



# Gill Raker Gazette

The Newsletter of the Idaho Chapter of the  
American Fisheries Society

Volume 38, Issue 2

August 2019

Editor: Tim Copeland

## President's Message - "When You Need a Helping Hand"

Remember when you were young and there was something you really wanted to buy, but didn't have enough money? Maybe you went to your siblings to bum some cash, or maybe you begged your parents for an early allowance or an extra job that they would pay for? How about the third party technique? Maybe there was a grandparent or an aunt or uncle who helped out. I remember saving up for my first fly rod combo. It seemed like it took forever saving the meager pay from my very *part-time* job. I may have employed all of the above techniques to make the purchase a possibility! What a day, though, when it finally became a reality. It was definitely a learning experience. I still have that old fiberglass rod, and have fished with it all over Idaho. It seems like these financial crises in my youth were experiences I went through just a few years ago, but now I am watching my own kids go through them. I must admit, it's been a lot more fun to watch as a parent than to struggle through as a youth. However, as a fishery professional, sometimes I feel like I'm back in situations where I really want to accomplish something, but existing funding is either not appropriate or insufficient. Good thing we can draw on those life lessons learned so long ago. We may not be able to take on additional side jobs, or increase allowances to fund projects, but the third party technique is still alive and well!

That's where the Idaho Chapter of the American Fisheries Society can step in. Each year, our fundraising committee and dedicated members raise thousands of dollars to help the Chapter accomplish its mission to improve the conservation and sustainability of fishery resources and aquatic ecosystems by:

- 1) advancing fisheries and aquatic science,
- 2) promoting the development of fisheries professionals.

As a Chapter member, if you have a project, a training opportunity, or an idea that would help our organization accomplish this mission, the Executive Committee would love to hear about it. There is funding available! It is not unlimited, but the Idaho Chapter does have funding, and we feel strongly that these funds should be spent on good causes instead of languishing in an account somewhere not being used. Yes, we may be opening a can of worms here, but we are asking for the opportunity to financially advance worthy causes that help accomplish the Chapter's mission. (*cont'd p 2*)



## President's Message - continued

So how do you make a pitch? Review the criteria and proposal format on the ICAFS web site at <https://idahoafs.org/smallprojectgrant.php>. Please fill out this two-page proposal and send it on to EXCOM for consideration. You may also consider working through the appropriate committee chair. Getting the committee's nod of approval would help your funding cause as well. This is a great time of year! We know there is a lot of excellent fisheries work being performed right now, but we can't help but think maybe even more could be done if a little financial support was added. We can't wait to see what happens, and just remember, this still beats trying to justify an increase in allowance.

Hope you are having a great summer!  
Brett High

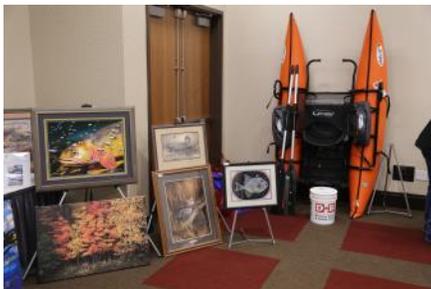
### Summary of the 2019 annual meeting in Boise

The ICAFS executive committee thought the membership might be interested in the financial outcome of our latest annual meeting. Here it is!

There were 315 registered attendees, including 55 students, 13 corporate sponsors, 13 retirees, and 10 young professionals. We brought in \$67,860 in registration. The banquet fundraising was \$13,306. Corporate sponsorships brought in \$10,450. Thanks to our sponsors and to those who participated in the raffles and auctions! Meeting income was \$91,616. We spent \$63,159 to have the meeting at the Boise Centre. Much of this was food, beverages, and bar service (\$40,124). The rest was facility and equipment rental, service charges, and tax.

This leaves ICAFS in good financial position to advance its mission in 2019. As of July 1, we have spent \$1,910 of \$5,000 towards Trout in the Classroom reimbursements. We spent \$6,750 on scholarships and awards for students and professionals. We paid out \$500 to the Aquaculture committee for the Coldwater Aquaculture course, and \$500 for the 2020 meeting CDA resort deposit. That means we still have money to fund worthy small projects.

