



THE CONFLUENCE

Newsletter of the Washington—British Columbia Chapter of the American Fisheries Society

Summer 2019 Issue

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As soon as one meeting ends, planning picks up for the next get together. Our next annual meeting will be a bit larger as we host the 2020 Western Division of the American Fisheries Society annual meeting at the Pinnacle Harbourfront Hotel in Vancouver, British Columbia on April 12-16, 2020. Watch for meeting updates and important deadlines at <https://wa-bc.fisheries.org/2020-meeting/>. We are currently looking for more volunteers and a meeting themed logo. Anyone can submit a logo design to be considered for the \$300 cash prize. Details about the logo contest are also on the website.

We hope you find this issue of *The Confluence* interesting and informative, with the President's Message, an introduction to our new Executive Committee members, a book review, and more! Enjoy.



WA-BC Chapter President-Elect, Brittany Jeneweine, giving an update during the business meeting at the 2019 annual general meeting in Bremerton, WA this past April.

WA-BC Chapter Executive Committee



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Gabriel Temple

President Elect

Brittany Jenewein

Vice President

Paul Spruell

Past President

Tamara Knudson

Treasurer

Ryan Klett

Secretary

Kirsten Gale

Communications Director

Benjamin Cross

Student Representative

Orlay Johnson

AFS-UW President

Bailey Gilbert

AFS-BC President

Yangfan Zahang

AFS-EWU President

Sasha Gowen

President's Report

I can't believe how fast this year has gone by. This will be my last President's report for the Confluence as we will turnover our Chapter Executive Committee this fall. The Chapter officer turnover officially occurs coincident with the national AFS annual meeting which this year is relatively late: September 29- October 3 in Reno. We have just wrapped up the Chapter elections and the new Executive Committee will be stepping into their new positions shortly. Brittany Jenewein will step in as your next Chapter President and I know for certain you will be in good hands under her leadership during the year ahead.

Next, I'd like to remind you that we have some big events on the horizon. First, the WA-BC Chapter will host the Western Division annual meeting in 2020. Mark your calendars for April 12-16, 2020 and please plan to join us at the Pinnacle Harbourfront Hotel in Vancouver, BC. This will be a big meeting, so polish up your abstracts and watch for our call for papers so you can get them in early to assure you get a spot. We should be sending out a call for Symposia sometime here in the near future so if you have been thinking of showcasing or hosting a group of talks on a topic of your expertise, please consider a submission. This will also be an excellent opportunity to get involved by participating in one of our meeting steering committees. We need lots of help to pull off a meeting of this caliber, so please consider volunteering. The time commitment can be minimal and the payoff is huge. We will also be hosting a Film Festival at the 2020 meeting so if you or a colleague have dabbled in cinematography, consider submitting a film for the festival. Follow the WA-BC Chapter website for 2020 meeting updates and for volunteer opportunities. Second, your WA-BC Chapter and the Western Division will be hosting the National AFS meeting in Spokane in 2022. The 2022 meeting will be HUGE so keep that in mind as we approach 2022 and consider getting involved.

Finally, to reflect on the previous year, I developed the President's work plan modeled after the goals and objectives outlined in the Western Division Outstanding Chapter Award application which addresses many of the components in the AFS strategic plan and Vision 2020 document. I felt this approach would allow us to identify things the Chapter consistently performs well in, as well as to identify things we can improve upon. A couple of examples of things we do well are to host successful meetings thereby providing a platform for knowledge exchange, and providing support to our students and opportunities for our members to get involved. I also noted a few things that I felt we could improve on as well, and those were things I set out to address through our work plan. One was to illustrate how we the Chapter promote the AFS certification program. I personally pursued certification to lead by example, but I think there are additional things we can do to promote certification and I would love to hear any ideas or suggestions you may have. Another topic I wanted to address was ways to improve our Chapter interactions with policy makers and elected officials. Many of our members interact with policy makers already I'm sure, and that is great, but I didn't have clear examples of how we interact with elected officials. That was one reason I invited the mayor of Bremerton to come to our annual meeting this year. In short, I feel like we improved on many topics over the previous year, but there continues to be additional room for improvement. I strongly believe that striving for improvement is how we can achieve greatness. I would encourage you to review the AFS strategic plan as well as Vision 2020 because if we all live up to the items described in those documents, we will all achieve greatness; collectively and personally.

I hope you all are having a great Summer!

Gabe

WABC Chapter President

MEET THE NEW INCOMING EXCOM MEMBERS!!!

The Washington–British Columbia Chapter of the American Fisheries Society would like to welcome our new incoming Executive Committee members. Their terms will officially start following the national American Fisheries Society annual meeting in Reno, Nevada from September 30 to October 3, 2019.

