



Gill Raker Gazette

The Newsletter of the Idaho Chapter of the
American Fisheries Society

Volume 38, Issue 1

February 2019

Editor: Ryan Hardy

President's Message

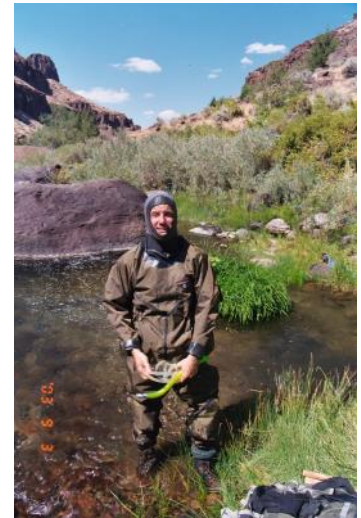
What to say in one's last ICAFS Presidents message. Well for starters, THAT WAS FAST. Much to my amazement and consternation I'm already 90% done with my term. As anyone who has served on EXCOM knows, the last 5 or 6 weeks of the year before our meeting go even faster, with prep for the March gathering taking center stage. We are deep in that process at present with Brett High, his meeting "ops team" and EXCOM working hard to make the meeting its usual success. A busy time for us all on EXCOM but also, with only 10% of my tenure left, a time for personal reflection.

I can't recall that we'd ever had a President like myself, who retired during the year they held office. While there might have been another person who did this crazy thing earlier, I think it certainly provides me with the perspective to ruminate on what being a member of the ICAFS Chapter means to a career Idaho fisheries scientist.

As I sit here writing this note, memories of a blizzard of meetings come back, starting with my very first in 1981 as a very green first year grad student. Way back there "in the 1900's" when ICAFS was so small we met annually at the Shore Lodge on the lake in McCall. There at McCall again in 1982, at the first break, right after giving my first professional talk with shaking hands and knocking knees—meeting experienced professionals who walked up to me at that break and were actually interested and excited about my Master's work!

I'm betting most of us have similar memories about our early ICAFS years in one form or another. During the first five or so years, seeing, hearing, and meeting the very best Idaho fish scientists in action, showing us their work. Individual mentors to definitely look up to. The next five years in this trip back in time for many of us might show us giving increased numbers of ICAFS paper presentations, more individual committee involvement and yes, often getting lassoed into judging an insane number of papers at the annual meeting! Ah, those years when we are getting *established*. I know all of you veterans remember what these years meant, and mean now, to those currently going through this career phase.

Next, the "middle years". The period when one's arrival as an ICAFS mentor truly begins. What fun by then, to be able to attend the ICAFS meeting and truly appreciate the *undisputed stars* of ICAFS, the Grad students as THEY begin their professional journeys. Some are incredible speakers in their first year, others, like myself, well...not so hot out of the blocks, but it matters not because, regardless of their talk topic, we are pulling for all of them. I can vividly remember one of my career mentors, Bruce Rieman,



President's Message - continued

routinely peppering grad students with questions just to help them get the kinks out and learn to think clearly. After Bruce left, several of us dutifully picked up that role in our “middle career years”. Also, in this period, we get to watch the folks we hired, as either temps or permanents biologists, really hit their stride. Many become dynamos at the ICAFS meeting and key personnel in their agencies/entities, all under the watchful eyes of their slowly but surely aging ICAFS mentors. It seems to me that we often get our Presidents and EXCOM members from this biologist “life stage”. The 35-45 something, up and comers, driven to lead and pull/push us collectively forward.

Then comes that final third phase of an ICAFS inspired fisheries career experience. Continuing to look on as the increasing number of entry level folks you’ve helped to get hired continue to kick butt and move their careers forward. Or sometimes, strategizing with folks who aren’t moving forward as fast as they’d like. Instead of making virtually all the paper presentations like in the younger days, some talk slots during the annual meeting will find the grey hairs huddled with various bios. They are networking, creating opportunities or challenging them to push the boundary on something they are working on. And then, just as soon as it began, it seems, this final ICAFS career phase is almost gone...and you are close to retirement. For those of us grey hairs, at this juncture, our last few annual meetings may become a time of fond remembrance as we turn to experience the next exciting phase of our lives.

In conclusion, regardless of where you are in your career, I would challenge each of you to open up our web-page and conduct a similar remembrance inventory. Just glance down the meeting page at the plenary topics and locations of our meetings since 1997. If you’ve been fortunate and dedicated enough to serve on EXCOM think back on the face-face field meetings and the joint effort of charting the Chapter forward. If you do these things, no matter if you’ve attended 2 or 18 or 35 ICAFS meetings, you can’t help but remember great science, fun times and the family feeling evoked by being involved in our Idaho Chapter. I encourage each of you to continue to be involved for the duration of your career and beyond. Oh, and yes, the answer to my question above on what does being an ICAFS member mean to a career Idaho fisheries scientist. Short answer- *everything*.

