Jeffrey R. Baldock

(Preferred name: Jeff)

Post-Doctoral Research Fellow
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About

I am an aquatic ecologist with interests in population and landscape ecology, ecohydrology, and conservation biology. I use field studies, statistical models, and genetic tools to study the linkages between climate, habitat, life history, and population dynamics of freshwater fishes. I aim to conduct research that informs management strategies for species and landscapes of conservation concern.

Education

2018-2024 **Ph.D. in Ecology**
University of Wyoming, Laramie, WY
Dissertation: "Biocomplexity of Yellowstone cutthroat trout: from individuals to metapopulations"
Advisor: Dr. Annika Walters

2010-2014 **B.S. in Aquatic and Fishery Sciences**
Minors in Quantitative Sciences and Marine Biology
University of Washington, Seattle, WA

2013 *Field Program* in Tropical Island Biodiversity Studies
The School for Field Studies, Bocas del Toro, Panama

2012 *Field Program* in Ecology and Conservation of Marine Vertebrates
Friday Harbor Labs, University of Washington, Friday Harbor, WA

Experience

2024-*present* **ORISE Post-Doctoral Research Fellow**
United States Geological Survey, Northern Rocky Mountain Science Center, Bozeman, MT

2018-2024 **Graduate Research Assistant**
Wyoming Cooperative Fish & Wildlife Research Unit, University of Wyoming, Laramie, WY

2021 **Teaching Assistant**
Department of Zoology and Physiology, University of Wyoming, Laramie, WY

2014-2018 **Fisheries Biologist**
Alaska Salmon Program, University of Washington, Seattle, WA, and Chignik, AK

2016 **Research Technician**
Cornell University and Universidad de San Francisco en Quito, Papallacta, Ecuador

Publications

Baldock JR, Al-Chokhachy R, & Walters A. *In press*. Groundwater structures fish growth and production across a riverscape. *Freshwater Biology*.

5. **Baldock JR**. 2024. Biocomplexity of Yellowstone cutthroat trout: from individuals to metapopulations. PhD Dissertation, University of Wyoming.
4. **Baldock JR**, Al-Chokhachy R, Campbell MR, & Walters A. 2023. Timing of reproduction underlies fitness trade-offs for a salmonid fish. *Oikos* e10184. (link)
3. **Baldock JR**, Al-Chokhachy R, Walsworth TE, & Walters. 2023. Redd superimposition mediates the accuracy, precision, and significance of redd counts for cutthroat trout. *Canadian Journal of Aquatic and Fishery Sciences* 80(5):825-839. (link)
2. Walsworth TE, **Baldock JR**, Schindler DE & Zimmerman CE. 2020. Interaction between watershed features and climate forcing affects habitat profitability for juvenile salmonids. *Ecosphere* 11(10): e03266. (link)
1. **Baldock JR**, Armstrong JB, Schindler DE, & Carter JL. 2016. Juvenile coho salmon track a seasonally shifting thermal mosaic across a river floodplain. *Freshwater Biology* 61(9):1454-1465. (link)

Submitted Manuscripts

1. **Baldock JR**, Rosenthal WC, Campbell MR, Wagner CE, Al-Chokhachy R, & Walters A. Riverscape heterogeneity shapes population diversity for a migratory fish. In review at *Ecological Applications*.
2. **Baldock JR**, Fair JBH, Letcher BH, Al-Chokhachy R, Dunham JB, & Muhlfeld CC. Headwater streamflow variability is amplified by drought. Submitted to *Nature*.

