Ph.D. Assistantship in Ecology and Environmental Sciences, University of Maine

Identification, characterization, and threat assessment of groundwater dependent ecosystems in the northeastern United States with an integrated GIS- and field survey-based approach

A Ph.D. assistantship (including a stipend, tuition, health insurance) is available at the University of Maine in the Ecology and Environmental Sciences program beginning September 2018 to use spatial analysis tools and field assessment to identify and characterize areas likely to contain groundwater dependent ecosystems (GDEs) in the northeastern United States. Spatial model development and validation will include field-based assessment of selected areas predicted to contain high quality GDEs or GDE clusters, to better understand their landscape context and watershed-level threats, characterize hydrologic conditions, and describe the species they support. A subset of sites will be selected for intensive biological survey, mapping with remote and handheld cameras, and groundwater monitoring. The study’s geographic area spans Virginia to Maine, with initial focus on current conservation lands and their surrounding landscapes, and subsequent focus on areas of ecological similarity, adjacent watersheds, and regional surficial aquifer systems.

Prior experience with geographic information systems, spatial and statistical analysis, and fieldwork is required. We seeks applicants that demonstrate a sincere interest in combining modeling and field surveys to learn about the hydrology and ecology of groundwater dependent systems. Applicants must have relevant coursework and research experience in ecology, environmental and earth sciences, spatial ecology, and statistics. The selected student will be supported by a research assistantship for 3 years and teaching assistantship for 2 semesters, with anticipated total program duration of 4 years. Stipend level (minimum $22,000 annually) will be based on relevant experience and coursework. Please send pre-applications of a cover letter expressing interest in the position, CV with references, and unofficial copies of transcripts to Drs. Cynthia Loftin (Cynthia.Loftin@maine.edu) and Andrew Reeve (asreeve@maine.edu), with subject line Groundwater Ph.D. Assistantship. Review of applications will begin immediately.