

“The Confluence”



Winter 2013

Newsletter of WA-BC AFS Chapter

**The Big Pre-AGM*
Issue!**

***Annual General Meeting!**

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Dayton Lee Alverson dies at 88

Dr. Lee Alverson, an internationally recognized expert in world fisheries who helped establish the U.S. Exclusive Economic Zone (EEZ) and served as NOAA's NWFSC Director in 1970, passed away on January 19, 2013. Obituary by Don Gunderson - page 16



Have a newsletter article (or ideas for future articles) that you'd like to submit? Email your idea/topic to one of our editors:

Orlay Johnson orlay.johnson@noaa.gov or
Stephanie Caballero scaballero@fs.fed.us

The President's Line - by Dr. John Morgan

WA-BC Chapter President

Professor, University of Vancouver Island, Nanaimo, BC

This is the time of year in the fisheries world (at least in this part of it) when it's time to finish up reports and start planning for the next field season. Or, if you are a fisheries prof like me, midterms and marking!



And as we are now well into the New Year, the Chapter Executive Committee and volunteer members are busy making arrangements for the upcoming Annual General Meeting. This year's meeting will be held from March 25-28 at Campbell's Resort in scenic Chelan, WA located on the shores of Lake Chelan.



The theme of this year's meeting is "From the Palouse to the Pacific and Kootenays to the Coast: Fisheries Management in the 21st Century", and it will be the first Chapter meeting in several years to be held east of the Cascades. We are excited about bringing the AGM to the mid-Columbia region and the program will include relevant and timely

symposia, plenary speakers, contributed sessions and student activities, as well as fun and engaging social events. Early registration rates have been extended to March 10! This coincides with the deadline to submit abstracts: also March 10. Excellent hotel rates are also available at the resort, so don't delay and book today! Visit the meeting website at:

www.agm2013.wabc-afs.org and, if you have any questions or would like to volunteer at the meeting, contact Brian Missildine at:

Brian.Missildine@dfw.wa.gov.

If you have any questions about the Chapter's activities or how you can get involved, please feel free to send me an email anytime at: John.Morgan@viu.ca .



We hope to see you in Chelan!
**Tight lines,
John Morgan**

Chapter President John Morgan's

Bio: John received a BSc from the University of British Columbia and a Dip. Tech. from BCIT. He spent eight years working as an Environmental Consultant before returning to UBC for his MSc and PhD. John began teaching in At Vancouver Island University <http://www.viu.ca/> in September 1999 as a fish and wildlife instructor. Besides being a fisher of giant salmon (photo-proof on preceding page!), he is known in a different venue as John Travolta's twin, Johnny Disco.



Location of this year's AGM: Campbell's Resort on the shores of Lake Chelan, WA

WA-BC Chapter of the American Fisheries Society 2013 Annual General Meeting

General Information for the WA-BC Chapter Meeting

What: Join your fisheries colleagues for this year's Chapter meeting!
When: March 25-28, 2013 – less than 1 month away! Early registration rates have been extended to March 10!
Where: Campbell's Resort in Chelan, WA – located on the shores of beautiful Lake Chelan!

AGM website: <http://agm2013.wabc-afs.org/>
Registration: <http://agm2013.wabc-afs.org/registration/>
Venue: <http://agm2013.wabc-afs.org/venue-accomadations/>
Campbell's Resort website: <http://www.campbellsresort.com/>
Campbell's Resort phone number: (509) 682-2561
Things to do: <http://www.lakechelan.com/things-to-do/>

Information for sponsors:
<http://agm2013.wabc-afs.org/exhibitors-sponsors/>

Information for potential volunteers:
Would you like to be one of our volunteers for this meeting? Contact Brian Missildine at Brian.Missildine@dfw.wa.gov



Make your reservations now at Campbell's Resort, venue of the AGM on March 25-28!

Campbell's Resort is a family-friendly Lake Chelan destination offering a one-of-a-kind experience for every guest, as well as 12,000 square feet of conference space. The cost will be very reasonable, whether you're traveling/staying as an individual or bringing the family, and the resort provides two restaurants, a day spa, and an array of on-site amenities. These include: accommodations right on the water, convenient access to Washington state's most exciting wine country, the town of Chelan, and lake activities, such as boating, swimming, and fishing.

Second Call for Contributed Papers and Posters / Second Call for Symposia

This call for papers seeks oral and poster contributions that are relevant to the conference theme, “From the Palouse to the Pacific and Kootenays to the Coast: Fisheries Management in the 21st Century”, but can be on such diverse topics as:

- Hatcheries in the 21st Century: Past, Present and Future
- Upper Watershed Life History Patterns
- Mid-Columbia Basin Fisheries Management
- Bull Trout
- Pacific Lamprey
- General fish biology, life history, and ecological studies

Abstract Submission

Abstracts are due **March 10, 2013**. Abstract submissions must include:

1. Type of presentation preferred (oral or poster).
2. Topic area from list above, or suggest a topic.
3. Abstract Title: Be brief but descriptive.
4. Author(s) name(s) as they should appear in the program, affiliation, mailing address, phone number, and email address.
5. Name of presenter and contact person, if different from first author.
6. Students indicate participation in “Best Student Paper or Poster”.
7. Text of abstract in 300 words or less.