Manuscripts in Preparation

1. **Baldock JR**, Cline TJ, & Walters A. Climate and dam management influence productivity of a cutthroat trout metapopulation. (*in review with co-authors*)
2. Rosenthal WC, **Baldock JR**, Walters A, & Wagner CE. Historic fish stocking homogenizes and conditionally increases intraspecific diversity. (*in review with co-authors*)
3. Gauthier K, **Baldock JR**, & Walters A. Accounting for groundwater in daily spatial stream temperature models highlights climate refugia for native cold-water fish. (*results completed, manuscript partially drafted*)

USGS Data Releases

2. Al-Chokhachy R, D'Angelo VS, **Baldock JR**, Sauer HE, and Muhlfeld, CC. 2025. Streamflow and stream temperature data from the Northern Rocky Mountains (2012 - 2023): U.S. Geological Survey data release. (link)
1. Al-Chokhachy R, **Baldock JR**, and Walters AW. 2024. Fish sampling data, water temperature data, and groundwater spring location data from the upper Snake River basin, WY, 2021-2023: U.S. Geological Survey data release. (link)

Technical Reports

9. **Baldock JR** & Walters A. 2024. Evaluating the role of groundwater to Yellowstone cutthroat trout in the upper Snake River watershed, Wyoming. Prepared for the *Jackson Hole One Fly Foundation, Wyoming Wildlife and Natural Resource Trust,* and *Grand Teton Association*.
8. **Baldock JR**, Walters A, & Al-Chokhachy R. 2022. On the role of redd superimposition to Yellowstone cutthroat trout in spring-fed tributaries to the Snake River, Wyoming. Prepared for the *Wyoming Game and Fish Department* and *Jackson Hole One Fly Foundation*.
7. **Baldock JR**, Walters A, & Al-Chokhachy R. 2022. Evaluating the role of spring-fed streams to Snake River cutthroat trout: 2022 Annual Report. Prepared for the *Wyoming Game and Fish Department*, *Trout Unlimited*, *Jackson Hole One Fly Foundation*, *Wyoming Wildlife and Natural Resource Trust*, and *private landowners*.
6. **Baldock JR**, Walters A, & Al-Chokhachy R. 2022. Evaluating the role of spring-fed streams to Snake River cutthroat trout: 2021 Annual Report. Prepared for the *Wyoming Game and Fish Department*, *Trout Unlimited*, *Jackson Hole One Fly Foundation*, *Wyoming Wildlife and Natural Resource Trust*, and *private landowners*.
5. **Baldock JR**, Walters A, & Al-Chokhachy R. 2021. Evaluating the role of spring-fed streams to Snake River cutthroat trout: 2020 Annual Report. Prepared for the *Wyoming Game and Fish Department*, *Trout Unlimited*, *Jackson Hole One Fly Foundation*, *Wyoming Wildlife and Natural Resource Trust*, and *private landowners*.
4. **Baldock JR**, Walters A, & Al-Chokhachy R. 2020. Evaluating the use of redd counts in monitoring the status and trends of Snake River cutthroat trout in spring-fed tributaries of the upper Snake River watershed. Annual Report. Prepared for the *Wyoming Game and Fish Department*, *Wyoming Wildlife and Natural Resource Trust*, and *private landowners*.
3. **Baldock JR** & Schindler DE. 2018. Black Lake natural habitat change: Annual report on lake surface elevation, Alec River discharge, and Black River cross-section monitoring. Prepared for the *Chignik Regional Aquaculture Association*.
2. **Baldock JR**, Walsworth TE, & Schindler DE. 2017. Black Lake natural habitat change: Annual report on lake surface elevation, Alec River discharge, and Black River cross-section monitoring. Prepared for the *Chignik Regional Aquaculture Association*.
1. **Baldock JR**, Walsworth TE, & Schindler DE. 2016. Alaska Salmon Program: Chignik Lakes watershed annual report. University of Washington.

