

"I think we need to go further downstream"

Finding and Conserving Wild Salmon Habitat in Unexpected Places

Benjamin Meyer

The naked eye may easily overlook wild salmon habitat in the small headwater trickles of rivers and streams, but such places play an outsized role in providing food and habitat for young fish that grow up to sustain ecosystems, economies, and cultures of the Pacific Northwest. Small rivulets often narrower than a hand's width, whether in coastal-area lowland swamps or glacial headwaters, frequently have little to no legal protection and may even be invisible to the human eye, making them vulnerable to impacts from land development. The accumulation of these impacts is experienced throughout watersheds of the developed world in places where wild salmon once thrived in New England and Europe, where many rivers today can sustain few wild salmon. However, persistence by a growing movement of researchers and volunteers in the Pacific Northwest may offer an opportunity to identify and conserve wild salmon habitat for future generations. Scientists are using cutting-edge mapping technologies to identify where fish live in even the smallest trickles of water, and working with local volunteer groups to provide fieldwork muscle to help these places gain legal protections. A small but growing bottom-up movement is engaging and training volunteers to identify and conserve wild salmon habitat, offering an alternate path to the fate of historically impacted watersheds of the North Atlantic seaboard. In my work in southcentral Alaska, the movement is exemplified by public campaigns such as, "Baby Salmon Live Here!", the "Fish Map App," and youth outreach programs such as, "Adopt-a-Stream." In the proposed work, "I think we need to go further downstream..." I will explore the ecological value of small, humble streams in salmon habitat; how existing legal statutes allow these streams to "slip through the cracks" with specific but broadly applicable examples; and how grassroots efforts are addressing this challenge. I will build my story rich with characters from an extensive network of fellow Alaskans dedicated to wild salmon habitat conservation, gained through a decade working statewide in consulting, academia, and finally in the non-profit field. In this work we find an opportunity for society to truly learn and grow from past mistakes, and to learn to share and take responsibility the commons of a renewable natural resource.

Curriculum Vitae

Benjamin E. Meyer

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Professional Profile

I am an environmental scientist with interest in freshwater ecology, fisheries, and history. From research experience throughout Alaska in the private, academic, and nonprofit sectors, I am comfortable tackling challenges whether they be getting home through a gale storm or learning new data analysis techniques. I am seeking opportunities to further public engagement in science, promote transparency, and access new research frontiers. Currently seeking opportunities to pursue doctorate studies.

Skills and Experience

- Aquatic ecology, salmon biology, climate change research, public participation in science
 - Field operations and logistics in remote environments
 - Use and calibration of analytical equipment
 - RStudio, Microsoft Office products (Word, Excel, Power Point), and ArcGIS
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Education

- January 2015 – April 2020
 - M.S. Fisheries, University of Alaska Fairbanks, Fairbanks, Alaska
- Sept. 2003 - May 2009
 - B.S. Biological Sciences and B.S. Biochemistry, University of Alaska Fairbanks, Fairbanks, Alaska
- 1999-2003
 - Wasilla High School, Wasilla, Alaska

Publications

*See the [Google Scholar page](#) for most current list of peer reviewed publication

Current Employment

Water Quality Coordinator, Kenai Watershed Forum, Soldotna, AK

November 2020 – Present

Oversee ongoing programs in water quality monitoring, fish habitat research, and conservation planning. Develop reproducible workflows for data management, analysis, and visualization. Project development and grant writing; management of interns, volunteers, and community partners.

Grants in Support of Research

- Awarded grants
 - National Science Foundation EPSCoR
 - Graduate Assistant, January 2015 – August 2017 (\$160,000)
 - Institute of Arctic Biology Summer Thesis Completion Grant
 - Student, summers 2018 & 2019 (\$20,000)
 - U.S. Bureau of Reclamation Cooperative Watershed Management Planning Grant
 - Principal investigator, January 2022 – December 2023 (\$99,000)
 - U.S. Geological Survey Climate Action Science Center (\$220,000)
 - Field coordinator, June 2022 – June 2024
 - Trout Unlimited, Embrace-a-Stream (\$10,000)
 - Principal investigator, June 2021 – December 2023
- Managed Grants
 - National Fish and Wildlife Foundation
 - Principal investigator, January 2021 – August 2022 (\$100,000)
 - Alaska Sustainable Salmon Fund
 - Co-principal investigator, January 2021 – Oct. 2023 (\$60,000)
 - Kenai Peninsula Fish Habitat Partnership
 - Interim coordinator and principal editor, June 2022 – present (\$85,000)

Honors/Awards

- Nicholas Hughes Memorial Scholarship (\$2000)
- University of Alaska Fairbanks Creative Writing Tuition Scholarship (\$5000)
- Usibelli Honors Student scholarship (\$2000)
- Flint Hills undergraduate research grant (\$5000)