



# THE CONFLUENCE

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

Spring/Summer 2017

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The Washington-British Columbia Chapter of the AFS 2017 Annual General Meeting was held in Spokane, Washington, on April 10-13. President Alix Blake gives a brief overview of the event on page 2, but suffice to say it was a success! We were pleased to give away several awards this year:

### **Volunteer Organization of the Year:**

Lake Roosevelt Volunteer Net Pen Program (LVRNPP)



The LRVNPP is an integral component of the Lake Roosevelt artificial production program, which is a collaborative fish production and stocking effort that includes the Spokane Tribal Hatchery and Washington Department of Fish and Wildlife Sherman Creek Hatchery. Each year, the LRVNPP raises up to 500,000 triploid Rainbow Trout in approximately 45 net pens distributed throughout the 151 mile long reservoir. The vast majority of maintenance, feeding, and cleaning is carried out by the approximately 40 volunteers of the organization. In 2016, the Lake Roosevelt angler creel survey estimated that nearly 40,000 hatchery Rainbow Trout were caught by anglers, thanks in large part to the efforts of the LRVNPP. It would likely be impossible for the artificial production program to sustain the hatchery Rainbow Trout fishery without the remarkable hard work and dedication of the LRVNPP.

This volunteer organization is one of the largest of its kind and has produced tangible economic and social benefits for the region for the past several decades. Furthermore, the efforts of the LRVNPP align with the AFS mission "...to improve the conservation and sustainability of fishery resources..." (cont. pg. 4)

## **AGM Review**

Presentations can be viewed at: <http://wabc-afs.org/2017-agm-presentations/>  
See page 5 for more photos from the event!



**WA-BC Chapter President**

**WA-BC Chapter Executive Committee**

President

*Alix Blake*

President Elect

*Tamara Knudson*

Vice President

*Gabriel Temple*

Past President

*Mark LaRiviere*

Treasurer

*Martina Beck*

Secretary

*Erin Rechisky*

Communications Director

*Brittany Jenewein*

Student Representative

*Orlay Johnson*

AFS-UW President

*Grace Workman*

AFS-BC President

*Sam Wilson*

AFS-EWU President

*Shawna Warehime*

# President's Report

Happy Summer! Wow the Spokane meeting was amazing! Over 125 registrants, 63 talks, 15 posters, 10 vendors, and more! All of the networking events and sessions were full of potential collaboration and sharing research with men and women who work for state and federal wildlife agencies, schools and universities, local governments, Native American Tribes, conservation NGOs, consulting companies and more. The R workshops were a blast with over 20 registrants. Our plenary session was kicked off with three semi-retired biologists with more fisheries experience and knowledge than a textbook! All of the symposia were well attended and the caliber of the talks was superb. We would like to give a special thank you to Whooshh! Innovations for the demo; the weather was perfect and your fish cannon sparked the imagination of several school-aged kids walking through the park. Also thank you to Spokane River Keepers and River City Brewery for the free keg at the poster session, it was the talk of the evening. Lastly

we were able to raise over \$1,700 for student travel next year at the silent auction! Thank you to everyone who participated in the conference and we hope to see you in Kelowna, B.C. next spring!

Let's talk about getting involved in the Chapter, Division and Society! Please become a member if you're not already and support your local Chapter. The society includes 8,000+ members from around the world, and our Chapter includes 400-600 WA-BC members, including fisheries managers, biologists, professors, ecologists, aquaculturists, economists, engineers, geneticists, and social scientists promotes scientific research and sustainable management of fisheries resources. As a society member you have access to five fisheries journals, a monthly magazine, and many renowned books. The society also facilitates continued education, small grant funding, scholarships, travel grants, and more. The mission of the chapter is to:

"Advance the conservation and intelligent management of aquatic resources within a

context of sound ecological principles, gather and disseminate information pertaining to aquatic science and fisheries management, and 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."

I hope a refresher about the Chapter and Society goals gives you the push to get involved! We currently have several Executive Committee positions open for nominations. Please nominate a coworker, boss or even yourself. See page 9 for more details. Have a fun summer of fieldwork and be safe!

*Alix Blake, President*

## **Contact for President Alix Blake**

Email: [alix.blake@spokanetribe.com](mailto:alix.blake@spokanetribe.com) or [afs.wabc@gmail.com](mailto:afs.wabc@gmail.com)

Cell: (509) 389-1905

## Student Subunits: Reports and Activities



**Amaryllis Adey**  
**UW Student Subunit President**  
 aadey@uw.edu  
 AFS-UW website:  
<https://afsuw.wordpress.com/>



The UW subunit recently held elections for the following year. Here is the new lineup:

- President - Grace Workman ([grace1rw@uw.edu](mailto:grace1rw@uw.edu))
- Vice President - Elliot Allen
- Communications - Bailey Gilbert
- Treasurer - Ethen Whattom
- Secretary - Alex Lincoln

Congratulations to the new Executive Committee members!



