

Fisheries Biology, MS, PhD

Specialization(s): Conservation Biology; Fisheries Management

Department: Watershed Sciences Department

College: S.J. & Jessie E. Quinney College of Natural Resources

Overview

About This Degree

Utah State University is the only university in the state with a college devoted to the study of natural resources, and the fisheries biology program is one of the few programs in the nation where students have the opportunity to focus on freshwater fish populations. Students in the fisheries biology program study river, lake, and wetland ecosystems. The program highlights the ecology of freshwater systems, management of important fisheries, restoration of stream, riparian, and wetland areas, and the monitoring and protection of plant and animal populations in lakes and rivers. Each student has an individualized plan of study created for them by their graduate committee, and students are able to take courses in other departments on campus, such as biology and civil and environmental engineering. This allows students to gain a broad education in areas related to fish populations and aquatic ecosystems.

Career Options

Graduates in fisheries biology can pursue the following careers:

- Fish hatchery biologist
- Fisheries biologist
- Endangered species coordinator
- Marine biologist
- Restoration ecologist
- Research scientist
- Fisheries manager

What it takes

Admissions Requirements

Students must have a science-based undergraduate degree to be considered.

To be accepted to the program, it is recommended that applicants first contact a specific

faculty member with whom they are interested in working. If the faculty member is accepting graduate students and agrees to work with the student, the student can then apply by completing the following application requirements:

Application Requirements:

- Complete the [online application](#)
- Pay the \$55 application fee
- Score at or above the 40th percentile on the GRE
- Have a 3.0 or higher GPA on your last 60 semester or 90 quarter credits
- Provide transcripts of all college/university credits
- Provide three contacts for letters of recommendation

International students have [additional admissions requirements](#).

Admissions Deadlines

The department has the following deadlines:

- Fall semester - June 15
- Spring semester - October 15
- Summer semester - March 15
- Preference for financial assistance will be given to applicants who apply before January 10.

Master's Degree Plan Options

Students can receive the MS by pursuing one of two options:

- In the **Plan A** option, students complete graduate-level coursework and must write a thesis.
- The **Plan B** option requires the production of a paper or creative work of art and is expected to reflect equivalent scholarship standards as a thesis.

Financial Assistance

Most students are supported by research [assistantships](#) provided by faculty having grants or contracts. There are no separate applications for financial assistance. All applicants accepted into the graduate program before January 10 will be considered for college and university fellowships and other financial assistance for the following year. Only a few fellowships are awarded each year, usually to PhD candidates.

A variety of additional funding opportunities are available, including [scholarships](#), [fellowships](#), [tuition awards](#), and [travel support](#). Additionally, students may be eligible for subsidized [health insurance](#) through qualifying assistantships.

Program Requirements

[Click here](#) to see course requirements for the **Master of Science**.

[Click here](#) to see course requirements for the **Doctor of Philosophy**.

PhD Qualifying Exams:

All PhD students must pass a comprehensive exam. Students take these exams typically the second or third year after most of their coursework is completed. They take a written exam set by their graduate committee, which is usually followed by an oral component where the committee can pose questions to the student regarding the written exam.

Contact

Advisor(s)

Chris Luecke

Professor, WATS Department Head

Office: NR 210 C

Phone: (435) 797-2463

Email: chris.luecke@gmail.com

Faculty

Patrick Belmont, PhD, Lehigh University

Assistant Professor

Area: Watershed hydrology, sediment dynamics, geomorphology

Office: NR 350

Phone: (435) 797-3794

Email: patrick.belmont@usu.edu

Nicolaas Bouwes, PhD, Utah State University

Adjunct Assistant Professor

Area: Fisheries and aquatic ecology

Office: NR 169

Phone: (435) 760-0771

Email: nbouwes@gmail.com

Phaedra Budy, PhD, Utah State University

Associate Professor

Area: Fisheries management and conservation

Office: NR 134

Phone: (435) 797-7564

Email: phaedra.budy@usu.edu

Todd Crowl, PhD, University of Oklahoma
Professor
Area: Aquatic ecology, conservation biology, river ecology
Office: BNR 175
Phone: (435) 797-2498
Email: todd.crowl@usu.edu