Invited Presentations

5. **Baldock JR**. 2024. Biocomplexity of Yellowstone cutthroat trout: from individuals to metapopulations. *PhD Dissertation Defense*. May 6. Berry Biodiversity Conservation Center, University of Wyoming, Laramie, WY.
4. **Baldock JR**. 2023. Advances in the ecology, conservation, and management of cutthroat trout. *Jackson Hole One Fly Foundation Board of Directors Annual Meeting*. July 21. Snow King Mountain Resort, Jackson, WY.
3. **Baldock JR**, Al-Chokhachy R, Campbell MR, & Walters A. 2023. Timing of reproduction underlies fitness trade-offs for Yellowstone Cutthroat Trout. *Stewarding Wyoming's Landscapes Through Hunting and Fishing*. March 4. Berry Biodiversity Conservation Center, University of Wyoming, Laramie, WY.
2. **Baldock JR**, Walters A, & Al-Chokhachy R. 2021. Spawning behavior mediates reproductive success and population productivity of Snake River Cutthroat Trout. *Idaho Department of Fish and Game Eagle Fish Genetics Laboratory*. Nov 20 (virtual event).
1. **Baldock JR**. 2020. Evaluating the role of redd superimposition by Snake River cutthroat trout in spring-fed streams of the upper Snake River watershed. *Idaho Department of Fish and Game Eagle Fish Genetics Laboratory*. April 2 (virtual event).

Contributed Presentations

* *Indicates poster presentation*

28. **Baldock JR**, Fair JH, Letcher BH, Al-Chokhachy R, Dunham JB, & Muhlfeld CC. 2025. Streamflow heterogeneity in headwaters: a blind spot in assessing cold-water fish vulnerability to drought? *Western Division of the American Fisheries Society Annual Meeting*. May 15. Westminster, CO.

27. Gauthier K, **Baldock JR**, & Walters A. 2025. Accounting for groundwater in daily spatial stream temperature models: implications for native cold-water fish. *Western Division of the American Fisheries Society Annual Meeting*. May 15. Westminster, CO.

26. **Baldock JR**, Al-Chokhachy R, & Walters A. 2025. On the role of groundwater to a metapopulation of Yellowstone cutthroat trout. *Montana Chapter of the American Fisheries Society*. February 13. Bozeman, MT.

25. **Baldock JR** & Walters A. 2024. Climate and dam management drive Yellowstone cutthroat trout productivity across a riverscape. *American Fisheries Society Annual Meeting.* Sept 16. Honolulu, HI.

24. Walters A, **Baldock JR**, Rieger E, Clancy N, Sando R, McShane R, & Lund J. 2024. Co-produced research to explore climate change adaptive capacity of native stream fishes. *American Fisheries Society Annual Meeting.* Sept 16. Honolulu, HI.

23. Gauthier K, **Baldock JR**, & Walters A. 2024. Accounting for groundwater in daily spatial stream temperature models: implications for native cold-water fish. *American Society of Limnology and Oceanography*. June 2. Madison, WI.

22. **Baldock JR**, Rosenthal WC, Al-Chokhachy R, Campbell MR, Wagner CE, & Walters A. 2024. Groundwater mediates tributary contributions to a mainstem river fishery. *Wyoming Cooperative Fish and Wildlife Research Unit, 2024 Annual Cooperator's Meeting.* April 2. University of Wyoming, Laramie, WY.

21. Walters A, Collins SM, Williams DG, **Baldock JR**, Lund J, & Fetzer WW. 2024. Anticipating Climate Transitions in Wyoming (WyACT): Aquatic and Fisheries Research. *Co-Wy Chapter of the American Fisheries Society Annual Meeting*. Feb 29. Hilton Hotel, Laramie, WY.

20. **Baldock JR**, Al-Chokhachy R, & Walters A. 2024. Groundwater structures Yellowstone Cutthroat Trout growth and production across a riverscape. *Co-Wy Chapter of the American Fisheries Society Annual Meeting*. Feb 28. Hilton Hotel, Laramie, WY.

19. **Baldock JR**, Al-Chokhachy R, Campbell MR, & Walters A. 2023. Timing of reproduction underlies fitness trade-offs for Yellowstone Cutthroat Trout. *Advances in the Population Ecology of Stream-Dwelling Salmonids VI*. May 8. Universidad de las Islas Baleares, Palma de Mallorca, Spain.