**Sam Wilson**  
**BC Student Subunit President**  
 swilson471@gmail.com  
 AFS-BC website:  
<https://bcstudentafs.wordpress.com/>



The BC students are quite busy with field work this summer! They assisted with the 2017 WA-BC Chapter AGM by planning the Silent Auction, including gathering the majority of donated items. Four of our students presented at the AGM and volunteered their time to help the conference run smoothly.



**Bryan Witte**  
**EWU Student Subunit President**  
 bwitte2012@eagles.ewu.edu

Things have been a bit hectic here at Eastern as they usually are everywhere else in the spring time. Several students from our subunit have graduated and moved on this Spring. Andrew Huddleston got his Bachelors of Science in Biology and is working with the Army Corp at Albeni Falls Dam on the Pend Oreille River. Tyler Janasz also got his Bachelors of Science in Biology and is working at the juvenile fish facility at Lower Granite Dam on the Snake River, where he works mainly with out migrating salmonids.



I myself earned a Master's of Science in Biology this spring working on Redband Rainbow Trout Acoustic Telemetry and acoustic receiver evaluation in Lake Roosevelt. I am now working with the Kalispel Tribe Natural Resources Department.

For elections we decided it would be best for officers to be those students that will be at Eastern at least another year. Shawna Warehime is President ([sbwarehime@eagles.ewu.edu](mailto:sbwarehime@eagles.ewu.edu)), Kaeli Davenport is Vice President, and Coty Jasper is secretary/ treasurer for this next year.

(cont. from cover page)

**C. Jeff Cederholm Scholarship:**



Jeff Cederholm dedicated his career to conservation of salmon and aquatic species and their habitats. Jeff passed away in 2006 leaving a legacy of education, pioneering contributions to scientific literature and periodicals and instilling of passion for wild salmon conservation in many people for decades. After a successful American Fisheries Society Meeting hosted by the WA-BC Chapter in Seattle 2011, the Chapter resolved in 2013 to apply raised funds and subsequent contributions to the endowment to create a permanent source of financial support for educational expenses. The Scholarship is administered by the WA-BC Chapter Endowment Committee.

The recipients of the 2017 scholarships impressed the Endowment Committee and the Chapter ExCom with their influential research projects, past awards, and extensive public service activities. We were pleased to award \$1,000 each to:

- Sierra Sullivan (M.Sc. candidate), University of British Columbia
- Naomi Pleizier (Ph.D. candidate), University of British Columbia (at right)
- William Atlas (Ph.D. candidate), Simon Fraser University



Application forms for the 2018 awards will be available late 2017/early 2018.

We also presented Past President Mark LaRiviere with a Certificate of Appreciation for all his hard work and dedication to the chapter over the last four years.



And of course we had to officially award the Spawning Run male and female participants with the fastest times. This year's winners were Alex Kain (left) and Erin Rechisky (right). They were presented with the awesome fishy Christmas ornament shown below:



**We would also like to congratulate Sam Wilson (SFU) and Naomi Pleizier (UBC) for winning the Best Student Paper and Poster Awards! Their stellar presentations wowed the judges and earned each of them \$100.**

See page 5 for more photos from the AGM!



A huge thank you again to all our sponsors, donors, exhibitors, presenters, and volunteers! We could not make this happen without you.

***Join us next year in beautiful Kelowna, BC!***



**The World Recreational Fishing Conference unites the global recreational fishing community and provides an essential forum to discuss current research.**

Held every three years, this is the only international conference focused solely on recreational fisheries – an event you don't want to miss!

Your ticket includes access to all presentations, breakout sessions, networking events, coffee breaks, lunches, banquet & reception.