- Matt Belnap, Treasurer



*Auction and raffle items for fund raising (photo: Eric Stark)*



*Stacey Feeken presents her masters research (photo: Eric Stark)*



*President Dan Schill opens the plenary session at the 2019 ICAFS annual meeting (photo: Eric Stark)*



## Student Spotlight

### Darcy McCarrick

Darcy McCarrick grew up in northern California and spent most of her free time hiking, exploring the state and national parks, and looking for critters in tide pools at the coast. She quickly became fascinated by how species interact with each other, with the environment around them, and how humans influence those interactions. She is particularly interested in native fish conservation and managing fisheries for sustainable use. She has a B.S. in Plant and Wildlife Ecology with an emphasis in Fisheries. After graduating, she worked as a fisheries technician for Idaho Department of Fish and Game on the South Fork Snake River for two seasons and for Pacific States Marine Fisheries Commission on the Coastal Salmonid Monitoring Program for one season. Darcy is currently a M.S. student in the laboratory of Dr. Michael Quist. Her thesis research focuses on understanding the factors influencing Yellowstone Cutthroat Trout and Utah Chub population dynamics in Henrys Lake, Idaho.



### Ryan Whitworth

Ryan Whitworth grew up in Inkom, Idaho, where he learned to enjoy camping and fishing with his family. He spent three summers working for the Idaho Fish and Game department as a fisheries bioaide and the last two with the Department of Environmental Quality as an environmental field technician (BURP tech). He is currently pursuing a Master of Science degree working with Dr. Ernest Keeley in The Fish Ecology Lab at Idaho State University. Ryan has been involved with AFS both as an undergraduate and graduate student. He is currently the President of the Portneuf Student subunit. His master's research involves investigating competitive interactions between cutthroat trout and non-native brook trout while they are foraging. He hopes to identify mechanisms that allow brook trout to displace cutthroat trout in Western North American streams. After completing his degree, Ryan plans to work as an agency fisheries biologist.



## Palouse Unit Student Update

The Palouse Unit of the American Fisheries Society (PUAFS) has had a great spring semester. The Idaho Chapter AFS Annual Meeting was a highlight of the semester. We had six graduate students and four undergraduate students attend the Idaho Chapter AFS Annual Meeting. Students were able to present their research, network with professionals, and enrich their fisheries knowledge. This semester we were also able to connect students with volunteer opportunities, hold fly tying nights during which PUAFS member Will Lubenau taught the basics of tying flies, and elected a new Executive Committee (ExCom). The new PUAFS ExCom consists of graduate students Darcy McCarrick (president), Megan Heller (secretary), and Will Lubenau (treasurer) and undergraduate Kade Holling (vice president).

At this time, PUAFS students are busy enjoying their field seasons and learning more about the amazing fisheries resources around the country. We are looking forward to hitting the ground running this fall semester. The PUAFS ExCom is planning on visiting undergraduate courses to inform new fisheries students about AFS and the benefits of being involved, continuing our fly tying nights, hosting speakers to talk about fisheries research and management, holding skills workshops, trash clean ups, and planning for the Wild Game Feed next April. We are looking forward to a busy and productive fall semester.

- Darcy McCarrick



*Will Lubenau teaches PUAFS members how to tie flies.*



## Portneuf Unit Student Update

The summer has been pretty quiet for the Portneuf Unit. Many of our undergraduates are working in the field throughout Idaho and our graduate students are busy with their own research. We did have several students present at the SFS national meeting in Salt Lake City, UT just before the semester ended. We will also have 6 or 7 members going to the AFS-TWS joint national meeting in Reno, NV this coming fall and we are getting excited for that event to arrive.

For the members of our unit that are still around the Pocatello area we are planning a South Fork float for the end of July or beginning of August. This should be a great way to start planning for the coming semester and have a little fun at the same time.

-Ryan Whitworth



## BYU Idaho Student Unit Update

We have nothing to report from the BYU-I subunit, but I extended a competition to everyone in the subunit who is working to see who can take the best picture from their job during the summer. We are looking forward to coming back together and looking at those pictures during our first meeting of the school year.

