



THE CONFLUENCE

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

Spring 2021 Issue

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COVID-19 prevented us from hosting another in-person meeting. This year, we hired a professional meeting organizer and coordinated with the Idaho and Montana Chapters of AFS to host a productive, virtual meeting. We are now beginning planning for our 2022 conference held in Spokane, Washington! Watch for meeting updates, including our business meeting and important deadlines at <https://wa-bc.fisheries.org/>.

We hope you find this issue of *The Confluence* interesting and informative, which includes the President's Message, C. Jeff Cederholm scholarship recipients, and a book review! Enjoy.



"Crossing Boundaries and Navigating Intersections"
2021 WA-BC Chapter Annual Meeting
Hosted Virtually March 1–3, 2021

This year hired CVENT to organize our AGM. To access content, log-in in using the **2021 Meeting page** by clicking 'Already Registered?', then click 'Go To My Event.' Meeting content will become unavailable soon.

President's Report

**WA-BC
Chapter
Executive
Committee**



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After an incredibly challenging year, we are finally starting to see a light at the end of the tunnel. Visiting friends and family is once again possible and working in the office, field, and lab is slowly transitioning to some new normal. While our chapter's mission is focused on fish and fisheries, we should all take every opportunity to highlight that it was science and the scientists who developed the vaccines that have made life return somewhat to normal, at least for those who are fully vaccinated.

I will be honest and admit that serving as president of the WA-BC Chapter of AFS during the pandemic was challenging for me. ExCom members did not have the opportunity to meet personally in the fall as is typically the case. We also faced new challenges and uncertainty as we tried to plan a virtual meeting. And finally, lest anyone doubt it, Zoom fatigue is real. After teaching classes in a virtual format and attending what still seems to be a never-ending series of virtual meetings, being motivated to schedule and attend yet more meetings pushed me to (or perhaps past) my limits at times.

Despite those challenges, and thanks to the commitment of our excellent ExCom members, we still hosted a successful meeting, and the chapter remains financially sound and moving forward to tackle new challenges and opportunities. We have already initiated planning for the national meeting which we will cohost with the Western Division in Spokane in 2022. Please look for opportunities to be an active member of AFS and volunteer to help Alf and Jeff as they take on leadership roles as local hosts.

Paul Spruell
President, WA-BC Chapter of AFS

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2021 WA-BC VIRTUAL AGM SUMMARY

Crossing Boundaries and Navigating Intersections at the 2021 WA-BC Annual Meeting

Alf Haukenes, President Elect, WA-BC Chapter American Fisheries Society

The WA-BC Chapter of AFS hosted a virtual annual meeting over the dates of March 1-3. Let's start by saying that I think we all look forward to a time when 'in-person' professional meetings can return. That said, our virtual meeting was a worthwhile experiment because even as we await face-to-face interactions to replace the Zoom and Teams gatherings we've grown accustomed to, the virtual format provides some avenues to strengthen the meeting program and encourage participation by segments of our membership who are unable to travel to and attend a more conventional meeting. How?