**FEES**

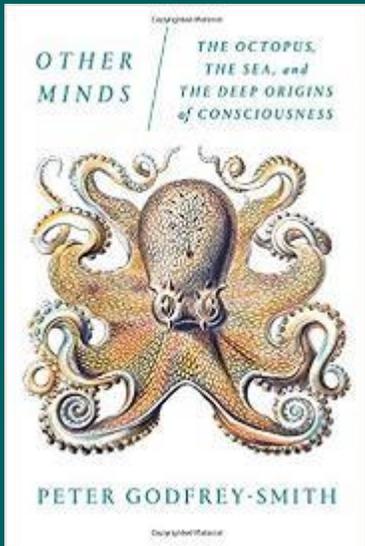
Early Bird - \$375 CAD – \$425 CAD after April 16, 2017 – Students - \$275 CAD

To register, reserve accommodation, or submit an abstract, visit [wrfc8.com](http://wrfc8.com)





**Orlay Johnson,  
Reviewer**



**Other Minds: The Octopus, The Sea, and the Deep Origins of Consciousness**



**Peter Godfrey-Smith,  
Author**

Image by Paul Morejón Studios from <http://petergodfreysmith.com/biographical>

## The Book Nook

### Other Minds: The Octopus, The Sea, and The Deep Origins of Consciousness

Review by Orlay Johnson

Author: Peter Godfrey-Smith. Pub: Farrar, Straus and Giroux, NY. 2016.

This fascinating book explores the concept of consciousness in taxa diverged for half a billion years. The author sees an anomaly in the existence of complex nervous systems and short life spans in cephalopods. Questions (noted in the book cover) include: “what kind of intelligence do cephalopods possess? How did the octopus, a solitary creature with little social life become so smart? What is it like to have eight tentacles that are so packed with neurons that they virtually “think for themselves”?”

In the process of probing such issues, the reader is guided on a fascinating and satisfying intellectual journey. The door is opened for similar explorations in other non-humans such as baboons and (a personal obsession) crows. From my distant past, I recall warnings to avoid “anthropomorphism” in interpreting actions of other species. I confess to having ignored such proscriptions; rather, I try to project my own mind into that of non-human creatures such as dogs. Many (I suspect most) others share this weakness. Such readers particularly will enjoy this book.

If you’d like to read a more extensive review, see this great write-up in the Seattle Times: <http://www.seattletimes.com/entertainment/books/other-minds-diving-deep-into-the-world-of-the-octopus/>

Here are a couple of my octopus photos for your enjoyment!



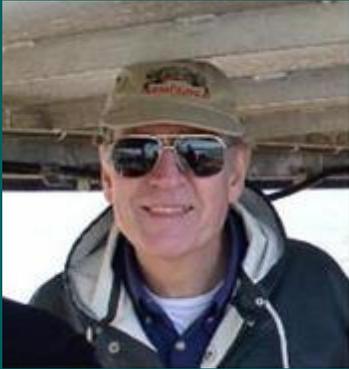
## The Book Nook

### All The Boats in the Ocean: How government Subsidies Led to Global Overfishing

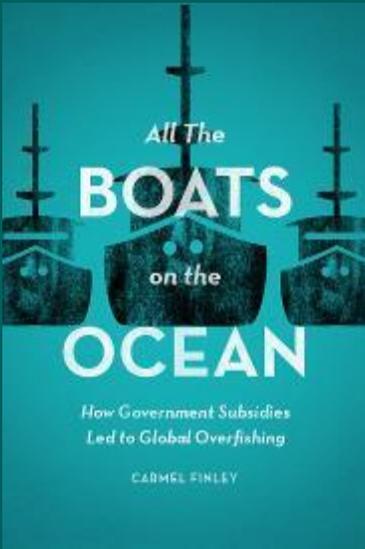
Review by Dr. Don Gunderson

Author: Carmel Finley Publisher: University of Chicago Press, 2017

*Note: An excerpt of this review was originally published in the American Institute of Fishery Research Biologist's BRIEFS newsletter Vol.46 No.1. Dr. Gunderson has kindly provided us with the full review to present here.*



**Dr. Donald Gunderson,  
Reviewer**



**All the Boats on the Ocean**



**Carmel Finley,  
Author**

Image from <https://carmelfinley.wordpress.com/about-the-author/>

This book is a well-written, scholarly, and engaging history of state subsidies for the fishing industry. This carefully researched book explores the political and economic philosophies behind the subsidies that gave rise the development of those Soviet and Japanese fishing fleets that hit both coasts of the U.S. like a tsunami in the 1960's, then mushroomed the size of U.S. "domestic" fleets in the 1970's and 1980's.

As Finley shows, fishing subsidies are never just about fishermen or food. They are just one component in a suite of tactics used to achieve broader (often covert) national economic and political goals. "Feeding the people" is usually a secondary goal.

The expansion of the Japanese fishing fleet after WWII was encouraged and abetted by the U.S. to help rebuild the Japanese economy and keep Japan out of the communist sphere. The Soviets expanded their fleet to show the world the superiority of communist industrial might as much as to feed their people. The U.S. stance on "Freedom of the Seas" was more about freedom of U.S. naval operations than rights for U.S. tuna fishermen to fish as close as three miles from any nation's coast.