18. **Baldock JR** & Walters A. 2023. Present and future climate impacts on Snake River cutthroat trout population dynamics. *Wyoming Cooperative Fish and Wildlife Research Unit, 2023 Annual Cooperator's Meeting.* April 13. University of Wyoming, Laramie, WY.

17. **Baldock JR**, Al-Chokhachy R, Campbell MR, & Walters A. 2023. Timing of reproduction underlies fitness trade-offs for Yellowstone Cutthroat Trout. *Co-Wy Chapter of the American Fisheries Society Annual Meeting.* March 2. Hilton Hotel, Fort Collins, CO.

16. **Baldock JR**, Al-Chokhachy R, Walsworth TE, & Walters A. 2022. Redd superimposition mediates the accuracy, precision, and significance of redd counts for cutthroat trout. *Wild Trout Symposium XIII*. Sept 30. Hilton Hotel, West Yellowstone, MT.

15. **Baldock JR**, Walters A, Al-Chokhachy R, & Campbell MR. 2022. Spawning behavior mediates reproductive success and population productivity of Yellowstone Cutthroat Trout. *Joint Aquatic Sciences Meeting.* May 17. De Vos Place Convention Center, Grand Rapids, MI.

14. **Baldock JR**, Walters A, & Al-Chokhachy R. 2022. A mechanistic understanding of monitoring data: Redd superimposition mediates the accuracy, precision, and significance of redd counts for cutthroat trout. *Wyoming Cooperative Fish and Wildlife Research Unit, 2022 Annual Cooperator's Meeting.* April 28. University of Wyoming, Laramie, WY.

13. **Baldock JR**, Walters A, & Al-Chokhachy R. 2022. Hydrologic controls on growth and production of age-0 Snake River Cutthroat Trout. *Co-Wy Chapter of the American Fisheries Society Annual Meeting*. March 2 (virtual event).

12. **Baldock JR**, Walters A, & Al-Chokhachy R. 2021. Redd superimposition mediates observer error structure in redd counts for Yellowstone Cutthroat trout. *Western Division of the American Fisheries Society Annual Meeting*. May 11 (virtual event).

11. **Baldock JR**. 2021. On the role of spring-fed streams to Snake River cutthroat trout: scale and organization in fisheries conservation. University of Wyoming, Department of Zoology and Physiology Brown Bag Seminar Series. April 5 (virtual event).

10. **Baldock JR**, Walters A, Al-Chokhachy R, & Campbell MR. 2021. Spawning behavior mediates reproductive success and population productivity of Snake River Cutthroat Trout. *Co-Wy Chapter of the American Fisheries Society Annual Meeting*. February 23 (virtual event).

9. **Baldock JR**, Walters A, Al-Chokhachy R, & Walsworth TE. 2020. Effects of redd superimposition on observer error structure in redd counts: Implications for long-term monitoring of Snake River cutthroat trout in Wyoming. *Co-Wy Chapter of the American Fisheries Society Annual Meeting*. February 27. Hilton Hotel, Laramie, WY.

8. *__Baldock JR__, Walters A, & Al-Chokhachy R. 2019. Evaluating the use of redd counts in monitoring Snake River cutthroat trout in spring-fed tributaries of the upper Snake River watershed. *Wyoming Cooperative Fish and Wildlife Research Unit, 2019 Annual Cooperator's Meeting*. April 2. University of Wyoming, Laramie, WY.

7. *__Baldock JR__, Walters A, & Al-Chokhachy R. 2019. Evaluating the use of redd counts in monitoring Snake River cutthroat trout in spring-fed tributaries of the upper Snake River watershed. *Co-Wy Chapter of the American Fisheries Society Annual Meeting*. February 27. Hilton Hotel, Fort Collins, CO.