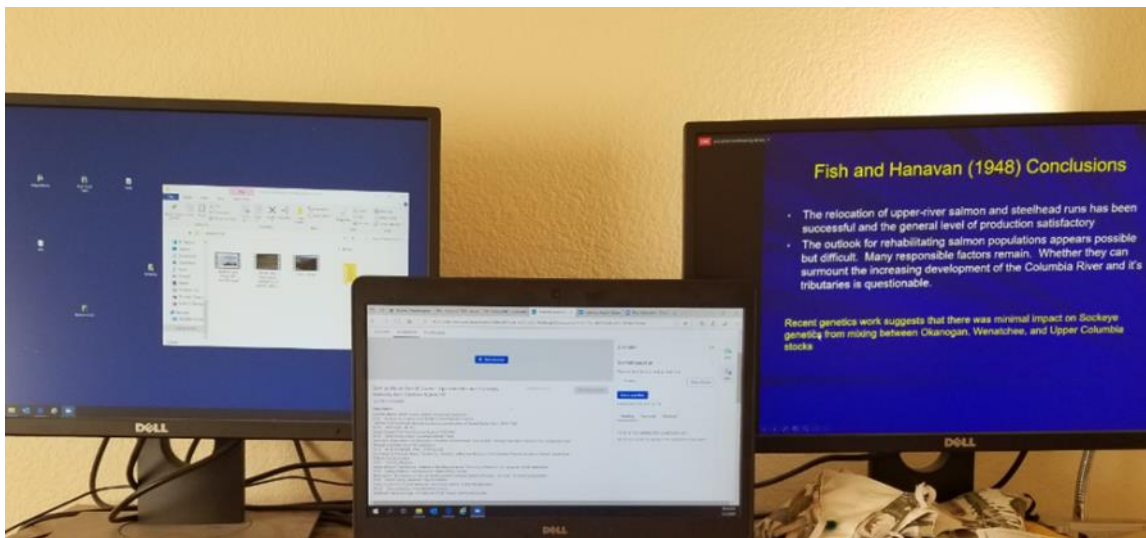
Broadening the experience: Our virtual meeting was a collaborative effort with the Idaho and Montana chapters of AFS. The ability to share content across the three meetings in real time provided an experience that proved attractive. Over half of the 200 total registrants to our meeting were participating as "Enhanced Registrants" from the Idaho and Montana Chapters. Our plenary "Meeting at the Confluence: The Sympatric Coexistence of Indigenous and Western Science in Modern Fisheries" was a shared effort with the Montana Chapter emphasizing co-management as a pathway of becoming greater than the sum of our individual parts when addressing complicated issues surrounding aquatic systems. From miles away Dr. Zach Penney and Andrea Reid provided a foundation of information with their talks that were followed by a lively panel discussion surrounding the process of building consensus by members of the Columbia Basin Partnership Task Force: Urban Eberhart, Jennifer Anders, and Kevin Scribner. Gathering all these individuals for their valuable contributions was only possible using a virtual format even if COVID travel restrictions had not been at play. Over 25% of our total registrants witnessed the plenary talks and panel discussion. Other highly attended symposia at the WA-BC meeting included the topics of Bull Trout Conservation and Salmon Above Grand Coulee. All the sessions were recorded, and we have already received some inquiries on how some of this content can be shared to an even wider audience. The total number and overall diversity of the presentations on the program that were offered by the combined three-chapter simulcast represented something our chapter has not had access to outside of a Western Division AFS meeting. You are encouraged to look at our [Program and Abstract book](#) again and if you have ideas surrounding the sharing of recorded content, the WA-BC EXCOM would be happy to listen.

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2021 WA-BC VIRTUAL AGM SUMMARY

Student participation: Virtual access and the lower fee for student registration proved attractive both in drawing students in the event and in providing a venue for students to present their research. Nearly one-third of WA-BC Chapter registrants were students; many of which also chose to take advantage of "Enhanced Registration" that allowed access to Idaho and Montana Chapter meetings in addition to our own. Clearly, there are difficulties for students in breaking away from campus to attend a meeting, in deciding how and where to engage with the broader AFS community, and the costs of travel to/lodging at meetings may be prohibitive for students, particularly for those not presenting on the scientific program. Offering opportunities to participate virtually in some fashion is worth considering in the future to continue to better engage with this next generation of fisheries professionals.

I won't sugar coat it. Our numbers for total WA-BC registrations to this year's virtual meeting were down from our more conventional meetings held in recent years and we all look forward to getting together at our next chapter meeting which will be held in 2022 during the AFS annual meeting in Spokane. That said, we should be encouraged that some of the intentions behind this effort (increased student participation, expansion of the scientific program) were realized and discussions on how to provide some virtual access to our meetings should always remain in the mix as our chapter moves forward.



The humble command center for delivery of presentations at the Virtual 2021 WA-BC Annual Meeting

C. JEFF CEDERHOLM SCHOLARSHIP RECIPIENTS

The WA-BC awards committee would like to recognize the winners of the C. Jeff Cederholm Scholarship winners for 2021. Two \$1,000 scholarships were awarded this year. One for a Masters student and one PhD candidate. Micah Quindazzi is attending the University of Victoria and was awarded the Masters student scholarship. Micah is using microchemical techniques to identify Coho Salmon migration pathways. We also awarded the PhD scholarship to Katie McElroy at the University of Washington. Katie's research is focused on investigating and comparing foraging decisions of fishers and bears by applying a common ecological model, the Ideal Free Distribution Theory. We applaud the excellent work being conducted by the 2021 award recipients.

C. Jeff Cederholm Scholarship Recipients



Pictured above: Micah Quindazzi, M.S. student (left) and Katie McElroy, Ph.D. candidate (right).

