

CLAIRE J. VAAGE

Graduate Student | University of Washington | School of Aquatic and Fishery Sciences
cvaage@uw.edu | clairevaage@gmail.com

EDUCATION

M.S.	University of Washington , Seattle, WA Aquatic and Fishery Sciences, Data Science	Expected Spring 2025
B.A.	Boise State University, Honors College , Boise, ID Environmental Studies, Biology Minor <i>Top Ten Scholar; Magna Cum Laude 3.9</i>	May 2022
Half-year Program	University of Agder , Kristiansand, Norway Study abroad semester-long program in Outdoor Education centered on the Norwegian ideal <i>Friluftsliv</i> , or free-air living, and establishing one's identity as a <i>Veileder</i> , or way-leader. Learned the fundamentals of teaching, recreating, and guiding through mountainous, forested, and coastal regions while establishing practical and theoretical skills of group dynamics and survival.	Spring 2021

RESEARCH AND TEACHING INTERESTS

Pacific Salmon and Steelhead Conservation	Invasion Ecology
Climate Justice, Environmental Governance	Individual-Based Modeling

RESEARCH EXPERIENCE

Fisheries Technician, May 2022 to July 2022

IDFG Eagle Fish Genetics Lab, Pacific States Marine Fisheries Commission, Eagle, ID

- Managed individual projects of up to 50 96-well plates and conducted lab work including Nexttec DNA extractions from caudal fin samples on Whatman sheets and GT-seq library preparation.
- Assisted fellow technicians on four genotyping projects and supported geneticists in the revision of a micro-haplotype discovery pipeline using STACKS and R to create and filter primers for GT-seq.
- Established an understanding of techniques used to monitor and evaluate hatchery stocks, including parentage-based tagging and coded-wire tags.

Research Aid, Idaho Salmon Survey, February 2022 to May 2022

Supervisor: Dr. Jared Talley, Boise State University, Boise ID

- Compiled and organized social science and policy literature on salmon restoration policy.
- Aided in the development of a Discrete Choice Experiment survey to collect public perception and support of salmon restoration policy initiatives.

HERC Fellow, August 2021 to August 2022

Supervisor: Dr. Trevor Caughlin, Boise State University, Boise, ID

- Applied remotely sensed data, including aerial LiDAR, to map riparian corridors and analyze hydrological data in the Dry Creek Watershed.
- Conducted field work to ground truth riparian vegetation from generated models in QGIS.
- Developed a riparian buffer delineation method to accurately model and estimate riparian vegetation and published findings in an authored journal article.

- Created maps and figures to communicate the project results at statewide, countrywide, and international meetings and conferences.
- Manipulated various file types, use geospatial packages, transfer geospatial data into the R environment, and conduct statistical analyses, including zero-inflated models.

Andrus Scholar, Andrus Center for Public Policy, July 2020 to September 2020

Boise District Office, Bureau of Land Management (BLM), Boise, ID

- Examined and surveyed federally managed land to assess restoration progress through district field trips and fire surveys in Southern Idaho counties during 10-to-12-hour days.
- Investigated the histories of proposed actions to write sections of two Environmental Assessments for release and publication by the Boise District Bureau of Land Management.
- Sorted scoping comments submitted by the public based on reference to scientific publications concerning the Environmental Impact Statement related to the national revision of grazing regulations.

Rangeland Technician, May 2020 to July 2020

Supervisor: Dr. Sergio Arispe, Oregon State University, Ontario, OR

- Executed 360° photography protocols to depict varying ecological states of Great Basin sagebrush steppe habitat.
- Coordinated with team members and project leads of four distinct research projects to complete data collection efficiently in remote locations with extreme weather conditions.
- Implemented vegetation protocols on sage-grouse restoration and rehabilitation habitat including line-point, Daubenmire frame ocular estimation, and harvesting of biomass.
- Collected Structure from Motion (SfM) imagery, ancillary data, and biomass at designated quadrats and utilized high-precision Global Positioning System (GPS)/Global Navigation Satellite System (GNSS) unit.