Abstracts can be submitted on the conference website:

<http://agm2013.wabc-afs.org/abstract-submission/>

Poster Submission

Posters will be mounted to 121.9 sq. cm. (48” x 48”) rolling tack boards so consider these dimensions as the maximum size of your poster. We will supply materials for mounting the posters to the boards.

Minimize the amount of text in the poster. Using bulleted phrases rather than complete sentences is recommended.

- The title should be short and fit across the top of the poster on one line. Authors' names and affiliations should appear below the title.
- Fonts must be large enough to be readable from a distance of 3 ft. The following font sizes are recommended:
 - Title – 72 point or larger; title kept short.
 - Authors' names and affiliations – 48 point.
 - Section headings – 36 point, bold.
 - Text – 28 point.
 - Graphs and tables – all numbers and labels 28 point or larger.
 - Graph bars and symbols – use colors; avoid cross hatching.
 - Acknowledgments – 20 to 24 point.

Exhibitors & Sponsors

Exhibitors

We will have an Exhibit Hall at this conference where companies, organizations, and agencies can set up a booth and network with attendees. An Exhibitor packet is now available on the AGM website: <http://agm2013.wabc-afs.org/>. If you have any questions, please contact Lisa Harlan at: lharlan@smith-root.com.

Sponsors

We greatly appreciate your financial donations, sponsorship of technical sessions or social events, in-kind contributions of labor, or direct contributions of meeting supplies. We have established sponsorship/exhibitor categories that make it possible for any size organization to make a contribution. All sponsors or exhibitors will be recognized on the meeting web site, at the meeting, and on the printed program.

Up and Coming Events

Check out the National AFS Website - Events Page
for all AFS-related meetings and classes:

<http://fisheries.org/calendar>

April 15-18, 2013 - Western Division AGM in Boise, Idaho

Come celebrate the 50th anniversary of the Idaho AFS in sunny southern Idaho! The WD-AGM will be held at the Boise Center with convenient lodging next door at the Grove Hotel.

Also check out Western Division's new website:

<http://wdaafs.org/>. For more AGM information:

<http://www.idahoafs.org/meeting.php>



September 8-12, 2013 - Parent AFS Conference in beautiful downtown Little Rock, Arkansas

<http://afs2013.com/>

The Arkansas Chapter of the American Fisheries Society and our 2013 AFS President, John Boreman, cordially invite you to attend the next Annual Meeting in Arkansas: "The Natural State". The meeting will be held September 8-12, 2013 at the Statehouse Convention Center in Little Rock.



LITTLE ROCK • 2013

Smith-Root Electrofishing Class Dates for 2013

The always electrifying *Introduction to Electrofishing* classes, taught by fisheries biologists from Smith-Root, Inc., will be held this year on: March 12-13th, April 18-19th, May 7-8th, and September 24-25th at their headquarters in Vancouver, Washington. This 2-day course includes classroom teaching and hands-on training in the field with backpack electrofishers. For more information, go to www.smith-root.com or call (360)573-0202.

Sponsorship Highlight: U.S. Fish & Wildlife Service Youth Fisheries Academy Day Camps



Skokomish tribal youth participating in fish dissections.

The WA-BC Chapter proudly sponsored another successful *Youth Fisheries Academy Day Camp* season in 2012. This was the third year the Chapter financially sponsored this valuable and forward-thinking program that teaches kids about aquatic biology and ecology, conservation, and career skills used in the fisheries and aquatic science profession.



Fisheries technician Zachary Moore leads a benthic macro invertebrate investigation.

The Youth Fisheries Academy Day Camps are part of the U.S. Fish and Wildlife Service's (USFWS) "Connecting People With Nature Program". USFWS employee and Chapter member, Dan Spencer, spearheads this program from his office in Lacey, WA. The 2012 season featured eight day camp events with 171 participants for a total of 855 contact hours.

Campers engaged in a number of stimulating hands-on activities as they rotated through four themed learning stations. The stream sampling station focused on abiotic and biotic data collection methods (discharge, pebble counts, water chemistry, canopy cover and benthic macro invertebrates). The fish ID and health station featured the identification of live juvenile salmonids, a neutral buoyancy experiment (swim bladder theme) and a water temperature to respiration experiment on goldfish. The anatomy and physiology station featured fish dissections and the fisheries technology station included radio telemetry and GPS activities.

The support provided by the WA-BC Chapter allowed for the purchase of needed educational supplies. These supplies have also been utilized for other USFWS fisheries and aquatic science outreach programming such as classroom visits, field trips and festivals. The Chapter has pledged continued financial support in 2013 to further the mission of inspiring future fisheries and aquatic conservation professionals and advocates. For more information about the program, contact Dan Spencer by email at daniel_spencer@fws.gov or (360)753-9589.



