Zoology

Zoology's marine science and herpetological research programs are recognized to be among the finest in the country.

To support their research, OSU's zoology faculty annually receive about $8-10 million from the National Science Foundation, the National Institutes of Health, and others.

OSU's Department of Zoology will be the home of the Oregon State Museum of Natural History & Evolution, a new center for scientific research, teaching and public outreach.

Highlighting animal biology. The Department of Zoology promotes discovery and learning about animals at all levels of biological organization: molecular, cellular, organismal, population, community, and ecosystem. Recognizing the essential roles of science and animal biology in the lives of citizens today and tomorrow, we emphasize biological literacy in our teaching and outreach programs.

Research programs include:

Near-shore marine biology and ecology

Paleobiology, including dinosaur physiology

Chemical ecology

Animal behavior

Reproductive physiology

Amphibian, reptile and insect systematics

Disease ecology

Mechanisms of cell division

Functional animal morphology

The integrative focus of the zoology department reflects the importance of strong disciplinary and interdisciplinary approaches in research and teaching. We strive for excellence and synergy in our coordinated programs of teaching, research, and service.

Research

With excellent faculty and first-rate laboratories, the zoology department has extensive research capabilities, ranging from ecology to organismal and cellular biology. We also collaborate with many OSU departments, including botany & plant pathology, biochemistry, computer science, pharmacy, the Linus Pauling Institute, and centers for Genome Research and Biocomputing (CGRB) and Molecular Biology (MCB). Virtually all zoology faculty members are leaders in their fields, and are regularly featured in peer-reviewed journals and mainstream media, including articles in *Nature*, *Science*, the *New York Times* and *The Oregonian*.

Special Progams

Partnership for Interdisciplinary Studies of Coastal Oceans (PISCO) is a large-scale, marine science research program that focuses on understanding the near shore ecosystems of the U.S. West Coast.

Representing a collaboration of scientists from four universities (Bruce Menge and Jane Lubchenco at OSU, George Somero and Mark Denny at Stanford University's Hopkins Marine Station, Pete Raimondi and Mark Carr at UC Santa Cruz, and Steve Gaines and Bob Warner at UC Santa Barbara), it is funded by $24.5 million in grants from the Lucile and David Packard Foundation and the Gordon and Betty Moore Foundation.

This interdisciplinary program ranges from long-term monitoring of ecological and oceanographic processes at dozens of coastal sites (ranging from Washington to southern California) to experimental work in the lab and field to explore how individual organisms, populations, communities and ecosystems are affected by environmental change. PISCO's findings are useful to ocean management and conservation efforts and are shared through our public outreach and student training programs.

OSU is ranked 11th in the nation in total scholarly activity in the broad fields of ecology, evolution and behavior programs. The ranking put OSU on a par with Stanford University and the University of Washington, and ahead of Yale University and Princeton University.

—Bulletin of the Ecological Society of America 80(4):250-256

Zoology

OSU is the only institution in Oregon to offer a bachelor's degree in zoology, a field of knowledge essential to medicine and agriculture, to sustainability and conservation as well as to the environmental sciences.

OSU's programs in forestry, oceanography, nuclear engineering, public health, biochemistry, food science, zoology, and ecology are among the top-ranked nationally.

Zoology's state-of-the art anatomy and physiology laboratory provides hand-on, experiential learning for over 600 students annually who are undergraduate majors in OSU's preprofessional programs.

Education

The zoology department offers an undergraduate program leading to a bachelor of science and graduate programs leading to both master's and Ph.D. degrees. The department teaches more than 15,000 credit hours to both zoology majors and non-majors. Typically, 190-200 undergraduate zoology majors and 35 Ph.D. students are enrolled.

Electives for undergraduate courses are grouped in three areas: cellular and developmental biology, organism and physiology biology, and ecology, population biology and behavior. In cellular and developmental biology, research is carried out on such topics as cell communication, developmental genetics of fruit flies, and the immune systems of fishes and snails. Organism biologists in the department study the anatomy, physiology, and behavior of a variety of animals, including salamanders, frogs, and various marine organisms. In the third area, population biology, topics studied range from marine intertidal communities to sibling relationships in tadpoles to coral reef fish communities.

Undergraduate students can simultaneously meet requirements for the bachelor's degree in zoology and for entry to a professional school such as medicine, dentistry, optometry, or veterinary medicine or for entry into graduate training.

Research programs for graduate students include the study of comparative immunobiology and pathology; cellular interactions and tissue differentiation; neuronal development; cytogenetics; behavioral biology at the neurophysiological, endocrinological, and ecological levels; environmental physiology; vertebrate functional morphology; reproductive biology; natural products chemistry; marine biology; physiologic and biochemical adaptation; genetics and evolution of populations; experimental marine, terrestrial, and freshwater population and community ecology; biodiversity and conservation biology.

Exceptional Facilities

OSU's zoology students have access to controlled environment rooms, large marine and freshwater aquaria, well-equipped laboratories, the varied fauna, flora, and ecosystems of Oregon, and to the Malheur Field Station in southeastern Oregon, the Hatfield Marine Science Center in Newport; the H.J. Andrews Experimental Forest, and in natural areas of the Cascade Mountains and Willamette Valley. Students also have entered into cooperative research programs in other departments, with the Oregon Health and Science University in Portland, and with the Primate Research Center in Beaverton.

Outreach

The Life Sciences Club is an active group that organizes extracurricular activities and field trips for students.

Faculty

The Department of Zoology has 24 faculty, including:

1 member, National Academy of Science

5 OSU Distinguished Professors

1 member, Royal Society of London

4 fellows, American Association for the Advancement of Science (AAAS)

4 fellows, Ecological Society of America

4 Fulbright fellows

1 member, National Science Board

for more information, please contact:
Department of Zoology
College of Science
Oregon State University
3029 Cordley Hall
Corvallis, Oregon 97331
phone: 541 737-3705
fax: 541 737-0501

email: rubenj@science.oregonstate.edu
http://zoology.science.oregonstate.edu/

OSU Oregon State University