- Dan Schill



ABSTRACT Deadline Extended to February 8th!!

ICAFS ANNUAL MEETING 2019 - BOISE

The deadline for submitting an abstract for a poster, oral, or ignite presentation has been extended to this Friday, February 8th. Please turn one in soon if you intend to present!

The 2019 Annual Idaho Chapter of the American Fisheries Society Meeting will be held March 5-8, 2019 in Boise at the Boise Centre. The plenary session theme is "Science-based regulations and angler ethics...Are tools missing from the toolbox?". All submissions for the meeting are welcome and needed! The presentation choices are poster, 20-minute talk, or a 5-minute IGNITE! talk.

To submit, simply visit the ICAFS website (www.idahoafs.org/index.php), click on 2019 Annual Meeting and select Mtg Info in the menu bar. In the drop-down menu, select Overall Meeting Info to get access to the Abstract Submission Form (350 word limit). Before submitting your abstract, please use the drop-down menu and read the guidelines for presenting a poster or talk, just so you know what is expected. When you submit your abstract, you should receive a confirmation containing the responses you gave in the form. Save the notification because you can edit your submission if necessary. We look forward to receiving your abstract!

Please submit abstracts on the chapter website and direct questions to Tony Lamansky tony.lamansky@idfg.idaho.gov or Eric Stark eric.stark@idfg.idaho.gov





American Fisheries Society



Idaho Chapter

2019 Annual Meeting Plenary Session

Science-based regulations and angler ethics. Are tools missing from the toolbox?

Invasive species negatively impacting fisheries across the West are not always considered undesirable by the public. Many of these species are game fish and sought after by anglers. Fishery managers, working to improve fisheries where game fish are the source of concern, often use regulations to enlist the help of anglers to accomplish management goals through increased harvest. While increased harvest of invasive fish species is beneficial to conservation/management goals the effectiveness of regulations aimed at increasing harvest depends on angler participation. The behavior of anglers in fisheries, where harvest is strongly encouraged, is quite variable and is the focus of discussion during the plenary session this year. Our speakers will be:

Justin Hayes

Justin is the General Manager at The Lodge of Palisades Creek on the South Fork Snake River. As the manager at an Orvis-endorsed lodge, he has worked, and fished, with guests from all across the United States and several countries. His guests are primarily fly anglers who practice catch-and-release while the South Fork Snake River has a regulation allowing and encouraging unlimited harvest of Rainbow Trout.

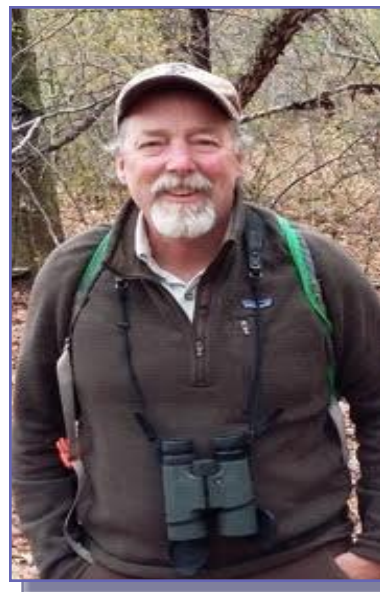


2019 Annual Meeting Plenary Session

Science-based regulations and angler ethics. Are tools missing from the toolbox?

Tim Traver

Tim is an author from New England who grew up exploring the saltwater bays, marshes, and rivers of coastal Rhode Island and southeastern Massachusetts. Tim received a B.S. in Wildlife Biology from the University of Vermont, and a M.S. from Yale School of Forestry and Environmental Studies. Writing started as a sideline of Tim's work as a professional land conservationist and natural science educator, but has progressed to a full time occupation. Tim has published many articles and interest pieces and is the author of two books, *Sippewissett: Or, Life on a Salt Marsh* and *Lost in the Driftless: Trout Fishing on the Cultural Divide*.



Chip Corsi



Chip first put on an IDFG uniform shirt in 1978 as temporary at the Rapid River hatchery, back when rotary dial phones were still common and e-mail hadn't been invented. Since then he has worked as a fish culturist, a fishery research and then management biologist, a regional fishery manager, staff biologist, and state fisheries manager, working in the upper Snake, Magic Valley and Panhandle regions, and in headquarters. In 2003 he had an opportunity to go back out to a field office, and has served as the regional supervisor in the Panhandle region ever since.

Along the way, he's had a few opportunities to use regulations and other forms of incentives to work with anglers to help meet sport fishing and/or conservation objectives. He has a BS in Fishery Resource Management from the University of Idaho, and an MS in Zoology from Idaho State University. He is a fellow of the National Conservation Leadership Institute and a past president of ICAFS.