Neah Bay summer school student tracks a radio collared peer.

WA-BC AFS Officer Reports



Your WA-BC Officers at the 2012 ExCom Retreat

**See the WA-BC Chapter webpage
for officers and contact information:**

<http://wabc-afs.org/about-us/officers/>

President John Morgan

President-Elect Brian Missildine

Vice-President Matthew Klungle

Past-President Mark Celedonia

Treasurer Emily Pizzichemi

Secretary Lisa Harlan

Communications Officers Orlay Johnson & Stephanie Caballero

Student Sub-Unit Representative-Elect: Martina Beck

UW-AFS Student President Jessie Hale

BC-AFS Student President Natalie Sopinka

Also:

Past-Past President Mark Pederson

Past Student Sub-Unit Representative Stephanie Avery-Gomm

President Elect Brian Missildine

(photo at right) is the organizer for the 2013 AGM and has been working day and night to make this year's meeting the best ever.

Right: I've Been Workin' on the AGM All The Live-Long Day



Vice-President Matthew Klungle has been working with Brian on the planning and implementation of the upcoming AGM in Lake Chelan – now less than a month away: March 25-28!



Secretary Lisa Harlan (photo at left) is just back from Australia where she has been training our fellow fisheries biologists in the Land Down Under on the use of Smith Root electroshockers.

Treasurer Emily Pizzichemi - Officer Report and Update on her recent activities working for Anchor QEC, LLC -

I have been busy setting up the registration for our upcoming AGM in Chelan, tracking incoming fees, writing reimbursement checks, and handling donations. We have recently supported several wonderful efforts, including the USFWS Fisheries Day Camps, student sub-unit recruitment and social events, Salish Sea Expeditions, and the AFS Equal Opportunities Section (EOS) travel award. Looking forward to another successful meeting and year!

For a blurb about my recent travels: Back in the spring of 2010 when I graduated from college, I knew exactly what I wanted to do (namely, LOVE my job), but I had no clue how to go about doing it. I packed up my life and struck out for the west coast hoping I'd find inspiration. After a few months of frustrating dead-ends, I did in fact stumble across my dream job. Now, I work as a biologist for an environmental consulting firm in Seattle, WA and my job makes me

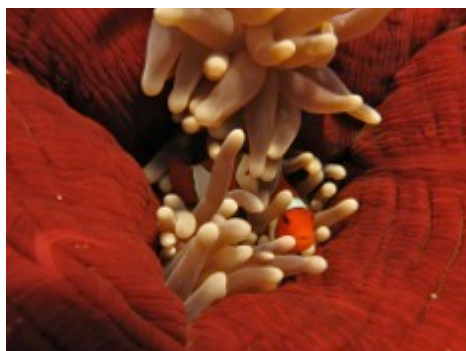
smile every single day. I have independence and room to exercise my creativity; I have supportive and passionate co-workers; I get to travel and learn new things. It honestly does not get much better. During my 2 years in the professional world, I have been SCUBA-diving in Puget Sound, cut otoliths from fish in upstate New York (and then made earrings out of them), held a 6-foot sturgeon, collected sediment cores from some of the most polluted waterways in the US, and been stung by an evil centipede in the deserts of the Southwest, just to name a few of my recent adventures. In April of 2011, I got the opportunity to spend several months working in NYC – collecting water samples, fish samples, and sediment cores, doing habitat surveys and air monitoring, and in my off-time, exploring one of the most exciting cities in the world. I have learned more about fisheries science, engineering, ecology, and life in the past 2 years than I ever did in school. If I had one piece of advice to give recent grads (or not-so-recent grads), it would be to find a job you love. It IS possible!



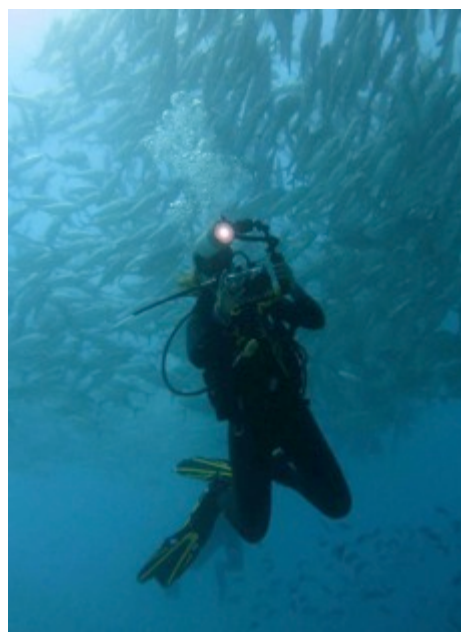
Past Officers Activities



Stephanie Avery-Gomm - Past Student Chapter Representative has moved to eastern Canada but, prior to that, she got to do some diving in the south Pacific, including with big-eyed jacks at Balicasag Island, Panglao, Bohol, Philippines.



Photos (left and right) by Stephanie and Ben.