6. **Baldock JR**. 2018. Alaska salmon populations move to exploit shifting habitat mosaics. Department of Zoology and Physiology Brown Bag Seminar Series. October 8. University of Wyoming, Laramie, WY.

5. Walsworth TE, **Baldock JR**, Schindler DE, & Zimmerman CE. 2016. Using otolith microchemistry to explore inter-annual variation in juvenile sockeye salmon rearing strategies. *Alaska Salmon Program Science Symposium*. November 18. University of Washington, Seattle, WA.

4. **Baldock JR**, Armstrong JB, & Schindler DE. 2014. Juvenile coho salmon track a shifting habitat mosaic across a stream-floodplain complex. *Alaska Salmon Program Science Symposium*. December 5. University of Washington, Seattle, WA.

3. **Baldock JR**, Armstrong JB, & Schindler DE. 2014. Juvenile coho salmon track a shifting habitat mosaic across a stream-floodplain complex. *School of Aquatic and Fisheries Sciences Undergraduate Research Symposium*. December 5. University of Washington, Seattle, WA.

2. **Baldock JR**, Armstrong JB, & Schindler DE. 2014. Juvenile coho salmon track a shifting mosaic of habitat conditions over the early summer feeding period. *Mary Gates Undergraduate Research Symposium*. May 23. University of Washington, Seattle, WA.

1. **Baldock JR**, Brown C, Hedley E, Keefe R, Logan R, Serritello S, & Truong K. 2013. El pez león invasor en Bocas del Toro, Panamá. *School for Field Studies Research Symposium*. May 2. Isla Solarte Research Station, Solarte, Panama.

Grants Received (total: $116,868)

2023-2024 Strickland Family Wyoming Cooperative Unit Excellence Fund. *Evaluating the role of spring-fed streams to Snake River cutthroat trout*. Jeff Baldock (PI). **$2,500**.

2022-2023 UW-NPS Research Station. *Evaluating the role of spring-fed streams to Snake River cutthroat trout*. Jeff Baldock (PI), Dr. Annika Walters (co-PI). **$5,000**.

2021-2022 Biodiversity Institute, University of Wyoming. *Evaluating the role of spring-fed streams to Snake River cutthroat trout*. Jeff Baldock (PI). **$10,000**.

2021-2024 Wyoming Wildlife and Natural Resource Trust. *Evaluating the role of spring-fed streams to Snake River cutthroat trout*. Jeff Baldock (PI), Annika Walters (co-PI). **$25,000**.

2021-2024 Jackson Hole One Fly Foundation. *Evaluating the role of spring-fed streams to Snake River cutthroat trout*. Jeff Baldock (PI), Annika Walters (co-PI). **$32,000**.

2020-2022 UW-NPS Research Station. *Developing a baseline understanding of gill lice distribution and infestation in the Upper Snake River Watershed*. William Fetzer (PI), Jeff Baldock (co-PI), Dr. Annika Walters (co-PI). **$5000**.

2019-2022 Jackson Hole One Fly Foundation. *Evaluating the effects of redd superimposition on population dynamics of Finespotted Snake River Cutthroat Trout*. Jeff Baldock (PI), Annika Walters (co-PI), Robert Al-Chokhachy (co-PI). **$37,368**.

Awards & Fellowships (total: $41,550)

2025 Outstanding Dissertation Award, Program in Ecology and Evolution, University of Wyoming, **$150**

2025 Outstanding Dissertation Award, School of Graduate Education, University of Wyoming, **$3000**

2025 Early Career Professional Travel Award, Western Division of the American Fisheries Society, **$500**

2024-2025 ORISE Postdoctoral Fellowship, United States Geological Survey

2023 Best Student Paper, Co-Wy Chapter of the American Fisheries Society Annual Meeting

2023 Dennis Andersen Memorial Scholarship, Jackson Hole One Fly Foundation, **$500**

2022, 2023 Scott-Walter Student Travel Award, Department of Zoology and Physiology, **$1,000**

