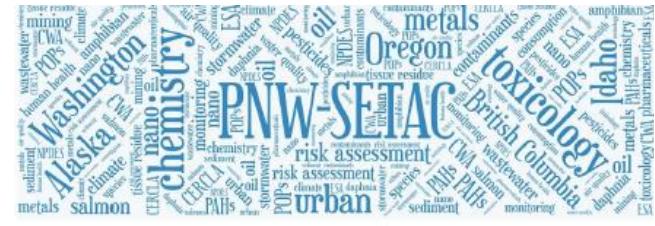
Pacific Northwest Chapter – Society of
Environmental Toxicology & Chemistry
26th Annual Meeting

Northern Exposures: Contaminants, Science, and Toxicology

Anchorage, AK at The Lakefront Anchorage

More info at <http://www.pnw-setac.org>

See flyer at the end of this newsletter.



Suction dredge mining impacts on Oregon fishes, aquatic habitats and human health

By Troy Brandt and Ben Clemens, Oregon Chapter of the American Fisheries Society



Recreational suction dredge mining is practiced throughout Oregon, but is primarily focused on placer gold-bearing streams in the southwestern and northeastern regions of Oregon. While the impacts of suction dredge mining on habitat, fish, and other aquatic resources have been studied since the 1980s, the practice was minimally regulated in Oregon until the 2013 legislative session. Oregon AFS has played an active role in completing literature reviews and disseminating the impacts of suction dredge mining on aquatic resources through two white papers. These white papers, completed in 2013 and 2015, have been widely cited among conservation organizations and others who are concerned with fisheries and aquatic habitat preservation.

In anticipation that another suction dredge legislation bill would be introduced during the 2017 Oregon Legislative Session, ORAFS prepared a third white paper to provide a more comprehensive literature review of suction dredge mining impacts to streams and aquatic organisms. The white paper is entitled, "Suction dredge mining impacts on Oregon fishes, aquatic habitats, and human health". This review focused on effects of suction dredge mining on stream geomorphology and habitat, aquatic organisms, mercury redistribution, methylation, and bioaccumulation of toxins. In particular, suction dredge mining operations that occurred in historically-mined waterways can potentially mobilize legacy mercury, leading to methylmercury bioaccumulation in fishes and mussels that are consumed by humans. Methylmercury is a neurotoxin, and is of particular concern for children and pregnant women. The potential adverse effects related to suction dredge mining strongly suggests the need for state policy to further regulate suction dredge mining and grant comprehensive protection of rivers and stream.

This white paper greatly benefitted from input, review, and comments from ORAFS members and members of the Pacific Northwest Native Freshwater Mussel Workgroup. The paper was submitted as written testimony to the Senate Environment and Natural Resources Committee of the state of Oregon. Past President Troy Brandt provided oral testimony on the Chapter's behalf. We are encouraged that the latest bill will impose a lasting moratorium on suction dredge mining practices that can be damaging to our rivers and streams that support sensitive fish and invertebrates. We also anticipate the mining lobby and mining organizations will continue to fight for their privilege to suction dredge mine in Oregon.

The white paper discussed here can be found at:
<http://orafs.org/wp-content/uploads/2012/07/ORAFS-Suction-Dredge-Final-Package-020217-1.pdf>



The Northwest Outdoors Writers Association has initiated a "student" membership category for 2017. Students must be at least 18 years of age, be enrolled in a university program, and have active interest in the craft of outdoor journalism, which broadly includes writing, blogging, websites, photography, and video. The annual membership cost of \$20 for students includes a free NOWA t-shirt. Membership for non-students is \$25 (apprentice) and \$50 (active).

Contact Dr. Dennis Dauble at DennisDauble@charter.net or 509-375-4903 (home) for additional information. Also see <http://northwest-outdoor-writers-association.org> for membership criteria and benefits.