Student Subunits: Reports and Activities

British Columbia Student Subunit (AFS-BC)

By Natalie M. Sopinka, President

Our mission, as the British Columbia Student Subunit of the Washington-British Columbia Chapter of the American Fisheries Society (AFS), is to unite undergraduate and graduate students in fisheries research at universities and colleges in British Columbia.

The British Columbia Student Subunit is pleased to announce that our logo design contest was a success and we have chosen our official logo! Congratulations and many thanks to Amelia Stegeman, a comparative physiology graduate student in UBC's Department of Zoology, who designed the winning logo entry. The Subunit looks forward to showcasing the logo on our poster at the upcoming Pacific Ecology and Evolution Conference in Bamfield, which is hosted this year by the University of Victoria. Contact us via email (bcstudentafs@gmail.com), website (<http://bcstudentafs.wordpress.com/>) or Facebook



(<https://www.facebook.com/afsbcestudents>).

The Subunit is also excited to support a new blog written by Subunit member and UBC PhD student, Nathan Furey (photo at left). Nathan's current research examines the environmental and oceanographic variables that influence the migration behaviour and success of Pacific salmon smolts. But Nathan's story started at the University of New England as an

undergraduate cleaning crustacean holding tanks. As his interest in aquatic ecology grew, Nathan quickly transitioned to hands-on research studying macrofaunal composition in an estuary in Maine. With invaluable guidance and support from his undergraduate supervisors, Nathan ventured into the world of graduate school. The link to his blog is: <http://survivinggradschoolecology.blogspot.ca/>

What field of research is best for you? When do you choose a graduate supervisor? Why should or shouldn't you do graduate research? What kind of challenges will you face as a graduate student? How can you make the best of your graduate degree? Find out more and share your experiences on Nathan's blog "Surviving Graduate School in Ecological and Fisheries Sciences" <http://survivinggradschoolecology.blogspot.ca/>

Photo Gallery: Officers of the UBC Student Subunit

Top row (left to right):

President: Natalie Sopinka (UBC) -- [AFS-BC Student Subunit](#)

Vice-President: Martina Beck (UVic) -- mbeck@uvic.ca

President-Elect: Sean Naman (UBC) -- Naman@zoology.ubc.ca

Bottom row (left to right):

Secretary/Treasurer: Shannan May-McNally (UBC) shannan.mcnally@gmail.com

Communications Officer – Graham Raby (Carleton University)
grahamraby@yahoo.com

Faculty Sponsor – [Dr. Sean Cox](#) (Simon Fraser University)



University of Washington Student Subunit (AFS-UW)

Webpage: <http://afsuw.wordpress.com/>



President: Jessica Hale
(jrh33@u.washington.edu)

Tuesday February 5th – Career Development Seminar

The AFS-UW Career
Development Seminar,
featuring Wendy Rockhill,

Dean of Science and Mathematics at Seattle
Central Community College, was held on-
campus on February 5. During this invaluable
seminar, Wendy (pictured at right) discussed
her career path and experience and answered
students' questions afterward. This event was
definitely a success!



Wendy's Bio: Wendy started at Seattle Central in 1993 as full-time Faculty teaching Biology. She became Interim Dean of Science and Mathematics in August of 2009 and permanent Dean of Science and Mathematics in March 2010. Wendy earned her B.S. in Zoology and French at Washington State University and her Ph.D. in Developmental Neurophysiology and Zoology from the University of Washington.

Photo Gallery: Officers of AFS-UW

See the AFS-UW website for officer email addresses and other links

Top Left:

President: Jessica Hale

Bottom Right:

Vice President: Rachel Hovel

Next Page - Top Center:

Secretary: Laura Twardochleb

Next Page - Top Right:

Treasurer: Tim Walsworth

Next Page - Top Left:

Shannon Hennessey





Dayton L. Alverson dies at 88

Remembered by Dr. Don Gunderson, UW Professor Emeritus



Dr. Dayton L. (Lee) Alverson (1924-2013) set the course for marine science and fisheries management in the Pacific Northwest in the years following WWII, leading to the development of a vibrant, sustainable fishing industry here.

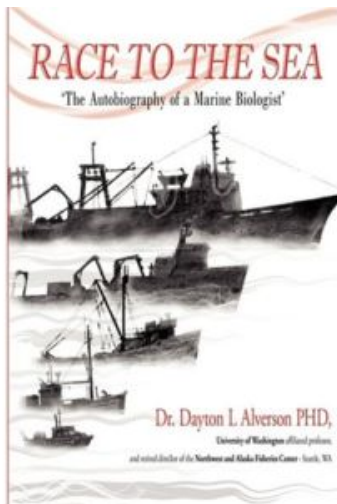
As director of the U.S. Bureau of Commercial Fisheries Exploratory Fishing and Gear Research Unit (1958-69), he led a group of scientists that quantified the immense, untapped potential of groundfish resources off our Pacific Coast.