Call for Award Nominations!!

We are extending the deadline for scholarship applications (see public education committee section) and awards to **February 19th** to increase participation!

The Executive Committee is soliciting nominations for awards to be presented at the 2019 Annual Business meeting in Boise. These awards are independent from awards presented by the Native Fish, Mentoring, Fish Habitat and Aquaculture committees. This is a great opportunity to recognize those who have made important contributions to improve the conservation and sustainability of fishery resources and aquatic ecosystems.

Please send nominations to Helen Neville no later than **February 19th, 2019**. If you have any questions please contact Jim at (208) 345-9800 or email at hneville@tu.org.

Lifetime Achievement Award:

Criteria: Awarded to individuals who are either retired or within five years of retirement and have made significant and sustained contributions to improve the conservation and sustainability of fishery resources and aquatic ecosystems. This work may include, but is not limited to, making significant contributions in advancing fisheries and aquatic science, implementing important fish and aquatic management, or promoting the development of fisheries professionals.

Nomination Process: Submit a one to three page nomination detailing how the individual meets the criteria. The nomination must be supported by at least five Chapter members; their names and contact information should be listed on the nomination.

Distinguished Service Award:

Criteria: Awarded to individuals who have made significant contributions in furthering the work of the Chapter. This award is specific to service within the Chapter.

Nomination Process: Submit a nomination not longer than one page detailing how the individual meets the criteria. Although not required, nominations supported by more than one Chapter member will receive the strongest consideration. List the names and contact information of Chapter members supporting the nomination.

Outstanding Fish Professional: (we have no nominations for this yet!)

Criteria: Awarded to individuals who have made a significant contribution to improve the conservation and sustainability of fishery resources and aquatic ecosystems. This award is specific to service outside of the Chapter.

Nomination Process: Submit a nomination not longer than one page detailing how the individual meets the criteria. Although not required, nominations supported by more than one Chapter member will receive the strongest consideration. List the names and contact information of Chapter members supporting the nomination.



Call for Award Nominations!!

Help us acknowledge the deserving efforts of our Idaho Chapter members in their service to the Chapter and to the resource.

Please take the time to nominate someone

R.L. Wallace Native Fish Conservationist of the Year Award

The Richard L. Wallace Native Fish Conservationist of the Year Award is sponsored by the Native Fish Committee. The award was created by the Native Fish Committee in 2004 and is presented annually to an individual, group, or organization for outstanding achievement in native fish conservation in Idaho. Please send nominations (that outline the nominee's accomplishments) to Patrick Kennedy (pat.kennedy@idfg.idaho.gov) or Nicole Graham (nicole.graham@idfg.idaho.gov) no later than February 19th, 2019.

Excellence in Aquaculture Award

The Excellence in Aquaculture Award is sponsored by the Aquaculture Committee. The award was created by the Aquaculture Committee in 2008 and is presented annually to an individual or aquaculture facility for outstanding achievement in the field of aquaculture or aquaculture-related research. Nominations can be emailed to Shawn Young (young@kootenai.org), Erik Pankau (eric.pankau@idfg.idaho.gov) or Ken Cain (kcain@uidaho.edu) no later than February 19th, 2019.

Habitat Improvement Award

The ICASF Habitat Improvement Award is given either to individuals or a team who have demonstrated significant contributions towards improving fish and aquatic habitat, restoring floodplains, and enhancing riverine systems for fish spawning and rearing. This work may include, but is not limited to, landowner coordination efforts, design and implementation of habitat features, restoring fish passage, and restoring conditions closer to natural and native river landscapes. Please submit a nomination not longer than one page detailing how the team or individual meet the criteria to Jeanne McFall (jeanne.mcfall@idfg.idaho.gov) or Ryan Hillyard (ryan.hillyard@idfg.idaho.gov) no later than February 19th, 2019. Nominations supported by more than one Chapter member will receive the strongest consideration. List the names and contact information of Chapter members supporting the nomination.

Outstanding Mentor Award

It is time once again to consider those amongst us who have gone above and beyond the call in mentoring students and/or young professionals during their career. The Idaho Chapter annually recognizes one member with the Outstanding Mentor Award. Please take a few minutes to nominate one (or more) of your peers who have invested their time over the years to make a difference in the development of folks within our profession. The recipient of this award should meet or exceed the following criteria: A current or previous fisheries professional who has provided substantial assistance to Idaho fisheries professionals/students, with preference given to those who are, or were, active in ICASF. Demonstrated a sincere interest/devotion in seeing students and professionals succeed. Provided ample learning and training opportunities for students and professionals to gain experience otherwise unobtainable without the assistance of the nominated professional. Please send nominations to Lance Hebdon (lance.hebdon@idfg.idaho.gov) or Jessica Buelow (Jessica.buelow@idfg.idaho.gov), no later than February 19th, 2019.