2022 Marty Seldon Graduate Scholarship, Wild Trout Symposium XIII, **$600**

2022 Graduate Student Travel Award, Program in Ecology, **$400**

2022 Dennis Andersen Memorial Scholarship, Jackson Hole One Fly Foundation, **$1,200**

2021 Dr. George E. Menkens Graduate Fellowship, Department of Zoology and Physiology, **$10,000**

2020 Western Ecosystems Technology Research Award for Quantitative Analysis in Wildlife and Fisheries Ecology, Department of Zoology and Physiology, **$3,000**

2020 Vern Bressler Fisheries Fund Scholarship, Department of Zoology and Physiology, **$1,200**

2019 Lyman and Margie McDonald Research Awards for Quantitative Analysis in Wildlife and Fisheries Ecology, Department of Zoology and Physiology, **$6,000**

2019 Dennis Andersen Memorial Scholarship, Jackson Hole One Fly Foundation, **$4,000**

2014 Mary Gates Research Fellowship, University of Washington, **$2,000**

2010-2014 University of Washington Dean's List (7 terms)

2014 Thomas and Mary Peck Scholarship, School of Aquatic and Fishery Sciences, **$1,500**

2013 Galen and Helen Maxfield Endowed Fisheries Scholarship, School of Aquatic and Fishery Sciences, **$1,500**

2012 H.M. Keeler Lake Washington Fund in Fisheries Scholarship, School of Aquatic and Fishery Sciences, **$1,000**

2010 Seven Hills Alumni Scholarship, **$1,000**

2010 California Scholarship Federation Award

Professional Activities & Service

	Peer reviewer: Canadian Journal of Fisheries and Aquatic Sciences, Ecology, Ecosphere, Freshwater Science, Journal of the American Water Resources Association, North American Journal of Fisheries Management, River Research and Applications
2018-*present*	Member, American Fisheries Society
2022-*present*	Contributing Researcher, Wyoming Anticipating Climate Transitions, Wyoming EPSCoR, University of Wyoming
2023-2024	Faculty Hiring Committee, Department of Zoology & Physiology, University of Wyoming
2022-2023	Graduate Student Faculty Representative, Program in Ecology, University of Wyoming
2021	Graduate Student Invited Speaker Committee, Program in Ecology, University of Wyoming
2020-2021	Treasurer, University of Wyoming Student Sub-Unit of the American Fisheries Society
2020-2021	Graduate Student Ombudsman, Department of Zoology & Physiology, University of Wyoming
2014-2015	Member, Ecological Society of America

Mentoring and Supervision

Graduate Committee Service (non-chair)

2025-*present*	Patrick Hofstead. PhD in Hydrologic Science, University of Wyoming. Advisor: Dr. Kristi Hansen

Field Technicians

2022	Joe Reinhofer. WY Cooperative Research Unit, University of Wyoming, Teton County, WY
2021	Sasha Pereira. WY Cooperative Research Unit, University of Wyoming, Teton County, WY
2021	Quincy Harris. WY Cooperative Research Unit, University of Wyoming, Teton County, WY
2019-2020	Nate Heili. WY Cooperative Research Unit, University of Wyoming, Teton County, WY
2019	Luke Brooks. WY Cooperative Research Unit, University of Wyoming, Teton County, WY
2016-2018	Dean Freundlich. Alaska Salmon Program, University of Washington, Chignik, AK
2015	Austin Anderson. Alaska Salmon Program, University of Washington, Chignik, AK