Steelhead monitoring with Nez Perce Tribal Fisheries

By Charlie Kerrick, PUAFS Undergraduate



Some people say that the average college student will change his or her major up to three times before they graduate. Luckily for me, I know where my passion lies and that's next to the water. While most of us fisheries majors share similar interests, the career paths we can take after college differ immensely. With graduation right around the corner, I needed a way to get my feet wet in the fisheries world. I needed a way to network with potential employers, a way to become educated with the newest science and research, and a way to discover how to develop a meaningful career. Aside from the free pizza of course, these are the reasons that I joined the Palouse Unit of the American Fisheries Society. Since I have been a member of the Palouse Unit of AFS, there have been numerous opportunities for me to gain valuable experience for my future career. I would like to share one particular experience I had with the club that ended up changing my life forever.

Last fall, a fellow student and I were given the opportunity to assist staff with the Nez Perce Tribal Fisheries on a steelhead monitoring project using radio telemetry. I had never done such a thing and thought that it would be a great way to meet a few professionals and learn some new techniques in the

field. We traveled up the Snake River on a jet boat from Asotin, Washington to the mouth of the Imnaha River, Oregon. Before we left the beach, the biologists gave us a thorough run-down of how they collect the data. There was an antenna attached to the boat that picked up frequencies from the radio tags in the fish. When we passed over a tagged fish, the antenna on the boat sent the information from that individual radio tag into a database that we could analyze directly from a laptop. This information was being constantly downloaded onto the laptop as we traveled upriver. They monitored the radio tags from the jet boat once a week. On the days when they weren't tracking from the boat, the data were collected from stationary antennas onto shore-based receivers. Each of those receivers had two antennas, one pointing upstream and one pointing downstream, allowing for directional status.

Once we arrived at the shore-based receivers, we uploaded the information from the week onto the laptop, and saved all of this into a database, reset the receivers, and then swapped out the batteries for each antenna. The best part of our experience was that the biologists handed us the laptop and walked us through each step rather than having us watch them do it. Although some people can learn these tools in the classroom, for me personally I learned much more from hands on experience. Once all the work was done we traveled further up the river and checked out some historic mine shafts. The biologists showed us all around the area. We saw herds of big horn sheep, multiple deer and even flocks of wild turkeys. Not only did I gain valuable hands on experience, but I also made some great friends.

Four months after that outing with the Nez Perce Tribe, I was enjoying my fifth or sixth slice of pizza at our PUAFS meeting when they mentioned an opening for a Fisheries Technician job with the University of Idaho's Department of Fish and Wildlife. I submitted my application and got a call back from the department and set up an interview. During the **[STEELHEAD continued on page 12)**

[STEELHEAD continued from page 11]



interview, I talked about the experience I had with the Tribal Agency and how I could apply that knowledge while working for them. They offered me the job the next day, which I accepted. Starting next week, I will be assisting a graduate student with his research project, using radio telemetry to measure population dynamics of smallmouth bass in the Snake River.

Special thanks to Peter Cleary and Nez Perce Tribal Fisheries.



**September 26-29
West Yellowstone, Montana**

Wild Trout XII: Science, politics, and wild trout management – Who's driving and where are we going?

For more information, go to
www.wildtroutsymposium.com

or contact a program chair at
program@wildtroutsymposium.com

FEATURED PHOTOS

Scott Tolentino, fisheries biologist with Utah Division of Wildlife Resources with a lake trout caught during the November 2016 trend, gill-net sampling on Bear Lake. Since the fish was uninjured, it was weighed, checked for fin clips, tagged and released.



Coho salmon redd located on the Sultan River (WA), 5 miles upstream of a diversion dam built in 1930. The presence of the dam completely blocked access to over 6 miles of habitat until the fall of 2016 when the Snohomish County Public Utility District modified the dam to provide fish passage. This redd was found within three weeks of project completion. Andrew McDonnell, Snohomish County PUD, Everett, Washington. Submitted by Larry Lowe.



