GRADUATE PROGRAM IN

THE UNIVERSITY OF MAINE

BIOLOGICAL SCIENCES

Program of Study

Doctor of Philosophy
Biological Sciences
Ecology & Environmental Science
Plant Science
Zoology

Master of Science
Botany and Plant Pathology
Ecology & Environmental Science
Entomology
Zoology

Research Specializations

Independent research under the direction of a faculty advisor is a component of all of the graduate programs in Biological Sciences, at both M.S. and Ph.D. levels. The expertise of the faculty covers a broad spectrum, ranging from molecular and cell biology, through system- and organism-level biology, to ecology; and it applies to a diversity of organisms from protists and lower plants and invertebrate animals through vascular plants and vertebrates. By choosing a faculty advisor, graduate applicants can associate themselves with any of a number of research specializations, including animal behavior and behavioral ecology, applied biology, botany, developmental and cell biology, ecology and environmental biology, entomology, fisheries biology, freshwater biology, genetics and molecular biology, plant pathology, physiology and physiological ecology, systematics and evolution (see faculty listing on reverse side).

Financial Aid

All applicants are automatically considered for teaching or research assistantships. Many students are supported by research grants to individual faculty members; interested students should contact faculty members directly for further information on grant-supported assistantships.

Applying

Applicants are encouraged to identify an area of research interest and a potential advisor at the time of application; they should feel free to contact members of the faculty to discuss possible research projects even before submission of the application. The Department admits students for matriculation at the beginning of fall and spring semesters; in the case of certain research assistantships, matriculation may begin in summer. Applications should be completed by January 15 in order to be considered for all types of assistantships commencing in the following fall semester.

Correspondence

The Graduate School
5755 Stodder Hall Room 42
University of Maine
Orono, ME 04469-5755
graduate@maine.edu
207-581-3291

The Department of Biological Sciences
5751 Murray Hall
University of Maine
Orono, ME 04469-5751
umbiosci@maine.edu
207-581-2540

GRADUATE FACULTY

Eleanor Groden, Ph.D. (Michigan State University, 1989), Professor and Chair. Insect ecology, insect pathology, biological control.
George L. Jacobson, Jr., Ph.D. (University of Minnesota, 1975), Professor and Associate Chair. Plant ecology and paleoecology; long-term history and dynamics of vegetation and climate in the western hemisphere.
A. Randall Alford, Ph.D. (Louisiana State, 1980), Professor. Insect physiology, behavior, and chemical ecology.
Andrei Alyokhin, Ph.D. (University of Massachusetts, Amherst, 1999), Assistant Professor. Insect behavior and ecology, integrated pest management, biological control.
Seanna L. Annis, Ph.D. (University of Guelph, 1995), Assistant Professor. Physiological, molecular, and field studies of fungal pathogens of plants and animals.
Christopher S. Campbell, Ph.D. (Harvard, 1980), Professor. Plant systematics, molecular phylogeny, reproductive biology, and quantitative morphology.
Christopher S. Cronan, Ph.D. (Dartmouth College, 1978), Professor. Biogeochemistry; plant ecology; ecosystem ecology.
Benildo G. de los Reyes, Ph.D. (Oklahoma State Univeristy, 1999), Assistant Professor. Plant molecular genetics and functional genomics; molecular basis of plant responses to the environment.
Harold B. Dowse, Ph.D. (New York University, 1971), Professor. Genetic and molecular analysis of cardiac pacemakers, biology of oscillating systems, mathematical analysis and modeling of biological systems.
Francis A. Drummond, Ph.D. (University of Rhode Island, 1986), Professor. Insect quantitative ecology, pest management, population dynamics, simulation modeling, biostatistics, and pollination ecology.
Adria Elskus, Ph.D. (Boston University, 1992), Associate Professor. Aquatic toxicology, biomarkers of exposure and effect, development of chemical tolerance, fish health.
William E. Glanz, Ph.D. (University of California, Berkeley, 1977), Associate Professor. Community and foraging ecology and social behavior of mammals and birds; evolution and biogeography of North and South American rodents.
Clarissa Henry, Ph.D. (University of Washington, 2000), Assistant Professor. Cell and molecular biology of segmentation and muscle development in Zebrafish.
Rebecca Holberton, Ph.D. (State University of New York, Albany, 1991), Associate Professor. The endocrine basis of bird ecology and behavior; reproductive biology, bird migration and conservation.
Susan J. Hunter, Ph.D. (Pennsylvania State University, 1980), Associate Professor. Cell biology and physiology of bone cells and developing extracellular matrix; role of growth factors in skeletal physiology.
Jody J. Jellison, Ph.D. (Oregon State University, 1983), Professor. Biochemical characterization of wood decay; metal metabolism in fungi.
Michael T. Kinnison, Ph.D. (University of Washington, 1999), Assistant Professor. Microevolution, aquatic ecology, population and conservation genetics, fish ecology (including salmonids).
Joyce E. Longcore, Ph.D. (Univeristy of Maine, 1991), Research Associate Professor. Chytridio-mycete systematics and phylogeny; chytrid pathogen of amphibians.
John M. Ringo, Ph.D. (University of California, Davis, 1973), Professor. Genetic analysis of behavior; cardiac rhythms in Drosophila; animal signaling and reproductive isolation; evolution of behavior.
Christa R. Schwintzer, Ph.D. (University of Michigan, 1969), Professor. Physiological ecology of plants with emphasis on nitrogen fixation and wetland plants.
Kevin Simon, Ph.D. (Virginia Tech, 2000), Stream ecology with emphasis on interactions between communities and ecosystem function.
Stylianos M. Tavantzis, Ph.D. (Pennsylvania State University, 1980), Professor. Molecular genetics of virulence in plant pathogenic fungi; biological control of fungal plant pathogens.
John D. Tjepkema, Ph.D. (University of Michigan, 1971), Professor. Whole-plant physiology; physiology and ecology of nitrogen fixation.
Mary S. Tyler, Ph.D. (University of North Carolina, 1975), Professor. Developmental biology; organogenesis in vertebrates; morphogenesis in Drosophila; educational multimedia materials.
Seth Tyler, Ph.D. (University of North Carolina, 1975), Professor. Invertebrate biology; electron and fluorescence microscopy; phylogeny of lower invertebrates, especially meiofauna.
Robert L. Vadas, Ph.D. (University of Washington, 1968), Professor. Marine and algal ecology; recruitment; plant-herbivore and predator-prey interactions.
Katherine E. Webster, Ph.D. (University of Wisconsin-Madison, 1998), Assistant Professor. Ecology of lakes and management of aquatic ecosystems.
Stephen A. Woods, Ph.D. (University of Massachusetts, 1989), Associate Professor. Forest entomology; insect ecology, and biodiversity.