Teaching, Outreach, & Science Communication

2025	Presenter, Tap Into Science Seminar Series, Protect of Water Jackson Hole, Jackson, WY
2021, 2022	Instructor, Adopt-a-Trout, Jackson Hole Middle School, Trout Unlimited, Jackson, WY
2021	Teaching Assistant, *Animal Biology*, LIFE Program, University of Wyoming, Laramie, WY
2019	Project interview and field site visit, Grand Teton Foundation, Jackson, WY
2019	Project interview and field site visit, WY State Legislature, Wyoming Wildlife and Natural Resource Trust, and Trout Unlimited, Jackson, WY
2018	Presenter, UW-ASP Chignik Public Meeting – Research Activities Update, Chignik, AK
2018	Instructor, Hands-on salmon biology workshop for kids, Chignik, AK
2013	Instructor, Hands-on stream ecology of the Pacific Northwest, Mill Creek, WA
2013	Presenter, Ecología del Archipiélago de Bocas del Toro (science outreach event with indigenous island community members), Bocas del Toro, Panama

2013	Event Coordinator, SYRCL Wild and Scenic Film Festival, Nevada City, CA
2011	Curriculum development, Friends of the Cedar River Watershed, Seattle, WA

Certifications

2016, '18, '22	Wilderness First Aid
2016, '18, '21	American Red Cross CPR/AED
2020	USFWS Electrofishing Techniques, Crew Leader
2018	IACUC Animal Use Laws and Regulations
2018	CITI Wildlife Research
2012	PADI Open Water Diver

Skills, etc.

Fieldwork: fish handling, backpack and raft electrofishing, spawning ground surveys and redd counts, stream discharge measurement, maintenance of data logger and camera trap networks, weir construction and maintenance, beach and stream seining, boat-based surface and mid-water trawling, PIT and disk tagging, GPS use and navigation, fish gastric lavage, various lake zooplankton collection methods, chlorophyll a sampling and processing, reciprocal transplant and mesocosm experiments, and other misc. aquatic research methods.

Laboratory: otolith extraction, aging, preparation, and microchemical analysis using laser ablation inductively coupled plasma mass spectrometry; specimen dissection; fish husbandry; sample preparation for stable isotope analysis; microscopy.

Computational: R Statistical Computing, JAGS, QGIS, ArcGIS, STARS, HOBOware PRO, Program MARK, Microsoft Office Suite.

Modeling: Bayesian statistical modeling in JAGS; logistic population growth (e.g., Ricker, Beverton-Holt), state-space, hierarchical/mixed effects, generalized linear, N-mixture, mixture, and spatial stream network (SSN) model structures; time series analysis; capture-mark-recapture abundance estimation and population modeling using *Rmark*/Program MARK and *unmarked*; simulation-based analysis.

Other: Outboard propeller and jet boat operation and maintenance, whitewater and flatwater rafting and safety, field crew leadership, peer and employee mentorship, manuscript preparation and review, Spanish language (conversational), proven ability to work long days in inclement conditions.

References

Dr. Annika Walters	**Associate Professor** *PhD advisor* United States Geological Survey, Wyoming Cooperative Fish & Wildlife Research Unit, Department of Zoology & Physiology and Program in Ecology and Evolution, University of Wyoming annika.walters@uwyo.edu; 307-399-4380
Dr. Jennifer Fair	**Research Hydrologist** *Post-Doctoral co-advisor* United States Geological Survey, Eastern Ecological Science Center jfair@usgs.gov; 508-397-6829
Dr. Benjamin Letcher	**Ecologist** *Post-Doctoral co-advisor* United States Geological Survey, Eastern Ecological Science Center (emeritus); Department of Environmental Conservation, University of Massachusetts – Amherst bletcher@umass.edu; 413-522-9417
Dr. Robert Al-Chokhachy	**Research Fisheries Biologist** *PhD committee member and collaborator* United States Geological Survey, Northern Rocky Mountain Science Center ral-chokhachy@usgs.gov; 406-599-9058
Dr. Daniel Schindler	**Professor** *Employer and undergraduate advisor* School of Aquatic and Fishery Sciences, University of Washington deschind@uw.edu; 206-616-6724