-Drew Suchomel



## Idaho Chapter Student Subunit Presidents



**BYU-I Student Subunit  
President**

Drew Suchomel  
[suc17001@byuidaho.edu](mailto:suc17001@byuidaho.edu)



**Palouse Student Subunit  
President**

Darcy McCarrick  
[dmccarrick@uidaho.edu](mailto:dmccarrick@uidaho.edu)



**Portneuf Student Subunit  
President**

Ryan Whitworth  
[whitrya2@isu.edu](mailto:whitrya2@isu.edu)

### Aquatic Habitat Committee Update

Our Committee would love to put together an informative and useful workshop at next year's meeting! Please send your workshop ideas to [jeanne.mcfall@idfg.idaho.gov](mailto:jeanne.mcfall@idfg.idaho.gov) so we can coordinate early with instructors.

Most folks are hard at work since this is in-stream work field season. We would love to learn more about what you're doing to enhance Idaho's fisheries habitat! Please don't forget to take pictures or video for a presentation or award at next Spring's meeting. We recently used Committee funds to send a volunteer BSU civil engineering student into the field with Fisheries Engineers to assist in topo survey in a major fish passage project near Deary, Idaho. If you'd like an opportunity to see a restoration project or design come together, please let us know. We want to encourage growth and participation of the incredible restoration actions occurring throughout the state and are willing to use funds for the right opportunity. Keep up the great work!

- Jeanne McFall

# Native Fish Committee Update

The Native Fish Committee would like to help spread the word about the Western Native Trout Challenge.

The Western Native Trout Initiative recently announced its new 12-state Western Native Trout Challenge! Native trout are the embodiment of the Western character— its eternal struggle and triumph of adaptation to a life of water in a dry land. The landscape and lore of the West is that of the trout.

The Western Native Trout Challenge invites anglers to help celebrate this legacy by catching native trout and char in each of 12 Western states, at their own pace. By attempting to catch 18 of the 21 species throughout 12 states (at the master angler level), participants can enjoy the adventure of a lifetime!

State fish and wildlife agencies in each of the 12 states are partnering on this program, along with the USDA Forest Service, the federal Bureau of Land Management, and Trout Unlimited.

**THE LURE**  
*of the* **WEST**

**Catch trout in the West.  
Win the adventure of a lifetime.**

A fishing challenge, at your pace, that helps Western Native Trout Initiative conserve 21 native trout and char species in 12 states.

**WESTERN NATIVE Trout CHALLENGE**  
12 STATES 21 SPECIES

**Everything you need,  
All in One Cool Place.**  
Maps. Species. Trout Conservation.  
Rewards. The Adventure of a Lifetime.

**\$25** for Adults 18+  
Kids 17 and under play FREE

Get started by visiting  
[WesternNativeTroutChallenge.org](http://WesternNativeTroutChallenge.org)

WAFWA  
WESTERN NATIVE TROUT INITIATIVE  
NATIONAL FISH HABITAT PARTNERSHIP

## Aquaculture Committee Update

### U of I Coldwater Fish Culture Training Event:

The University of Idaho conducted an intense 5-day course geared toward young professionals working with salmonids in culture facilities within State, Tribal, Federal, and private entities. The Aquaculture Committee of the Idaho Chapter of the American Fish Society sponsored attendance costs associated with two Idaho college students to attend this training event. This was a unique opportunity for these students to gain valuable knowledge and hands on experience in fish culture science.

The class has been offered twice now (2017 and 2019) at the Hagerman Fish Culture Experiment Center and has been a collaborative effort between IDFG and the University of Idaho. Instructors included: Dr. Matt Powel, Dr. Brian Small, Gary Fornshell, Dr. Ken Cain, Laura Sprague and myself. Students received a week of highly intensive lectures and participated in hands on activities in the areas of: Fish anatomy and physiology, reproduction and genetics, broodstock management and spawning technique, fish nutrition and stress, biosecurity and fish health, water quality and water management, fish rearing and transport, as well as hatchery tours. The class was attended by 29 young professionals and students from around the state and I believe was well received by all who participated. It was a busy and fun week of collaboration, education and a bit of fishing (one of the participants even got to catch a 7-foot sturgeon on the Snake R. after class one day).

### Spring 2020 CE:

The Aquaculture Committee of the Idaho Chapter of the American Fish Society is planning on hosting its annual Continued Education Training Event at the 2020 ICAFS Annual Meeting. The focus of this year's training is Broodstock Management. The Committee is currently soliciting interest for potential instructors who might be interested in providing valuable insights for this topic. Please contact an Aquaculture Committee co-chair if you are interested in participating.

