

MAJOR IN FISH, WILDLIFE, AND CONSERVATION BIOLOGY

Professor Will Clements
Chair of the Undergraduate Major

The Fish, Wildlife, and Conservation Biology major is intended for students interested in understanding wildlife and the habitats in which they live. We offer three concentrations: Conservation Biology, Fisheries and Aquatic Sciences, and Wildlife Biology. The curriculum has a strong foundation in the biological, physical, and social sciences with the focus on solving current and future issues related to conservation and sustainability of wild animals and their habitats. The faculty offers a wide range of expertise with a keen interest in innovative teaching and research methods.

Our program prepares students for professional careers involving fish, wildlife, and conservation that include federal and state agencies, nongovernmental organizations, the private sector, academic institutions, and graduate school. Numerous opportunities exist for students to gain experience through research and internships, including professional and career mentoring and involvement with professional societies to further their studies, practical experience, and career potential. Required natural science courses include general biology, vertebrate biology, botany, calculus, and statistics, while required courses in the major focus on wildlife ecology and conservation, principles of wildlife management, design of wildlife projects, conservation biology, fishery science, and wildlife data collection and analysis.

Required courses in the concentrations, as well as elective courses, explore specific areas of fish, wildlife, and conservation biology. A summer field course at CSU's mountain campus is required and provides students with hands-on learning about natural resource ecology and measurements. Additional hands-on opportunities exist in courses and study abroad programs. Along with a strong science foundation, problem solving, communication skills and outreach, are important to resolve difficult issues faced by today's natural resource professionals.

Learning Outcomes

Students will:

- Demonstrate a mastery of ecological concepts and fundamental principles and techniques to manage and conserve fish and wildlife populations, and how they apply to current natural resource management issues
- Demonstrate mathematical, statistical, and study design knowledge and skills required for careers in fishery, wildlife, and conservation biology
- Become effective in oral and written communication about issues related to the environment and natural resources, including as members of multi-disciplinary teams
- Learn approaches to solving complex natural resource management issues, including planning, organizing, creating, and presenting group projects

Potential Occupations

Federal and state agencies that manage natural resources offer most employment opportunities in fish, wildlife, and conservation biology. Key federal agencies include the U.S. Forest Service, Fish and Wildlife

Service, Bureau of Land Management, Geological Survey, National Park Service, Environmental Protection Agency, Bureau of Reclamation, National Marine Fisheries Service, and state departments of wildlife and natural resources. Non-governmental organizations, e.g., The Nature Conservancy, private companies, and environmental consultants also offer excellent opportunities. Participation in internships, independent study/research, volunteer activities, or cooperative education opportunities is highly recommended to enhance practical training and development. Undergraduates who go on for graduate-level studies can attain more advanced positions with the possibility of rising to top professional levels, e.g., researchers and teachers in academic institutions and scientists at natural resource agencies. Our degree is also excellent preparation for veterinary school.

Examples of career opportunities include, but are not limited to: fishery/wildlife/conservation biologist, ecologist, wildlife refuge or natural resource manager, environmental consultant, research scientist, and educator. Within these areas, a variety of specializations are possible including fish, wildlife, and conservation education and interpretation; endangered species; habitat enhancement and restoration; administration; research; law enforcement, fish and wildlife population assessment, statistical analyst, and human-wildlife conflicts.

Concentrations

- Conservation Biology Concentration (<http://catalog.colostate.edu/general-catalog/colleges/natural-resources/fish-wildlife-conservation-biology/fish-wildlife-conservation-biology-major-conservation-concentration/>)
- Fisheries and Aquatic Sciences Concentration (<http://catalog.colostate.edu/general-catalog/colleges/natural-resources/fish-wildlife-conservation-biology/fish-wildlife-conservation-biology-major-fisheries-aquatic-sciences-concentration/>)
- Wildlife Biology Concentration (<http://catalog.colostate.edu/general-catalog/colleges/natural-resources/fish-wildlife-conservation-biology/fish-wildlife-conservation-biology-major-wildlife-concentration/>)