Meeting Recap: ORAFS 2017 Annual Meeting – Bend, Oregon

By Shivonne Nesbit, Oregon Chapter President-Elect

The ORAFS 2017 annual meeting was a record setting event any many levels! The Planning Team was thrilled to see the meeting garner so much interest and support. Meeting highlights:

- Attendance exceeded 500+ registrants representing 110+ organizations!
- [Program](#) featured 20 sessions with +220 paper abstracts and 6 concurrent sessions!
- Offered 3 Workshops ~100 registrants (Science Talk, Bayesian Statistics, Genetics)
- Received 36 poster abstracts – exceeded our poster board space!
- Student-Mentor Mixer +130 participants!
- 18 Vendors & first-time vendor stamp card to encourage attendees to visit each vendor!



The Planning Teams is thankful to all attendees and sponsors for supporting the 2017 Annual Meeting!



Photo: Sara Akins. Student-Mentor Mixer

Save these dates!

MARCH 19-24

Alaska Chapter Meeting – Fairbanks, AK

MARCH 21

Deadline for Contributed paper abstracts for WDAFS Annual Meeting

APRIL 1

WDAFS Scholarship Applications Due

APRIL 5-7

CAL/NEVA Chapter Meeting – Eureka, CA

APRIL 10-13

WA/BC Chapter Meeting – Spokane, WA

MAY 22 – 25

*WDAFS Annual Meeting in Missoula, MT:
<http://wdmtg.fisheries.org/>*

JULY 16-20

World Recreational Fishing Conference in Victoria, Canada

August 20-24

AFS Annual Meeting – Tampa, FL

September 26 – 29

Wild Trout XII – West Yellowstone, MT

Send us your important dates for inclusion in the next Tributary. westerndivnewsletter@gmail.com



Why attend the 2017 WDAFS meeting in Missoula, Montana?

Learn about your peers' work

Once-in-a-lifetime field trips

Share your research

Celebrate the Montana Chapter's 50th Anniversary

Catch up with friends and colleagues

Exceptional continuing education courses

Bring your family or your fly rod and extend your stay

Where the Clark Fork, Bitterroot, and Blackfoot rivers meet you'll find Missoula, Montana: home of the 2017 WDAFS meeting

Registration is now open!

Contributed paper and poster abstracts are accepted through March 21

Find out more here:

<http://wdmtg.fisheries.org/>

Those of you in charge, support AFS!

From President's Hook, by Cleve Steward

----- *clip here* -----

Dear Colleague,

I have asked that this letter be conveyed to you knowing that its delivery by a trusted employee makes it more likely that you will read it. As President of the Western Division of the American Fisheries Society, and as a fisheries professional who is flirting with retirement, I am emboldened to address you directly about an issue of grave importance, the professional development and well-being of your employees, and, as I hope to persuade you, your own self. In the paragraphs that follow, I am going to tell you about the many benefits that accrue to being a member of the American Fisheries Society, the world's largest and oldest professional organization of people who work in disciplines related to fisheries and aquatic sciences. I am also going to tell you how the services provided by AFS benefit you and the organization you represent. If you already know this to be true, and are involved and supportive of AFS, its members, and its mission, then read no more. However, if you doubt this fact, or if you would like to learn more about how AFS can strengthen and bring credit to you and your organization, please read on.

Established in 1870, AFS currently comprises over 8,000 members from around the world; of these, nearly half live in the western United States. AFS and the Western Division are populated by a diverse assemblage of managers, biologists, educators, economists, aquaculturists, and consulting professionals. Our 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.

Those in the fisheries profession do this every day, of course. However, AFS enhances our ability to do our jobs and fulfill this mission. Research, education, and management are central to what we do. AFS publishes five peer reviewed journals that enable us to communicate our findings and to learn of new developments in our fields of interest from others. AFS organizes meetings where people exchange information, build and renew professional and personal relationships, and further their education and training. In these and other ways, AFS facilitates the professional development of its members. In doing so, it empowers people to achieve their goals and to help others. To learn more about the many benefits of belonging to AFS, which are too numerous to list here, please visit the AFS website at www.fisheries.org.