REMEMBERING DR. KIM HYATT



Sockeye Salmon and First Nations lost a tireless advocate with the passing of Dr. Kim Hyatt on May 25. Dr. Hyatt (aka Dr. Sockeye) had a lengthy career with Canada Department of Fisheries and Oceans (DFO), most recently serving as the Head Research Scientist in the Salmon in Regional Ecosystems Program. He was also a past president of the Washington-British Columbia Chapter of the American Fisheries Society.

Kim and I met due to our shared love of Sockeye Salmon, in particular Okanagan Sockeye Salmon. In the early 1990s, I wrote a dissertation looking, in part, at the history and future of Columbia Basin Sockeye Salmon at the University of Washington. At the time, I projected a gloomy future for Okanagan Sockeye if nothing was done due the increasing human development, decreasing river flows, and lack of support from government entities that favored kokanee and warmwater species. This obstacle proved to be no match for the combination of the Okanagan Nation Alliance (ONA) and Kim Hyatt. Both were key in developing relationships with Douglas Public Utility District (PUD) to fund an innovative model to optimize Okanagan River flows to benefit Sockeye Salmon as well as irrigation, flood control, recreational, kokanee, and other interests. Both Kim and the ONA were then instrumental in securing funding commitments from Grant and Chelan PUDs to restore Sockeye Salmon to Skaha and, more recently, Okanagan lakes concurrent with the construction of the Sockeye Salmon hatchery in Penticton, British Columbia. The results have been astounding, with returns of up to 500,000 Okanagan Stock Sockeye Salmon to the Columbia River in recent years. The return of the Sockeye Salmon run is now eagerly anticipated in the basin, rather than ignored as it was 30 years ago.

When the Columbia Basin Accords were reached between the Columbia River Inter-Tribal Fish Commission and the Bonneville Power Administration in 2008, one of the projects funded was to examine factors limiting survival of Okanagan and Wenatchee Sockeye Salmon. Upstream migration was identified as a limiting factor for the Okanagan stock and the project has since invested in passive integrated transponder (PIT) tagging and detection sites in collaboration with the ONA and Kim and DFO.

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REMEMBERING DR. KIM HYATT

Potential limiting factors for Wenatchee Sockeye Salmon were less obvious, although low lake productivity was commonly cited for low returns. I was surprised to find the extent of Kim's interest in Wenatchee Sockeye and he quickly pointed to a lack of good outmigration estimates as a critical uncertainty. He not only suggested conducting acoustic trawl surveys of Lake Wenatchee to allow comparisons with those conducted by DFO in over 100 Sockeye lakes in British Columbia including in the Okanagan Basin, but he found a way to use DFO funds to send a large DFO research vessel into the U.S. and over Stevens Pass in the winter. From the launch site, the vessel had to be squeezed through a shallow, narrow channel into the lake. DFO soon trained the ONA to do the surveys in the Okanagan Basin and the ONA also took over surveys in Lake Wenatchee while training the Yakama Nation to conduct the associated limnological survey. However, DFO to this day has continued to assist in funding the Lake Wenatchee acoustic trawl surveys. This project was typical of Kim Hyatt as he managed to find the funding and resources to accomplish something that otherwise would not be done. Not only did he do this, but he also built the capacity of the First Nations to conduct the work on their own.

Our work together on the Accords project has resulted in two or three trips annually to meet with Kim and ONA staff to discuss the project; reviewing what we had learned and how to adjust the project to best address questions regarding Wenatchee and Okanagan Sockeye. At these meetings, Kim would frequently go way off topic discussing Sockeye salmon in Grand Central Lake, the Fraser, comparing and contrasting these stocks with Okanagan Sockeye. Kim was a wealth of Sockeye knowledge that left me always wanting to hear more when the meeting ended.

Among my last visits to see him before the pandemic was a camping trip with my wife and son to Vancouver Island in which we were invited to an evening at his house on a beautiful August evening. I marveled at his extensive library and office with a view of the Straits of Georgia outside Nanaimo. And I also found Kim was a master barbeque chef as we ate dinner while looking out on boats, marine mammals, and birds passing up and down the Straits.