2019 ICAFS ExCom Candidates!

Who will get your vote?

A **friendly reminder** to those of you who have not paid your annual National AFS membership dues - you are **not allowed** to vote in the Idaho Chapter elections or other ICAFS issues at the upcoming business meeting. The Ed.

Vice President candidates

Steve Anglea, Biomark



Steve is the Director of Technical Services for Biomark, Inc. and has been a member of AFS for almost 25 years. He grew up in Wisconsin and received a B.S. in Zoology from the University of Wisconsin-Madison. He worked at the Center for Limnology spending many nights conducting hydroacoustic and gill net surveys on Lake Mendota. He migrated west in 1990 and worked as a Fishery Observer in Alaska, conducted hydroacoustic surveys at hydroelectric facilities and snorkeled streams in Idaho, Montana, and Washington looking for bull trout. Steve received a M.S. in Fisheries Resources at the University of Idaho 1996 and was co-president of the Palouse Subunit of ICAFS. More recently, he was the Secretary/Treasurer for ICAFS (2014-2016) and part of the Fundraising

Committee (2017-2018). He has been with Biomark for almost 17 years and during this time has had the pleasure of working with fisheries biologists and managers in Idaho, the US, and abroad helping to design and innovate RFID monitoring systems and software to answers questions that remained unanswered or that biologists did not know existed. He looks forward to bringing his perspective and experiences to the Idaho Chapter if elected Vice President.

Tim Copeland, Idaho Department of Fish and Game

Tim has been in fisheries for 30 years. AFS has been a huge part of his professional life. It has offered educational opportunities and networking with colleagues as mentee, peer, and mentor. Of course, he enjoys the technical and social interactions through AFS, which have played important roles in his career. Tim would like to see those benefits continue for the enjoyment of students and young professionals. He is a Certified Fisheries Professional and works as the coordinator of the wild salmon and steelhead monitoring program for the Idaho Department of Fish & Game.



He has been a member of AFS since 1990 in four different chapters. Tim has been the newsletter editor for the Southern Division AFS, the President of the Virginia Tech Chapter AFS, and a member of the NAJFM Best Paper committee several times. He joined Idaho AFS in 2004 and has been active on the Anadromous Fish, Public Education, and Mentoring committees. Tim organized two symposia for ICAFS meetings and symposia at the WDAFS and National AFS meetings. Previously, Tim has been part of the ICAFS Executive Committee as Anadromous Fish Committee chair and as Secretary/Treasurer. Those were great experiences. He hasn't missed a chapter meeting in Idaho since his first in Moscow in 2004 and always looks forward to seeing friends and colleagues there. Tim is deeply honored to be nominated to serve the Idaho Chapter as Vice President.



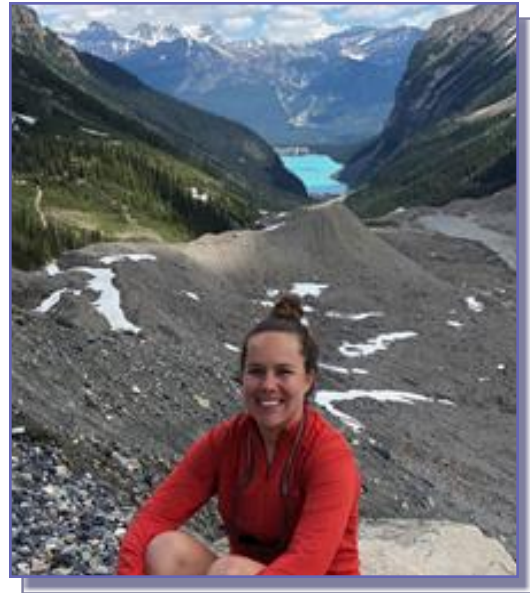
2019 ICAFS ExCom Candidates!

Who will get your vote?

Secretary/ Treasurer Candidates

Lauren Andrews, Pacific States Marine Fisheries Commission

Lauren is a Fisheries Habitat Engineer for the Pacific States Marine Fisheries Commission (PSMFC)/Idaho Department of Fish and Game (IDFG) in Boise, a position she has held for 6 years. She received her B.S. in Civil Engineering in 2011 and M.S. in Environmental Engineering with a Letter of Specialization in Fish Passage Engineering in 2012 from UMass Amherst. Her graduate research explored downstream passage alternatives on a mill dam fish ladder in Rhode Island. Lauren was an Engineer in Training since 2012 before earning her Professional Engineer license for Idaho in 2015. In her current position, she designs and contracts construction of habitat projects throughout the state involving large wood installation, culvert replacement, channel reconstruction, and bank stabilization. She is particularly focused on salmon and steelhead habitat, and has also carried out projects for Cutthroat Trout and Bull Trout in southeast and northern Idaho. She has been a member of the Idaho Chapter of AFS since moving to Idaho in 2012 and has been involved with the Aquatic Habitat Committee since that time. She enjoys getting outdoors whenever she can to run, ski, paddle, fish, and hike throughout all seasons of the year. Lauren is thankful to be nominated to serve as secretary/treasurer to the Idaho Chapter, which has provided her with invaluable knowledge of Idaho fisheries and the great work its members are accomplishing.