As director of the National Marine Fisheries Service-Northwest and the Alaska Fisheries Center (1971-1979), Lee was responsible for planning, managing, administering, and evaluating all NMFS research and development programs in the Northeast Pacific Ocean and became an internationally recognized expert in world fisheries. He played a major role in negotiations with the Soviet Union, Japan, and Canada

throughout the 60s and early 70s in attempts to assess and mitigate the impact of foreign fishing on U.S. salmon and groundfish stocks.

As Center Director, Lee developed strong ties with the leaders of the Pacific Northwest fishing industry and Washington Senators Magnuson and Jackson. As a result, he was able to play a leading role in the development of the Magnuson Fisheries Conservation and Management Act of 1976, the sweeping legislation that created a 200-mile fishery conservation zone and began a new era of managing marine resources off-shore of the U.S. He also led the Center in instituting the survey (trawl and acoustic) and stock assessment capabilities that were necessary to implement this legislation effectively.

In 1980, Lee established Natural Resources Consultants and played a major role in the “Americanization” of the fishing industry off the West Coast and Alaska. He helped in a successful lobbying effort to obtain federal loan guarantees that were a key to financing a new generation of U.S. fishing vessels, including the factory trawlers that eventually replaced the Soviet and Japanese fleets. His broad familiarity with



fisheries and fishing gear led him to undertake the first global assessment of the fisheries “bycatch problem” which was published by FAO in 1994 and sparked a global movement toward cleaner, more sustainable fishing practices.

Lee published over 150 scientific papers over the course of his career, including his highly readable 2008 autobiography “Race to the Sea”.



THE BOOK NOOK

Two Reviews this Month!

Four Fish: The Future of the Last Wild Food – salmon, bass, cod and tuna

Book by Paul Greenberg
The Penguin Press, New York,
2010

Review by Dr. Fred Utter

This book addresses broad issues of fish harvest, culture, ecology and consumption. The author is a prominent journalist with some training in fishery biology and a persisting passion for sports fishing developed in his childhood. The narrative is organized somewhat loosely on the four topical groups of fishes and - based on experiences, interviews and published materials - guides the reader through an historical maze of shifting abundances and technologies. From the



beginning, the author develops and revisits two interweaving models for harvest and culture which become increasingly apparent as the book progresses.

A final chapter builds on preceding ones, clearly (and in my mind – correctly) outlining remedial processes required to avert imminent ecological and economic disaster should the dominating pathway continue without correction. Here, wild fish tend to be viewed as commodities. The widely known pattern of progressive destruction from over-fishing is amply described within and beyond the focal groups.



Intensive harvests create market demands initially supplemented by culture which becomes dominating as wild harvests diminish. The author continually returns to validate Galton's prediction that domestication will result in destruction of wild organisms as useless consumers; a vision of killer whales and sea lions feasting on "our" salmon comes to mind.



<http://www.fourfish.org/authorbio.html>

Paul Greenberg and his daughter with striped bass, continuing the fishing tradition in his family.

This demand for cultured fish has stimulated advanced cultural methods including emerging gene transfer technologies. The thriving netpen culture of Atlantic and Pacific salmon has extended to the southern hemisphere where accumulated toxins are not yet an issue. Ingenious endocrinal and early feeding procedures arising from the demand for cultured sea bass have extended to cultures of cod and other "whitefish". Bluefin tuna, deemed unmanageable for harvest, require – but have not attained - the worldwide no-harvest protection given to whales. Harvest remains an option because "there are still some left", and attempts at farming captured juveniles have resulted in a net loss of productivity.

An alternate model conceptualizes wild and cultured fish as components of stable ecosystems including entire food chains and habitats, and harvesters and growers as partners and stewards in maintaining them. Noting shifting baselines from "generational memory", the author emphasizes a goal towards establishing historical conditions of abundance, distribution and diversity using bottom up management such as attained in the New England lobster fishery. Recovery and maintenance cannot be attained without extensive no-harvest marine protected areas, and resulting in much reduced wild fisheries targeting artisanal markets.

Inevitably, culture plays a major role in this vision to achieve sufficient productivity to adequately serve a growing world population. Among the more intriguing aspects of the book were the existing options for low maintenance culture that minimize the ecological footprint (escapes, pollution, disease, feed conversion and sources) while meeting market demands. Emerging candidates include tilapia and barramundi (and I would add catfish)

as well as kahala – a carangid and “sushi acceptable” species that is toxic in the wild but harmless in culture.

I encountered a few problems, particularly in the early pages relating to salmon. For instance, the term itself was excessively used without reference to species. The lamentable decline of Yukon River Chinook salmon was described in detail, but the well-managed and sustainable sockeye salmon fishery in Bristol Bay was not mentioned. I couldn't ignore the error that “Donaldson kings” arose from “a wide range of many different –now extinct- strains”. I found the author's description of a coworker as “a lazy career fisheries bureaucrat..” to be unnecessary and distasteful given that such individuals have been rare exceptions during my 50 plus years as a fishery biologist.