Finley argues that the goal of achieving MSY (maximum sustainable yield) throughout the world's oceans was happily endorsed by diplomats who probably didn't even understand the conceptual framework behind it. It simply buttressed their position on freedom of the seas. When the international community began to adopt 200-mile fishing zones in 1976, and MSY had achieved the status of a moral imperative in order to avoid "wasting" fish needed by humanity, the U.S. had a new problem. It could either subsidize the expansion of its domestic fleet and harvest MSY itself, or allow foreign fleets within their new 200-mile limit. They chose the latter of course, and the dynamics of pork barrel politics insured that the domestic fleet soon became much larger than necessary.

So what was the result of all these subsidy programs? Since nobody had a clear idea of just what level of harvest might be sustainable, Japanese and Soviet distant water fishing was nothing less than a raid on global fish stocks. They quickly depleted many stocks around the world, resulting in far too many boats chasing far too few fish. The U.S. overbuilt its own fleet and depleted the stocks off the U.S. coast even further.

*(cont. on next pg.)*

Finley gives a broad overview of global issues, and focuses on the Pacific coast of the U.S. to show how this played out at a personal level for the fishermen, processors, and scientists there. She highlights the fate of Pacific coast "rosefish" (Pacific ocean perch) stocks, which have yet to rebuild from the overfishing that resulted.

Finley's book shows clearly that subsidies to the fishing industry almost always develop a political life of their own, bloat the fishing fleet, and result in overfishing. They are always a bad idea if sustainable fisheries are the only policy goal—which (as Finley shows) it usually isn't. We now know enough to ask, "What is the real goal here?" whenever such subsidies are proposed.

While the book represents a thorough analysis of fisheries policies through the 1980's, it leaves out many subsequent developments, and closes with a fairly dark assessment of the current situation. Finley suggests that more marine protected areas need to be established, and that larger spawning stocks of older females must be maintained if fisheries are to be truly sustainable.

She may be correct here, but fails to recognize that there has already been considerable progress in achieving sustainable fisheries. Overfishing on both coasts of the U.S. eventually led to the development of laws and management systems (surveys, stock assessment programs, observer programs etc.) that began the rebuilding process, and many U.S. stocks are currently being harvested at MSY levels. "Rosefish" (Pacific ocean perch) stocks have been successfully rebuilt in Alaska.

Beginning in the 1990's, the overcapacity of many U.S. fleets was reduced through buyback programs (requiring further subsidies) and "catch sharing" programs that allocate each year's fishing quota among the vessels that remain in the fishery.

Lee van der Voo's 2016 book "The Fish Market: Inside the Big-Money Battle for the Ocean and your Dinner" describes the outcomes of several of these catch sharing programs, and serves as a good companion to Finley's. Suffice it to say that most catch sharing programs have resulted in fisheries that are more sustainable and profitable, although participants with access to capital end up with the lions share of the benefits while many others are forced out of the business as collateral damage.

I strongly recommend that anyone interested in the history, science, or management of marine fisheries read both of these books. Finley's book represents a definitive analysis of the politics of world fishing from the 1940's through the 1980's, with the sharpest focus on the Pacific Ocean. Van der Voo's book explores the outcomes of several catch sharing programs that have been carried out globally since then, with a focus on the United States. Both make for fascinating reading.

## **Do you know someone who could make a difference serving on the Executive Committee?**

We are still seeking to fill a couple positions on our committee. Please send in your nominations to Past President Mark LaRiviere (mglariviere@aol.com) as soon as possible. You can absolutely nominate yourself!! The positions available are:

- Communications Director
- Student Subunit Representative

You can [check out the website](#) for detailed descriptions of the positions, but don't hesitate to ask any of the current ExCom members for more information!

# GREETINGS FROM THE CANADIAN AQUATIC RESOURCES SECTION OF THE AMERICAN FISHERIES SOCIETY



Make sure to join CARS when you re-new your AFS membership this year  
<http://fisheries.org/membership>



Join CARS at any time if you are an AFS member

Contact CARS at: [carsafs@gmail.com](mailto:carsafs@gmail.com) for more information, or find us online at [cars.fisheries.org](http://cars.fisheries.org).