In the course of your work, you have many decisions to make. Some of these have to do with the people you supervise and work with. You are charged with enabling them to fulfil their responsibilities. Asking your employees to consider joining AFS and, better yet, leading by

example as an active AFS member, is one of the ways you can instill confidence, competence, and a sense of community among your co-workers. As someone who has worked in both the private and public sectors, and who has supervised and mentored many individuals, I ask that you consider joining AFS if you aren't already a member, and ask your colleagues to do the same.

The Western Division comprises 10 Chapters broken down more-or-less along state lines. They are the backbone of the Division; where the strongest bonds are forged, and where members are able to support one another participate in Chapter-sponsored activities that directly benefit the public and the fisheries resource. Chapters are typically led by four officers, including a President, Past-President, Vice-President, and Secretary-Treasurer, all elected by their peers. These individuals rotate among the positions, and voluntarily serve a total of four years as a Chapter officer. Typically, a special student representative sits on the Chapter Executive Committee. As you peruse the website, note the wide range and impact of the many professional and public service activities Chapter members engage in. I think you will be favorably impressed.

The work of an AFS Chapter falls not only on the shoulders of its officers, but on the many Committee members, meeting organizers, and others who donate their time and energy for the good of the organization. To be effective, these dedicated individuals must balance the work they do on behalf of AFS with their work and family commitments. I can personally attest to how difficult this is to do. However, I can also attest to the understanding and willingness of past employers and family to allow me to actively participate in AFS. I am truly grateful for their generosity.

I ask you to extend the same understanding and encouragement to others who choose to give back to their profession as AFS members. To achieve this goal, please consider taking the following actions:

- Go online, visit your AFS Chapter's website, and contact one of its officers for up-to-date information on the Chapter activities. Consider doing the same for the AFS and WDAFS websites.
- Refer your employees, supervisors, or colleagues who are unfamiliar with AFS to the websites, and to individuals within your organization who are active at the Chapter, WDAFS, and AFS levels. There are videos, brochures, and other materials online that succinctly describe the activities and perks of AFS membership.
- Find out who within your organization is an active member of AFS. Your Chapter Secretary-Treasurer can provide a list of current members. Recognize and compliment your charges both privately and publicly. As someone who is looked up to, your words carry special meaning.

- Encourage colleagues who are not current AFS members to join. Registration costs for membership dues and meeting registration costs are purposely kept low to enable people of all backgrounds, students in particular, to participate
- Attend a Chapter, WDAFS, or AFS meeting. Encourage your folks to do the same. One of the best ways to jumpstart their AFS membership is to have them present a paper or poster at one of the meetings.
- Give people you supervise the time, resources, and encouragement to prepare and publish their findings in an AFS book or journal.
- Advocate for funding to enable people in your organization to travel to and attend AFS meetings. Too often, travel restrictions and the lack of financial support limit participation.

In regard to this last point, a large number of competitive scholarships, project grants, and travel awards are available to AFS members. As non-profit organizations run entirely by volunteers, the Chapters and Western Division allocate the lion's share of their annual budgets to programs that benefit their members.

There are many other examples of membership benefits that I can point to, but I want to close by trying to capture the essence of why people feel it is important to belong to AFS. I need look no further than the last issue of the Tributary, where several randomly chosen individuals were interviewed. The words of one individual stuck with me:

"Getting involved at this level in AFS was one of the best professional decisions I ever made. AFS has exposed me to a wider variety of issues and colleagues than I would have been otherwise. I work with great people..."

Great people getting involved...yes! Please support the professional development of your employees by enabling them to join and participate in the American Fisheries Society.

Respectfully,

Cleveland R. Steward 

Cleve Steward
President, WDAFS



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