Nevertheless, the book was not intended as an authoritative compendium of scientific knowledge and insight but one author's reflections (based on considerable documentation) of a seriously entrenched but remedial problem. My review reading coincides with a complementary article (Lichatowich and Bakke 2012) with an independent focus on these concerns. The ultimate shifting of energy, resources and subsidies towards the alternate vision is inevitable. The author has presented a valuable blueprint to guide an orderly and efficient rather than chaotic transition.

FRED UTTER

Citation: Lichatowich, J. and B. Bakke. 2012. The way forward for wild salmon protection and recovery. *The Osprey* 73:1-9.

Book Details: [Four Fish: The Future of the Last Wild Food \(Hardcover\)](#)

By [Paul Greenberg](#)

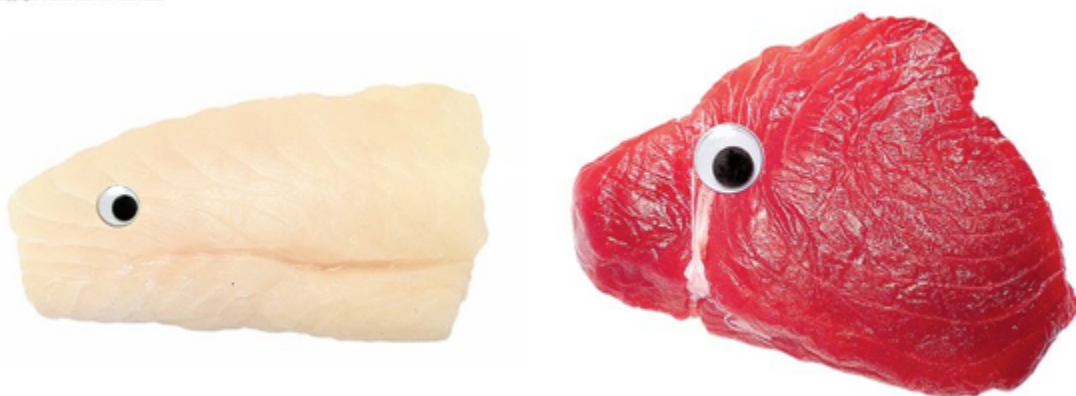
\$25.95

ISBN-13: 9781594202568

Availability: Usually Ships in 1-5 days

Published: Penguin Press HC, The, 7/2010

Copyright © 2010 The New York Times

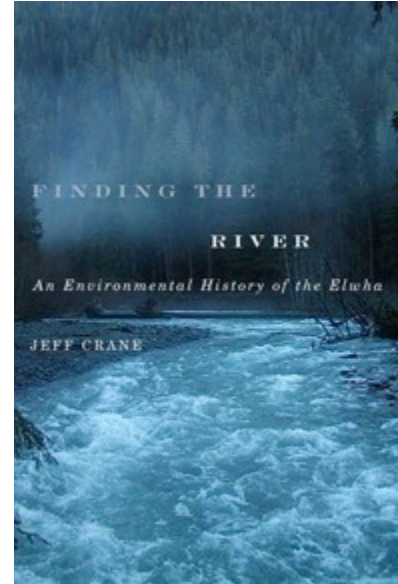




Finding the River: An Environmental History of the Elwha

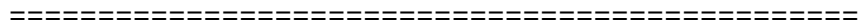
Book by Jeff Crane
Oregon State University Press, Corvallis, 2011
\$25 (paperback – new); also available used at
Amazon, Third Place Books, PNW libraries

Review by Orlay Johnson



Bottom-line:

Finding the River is an in-depth history of the Elwha River and her dams (Elwha and Glines Canyon) from pre-European contact to the present. Based on the author's dissertation at Washington State University, it is a short (255 pages), extremely well researched, voluminously documented, and, all things considered, a remarkably easy read. One quibble is that the subtitle calls the book “an environmental history” but, for a biologist, it may be too much history and too little environment, or at least too little focus on ecological issues. However, if you want to be knowledgeable about the building of these dams, how the Elwha Klallam peoples and their cultures were virtually destroyed during this process, how many people fought so long and hard for dam removal, as well as both tribal and river restoration -- it is a must read.



Full Version:

Jeff Crane's book, Finding the River: An Environmental History of the Elwha River, is a societal and political history of the Elwha River and its people. The introduction focuses on ecological and fisheries aspects, moves on to the Elwha Klallam peoples prior to European contact, continues through the removal of the Glines and Elwha Dams, and ends by discussing the controversies surrounding the best way to re-establish fish runs equivalent to those that existed prior to the building of the dams.

The book is clearly a child of Dr. Crane's dissertation, but it is not long (255 pages) and, considering its origins, is a surprisingly fun and easy read. One of its best points is the sense that here is a book written by someone with intimate knowledge of the Elwha River as well as a great curiosity about the small historical details of what happened there and why: a labor of love.

The back cover of the book states that Dr. Crane “grew up exploring the Olympic Peninsula and hiking along the Elwha” and it appears this is no understatement. Jeff Crane is indeed a local boy who appears to have spent a good deal of time on the Elwha, exploring and fishing with his Navy dad. He grew up in Oak Harbor, attended Evergreen State College in Olympia, and got his Ph.D. at WSU. He is presently an associate professor of history at Sam Houston State University in Huntsville, Texas where he teaches history of the American West.