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## CARS Highlights

- 1) Created the Legends of Canadian Fisheries Science and Management award in 2014.
- 2) Supports numerous students through the Peter A. Larkin award for excellence in M.Sc. and Ph.D. student research and fisheries leadership, and administers the Clemens-Rigler travel awards to annual CCFRR meeting.
- 3) Currently coordinating the writing of a textbook on Canadian fisheries science - watch for it in 2016.
- 4) Advocates for Canadian fisheries professionals through involvement with PAGSE (the partnership group for science and engineering), peer-review publications, and timely letters to environmental approval agencies.
- 5) Links together the four Canadian-focused AFS chapters.

Photo by Emmanuelle Chrétien

# Education Corner

## **ONE NOAA SCIENCE SEMINAR SERIES**

The OneNOAA Science Seminar Series are the most complete and integrated summary of NOAA-wide science and climate seminars. See the full list of FREE online seminars [at this link](#).

## **WHAT IS THE STATE OF OUR PACIFIC NORTHWEST UNIONIDS?**

EcoAnalysts, Inc. is hosting a workshop on Pacific Northwest native freshwater mussels at the Columbia Gorge Discovery Center, The Dalles, OR, September 19th-20th, 2017. This two-day event is focused on the biology, ecology, cultural significance, and conservation of freshwater mussels in the Pacific Northwest. The workshop will include lectures on freshwater mussels, presentations of local mussel work, and a panel discussion chaired by local experts to answer questions and lead discussion. The workshop will also include a special seminar on mussel survey methods taught by Heidi Dunn of Ecological Specialists, Inc., including a day-long field demonstration of mussel habitats and survey methods. If interested, please visit the 2017 PNW Mussel Workshop page on the EcoAnalysts website (<http://www.ecoanalysts.com/2017-pnw-mussel-workshop/>) for more information and registration. If you have any questions, contact Anndrea Navesky ([anavesky@ecoanalysts.com](mailto:anavesky@ecoanalysts.com)) or Matt Hill ([mhill@ecoanalysts.com](mailto:mhill@ecoanalysts.com)). We hope to see you in September!

## **FIELD TRIP TO THE UPPER COQUITLAM WATERSHED**

Everyone is welcome to participate in a Field Trip to the Upper Coquitlam Watershed with the Canadian Water Network Student & Young Professionals Committee of Vancouver on Saturday, July 22, from 9 AM to 12 PM. See the Facebook event page here: <https://www.facebook.com/groups/799967333448387/>

This is a really cool opportunity to see one of Metro Vancouver's drinking water reservoirs, and a protected pristine watershed. This will also be an opportunity for you to meet others working in the water world and to expand your network. There is NO COST to take the tour and a bus takes us to and from the upper watershed from Coquitlam city centre (pick up/ drop off near Glen Park, which is only a 5-10 minute walk from the Lincoln SkyTrain station in Coquitlam).

Please RSVP on the Facebook Event page or over email, either to Melissa Dick ([melissadick1@gmail.com](mailto:melissadick1@gmail.com)) or to [vancouverbluedrinks@gmail.com](mailto:vancouverbluedrinks@gmail.com). In the days leading up to the event, we need to send a list of names of everyone participating in the tour to grant access to the otherwise inaccessible watershed so please RSVP ASAP!

If you have any questions or would like to RSVP, please don't hesitate to be in touch! Also, if you know of others who may be interested in participating, by all means please forward along this invitation. The event is tailored to attract students and young professionals but all those interested in water resource management are welcome.

Please see [www.coquitlamriverwatershed.ca](http://www.coquitlamriverwatershed.ca) for more information about the watershed and restoration work that has been done and is planned for the future!

## **RIVER RESTORATION NORTHWEST ANNUAL STREAM RESTORATION SYMPOSIUM**

RRNW is gearing up for the 76th Annual Stream Restoration Symposium at Skamania Lodge in Stevenson Washington February 6-8, 2018! We have issued a call for Session Proposals and Oral/Poster Abstracts. To get all the details and links to submit via our new online submission platform, please visit our website at [www.rrnw.org](http://www.rrnw.org).

Session Proposals are due August 14, 2017. Abstracts for oral and poster presentations are due September 11, 2017. Get those ideas flowing and on paper. We look forward to reading your abstracts and seeing you at the Symposium in February!





## Washington-British Columbia Chapter of the American Fisheries Society

### Chapter Information

Website: <http://wabc-afs.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 Alix Blake at [alix.blake@spokanetribe.com](mailto:alix.blake@spokanetribe.com)

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

Brittany Jenewein at [btjenewein@gmail.com](mailto:btjenewein@gmail.com)

We want to hear from you!

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 in Kelowna, BC in spring 2018.**

**Watch for the latest updates!**  
<http://agm.wabc-afs.org>



**2016-2017 Executive Committee of WA-BC Chapter**