

Madeline Lewis
E-Mail: mlewis2@iastate.edu

Education

- Iowa State University** Summer 2021 – Present
- Pursuing Ph.D. in Fisheries Biology
 - **GPA: 4.0**
- Montana State University** Fall 2018 – Summer 2021
- Master of Science in Fisheries and Wildlife Management
 - **GPA: 4.0**
- University of Montana** Fall 2016 - Spring 2018
- Bachelor of Science in Wildlife Biology (Aquatic Focus) - *cum laude*
 - **Institutional GPA: 3.67**
- South Dakota State University** Fall 2013 – Spring 2015
- Enrolled in Ecology/Environmental Science

Research Experience

- Research Assistantship** June 2021- Present
Natural Resources Ecology and Management, Iowa State University Ames, IA
Advisor: Dr. Michael Weber
- Studying population dynamics of walleye and muskellunge in reservoirs.
- Research Assistantship** August 2018 – June 2021
Montana Cooperative Fishery Research Unit, Montana State University Bozeman, MT
Advisor: Dr. Christopher Guy
- Evaluating out-migration dynamics of juvenile bull trout to inform management of a trap-and-transport program which is implemented to conserve the adfluvial life history strategy in a system fragmented by hydroelectric dams.
- Senior Thesis Project** August 2017 – May 2018
College of Forestry and Conservation, University of Montana Missoula, MT
Advisor: Dr. Andrew Whiteley
- Conducted a pilot study to examine variation in life history strategies of brook trout in streams with varying habitat characteristics, part of a collaborative effort to inform managers on the best practices to eradicate non-native species.

Professional Experience

- Fisheries Technician** May - August 2018
Idaho Department of Fish and Game Nampa, ID
- Crew leader on an anadromous fish snorkel crew, responsible for supervising a crew of 4 people in the field to ensure safety and efficiency in completing snorkel surveys at pre-determined sites.
- Fisheries Biological Aide** May – August 2017
Idaho Department of Fish and Game Nampa, ID
- Performed snorkel surveys for salmonids, visually determining species, length and abundance of fish. Collected habitat data including substrate composition, pool/riffle/run ratios, and temperature.
- Fisheries Intern** May – August 2016
USDA Forest Service Fairfield, ID

- Worked on the Sawtooth National Forest's Bull Trout Management Indicator Species Monitoring program, performed multi-pass backpack electrofishing, collected biological data and habitat data, placed and collected thermographs to monitor stream temperature.

Publications

- **Lewis, M. C.**, C. S. Guy, E. W. Oldenburg, T. E. McMahon. 2022. Individual characteristics and abiotic factors influence out-migration dynamics of juvenile Bull Trout. *Fishes* 7: 331.
- **Lewis, M. C.**, C. S. Guy, E. W. Oldenburg, T. E. McMahon. 2022. Temporal variation in capture efficiency underrepresents spring out-migrating Bull Trout in a trap-and-haul program. *North American Journal of Fisheries Management* 42: 1237-1249.
- **Lewis, M. C.**, W. R. Cope, T. P. Miles, C. Rude, R. E. Bruesewitz, B. J. Dodd, M. K. Flammang, K. S. Page, R. Weber, M. J. Weber, M. Wolter. 2022. Reservoir Fish Escapement in North America: A Historical Review and Future Directions. *North American Journal of Fisheries Management*. Preprint.
- Guy, C.S., T. L. Cox, J. R. Williams, C. D. Brown, R. W. Eckelbecker, H. C. Glassic, **M. C. Lewis**, P. A. Maskill, L. M. McGarvey, and M. J. Siemaintkowski. 2021. A paradoxical knowledge gap in science for critically endangered fishes and game fishes during the sixth mass extinction. *Scientific Reports* 11:8447.

Presentations

- **Lewis, M. C.** 2022. Reservoir Escapement of Walleye and Muskellunge on Big Creek and Brushy Creek Lakes. Ames Anglers. November 11, 2022.
- Walleye, and Urban Fishing Technical Committees, North Central Division of the American Fisheries Society. July 19, 2022. Milford, IA.
- **Lewis, M. C.**, B. Dodd, T. Miles, A. Otting, M.J. Weber. 2022. Walleye and Muskellunge residency adjacent to reservoir spillways. 2022 Joint Meeting of the Centrarchid, Esocid,
- Walleye, and Urban Fishing Technical Committees, North Central Division of the American Fisheries Society. July 19, 2022. Milford, IA.
- **Lewis, M. C.**, M.J. Weber, B. Dodd, T. Miles. 2022. Cost-benefit analysis of physical barriers to minimize escapement of reservoir sportfishes. Midwest Fish and Wildlife Conference. March 15, 2022. Des Moines, IA.
- **Lewis, M. C.**, C. S. Guy, and E. W. Oldenburg. 2021. Individual characteristics, population density, and environmental conditions explain temporal variation in out-migration dynamics of juvenile Bull Trout. Montana Chapter of the American Fisheries Society Annual Meeting. March 3, 2021. Virtual, Montana.
- **Lewis, M. C.**, C. S. Guy, and E. W. Oldenburg. 2020. Using PIT technology to investigate out-migration dynamics of juvenile bull trout. Montana Chapter of the American Fisheries Society Annual Meeting. February 27, 2020. Kalispell, Montana.
- **Lewis, M. C.**, A. Dangora, A. Whiteley, and C. Stafford. 2018. Life history variation in non-native brook trout. Poster Presentation. University of Montana Conference for Undergraduate Research. April 27, 2018. Missoula, Montana.
- **Lewis, M. C.**, A. Dangora, A. Whiteley, and C. Stafford. 2018. life history variation in non-native brook trout. Poster Presentation. Montana Chapter of the American Fisheries Society Annual Meeting. February 1, 2018. Butte, Montana.

Teaching Experience

- **Teaching Assistant**, Course: Aquatic Ecology Lab, Iowa State University (Fall 2021)

Awards

- Noreen Clough Memorial Scholarship for Females in Fisheries (Spring 2022)
- LaVon Tostenson Award (Fall 2022)
- Wally McClure Montana Chapter of the American Fisheries Society Scholarship (Spring 2021)

- Jim Belsey Graduate Student Scholarship (Fall 2019)
- Top Life Sciences Poster at University of Montana Conference for Undergraduate Research (Spring 2018)

Professional Society Involvement

- **Vice President**, Montana State University Student Sub-Unit of the American Fisheries Society (Fall 2020 – Spring 2021)
- **Member**, American Fisheries Society (February 2018 – present)