Hutton Scholar, American Fisheries Society, May 2018 to August 2018

Supervisor: Patrick Kennedy, Nampa Fisheries Research Center, Nampa, ID

- Conducted detail-oriented field work for four state-wide research projects.
- Utilized equipment including off-road vehicles, gillnets, backpack and raft electrofishing systems, and Passive Integrated Transponder tags.
- Collected and interpreted project data while evaluating for quality control and assurance in office, lab, and remote backcountry locations during 8-to-14-hour days.
- Handled week-long field trip preparations and conducted detail-oriented field work in all conditions for research projects while handling public relations with fishermen of Idaho.

ORAL AND POSTER PRESENTATIONS

Vaage, C. *Density-driven interactions between two invaders with implications for endangered salmon*. Presented at the Ecological Society of America Annual Meeting, Portland, OR, United States, August 2023.

Vaage, C. *Towards a better understanding of invasive crayfish impacts on salmonids*. Presented at the Western Division of the American Fisheries Society Annual Meeting, Boise, ID, United States, March 2023.

Vaage, C. *Two invaders, one salmonid: understanding the dynamics of the John Day River Basin*. Presented at Water Day at University of Washington, Seattle, WA, United States, May 2023.

Lightning Talk. Vaage, C. *Combining a topographic model and land cover classification to enable targeted restoration of riparian vegetation in semi-arid watersheds*. Presented at the Graduate Student Symposium, Seattle, WA, United States, November 2022.

Vaage, C. *Delineating riparian vegetation using remotely sensed data: a variable width model from the Boise foothills*. Presented at the Undergraduate Research Showcase, Boise, ID, United States, April 2022.

Lightning Plenary Talk. *Mapping the Oases of the High Desert*. Boise State University; Boise, ID. April 2022.

Vaage, C. *Mapping riparian corridors with aerial lidar and high-resolution remotely sensed data: a variable width approach for sagebrush steppe ecosystems*. Presented at the International Association for Landscape Ecology Annual Meeting, online, April 2022.

Vaage, C. *Using aerial lidar and remotely sensed data to map riparian corridors: a variable width approach*. Poster presentation delivered at the Idaho NSF EPSCoR GEM3 Annual Meeting, online, December 2021.

HONORS AND AWARDS

- 2022 Future Rivers Trainee, University of Washington, National Science Foundation
- 2022 Top Ten Scholar, Boise State University**
- 2022 School of Public Service Student Marshal, Boise State University
- 2021 Higher Education Research Council Fellow, Boise State University (\$3,000)
- 2021 Langroise Honors Scholarship (\$5,000)
- 2020 Andrus Scholar Award, Andrus Center for Public Policy, Boise State University (\$6,000)
- 2020 Robert & Brenda Atkinson Award (\$1,000)
- 2020 Global Learning Opportunities (\$1,000)
- 2019 Idaho Opportunity Scholarship (\$15,000)
- 2018 Boise State Dean's Scholarship (\$4,000)
- 2018 Boise State Capital Scholar (\$2,000)
- 2018 Hutton Scholar Award, American Fisheries Society (\$4,000)
- 2018 S.T.A.R. Scholar, Philanthropic Education Organization (\$2,500)

LEADERSHIP AND OUTREACH

President, March 2024 to Present

American Fisheries Society Student Subunit, University of Washington, Seattle, WA

- Connect students to the state (WA-BC), regional (Western Division), and national chapters of AFS, foster community.
- Provide resources to all types of students through funding, mentorship, field experience, and more

Lesson Committee Co-Lead, September 2023 to Present

Students Explore Aquatic Sciences, University of Washington, Seattle, WA

- Deliver lessons about ecological sciences to underserved students (K-12) in the Seattle area.
- Construct and adapt curricula to class-specific characteristics, including age range and prior experiences.
- Manage logistics of conducting local school visitations and hosting groups of 30-50 students on the UW campus.

Social Chair, August 2023 to Present

Fisheries Interdisciplinary Network of Students, University of Washington, Seattle, WA

- Create and organize intradepartmental and interdepartmental social events for undergraduate, graduate, and faculty.
- Cooperate with fellow FINS leadership and share logistics including budgeting, advertising, and permitting.