-Eric Pankau



## 2019 ICAFS Award Honorees

An important function of ICAFS is to recognize our colleagues for noteworthy service or contributions to our chapter and profession. Here are the deserving honorees recognized at our 2019 annual meeting.

**Awards of Merit:** Dan Schill, Rob Ryan

**Distinguished Service Awards:** Skyler Smith, Katherine Gillies-Rector, Jorge Rosales, Marika Dobos, Steve Anglea, Jamie Mitchell, Laura Sprague, Matt Corsi, Zach Klein, Dan Dauwalter

**Outstanding Fishery Professional Award:** Air Exposure Research Group (Curtis Roth, Brett High, Matt Campbell, Dan Schill, Don Whitney, Kevin Meyer, Brett Bowersox, Luciano Chiamonte, Josh McCormick, Mike Quist, Tony Lamansky, Ninh Vu)

**Lifetime Achievement Awards:** Charlie Petrosky, Mark Gamblin, Dan Schill

**Outstanding Mentor Award:** Robert Hand

**Aquatic Habitat Award:** IDFG Steelhead Restoration Group (Tiege Ulschmid, Ryan Banks, Lauren Andrews, Jeanne McFall, Art Butts)

**Excellence in Aquaculture Awards:** Tyson Fehringer, Dworshak National Fish Hatchery and Nez Perce Tribal Fish Production & Maintenance Team

**R.L. Wallace Native Fish Conservationist of the Year:**  
Matt Campbell

**Best Student Oral Presentation:** Katherine Gilles-Rector

**Best Student Poster:** Shawnie Geisler

**Best Professional Presentation:** Josh McCormick

**Best Professional Poster:** John Hargrove



## 2019 ICAFS Scholarship Winners

The development of fisheries professionals is an important part of the mission of the Idaho Chapter. As part of this effort, the Chapter sponsors several scholarships. Here are our 2019 scholars!

**ICAFS High School Scholarship:** Noah Howard, Idaho City High School

**ICAFS Undergraduate Scholarship:** Thomas Doolittle, College of Southern Idaho

**ICAFS Graduate Scholarship:** Tyson Hallbert, Idaho State University

**Ted Bjornn Undergraduate Scholarship:** Darcy McCarrick, University of Idaho

**Ted Bjornn Graduate Scholarship:** Will Lubenau, University of Idaho

**Susan B. Martin Scholarship:** Katherine Gilles-Rector, University of Idaho



# THE IDAHO CHAPTER IS PLEASED TO ANNOUNCE THE 2020 Annual Meeting!

At the Beautiful Coeur d'Alene Resort

in Coeur d'Alene, ID

March 11-13, 2020 - Workshops March 10, 2020

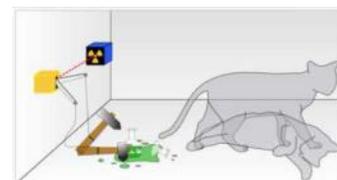


## Is What We See Real?: A Cautionary "Tail"

Quantum theory deals with the properties of subatomic particles. Electrons are the most familiar to us, but there are many others, like quarks and photons. Results of early work in quantum physics suggested that particles could exist in two states at once (called quantum superposition), a difficult concept for most of us to grasp. In 1935, after discussions with like-minded Albert Einstein, Austrian physicist Erwin Schrödinger proposed a thought experiment to criticize the concept. His experiment became known as Schrödinger's Cat. It went like this: a cat is placed in a sealed box with a radioactive source, a Geiger counter, and a flask of poison. If the counter detects a random decay event (release of a radioactive atom), it releases a hammer that breaks the flask, releases the poison, and kills the cat. Until that happens, the cat can be considered simultaneously dead and alive. Not until we look in the box can we see the actual state of the cat. In other words, our observation determines reality — the observer effect. (Note: since then, physicists have learned that, in fact, quantum superposition is a real possibility.)