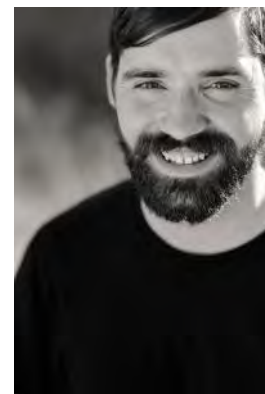
Vice President - Alf Haukenes

Alf is currently the leader of a unit responsible for characterizing hatchery/wild fish interactions in Columbia and Snake River systems for Washington Department of Fish and Wildlife. He earned an M.S. from the University of Idaho (Fish Health) and a Ph.D. from South Dakota State University (Stress Physiology Fishes). His extensive career background spans time with the U.S. Peace Corps, working in Alaska on marine species response on environmental variables and harvest stressors, to a faculty position at the University of Arkansas at Pine Bluff Aquaculture/Fisheries Center. Dr. Haukenes's previous roles as an educator and fish biologist have led him to believe that as our discipline evolves to respond to increasingly complicated issues we need to re-calibrate our networks and recruit a broader audience to our discipline and our society.



Communications Director - Timothy Taylor

The Student Subunit Timothy Taylor is a post-doctoral researcher at Washington State University, Pullman. He obtained his Ph.D. from Washington State University in Environmental and Natural Resource Sciences (Limnology) in spring 2019. Timothy has been a member of the American Fisheries Society, Washington State Lake Protection Association, and North American Lake Management Society since 2013. His research interests primarily include fisheries and lake management, and he currently resides in Pullman, Washington.



Student Subunit Representative - Caroline Walls

Caroline is a graduate student at Western Washington University working towards a M.Sc. in freshwater ecology. Her research focuses on the effectiveness of river restoration projects at improving juvenile salmon habitat and fish abundance. She obtained her undergraduate degree in 2011 in Environmental Policy and has worked with the National Park Service and US Fish & Wildlife Service. Her career goals are focused primarily on linking sound science with actionable resource management. She loves working with undergraduate and graduate students involved in fisheries and aquatic science and hopes to expand student involvement in AFS.



WA-BC 2019 Annual Meeting Highlights

The 2019 Washington-British Columbia Chapter of the American Fisheries Society Annual General Meeting was held on April 8-11 in Bremerton, Washington at the Kitsap Conference Center. The meeting was a great success with 2 workshops, 58 oral presentations, and 10 poster presentations. More meeting information is available on our website.



by Kaitlin Thurman

The Executive Committee had a great pre-meeting planning get together to make sure everything was all accounted for and start to plan for the upcoming year.



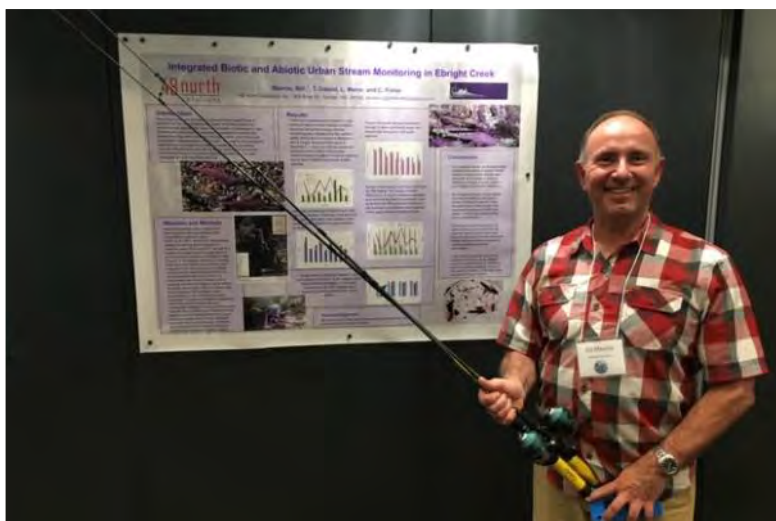
The workshops at the meeting proved to be very delicious and visually stunning. To the left is Ficus Chan leading the Intertidal Foraging and Cooking Workshop while Todd Pearsons, instructor of the Underwater Photography Workshop, enjoys some excellent treats from the cooking demonstration, such as the kelp-crab biscuits and geoduck seen on the right.

WA—BC 2018 Annual Meeting Highlights (continued)



Dr. Michael Phelps was one of our plenary speakers. He gave a talk on Understanding Aquatic Ecosystems through Genome Editing where he laid out the great potential for genome editing to answer a lot of more research questions than most people realized. Some topics covered included identifying factors contributing to local adaptation, genetic barcoding to track individuals over geographic space and time, and investigating the abundance and interaction of fish population in response to changing habitat and biological factors.