In an interview with Diane Urbani de la Paz, a reporter for the Port Angeles Peninsula Daily News, he discusses his early life in more detail. An example of his “exploring” is that, as a 16-year old in 1980, he ran away from home in Oak Harbor and rode his bike onto the Port Townsend ferry, hitchhiked to Port Angeles, and continued on to the Elwha River. One of his rides was with two Native American women, who “fed me some salmon... packed me a lunch, and sent me on my way.” These women and other tribal members he encountered made a huge impact on his life, as they inspired him to make many treks to the Elwha River, its watershed, and the Olympic Mountains. To learn more about Jeff’s Elwha adventures read: <http://osupress.oregonstate.edu/blog/jeff-crane-on-elwha-river-part-1> .

These early years spent as a hiker on the Elwha developed in him a love for the river which turned into advocacy for the re-wilding of the river, an emotion and a goal which was nourished at Evergreen State College and, later, at WSU. His mixing of historical data analysis with advocacy in *Finding the River* is apparent in the first quote of the first chapter. The quote, “Give me a shovel and I’ll take that dam down myself” (page 5 and in notes page 215), was said by Jeff Crane’s father on his first visit to the Elwha dams. This quote is clearly more than a “throw away line” as it sums up what appears to be the author’s underlying theme of the book: Removal of these dams on the Elwha can be done relatively easily (say, in comparison to the Columbia River dams) and the result will almost instantly be beneficial for the river, the fish, and the humans reliant on the fish and watershed.

While obviously a supporter of removing the Elwha dams, Crane supports his beliefs with 22 pages of references, scientific papers, and government documents. However, as both Jeff’s Master’s thesis in 1998 and his Ph.D. dissertation in 2004 were on dam removal (Dissertation Title: *Finding the River: The Destruction and Restoration of the Kennebec and Elwha Rivers*) this level of documentation is not surprising and it may be more surprising there are so few pages of citations.



The book has a similar feel to another dissertation-based book on salmon, such as Joseph Taylor’s “*Making Salmon*”, the bedrock historical documentation of salmon in the NW and how their “enhancement” precipitated such a huge environmental controversy.

Taylor also proposes controversial ideas in his book (a few of which are discussed in Chapter 1 of Crane's book), but Taylor is focused on the historical data and does not reveal many biases for or against enhancement facilities or programs – other than the fact that over the years so many ended in failure. Crane's book has a much stronger environmentalist view and reads more like Bruce Brown's Mountain in the Clouds: A Search for the Wild Salmon, a book with much more historical documentation.

Finding the River follows the traditional linear timeline beginning with the early history of humans in the watershed through the restoration of the “New Elwha”. An interesting aspect of this timeline approach is that it allows the reader to look over the years and see that each generation in the timeline provided dedicated people who strived to protect the river's resources and who set in motion the forces that eventually returned the river to its origins.

The dams were built in the age when “harnessing nature to the will of man” was the highest praise and the thought of stopping dam construction or, even worse, dam removal was unthinkable. In his early chapters, Crane presents the idea of dam removal as a fight against overwhelming odds and something almost ludicrous (Chapter 2 and in the early portions of Chapter 3 “Fighting a Losing Battle”). However, Crane shows us how, for generation after generation, many groups, including Klallam elders, government officials, and “progressive” biologists, fought tirelessly for the river and its people. Their motivation was the preservation of a magnificent resource. This was, perhaps, most clearly articulated in the quote at the beginning of Chapter 3 by Lower Elwha Klallam Elder, Beatrice Charles:

“When we used to play around down there by the edges of the water and the salmon runs came in, you could just see them, glittering. Just schools of them going up. Sometimes they would just jump up in the air and we would holler and scream, we thought it was just the greatest”

Perhaps the most detailed and interesting section of the book is Crane's description of various people over the years who tried to stop the dams, advocate for tribal rights, and/or protect the river's fish and ecology. Their efforts in the early years were completely ignored by the dams' Canadian builder Thomas T. Aldwell until, in 1913, Crane describes how the governor appointed the “pugnacious” Leslie Darwin as the new fish commissioner. Darwin declared Aldwell either had to build fish passage (which did not happen) or a hatchery (which did) or Darwin would shut down the dam. Sadly, the lack of scientific knowledge regarding fish culture eventually doomed Darwin's efforts but, without his efforts, Aldwell would surely have destroyed all the salmon and their runs in the river before anyone could have stopped him.

In Chapter 3, Crane describes another individual who fought to protect the Elwha River's downstream salmon. This individual is Ernest M. Brannon¹, the superintendent of the Dungeness Hatchery in the 1930s. Superintendent Brannon's efforts to protect Elwha River salmon were two-pronged. He personally walked the river, reported finding healthy runs of salmon in the reaches below the dams (page 91-92), and collected gametes from salmon for incubation and rearing at the Dungeness Hatchery. He also advocated for protection of these reaches that he declared still had excellent spawning habitat. Sadly, there existed inadequate ecological, genetic, and hatchery knowledge to produce long-term, successful hatchery runs of the "Elwha fish." Worse, what no one realized was that the river's gravel beds, essential for salmon spawning success, were being quickly scoured into oblivion (well, actually, into the Strait of Juan de Fuca) and this would doom all in-river salmon within a few years.