Kim will be missed greatly by those that knew him. Among the legacies he left is a greatly improved Sockeye run in the Okanagan Basin (as well as a better understanding of Sockeye in the Wenatchee Basin), as well a stronger ONA role in fisheries management. Right up to the end of his life, he was still working on these issues as well as ensuring the Columbia River Treaty negotiations fully considered the needs of salmon. He has left a strong group of people at the ONA, DFO, and elsewhere to continue this legacy.

-Jeff Fryer, WA-BC Vice President

2021 AFS MEETING IN BALTIMORE, MARYLAND



The 2021 AFS meeting in Baltimore November 6-10 is planned for an in-person meeting. As such, it will include exhibits and events that were planned for inclusion at what was to be the AFS 150th Anniversary meeting last year. To commemorate the AFS 150th, AFS is asking all Chapters and Divisions to produce a poster and optional video. Both the Western Division and WA-BC AFS are looking for material for a these videos.

What we would like from members is video of fisheries activities in Washington and British Columbia; be it field activities, habitat projects, or video of native fish. Given the nature of the event, we'd be especially interested in any old video. Short segments are fine, the resulting video will likely be a compilation of short video segments 10-30 seconds long.

Please send any questions or video segments you have to Jeff Fryer, fryj@critfc.org

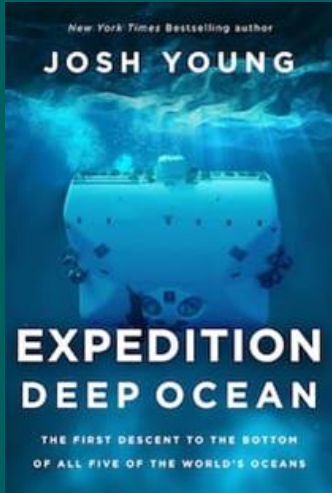


Western Division
of the American Fisheries Society

The Book Nook

Expedition Deep Ocean: The First Descent to the Bottom of All Five Oceans by Josh Young

Review by Orlay Johnson



Expedition Deep Ocean: The First Descent to the Bottom of All Five Oceans



The Triton 36000/2: two-person submersible used to access the deepest part of the ocean



Josh Young, Author

Want to escape the COVID-19 blues? Check out “Expedition Deep Ocean: The First Descent to the Bottom of All Five of the World’s Oceans” by NY Times best-selling author Josh Young. It is a swashbuckling, Disney-like adventure of one man, Victor Vescovo, tenaciously overseeing the construction of a reusable submersible capable of diving to the deepest part of all five seas/oceans. And then, for him, to actually do the dives and perform some science while there.

For sure it is a rip-roaring adventure in engineering, deep ocean geography, and human dynamics; and the actual dives (there are more than 5) are nail biters, going from one disaster to another. However, the book is mostly about Victor Vescovo, who has experienced more adventure in his life than ten other famous people put together. The one fault I see is the while Josh Young is an excellent author and the story is meticulously researched, the book often seems like a co-authored public relations story praising Victor.

Certainly, Victor is worthy of praise—he has a resume of unbelievable accomplishments including a US Navy jet fighter pilot and Naval intelligence officer, he has skied across both Antarctica and the Arctic, and he did the Explorers Grand Slam by climbing the highest peak on each continent, diving to the deepest point in the ocean (Challenger Deep in the Mariana Trench), and other noteworthy adventures. Plus, he was able to earn a BA in Economics and Political Science from Stanford (where his mentor was Condoleezza Rice), MS from MIT, and an MBA from Harvard Business School. Then as a private equity investor, he amassed a huge pile of money which allows him the freedom to do the above and to have this submersible built.

The author, Young, has specialized in writing books about individuals like Vescovo, who, shall we say, represent the better side of human achievements. Two that I really enjoyed reading and recommend for uplifting reads are: “The Link: Uncovering Our Earliest Ancestor” (2009) by Colin Tudge and Josh Young in 2009, and “Epic Survival: Extreme Adventure, Stone Age Wisdom, and Lessons in Living from a Modern Hunter-Gatherer” by Matt Graham and Young in 2015.

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The Book Nook

Note that Colin Tudge is a world authority on human evolution and Matt is the Hunter-Gatherer in the TV show.



