



The **UNIVERSITY of VERMONT**
THE RUBENSTEIN SCHOOL
OF ENVIRONMENT AND NATURAL RESOURCES

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Research Assistantship for a Master's Degree in Remote Sensing of Forest Health Trends

RESEARCH PROJECT

Using remote sensing to quantify and understand trends in northeastern forest health over the past 25 years

This Northern States Research Cooperative supported Research Assistantship is to assess forest cover and health trends over the last 25 years for a region stretching from southern Maine to northern New York State. Multi-temporal Landsat imagery will be used to predict forest health on a landscape scale. These multi-temporal products can then be used to examine long term trends in forest health and classify forested areas as to their relative sensitivity to environmental stressors. These maps will provide the basis for a quantitative examination of land use change, forest sensitivity, and forest decline trends over time. Gaining a better quantitative understanding of regional scale forest health issues will assist land managers and policy makers in decision making when faced by current or future threats to our forest's health.

GRADUATE STUDY AT THE RUBENSTEIN SCHOOL

The Rubenstein School is a multi-disciplinary academic unit that strives to integrate disparate disciplines to create knowledge and develop solutions to a broad array of environmental issues. Faculty expertise includes forestry, wildlife biology, recreation management, environmental philosophy, sociology, policy, planning, economics, conflict resolution, and environmental sciences. There are multiple faculty actively researching in remote sensing and geospatial sciences. With over 100 graduate students currently enrolled, the School is a vibrant place for learning about and conducting research on many of the pressing issues of our times.

OPPORTUNITIES

The selected Research Assistant will collaborate and be taught by internationally-renowned faculty at UVM and will be part of an academically stimulating environment. Because this project is a collaboration with the US Forest Service and the University of New Hampshire Complex Systems Research Center, the Research Assistant will have access to a multi- and interdisciplinary faculty to both build their Studies Committee and oversee the completion of their thesis research.

ELIGIBILITY

To be eligible for the assistantship, candidates should be citizens or nationals of the United States as determined in accordance with Federal Law and have a strong interest in pursuing a career in forest and ecosystem health. Candidates should not have completed two semesters or equivalent hours of full-time graduate study or been previously enrolled in an academic program at the master's degree level. Previous coursework or experience in Remote Sensing Digital Image Processing and / or Geographic Information Systems is a plus.

FELLOWSHIP BENEFITS

The fellowship will provide:

- 1) a two-year stipend of \$46,300 (\$23,150/year)
- 2) funding for hourly summer help and travel to scientific meetings.

HOW TO APPLY FOR FALL 2009 ACADEMIC YEAR

- 1) Completed applications must be submitted by 1 February 2009, including applications materials submitted to the Graduate College (see: <http://www.uvm.edu/~gradcoll/appinstructions.html>) and several short essays submitted to the Graduate Office of the Rubenstein School of Environment and Natural Resources.
- 2) Please contact Carolyn Goodwin Kueffner (cgoodwin@uvm.edu, 802-656-2511) for instructions for these personal essays and for any other questions about the Fellowship.