FIELD NATURALIST (PLANT BIOLOGY)

http://www.uvm.edu/~plantbio/fieldnaturalistms/}

OVERVIEW

The Field Naturalist Graduate Program, housed within the Plant Biology Department, provides professional-level, hands-on training in field science, critical and integrative thinking, environmental problem-solving, and effective communication. Field Naturalists learn how to dissect landscapes and human influences into their component parts, make sense of the parts, piece the parts together into an integrative whole, and then “tell the story” in ways that engage any audience.

DEGREES

- Field Naturalist (Plant Biology) M.S. (http://catalogue.uvm.edu/graduate/plantbio/fieldnaturalistms/)

FACULTY

Barrington, David Stanley; Professor, Department of Plant Biology; PhD, Harvard University
Hughes, Jeffrey Winston; Associate Professor, Department of Plant Biology; PhD, Cornell University
Paris, Catherine Ann; Senior Lecturer, Department of Plant Biology; PhD, University of Vermont
Poleman, Walter Mallery; Senior Lecturer, Rubenstein School of Environment and Natural Resources; MS, University of Vermont

Courses

PBIO 209. Biology of Ferns. 3 Credits.
Evolutionary biology; a survey of New England ferns and discussion of their phylogenetic relationships; current research emphasizing morphological, biogeographical, genetic, and phytochemical aspects of speciation. Prerequisite: PBIO 108 or PBIO 109 (BCOR 101 recommended). Alternate years.

PBIO 223. Fundamentals of Field Science. 3 Credits.
Pattern and process in natural systems. Weekly discussion of unifying questions in science. Field labs teach sampling and analysis of vegetation, soils, and animals. Prerequisite: Graduate standing or several university courses in earth sciences, life sciences, and chemistry.

PBIO 232. Plant Systematics in Costa Rica. 2 Credits.
Intensive field trip to Costa Rica with the goal of comparing the diversity of flowering plants and ferns in four distinct tropical American forests. Emphasis on field recognition of flowering-plant families, with an appreciation of the relationship between the Costa Rican people and their landscape. Prerequisites: PBIO 109; Instructor permission.

PBIO 234. Professional Writing AdvTopics. 1 Credit.
Writing workshop that explores essay and report writing, as published in both popular and professional journals that examine the natural world and its resources. Prerequisite: Graduate Standing. Cross-listed with: NR 334.
PBIO 369. Field Botany for NR Profession. 3 Credits.
Identification of flowering plants and ferns; survey of prominent Vermont plant families; natural communities, ecological determinants of plant distribution, especially soils; preparation of herbarium specimens. Prerequisite: Graduate Standing; Instructor Permission.

PBIO 391. Master’s Thesis Research. 1-10 Credits.
Credit as arranged.

PBIO 392. Master’s Project Research. 0-3 Credits.
Credit as arranged.

PBIO 394. Data Modeling for Envir Scienc. 3 Credits.
Introduction to data modeling using R statistical computing language, emphasizing likelihood, information theoretic, and Bayesian approaches to inference. Course focuses on the R language as a tool for data modeling. Class time divided between lectures that introduce statistical concepts and R language constructs and labs that stress applications. Successful participants will have some statistical background. Prerequisite: A course in introductory statistics.

PBIO 395. Graduate Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.

PBIO 491. Doctoral Dissertation Research. 1-15 Credits.
Credit as arranged.

PBIO 495. Doctoral Special Topics. 1-18 Credits.
See Schedule of Courses for specific titles.