In *Deep Ocean*, the early chapters cover Victor's decision to build the submersible and then his efforts to find the right engineering firm to construct it. Needless to say, the engineering problems are novel and immense, and then getting the submersible into the water opens a whole new slew of problems. The later chapters cover each of the dives to the ocean depths as well as a visit to the Titanic and a few other side dives. So, you get an education in submersible engineering, and especially how it can quickly go south, plus some wild adventures when the submersible's detachable arm drops off (more than once), and a scattering of deep ocean and biology. You also gain a great deal of respect for the engineers – they

are a dynamic group equal to Vescovo's challenges.

Initially the book for me was just a tale of a very rich and arrogant guy who has done almost every adventure possible on earth – and now he wants to be the first person to go to the five deepest points of the ocean. However, what started out as cowboys in the ocean, morphs into a story of how people can change and how progress is made. Part of this is the unique personalities of the hot shot crew and the amazing lander "Limiting Factor" (see photos) which has its own personality. Plus, each dive has enough problems that it is surprising they carried on.

But they don't give up, and as each dive brings new and often unique disasters, you begin to see a pattern develop as these high-performance men and women begin to trust one another, forming a supportive team to get the job done. The crew is so good, perhaps they would have succeeded regardless of the problems, but you also can see how Vescovo's previous experiences have taught him how to succeed in the face of apparently insurmountable problems. One of the biggest skills is knowing when to back-off and give your crew a break. Also, apparently, it helps if your boss buys the crew a really fancy Espresso Machine.



Yes, Vescovo is aggressive and high powered, and not everyone's cup of tea, but he seems to work well with others like himself and he really learns to treat his coworkers with respect while pushing them to do better. By the end of the book you do see that he cares as much about his co-workers as the project itself.

Images: Top) Victor Vescovo presenting in 2019, photo credit: Wikipedia.com. Bottom) Vescovo at the highest vertical distance on Earth, Mount Everest's summit; photo credit: Kami Rita Sherpa.

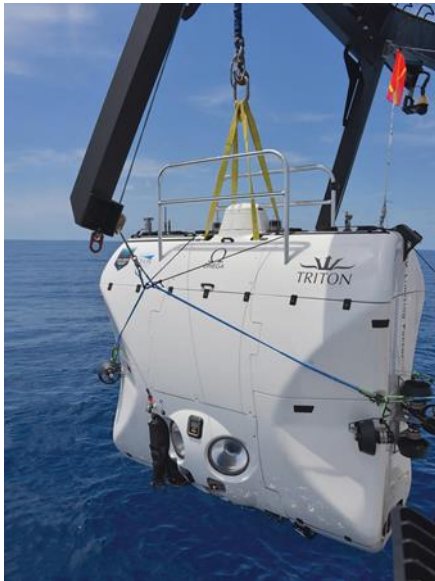
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The Book Nook

So, as you progress through the different chapters you see that Young has actually written a book on how to overcome obstacles and mold a bunch of high-powered talented individuals into a solid working team – a skill we can all appreciate, especially in fisheries, where team work is often everything. Yes, while it still feels like a book written to highlight how great Vescovo is – it is a rip-roaring adventure worth the read. Plus, the submersible 'Limiting Factor' seems to have its own personality, sort of a benign aquatic version of *Hal* from 2001 *Space Odyssey*. When it acts up and refuses to cooperate you almost can hear Victor saying "Open those pod doors, Hal..."

So, a fun read, but I would have preferred the focus of the book more on science and less playing up of the heroics. Also, very few women are mentioned in the story, although they are on board the RV Pressure Drop ship, and one of the best parts of the book are when Dr. Kathleen Sullivan, NOAA chief scientist goes descends in the 'Limiting Factor'.

Check it out from the library or buy a copy and see what you think. Maybe we can even convince the team to do a few dives in Puget Sound or along the out west coast of North America?



Victor Vescovo's deepest dives



Source: The Five Deeps Expedition

BBC

Images: Left) Side-view of the Triton 36000/2 ('Limiting' Factor'), photo credit: US Navy Institute - Reeve Jolliffe, EYOS Expeditions. Right) An image showing where Victor Vescovo's deepest dives occurred; photo credit: The Five Deeps Expedition, BBC.



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 Paul Spruell at pspruell@ewu.edu

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

Timothy Taylor at timothytaylor.afs@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 is currently being planned. Please check our website for future updates!



2020-2021 Executive Committee of WA-BC Chapter

From left to right, top to bottom: Paul Spruell, Alf Haukenes, Jeff Fryer, Brittany Jenewein, Kirstin Gale, Tamara Knudson, Timothy Taylor, and Caroline Walls.