Future Rivers Trainee, August 2022 to August 2023

National Science Foundation, University of Washington, Seattle, WA

- Gained fluency in 21st century data science approaches through UW coursework, Summer Institute, STEM inclusivity training, and communication workshops.
- Collaborated with 11 fellow trainees from varying fields through cohort calls and participated in a spring speaker series to share research progress and products that contribute to freshwater sustainability.

Dean's Leadership Fellow, February 2022 to April 2022

Honors College, Boise State University, Boise, ID

- Explore and study past, present, and future leadership styles.
- Address and debate the challenges and solutions of present-day leadership of all levels and what we will face ourselves as current and future leaders.
- Engaged to discuss personal and professional development with 14 fellow Honors students under the mentorship of Dr. Andrew Finstuen.

President, May 2020 to January 2021

Vice President, May 2019 to April 2020

Young Democrats at Boise State University, Boise, ID

- Lead, organize, & direct meetings and activities.
- Supervise treasurer and events coordinator and review proposed scheduling and finances.
- Facilitate events in conjunction with local/state officials and implement the club's mission of advancing progressive ideals within event conduct.

President, May 2020 to January 2021

Honors House Osprey Council, Boise State University, Boise, ID

- Constructed and designed over 30 accessible, enjoyable, and applicable college-wide events aimed at students within the Honors College and available to Boise State students.
- Arranged, maintained, and executed three service projects to serve the greater Treasure Valley community.
- Evaluated the success of each event with fellow council members and ensured diversity, equity, and inclusion values.

Environmental Studies Intern, August 2019 to May 2020

Preservation Idaho, The Idaho Historic Preservation Council, Boise, ID

- Organized & evaluated archival documents to create an educational repository to supplement Boise School District curriculum and improve STEM Education.
- Collaborated with fellow interns & sponsoring leadership to relate courses to local knowledge and created an environmental event for over 500 people.

Community Outreach Coordinator, January 2019 to May 2019

Zero Waste Boise Institute, Boise, ID

- Independently developed a pedagogical framework and methodologies to connect with and teach the Boise community about the industrial effects on climate change through effective and efficient scrutiny of scientific journals, archives, and articles.
- Critically analyzed, organized, & described evidence from sources in an educational, easily viewable document to be drawn from for public education.

SERVICE

Mentored two graduate students through the National Science Foundation-funded Future Rivers program.
September 2023 – Present, Seattle, WA

Reviewed an academic article for the Ecology of Freshwater Fishes.
January – February 2023, Seattle, WA

Mentored two undergraduate students through the application process of the NOAA Hollings Scholar Fellowship.
January 2023, Seattle, WA

Reviewed applications and discussed individual candidacy of applicants for the American Fisheries Society's Hutton Scholar Program.
Spring 2022-2024, Remote

Volunteered with the Department of Geosciences to explain geological processes to elementary students throughout Boise during STEM education and outreach nights.
January - March 2020, Boise, ID

Coordinated and participated in a service project with the Idaho Department of Fish and Game and student volunteers to plant sagebrush seedlings in post-fire habitat
November 2019, Robie Creek, ID

Served as a student volunteer to perform water quality sampling, anesthetize fish, and keep records of measured weight and length of captive broodstock of sockeye salmon at the Eagle Fish Hatchery of the Idaho Department of Fish and Game
June - August 2017, Eagle, ID

SKILLS AND TRAINING

Geographic Information Systems: ESRI ArcGIS, Google Earth Pro, QGIS, Real-Time Kinematic Positioning (RTK-GPS): Topcon HiPer V, GPS Surveyors
Data Science: R (Proficient), HexSim (Proficient), GitHub

National Science Foundation, Future Rivers 2022-23 Trainee, University of Washington
COMPASS Science Communication Training: Storytelling
Justice, Equity, Diversity, Inclusion: Mentorship
Risk Communication
Working with Native Communities

PROFESSIONAL ASSOCIATIONS

American Fisheries Society (2018, 2022-2024)
Ecological Society of America (2021-2023)