Superintendent Ernest M. Brannon receiving an award from Governor Dan Evans on May 16, 1972.

One particularly heartrending aspect of this book is the recounting of the Lower Elwha Klallam tribe and other native peoples who, after signing treaties they thought protected their lands and homes from illegal confiscation, watched the treaties violated, their homes and lands taken away, their ancestral river dammed, their new homes destroyed by flooding, and then their forced migration to far away reservations. This is a terrible story and the only positive aspect (if it can even be

¹ If one took fisheries classes at the University of Washington in the 1960s to 1980s, they well remember Dr. Ernie Brannon who taught the salmon life history classes. Dr. Brannon is Ernest M. Brannon's son.

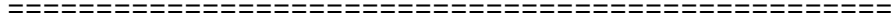
considered that) is that many tribal elders and members refused to leave their Elwha lands. They, and many others, never gave up their fight to reclaim their homeland and achieve justice for their peoples. The documentation of these efforts alone makes this a very worthwhile book to read and learn from.

In chapters 2 and 3, Crane documents how the desire for cheap power dominated all other values of the river. Because of this, all efforts to protect treaty rights and salmon runs failed. However, as described later in the chapter, a gradual transformation occurs which is based on a complex interplay of values. The concepts of re-wilding the river and restoration of the wild salmon runs begin to take precedence. Crane discusses how the Lower Elwha Klallam gained legal rights through the Boldt Decision and were able to block the relicensing of the dams (page 131). This took the book's discourse to another level and the story from here on is one of the tribes standing firm, of the building of political momentum, the tradeoffs made by Senator Gordon and others, the rise of ecological science, and the realization that the aging dams were just not worth the effort of keeping them in place.

My only major complaint is that you might expect a book that is subtitled "An Environmental History of a River" would focus mainly on the natural history of that river and its aquatic inhabitants, rather than politics. I don't want to overstate this: as in any book on the Elwha, fish play a big role in Finding the River. However, most of the biology occurs in the introduction and at the beginning of the first chapter – the rest is about people, places, and politics. Even in the first chapter, where the natural history, geology, and salmonid species of the river are introduced and discussed, the real focus is on the culture and history of Elwha Klallam peoples in the area, as is clear from the title of the first chapter "Strong River, Strong People – Early History – Elwha Klallam Indians".

Another slightly off-note for me is the number of pages the author uses to ascribe to the first inhabitants what seems like a 21st century environmental ethic of self-regulating a natural resource. In his own book, Joseph Taylor goes to similar lengths. Again, to be fair to both authors, they do emphasize over and over the dangers of investing ancestral generations with modern concepts of wildlife management. However, at the time of publication of Finding the River, Virginia Butler, an archeologist from Portland State University, and her colleagues were publishing a series of papers that provided archeological support for a native culture that *did* include a self-regulating ecological ethic via taboos, traditions (e.g. first salmon ceremony), caring for those whose harvests failed, and intentionally limiting trapping or fishing facilities (e.g. Campbell and Butler 2010a and b).

In conclusion, while Finding the River is a bit skimpy on the biological information about the watershed and its salmon, it is a *tour de force* for understanding the history and background of the building and removal of the Glines and Elwha Dams, as well as for trying to understand the anguish of the native people whose land, culture, and history were intentionally attacked and almost destroyed.



For more information on the Elwha River and its dams, go to:
http://en.wikipedia.org/wiki/Elwha_Ecosystem_Restoration

References :

Campbell, S.K. and V.L. Butler. 2010a. "Fishes and loaves? Explaining sustainable, long-term animal harvesting on the northwest coast using the 'Plant Paradigm'". In *The Archaeology of anthropogenic Environments*. R.M. Dean, ed. Pp. 175-203. *Center for Archaeological Investigations Series*, University of Southern Illinois-Carbondale, Carbondale, Illinois.

Campbell, S.K. and V.L. Butler. 2010b. Archaeological evidence for resilience of Pacific Northwest salmon populations and the socioecological system over the last ~7500 years. *Ecology and Society* 15(1): 17.



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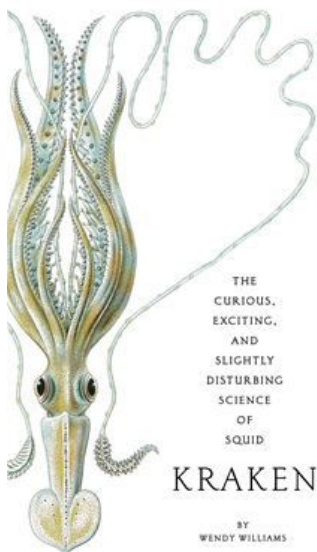
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