Charles Hawkins, PhD, Oregon State University
Professor
Area: Aquatic ecology, stream and riparian ecosystems
Office: BNR 162 D
Phone: (435) 797-2280
Email: chuck.hawkins@usu.edu

Jiming Jin, PhD, University of Arizona, Chinese Academy of Sciences
Assistant Professor
Area: Global climate modeling and analysis
Office: NR 358
Phone: (435) 797-8175
Email: jiming.jin@usu.edu

Karin Kettenring, PhD, University of Minnesota
Assistant Professor
Area: Wetland ecology, plants and restoration
Office: NR 230
Phone: (435) 797-2546
Email: karin.kettenring@usu.edu

Chris Luecke, PhD, University of Washington
Professor, WATS Department Head
Area: Aquatic ecology, fisheries management
Office: NR 210 C
Phone: (435) 797-2463
Email: chris.luecke@gmail.com

Nancy Mesner, MA, MSE, University of Washington
Assistant Professor
Area: Extension watershed, water quality interactions
Office: NR 104 A
Phone: (435) 797-7541
Email: nancy.mesner@usu.edu

Jack Schmidt, PhD, Johns Hopkins University
Professor
Area: Hydrology, fluvial geomorphology, mineral and water development policy

Office: BNR 349
Phone: (435) 797-1791
Email: jack.schmidt@usu.edu

Helga Van Miegroet, PhD, University of Washington – Seattle
Professor
Area: Wildland soils and biochemistry
Office: BNR 157
Phone: (435) 797-3175
Email: helga.vanmiegroet@usu.edu

Joseph Wheaton, PhD, University of Southampton
Assistant Professor
Area: GIS, spatial modeling
Office: NR 360
Phone: (435) 797-2465
Email: joe.wheaton@usu.edu

Wayne Wurtsbaugh, PhD, University of California – Davis
Professor
Area: Biogeochemistry, limnology, fish ecology
Office: BNR 106
Phone: (435) 797-2584
Email: wayne.wurtsbaugh@usu.edu

Get Involved

Professional Organizations, Honor Societies, and Clubs

American Fisheries Society: AFS is the world's oldest and largest organization dedicated to strengthening the fisheries profession, advancing fisheries science, and conserving fisheries resources.

Labs, Centers, Research

Ecology Center: The Ecology Center is an administrative structure in the university that supports and coordinates ecological research and graduate education in the science of ecology and provides professional information and advice for decision makers considering actions that affect the environment. The Ecology Center at USU has had a string of directors known nationally and worldwide as premier scientists in the field of ecology, and students graduating with a degree in ecology are able to make important contacts with influential faculty that can help them go on to prestigious post-doctoral programs and faculty positions at universities around the world.

S.J. and Jessie E. Quinney Natural Resources Research Library: The Quinney Library maintains collections of materials pertaining to natural resources and the environment in a number of formats that support the programs of study and research in the College of Natural Resources and several partnering centers. The library has more than 60,000 items, both print and electronic, as well as videos, images, and more.

Utah Botanical Center: The UBC, located in Kaysville, Utah, is home to research and demonstration projects focused on sustainable living in the Intermountain West. Studies of water conservation, horticulture, water quality enhancement, wetland ecology, integrated pest management, urban forestry, agriculture, fish and wildlife, highway enhancement, and storm-water management combine to make the center a living laboratory.

Utah Water Research Laboratory: The UWRL works on nearly 250 water-related projects a year and has projects in all of Utah's 29 counties and more than 40 countries. The lab is one of the go-to places that addresses the technical and societal aspects of water-related issues, including quality, quantity, and distribution of water.

Water Initiative: Utah State University supports a broad community of students and faculty engaged in water education, research, and outreach. The USU Water Initiative provides an overarching umbrella for the activities of this community aimed at fostering interdisciplinary collaboration and collegial sharing of ideas related to water across the departments and colleges of USU.