The student/mentor panel and mixer, pictured to the right, proved to be a great opportunity for students to get their questions about future career paths and opportunities answered from a variety of professionals. There were representatives from state, federal, provincial, tribes, academia, and the consulting professions to answer questions from students and provide



Our silent auction and raffles were a success again thanks to our many gracious donations! Bill Mavros is proudly displaying his raffle winnings in front of the poster he presented on multi-objective urban stream habitat monitoring. All proceeds from our silent auction and raffle go to help fund student travel to our annual meetings. If you have any raffle items you would like to donate for future meetings, please let our Executive Committee know. Some awesome prizes from this year included photographs from Mary Edwards and fishing gear donated by Four Peaks Environmental. Thanks again to all the donors!

2019 AWARDS

Best Student Oral Presentation

Alex Lincoln from the University of Washington was selected as the winner of our Best Student Paper for oral presentations at the 2019 WA-BC Chapter of the AFS meeting in Bremerton with her presentation titled "Managing salmon for wildlife: Do fisheries limit salmon consumption by bears in small streams?" To the right is a picture of Alex taken by Dan DiNicola.



Best Student Poster Presentation

Timothy Taylor from Washington State University was selected as the winner of our Best Student Paper for poster presentations at the 2019 WA-BC Chapter of the AFS meeting in Bremerton with his poster titled "Evaluating the efficacy of non-lethal ageing in a lacustrine Brook Trout population."

C. Jeff Cederholm Scholarship Recipients

Congratulations to our three C. Jeff Cederholm Scholarship Recipients:

Sarah Gutzmann (Undergraduate student), Simon Fraser University

Sarah finished her final semester as an undergraduate at Simon Fraser University this past spring where she obtained a B.Sc. in Environmental Science Honours with a minor in Environmental Toxicology. Additionally, she has conducted research on Broad Whitefish weight and sex determination from photographs, spent a semester at Bamfield Marine Science Center and the Winter Konevessi Winter Field School of Ecology in Finland, and volunteered at the Vancouver Aquarium, among many other activities. After finishing her B.Sc., Sarah plans to work for a year consulting on risk assessment and ecotoxicology before returning to graduate school to pursue a Master's degree. She is particularly interested in evaluating microplastic toxicity, how these particles may impact fish stocks, and how it impacts sustainable fisheries management.



2019 AWARDS

C. Jeff Cederholm Scholarship Recipients (continued)

Michaela Lowe (Master's student), University of Washington

Michaela is working towards a Master of Science degree in Aquatic and Fishery Sciences at the University of Washington. Her current research focus is on quantifying how individual Bull Trout exploit habitat networks across the Puyallup River basin using the geochemical signatures recorded in their fin rays to prioritize conservation strategies for this ESA-listed species. Defining the relevant riverscape for this ESA-listed species will allow resource managers to develop land and fisheries management plans that enable the expression of all migratory and life history strategies. Moreover, the use of fin rays as an alternative to otoliths provides a novel technique applicable to other threatened and endangered species, eliminating the need for lethal sampling. Following the completion of her Master's degree, Michaela aims to earn a PhD in pursuit of her ultimate goal, working as a research scientist for a government agency.



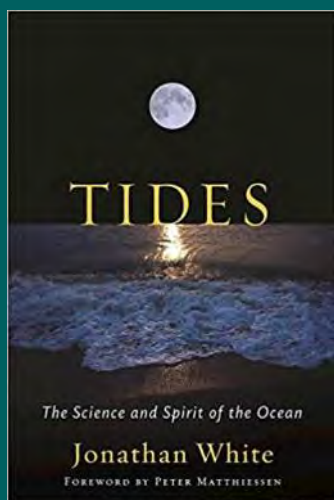
Timothy Taylor (Ph.D. candidate), Washington State University



Timothy was working towards a Ph.D. in Environmental and Natural Resource Sciences this past spring at Washington State University. While there, his research focused on developing carrying capacity models to guide salmonid management on stocked lakes and validating non-lethal aging methods for lacustrine populations of *Salvelinus* sp. for conservation and harvest management purposes. His research provided age-class estimates of a salmonid species condition, growth, and survival based on resource utilization, availability, and productivity within a lake to inform harvest and supplementation management actions. Moreover, the methodology and lessons learned from his research can be applied in other fisheries to improve management by focusing on ecosystem-based objectives. Timothy is currently a postdoctoral researcher at Washington State University working towards a career that merges learning, teaching, research, and fisheries management.