Eric Stark, Idaho Department of Fish and Game

Eric is currently an Anadromous Fishery Biologist with Idaho Fish and Game (IDFG) at their Nampa Fishery Research Office. While pursuing a B.S. in Fisheries Management from the University of Wisconsin - Stevens Point, he worked summers as a fisheries technician for the Wisconsin DNR and the Forest Service. After finishing his B.S. in 1995, Eric held several temporary fishery technician positions with the NMFS as a commercial fishery observer in the Bering Sea; the US Fish & Wildlife Service in Cold Bay, Alaska; and with the Illinois Natural History Survey. Then in 1998, Eric moved to Idaho to start his M.S. degree. In 1999-2000 he served as co-president of the Palouse Student sub-Unit of the Idaho Chapter AFS and in 2001, Eric completed his M.S. in Fishery Resources at the University of Idaho. Eric has worked as a fish biologist for IDFG since 2000. He worked on the Dworshak Project from 2000 - 2007, researching methods to lessen the impacts of dam operations on resident fish populations and monitoring and evaluating the response of the reservoir to nutrient enhancement. In January 2008, he entered into the anadromous realm finishing up the Captive Chinook project. Since the summer of 2015, he has been the lead biologist for wild steelhead monitoring and evaluations. Eric has been a member of AFS since 1992 and the Idaho Chapter since 1998 and is looking forward to becoming more actively involved in the Chapter as Secretary/Treasurer not only for the invaluable experience, but also to contribute his leadership skills, organization, and enthusiasm.



2019 ICAFS ExCom Candidates!

Who will get your vote?

Nominations Chair Candidates

Micah Davison, Pacific States Marine Fisheries Commission

Micah is a native to Salmon Idaho. He graduated with a B.S. in Biology from Boise State University and is currently working toward an M.S. in Environmental Science from the University of Idaho. Micah has worked a variety of fisheries positions throughout Idaho for the past 9 years, and is currently the supervisor of the Nampa Research Anadromous Ageing Lab. Micah has plenty of love for the outdoors and enjoys camping and attempting to fit in a 3-person inflatable kayak with his loving wife and three dogs. He has been an active member of AFS since 2016. Micah has had many years of professional recruiting experience both inside and out of the fisheries arena and believes that this combined with his outgoing personality makes him a great candidate for this position.

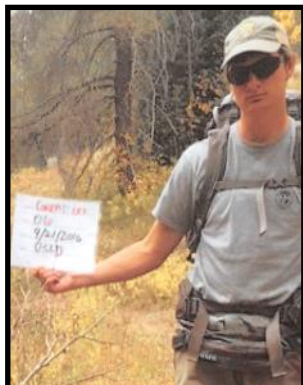


Ryan Kinzer, Nez Perce Tribe

Ryan is native to Idaho and grew up chasing steelhead in the main stem Clearwater River and Cutthroat Trout in the North Fork. He received a B.S. degree from the University of Idaho in Wildlife Resources and a Master's degree in Statistics from Colorado State University. During a high school government class Ryan realized his passion for fisheries when each week his current affairs topic highlighted the record low returns of salmon and steelhead, while everyone else discussed President Clinton's re-election and the arrest of the Unabomber. Ryan was introduced to AFS during his time at U of I, but didn't get truly involved until he left Moscow and started his career. He looks forward to getting the chance to serve the Idaho Chapter as Nominations Chair, and being able to give back to an incredible organization that shares his values for our natural resources. Ryan is currently a Fisheries Research Scientist with the Nez Perce Tribe and enjoys spending time outdoors with his wife and two young children.



Idaho Chapter Student Subunit Presidents



**BYU-I Student Subunit
President**
Skyler Smith
Phone: 720-317-4827
smi13070@byuidaho.edu



**Palouse Student Subunit
President**
Kat Gillies-Rector
gill5769@vandals.uidaho.edu



**Portneuf Student Subunit
President**
Jorge Rosales
rosajorg@isu.edu

BYU Idaho Student Unit Update

In December, members of the BYU-Idaho Student Subunit enjoyed the opportunity to host Dan Schill on campus for a seminar and an informal lunch. As always, Dan brought a lot of excitement as he shared experiences and research from his career with Idaho Department of Fish and Game. Eric Pankau and Wayne Fowler (Grace Fish Hatchery) joined Dan for his visit to talk with students about careers in aquaculture. The Subunit was grateful for the chance to rub shoulders with these great biologists and for the continued support that the Idaho Chapter and its members provide for students.

