

# Conservation and Restoration Ecology, BS

**Department:** Wildland Resources Department

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

## Overview

### About This Degree

Conservation and restoration ecology involves conserving, maintaining, and recovering ecological systems and enriching the lives of their inhabitants. The conservation and restoration ecology major teaches students to use ecological principles to maintain healthy ecosystems and to restore terrestrial systems, such as forests, rangelands, wildlands, and grasslands that have been damaged or eliminated through overuse, neglect, or disaster.

Students will gain a solid foundation in biological sciences, soil science, chemistry, and math; study ecology of wildland plants and animals; learn techniques to monitor, assess, preserve, and restore ecosystems; and understand policy of natural resource management. With guidance from an advisor, students develop an individualized plan of study for their electives that caters to their unique career goals.

## Career Options

With a degree in conservation and restoration ecology, students can pursue the following careers:

- Conduct research for private environmental consulting companies
- Biological technician collecting data for plant or animal research
- Restore fire-damaged rangelands for the Bureau of Land Management or USDA Forest Service
- Work for state natural resource agencies
- Work for private land reclamation contractors
- Biological consultant surveying for sensitive species or writing conservation or restoration plans
- Manage land for nongovernmental organizations or corporate landowners
- Nature center or zoo worker
- Preserve sensitive habitats and critical ecosystems
- Conserve land and natural resources
- Develop rules that protect farm and ranch lands
- Work in environmental education and public outreach
- Graduate study in natural resources and ecology

[Career Services](#) provides counseling and information on hundreds of job and internship opportunities and even helps students apply and interview.

## What it takes

### Admissions Requirements

In addition to Utah State University's [admissions requirements](#), the conservation and restoration ecology program has additional requirements:

- **Freshmen:** New freshmen admitted to USU in good standing qualify for admission to this major.
- **Transfer Students:** Students transferring from other institutions and from other USU majors must have a minimum overall GPA of 2.5 to be accepted into the major.
- Special attention will be given to the number of, and performance in, prerequisite math and science courses.

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

### Major Requirements

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

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## Contact

### Advising

All new USU students participate in a [New Student Orientation](#) program, where they receive detailed information about major requirements, registering for classes, and other important advising information.

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## Get Involved

### Professional Organizations, Honor Societies, and Clubs

**Student Organization for Society and Natural Resources:** SOSNR was established in 2003 to promote opportunities for service in the community, provide forums for individuals to present research, and give students opportunities to participate in conferences to help further their academic careers.

**Wildlife Society:** The student chapter of the Wildlife Society is for students who have an interest in wildlife. The society helps prepare students for careers dealing with wildlife by providing hands-on experience. USU's chapter activities include sending press releases, conducting surveys, participating in habitat work, and hosting professional meetings, tours, and specialty field trips.

**Forestry Club:** The forestry club is one of the longest running clubs at Utah State and also serves as a student chapter of the Society of American Foresters. The club hosts various activities, such as visiting one of USU's yurts, making trips to the Forestry Club cabin, and cutting and selling Christmas trees to raise money for the club. The club also participates in various community service projects.

**Range Club:** The USU Range Club, or the USU student chapter of the Society for Range Management, is a group of students interested in range science and related fields. The chapter works to promote the development of future range science professionals, continuing education of members and the public, and sustainable rangeland ecosystems.

**Student Sustainability Council:** The Student Sustainability Council is a student organization devoted to promoting sustainability on campus, educating the student body and the local community, and giving students the opportunity to serve in areas related to sustainability. Students from any major are welcome to get involved with the council.

**Xi Sigma Pi National Forest Management Honors Society:** Although Xi Sigma Pi is a forest management national honor society, it has expanded its view of forest management to recognize fields such as fisheries and wildlife management and outdoor recreation as integral parts. In keeping with the stated national goals of the society, the Lambda chapter, USU's local chapter, seeks both to recognize and encourage academic excellence among students in the College of Natural Resources. All juniors and seniors in the college with a GPA of 3.0 or above are invited to join Xi Sigma Pi. After a short initiation period, new members are free to participate in any of Xi Sigma Pi's activities, most of which provide services to the college.

## Labs, Centers, Research

With the second oldest [undergraduate research](#) program in the nation, USU offers students a wide range of opportunities to gain hands-on research experience. The [Undergraduate Research and Creative Opportunities](#) program allows students to apply for grants and receive funding. USU's [Honors Program](#) prepares students for excellent graduate programs by helping them build relationships with professors, participate in research projects, take smaller, more intensive classes, and develop leadership skills.

**Berryman Institute:** Housed at USU, the Berryman Institute is a national organization dedicated to improving human-wildlife relationships and managing human-wildlife conflicts through teaching, research, and extension. The Berryman Institute gives students hands-on field experience with human-wildlife conflict management professionals, offers field trips to human-wildlife conflict project areas, and allows students to gain experience in wildlife conflict management techniques, such as trapping and aerial gunning. The Berryman Institute is open to all students, regardless of major.

**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.

**Intermountain Center for River Rehabilitation and Restoration:** ICRRR conducts its work through completion of targeted research projects, providing decision support to federal agencies and adaptive management programs, evaluating the performance of previously constructed restoration projects, and teaching short courses about stream restoration methodology to practitioners.

**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 Cooperative Fish and Wildlife Research Unit:** In 1935, the U.S. Department of Interior and Utah State University established this research unit. Expertise includes landscape and spatial ecology, population and system analysis for both aquatic and terrestrial systems, aquatic food webs of large water systems, and wildlife-habitat and vegetation modeling. Technical expertise in the fields of statistics, GIS, and spatial analysis is strong.