**Timothy Cross,
Reviewer**



**2017. Trinity University
Press, San Antonio**



Jonathan White, Author

The Book Nook

"Tides—The Science and Spirit of the Ocean" by Jonathan White

Review by Timothy Cross

Many of us are captivated by forces of nature, none of which is more powerful than ocean tides. We use knowledge of tides to plan safe and efficient navigation and biological sampling events not to mention popular leisure activities such as surfing, scuba diving, fishing and shellfish gathering. Jonathan White, in his book *Tides – The Science and Spirit of the Ocean*, provides numerous first-hand accounts experiencing the influence of tidal forces across the planet supplemented with fascinating historic and scientific background information.

Jonathan resides in the PNW living with his family on one of the numerous San Juan Islands. He maintains a 65 foot wooden schooner that he once used to conduct seminar trips across the PNW on a wide range of subjects ranging from natural history to native cultures with various subject matter experts. He has written articles for several publications (jonathanwhitewriter.com).

This book is structured around descriptions of tidal phenomena witnessed at various locations around the globe. Notably, the linkage of bird migration and aquatic life forms synced with tides in the Bay of Fundy, a huge tidal bore that occurs on China's Qiantang River attracting a million visitors to an annual festival, and an island monastery at the Bay of Mont Saint Michael in France influenced by a 40 foot tidal exchange. However, I was most fascinated by the author's trip to Ungava Bay, Quebec (50 foot tidal exchange) to collect arctic mussels in hollow chambers formed at low tide under the ice. Cleverly linked to each of these and other accounts of tidal phenomena the author synced scientific background describing tide forces and scientific discovery ranging from Sir Isaac Newton's studies to modern oceanographic investigations. Chapters at the end of the book provide valuable insight into timely topics of using tides for power generation and the influence of changing sea levels. Also, the book includes notes and sources which may benefit some readers.

You will like this book if you like a well written easy read with interesting scientific background and insight into understanding tide phenomena. I did not find much in this book that I did not like, although I would have preferred most of the map figures to be clearer with larger print. If you have not already read this book and would like an informative and entertaining book on coastal marine environments, this one should be added your reading list.

Announcements

CALL FOR LOGO SUBMISSIONS

The Washington-British Columbia Chapter and Western Division of the American Fisheries Society invite you to submit a logo design for the 2020 Western Division Annual Meeting to be held in Vancouver, British Columbia, CAN, April 12–16. The meeting theme will be “**Crossing Boundaries and Navigating Intersections,**” and we’d like to spread the word using a meeting-specific logo. Full details can be found at: <https://wa-bc.fisheries.org/2020-meeting/>

WHAT: Please send a hand drawn or computer designed logo to go with the 2020 theme: “Crossing Boundaries and Navigating Intersections.”

HOW: Send it as a photo/graphic attachment, to the Executive Committees at afs.wabc@gmail.com with the subject “**2020 WDAFS Logo Submission.**” Make sure to include your name, e-mail, and telephone number.

WHEN: Submissions will be accepted until 11:59 PM (PST) on **October 31, 2019.**

WHY: If your logo is selected, you will win a \$300 cash prize and be recognized during the 2020 Business Meeting.





Washington-British Columbia Chapter of the American Fisheries Society

Chapter Information

Website: <http://wa-bc.fisheries.org/>

Facebook: <https://www.facebook.com/wabcafs>

Twitter: <https://twitter.com/wabcafs>

Want to join AFS and the WA-BC Chapter? <http://membership.fisheries.org/>

Questions? Suggestions? Contact:

President Gabriel Temple at gabriel.temple.wabc.afs@gmail.com

Want to write an article or submit any type of fisheries-relevant information to this newsletter? Contact:

Benjamin Cross at bekecr@gmail.com

The WA-BC Chapter of the American Fisheries Society, which includes members in Washington State and British Columbia, is an organization composed of professional biologists interested in the scientific conservation and enhancement of fish populations and their environment.

The mission of the Chapter is to:

- 1) advance the conservation and intelligent management of aquatic resources within a context of sound ecological principles,
- 2) gather and disseminate information pertaining to aquatic science and fisheries management, and
- 3) promote the educational and technical aspects of the fisheries profession.

In pursuit of our mission, we will strive to equitably represent the views of members, develop opportunities for effective leadership and conservation, and generate the resources necessary to carry out our programs.

The next WA-BC Chapter Annual General Meeting will be held on April 12-16, 2020 in Vancouver, British Columbia at the Pinnacle Harbourfront Hotel. We look forward to seeing you there!



2018-2019 Executive Committee of WA-BC Chapter

From left to right: Gabriel Temple, Orlay Johnson, Kirstin Gale, Tamara Knudson, Brittany Jeneweine, and Benjamin Cross. Not present: Ryan Klett and Paul Spruell