Students are anxiously working to complete presentations for the annual meeting in Boise. Projects range from trematode parasites to native mussels to invasive crayfish, not to mention a few about fish. We are excited for another amazing meeting and cannot wait to see you all there!



Student Spotlight

Peyton Shaw



Peyton Shaw is currently a senior at BYU-Idaho and a member of the BYU-Idaho Subunit of the Idaho Chapter of the American Fisheries Society. A native to Missouri, Peyton found his love for fishes spending his days catching warm water species as well as trout in tail-water fisheries. Peyton is currently finishing his undergraduate degree in Plant and Wildlife Ecology with an emphasis in Fisheries. In addition to training through courses and a variety of volunteer experiences, Peyton

worked as a fisheries technician with University of Idaho and Idaho Department of Fish and Game studying the effects of air exposure on Yellowstone Cutthroat Trout. This past year, Peyton has also completed a project determining the distribution of the invasive Virile Crayfish in the Henrys Fork drainage. He spent many hours on the water surveying for the crustaceans, squeezing in as much hook and line sampling along the way. After graduation in April, Peyton is planning on working as a fisheries technician until he begins his graduate work (project and university still to be determined).



Fundraising Committee Update

—Calling all Idaho Chapter AFS members—

Announcement!! Please register for the spawning run/walk while there is still time!!
Also! Please consider donating flies for the Fish-O-Flies raffle!! (5 tickets/fly)



Habitat Committee Update

Due to the furlough, we're taking some last minute nominations for the Best Fisheries Habitat Project in 2018. Please contact Jeanne McFall (Jeanne.mcfall@idfg.idaho.gov) no later than Feb 11th if you'd like to submit a project. Also, if anyone is interested in taking over Committee Chair lead (and be member of the EXCOM), be sure to contact Jeanne to find out more details. Look forward to seeing you in Boise! - Jeanne McFall

Mentoring Committee Update

Need a job? Got a job and want to help the next generation of Fishery Professionals? The Mentoring Committee will be bringing back the popular Resume Review and Mock Interview activities for the 2019 annual meeting. We'll be looking for volunteers to assist the committee so roll up your sleeves and help your fellow members. See you in Boise!

- Lance Hebdon and Jessica Buelow



Public Education Committee Update

ICAFS Scholarships Application Deadline Extended to February 19th

The Idaho Chapter is pleased to announce four annually awarded scholarships for students attending Idaho schools. These are as follows:

- Idaho High School Student Scholarship** - This \$500 scholarship will be awarded annually to an Idaho High School senior that is planning to attend a college or university located in Idaho.
- Idaho Undergraduate Student Scholarship** - This \$1000 scholarship will be awarded annually to any Idaho college or university or involved with the Idaho Chapter including student units.
- Idaho Graduate Student Scholarship** - This \$1000 scholarship will be awarded annually to a graduate student that is enrolled at any Idaho college or university or is involved with the Idaho Chapter including student units.
- Susan B Martin Graduate Student Scholarship**- This \$2000 scholarship will be awarded annually to a graduate student that is enrolled at any Idaho college or university or is involved with the Idaho Chapter including student units.

These scholarships were developed by the Executive, Mentoring and Public Education Committees, are funded by the Idaho Chapter, and are administered by the Public Education Committee. Information and application materials are available on the Chapter website (<http://www.idahoafs.org/scholarships.php>). Download and complete the application form and obtain a copy of your college transcripts (unofficial transcripts are acceptable). Email your completed application form and your transcripts to Lauri Monnot at scholarships@idahoafs.org. A letter of recommendation to support the application must be emailed to scholarships@idahoafs.org from a biology professional, faculty advisor, school administrator, or supervisor. Applications must be received by February 19th, 2019. Winners will be announced during the business luncheon at the annual meeting. For more information, please visit the Chapter website (<http://www.idahoafs.org/>) or contact Lauri Monnot, Public Education Committee Chair, at lauri.monnot@deq.idaho.gov or (208) 373-0203.

ICAFS Grant Opportunity

An Idaho Chapter of the American Fisheries Society's Training Opportunity and Project (TOP) Grant up to \$750 is available for students. The grant money can support attending a professional conference, workshop, or training; conducting research outside typical degree requirements; implementing education projects; or other activities that support the Idaho Chapter mission and goals. For more information please visit <http://www.idahoafs.org/ICAFStopGrant.php> or contact Lauri Monnot @ (208) 373-0203.