Now, an animal is not a quantum particle and exists in only one state. But we can only know that state by our observation. The observer effect is a dilemma faced by anyone who studies animal behavior: Would the animal behave differently if we had not observed it? To use a common example, what effect, if any, does the capture, marking, and release of a fish have on its normal behavior? We are acutely aware of this problem and do our best to take it into account. Observation by direct and remote means, if feasible, may provide assurance that our studies yield viable results. Technology has given us smaller tags that should minimize the effect of our study. When my students and I were using earlier versions of radio tags on Arctic Grayling (*Thymallus arcticus*) in northern Alaska, the "2-percent rule" (the implanted transmitter should weigh less than 2% of the fish weight) was difficult to achieve because the fish were often not large enough; 3-4% was often the reality. So, we crossed our fingers and hoped that the fish would behave as expected. That is, we expected them to move to areas with groundwater upwelling for the winter. And that is what most of them — the ones that lived — did. Later ground-truth studies verified our telemetry results. We did the best we could to assure ourselves that the fish behaved "normally."

The observer effect can play a subtle, but significant, role in many of our studies of fish and other animals — and plants, for that matter. We must not assume that the observer effect plays no role in our studies. Independent corroboration of our results is the only method we have for quality assurance. We don't need Schrödinger's Cat walking in and messing with us!



During 2017-2018, Jim Reynolds wrote a series of philosophical articles for *Oncorhynchus*, the AFS Alaska Chapter newsletter. These articles revolve around the role of uncertainty in fisheries science and largely use Alaskan examples based on Jim's experiences. With approval of the Alaska Chapter Excom, these articles are being re-printed in the Gill Raker Gazette.

## A Thank-You Letter to You!



MCCLURE CENTER FOR  
PUBLIC POLICY RESEARCH  
714 W. State Street  
Boise, ID 83702  
208-364-4563  
mcclurecenter@uidaho.edu  
www.uidaho.edu/mcclurecenter  
@UIMcClure

August 15, 2019

Tim Copeland, Vice President  
Matt Belnap, Treasurer  
Idaho Chapter, American Fisheries Society

Dear Dr. Copeland and Dr. Belnap,

Thank you very much for the Idaho Chapter of the American Fisheries Society's contribution of \$1,000 on July 30, 2019 to the University of Idaho McClure Center for Public Policy Research for the Idaho Climate-Economy Impacts Assessment. Because of your support, we are able to connect the latest scientific research on Idaho's changing climate with economic risks and opportunities.

It is so important to bring together businesses, nonprofit organizations, policymakers, government entities, and scientists, so Idaho can start planning now for a productive, resilient future. We are pleased to convene this statewide research effort.

If you have any questions, then please do not hesitate to call me: 208-364-4549 or email me: katherinehimes@uidaho.edu. I would love to tell you more about the McClure Center's work.

Thank you again for your support!

*Katherine*

Katherine E. Himes, Ph.D.  
Director

*We so appreciate this  
generous contribution!  
Please thank the  
full chapter on behalf  
of the research teams.*



Idaho Climate-Economy Impacts Assessment research team leads gather at the Palouse-Clearwater Environmental Institute for a planning retreat in April 2019.

*Inspired by Senator McClure's legacy, the University of Idaho's James A. and Louise McClure Center for Public Policy Research conducts nonpartisan research, informs public dialogue and policy, and engages students in learning about public policy making.*

# Executive Committee



President  
Brett High  
Phone: 208-525-7290  
[brett.high@idfg.idaho.gov](mailto:brett.high@idfg.idaho.gov)



President Elect  
Ryan Hardy  
Phone: 208-661-3429  
[ryan.hardy@idfg.idaho.gov](mailto:ryan.hardy@idfg.idaho.gov)



Vice President  
Tim Copeland  
Phone: 208-287-2782  
[tim.copeland@idfg.idaho.gov](mailto:tim.copeland@idfg.idaho.gov)



Past President  
Dan Schill  
Phone: 208-921-7848  
[dan.schill@idfg.idaho.gov](mailto:dan.schill@idfg.idaho.gov)



Secretary  
Lauren Andrews  
Phone: 208-287-2775  
[lauren.andrews@idfg.idaho.gov](mailto:lauren.andrews@idfg.idaho.gov)



Treasurer  
Matt Belnap  
Phone: 208-569-1283  
[matt.belnap@idfg.idaho.gov](mailto:matt.belnap@idfg.idaho.gov)



Nominations Chair  
Micah Davison  
Phone: 208-854-8907  
[micah.davison@idfg.idaho.gov](mailto:micah.davison@idfg.idaho.gov)

***The EXCOM wants your ideas ...***

***Please do not hesitate to contact any EXCOM Member about questions or ideas***

***This is your Chapter !***