Aquatic Education/Trout in the Classroom Grants

Please pass the word to educators. The Idaho Chapter of the American Fisheries Society has a long history of promoting aquatic education efforts. In 2013, the Chapter formally established an Aquatic Education/Trout-in-the-Classroom Grant. These \$50-1250 grants are available to Idaho K-12 teachers to assist them in their aquatic education efforts. This may include the Trout-in-the-Classroom program or other aquatic education efforts. The number of grants awarded annually is dependent on available funding and need. For more information contact Lauri Monnot @ (208) 373-0203 and please visit <https://www.idahoafs.org/documents/AquaticEducationGrantOverviewInstructions.pdf>.

- Lauri Monnot



Public Education Committee Update (Continued)

Committee Breakout Meeting

The Public Education committee supports aquatic education programs and events in Idaho and administers Chapter scholarships and education grants. At the Annual Meeting committee breakouts, we will discuss ideas to stimulate Chapter involvement in aquatic outreach and education. We are always looking for AFS members who would like to participate in project implementation. Please contact Lauri Monnot at Lauri.Monnot@deq.idaho.gov if you are interested in learning more.

Fish Bookmarks

The Public Education committee, Trout Unlimited Ted Trueblood Chapter, and IDFG coordinated to have K-12 classrooms create bookmarks for meeting registrants again this year. We encourage you to reach out to your classroom to introduce yourself, thank them for their artwork, and teach them something about aquatic resources. Please contact Lauri Monnot to get contact information for the classroom that made your bookmark.

ICAFS Student Grant Opportunity

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- Lauri Monnot



Continuing Education Committee

Annual Meeting Workshops

Nuts and Bolts of Genetics in Aquaculture

This full day continuing education workshop will provide a general genetics overview. The course will combine both classroom and hands-on activities. Course material will be presented by IDFG Fisheries Genetics Program staff. Topics will include: a review of sampling protocols and methodologies, DNA extraction, inbreeding and effective population size, Idaho Sockeye Salmon genetics and production, sex differentiation and finding sex markers, genetic stock identification and parentage based tagging. The workshop will be held at the IDFG Eagle Hatchery Campus. Please meet in the Wildlife Health Laboratory Building Conference Room. Lunch will be provided. Transport to and from the Eagle Hatchery Campus will not be provided.

For additional information please contact:

Eric Pankau
(208) 589 0865
eric.pankau@idfg.idaho.gov

In-stream PIT Tag Detection System Equipment and Analytics Workshop

In-stream PIT Tag Detection Systems (IPTDS) have become an integral component of status and trend and action effectiveness monitoring efforts across the Pacific Northwest. Like many monitoring tools, IPTDS technology is constantly improving as are the analytical approaches applied to PIT interrogation data. This continuing education workshop has two sessions. Session one includes: 1) a primer on radio-frequency identification (RFID) theory and evolution of the technology; 2) hands-on training in IPTDS electronics; and 3) an overview of best-management-practices for site selection, component selection, and operations and maintenance. Session two focusses on data management and analytics, including: 1) data access and management; 2) commonly used and publicly available analytical programs; 3) a primer on abundance estimation using IPTDS; and 4) examples of more complex analytical approaches. The goals of this workshop are to assist practitioners in the successful implementation of IPTDS technology, provide a thorough understanding of assumptions accompanying PIT interrogation data, and provide an overview of analytical approaches. Participants are encouraged to bring a laptop computer. Some examples in session two will be provided using R and Rstudio; installation and familiarity of R and Rstudio would be helpful, but not required. For additional information please contact:

Carson Watkins
(208) 770-3768
carson.watkins@idfg.idaho.gov

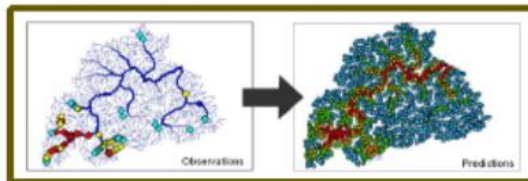


Continuing Education Committee (continued)

A final announcement!

We would like to announce a continuing education opportunity! A spatial statistical networks workshop will be taught again this April in Boise. As a consideration to the connection to the chapter, Dr. Isaak wanted to announce that they are offering a few free slots to students or professional members of the Idaho Chapter that are interested in learning more about the methods. Below is a brief description of the workshop, along with the location, fee, and times.

Spatial-Stream-Network Model Training Workshop



WORKSHOP OVERVIEW

- Provide an overview of spatial statistical modeling on stream networks, including a discussion of when they are, or are not, useful
- Share two sets of free user-friendly tools:
 - STARS ArcGIS toolset
 - SSN package for R Statistical Software
- Demonstrate the GIS tools and the steps necessary to calculate the spatial information needed to fit a spatial statistical model in R
- Demonstrate the statistical tools and their functionality for:
 - modeling continuous, presence/absence (binomial), and count data (Poisson);
 - block kriging and prediction;
 - uncertainty estimation;
 - simulation and visualization techniques for space-time stream data
 - monitoring designs (developing new designs & supplementing existing ones)

THE LATEST SCIENCE

Exciting new research questions are emerging in stream ecology; questions related to biological, ecological, and physical processes at multiple scales. Sparsely sampled stream locations make it difficult to recognize multi-scale patterns, and it is prohibitively costly to sample continuously throughout stream networks. Spatial statistical stream-network models are based on covariance structures that account for flow direction, flow volume, and the branching structure of streams and provide a valid means of interpolating between sample locations. The models describe spatial patterns in common stream attributes (e.g., water quality, habitat condition, biological surveys) and often outperform traditional analytical techniques applied to stream data. The spatial stream-network models also describe the autocorrelation structure (i.e., non-independence) among measurements and can be used to design efficient monitoring strategies and spatial surveys.

The goal of this workshop is to share new ideas and software for better analysis and interpretation of data measured on streams networks.

Co-sponsored by



FREE SOFTWARE PACKAGES

STARS ArcGIS toolset
SSN package for R statistical software
<http://www.fs.fed.us/rm/boise/WAE/projects/SpatialStreamNetworks.html>

AGENDA

Day 1: Overview of spatial statistical network models: theory, software, and applications

Days 2 & 3: Work 1-on-1 with instructors to apply the spatial models to your datasets

COST \$450 (3 days) or \$150 (1st day)

DATES April 2-4

TIME 8:30 - 5:00

LOCATION Idaho Water Center
½ mi from Grove Hotel
322 E Front Street
Boise, Idaho

TO REGISTER, Go Here:

<https://www.eventbrite.com/e/8th-annual-spatial-statistical-modeling-workshop-tickets-55049310971>

If you have questions, email Dan Isaak
(disaak@fs.fed.us)

SCIENCE CONTACTS

Dr. Jay M. Ver Hoef

NOAA Fisheries
Alaska Fisheries Science Center
support@spatialstreamnetworks.com

Dr. Erin E. Peterson
Queensland University of Technology
support@spatialstreamnetworks.com

Dr. Daniel J. Isaak
US Forest Service
Rocky Mountain Research Station
disaak@fs.fed.us

"The Streetlight Effect" - Jim Reynolds

In his book *Wrong*, David Freeman discusses the "Streetlight Effect" in scientific research, illustrated by this popular, oft-told story of a police officer spotting a man on his hands and knees after dark beneath a street lamp: The man relays that he has lost something (maybe his keys). When asked if this was where the item was lost, the man replies he actually lost the item down the street, but he is looking here because it is easier to see under the streetlight.

The Streetlight Effect creates a difficult challenge for scientists because it traps us into looking for answers in the wrong places. It is human nature to take the easier path when the correct answers may be hiding from the questions we are asking. Two examples follow.

Catch-per-unit-effort (CPUE) is one of the most basic statistics in fisheries management. Typically, the number of fish caught is divided by the effort expended to catch them to obtain CPUE. Because we often cannot know absolute abundance, we rely on CPUE as a measure of relative abundance. That is, we assume a linear relationship between catch and effort; for example, if CPUE doubles, we assume that absolute abundance has doubled. If CPUE declines, we may conclude that absolute abundance has declined. However, ratios can be highly variable and unpredictable. For instance, catch efficiency tends to fall off with increasing effort, nullifying the basic assumption. It is easier to simply accept the assumption than to test it, but doing so may lead us astray.

In retirement, I'm doing research into electrofishing theory. One of the questions I've recently asked was, "Do scales protect fish from electroshock?" I examined the electrical thresholds of Koi (*Cyprinus carpio*) with complete and partial scalation (the thickness and coverage of scales). The preliminary answer seems to be yes, scales do afford some protection. But a colleague recently challenged me with a contrary example: salmonids have lighter scalation and should be less protected than coregonids with heavier scalation but the reverse seems true: coregonids have lower thresholds (more vulnerability) to electroshock. What is the message? It is that I've been pursuing the easier question that is in my comfort zone (under the streetlight) rather than trying to explain the exceptions (looking into the darkness). Perhaps the answer lies in the area of neurophysiology, one that requires me to leave my comfort zone.

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*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.*



Executive Committee



President
Dan Schill
Phone: 208-921-7848
dan.schill@idfg.idaho.gov



President Elect
Brett High
Phone: 208-525-7290
brett.high@idfg.idaho.gov



Vice President
Ryan Hardy
Phone: 208-661-3429
ryan.hardy@idfg.idaho.gov



Past President
Helen Neville
Phone: 208-345-9800
hneville@tu.org



Secretary
Matt Belnap
Phone: 208-569-12835
matt.belnap@idfg.idaho.gov



Treasurer
Rob Ryab
Phone: 208-7703775
rob.ryan@idfg.idaho.gov



Nominations Chair
Marika Dobos
Phone: 208-750-4235
marika.dobos@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 !

