

RELEASE

COLLEGE OF THE ATLANTIC RECEIVES THREE GRANTS FOR BOTANICAL WORK

National Park Service, Maine Space Grant, L.L. Bean offer funding for assessment of area plants, ecology
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BAR HARBOR — College of the Atlantic has received three separate grants to continue botanical work in Hancock County. Together with Peter Vaux and Sarah Nelson of the George Mitchell Center of the University of Maine and Glen Mittelhauser '89 of the Humboldt Center, among others, COA botany professor Nishanta Rajakaruna obtained funding to conduct a major, year-long assessment of the natural resources and watershed conditions in and adjacent to Acadia National Park. Funds come from the National Park Service to the George Mitchell Center. An associated grant from L.L. Bean will assist research into the park's rarest plants this summer.

Finally, funding received from the Maine Space Grant Consortium will fund the ongoing research by COA senior Tanner Harris of Elizabeth, CO, along with Rajakaruna and COA adjunct faculty member Fred Olday on the lichen-soil relations of the Callahan Mine, a superfund site in Brooksville contaminated with copper and zinc.

The National Park Service funding of nearly \$50,000 will support student-related research activities of the principal investigators and provide a full-time paid research assistantship for a COA student. Under this comprehensive "Assessment of Natural Resources and Watershed Conditions In and Adjacent to Acadia National Park," COA first-year student Jose Perez Orozco of Guatemala will research data bases and libraries to find out what already is known about the lands inside and adjacent to the park and ultimately determine the impact of such major threats as ozone pollution, external development, extensive visitation, invasive species and water contamination.

"Understanding the current conditions of Acadia's natural resources, including current and imminent threats to terrestrial and aquatic resources, is critical to better inform the management on how best to take care of this wonderful national park," says Rajakaruna.

More than 25 ecological system types within and around the park have already been identified. While some of the research will be numerical, such as the percent of native fish species in ponds; other aspects will be qualitative. The grant also covers a review of natural resource management strategies and ongoing monitoring programs. Additionally, the grant will identify specific areas that need further research.

Orozco will be supervised by Rajakaruna, Vaux and Nelson. Gordon Longworth of the Geographic Information Systems Laboratory at COA will oversee Orozco's GIS work.

The L.L. Bean Acadia Research Fellowship will provide \$5000 to Rajakaruna to conduct ecological and physiological studies on the park's rare plants. After studying the specific needs of the rarest of Acadia's plants, the park hopes to better monitor and thus conserve these plants.

There are many reasons why a plant might become rare, says Rajakaruna, who was a 1994 graduate of COA. "To understand why a plant is rare one must explore current conditions under which a plant is

found as well as try to understand the history of that plant. Only then can one try to figure out how best to preserve rare species." The grant, one of five chosen for funding from 24 submitted, will provide partial support to Harris, Peter Pavicevic '07 and other students with botanical interests to become involved in field research.

Maine Space Grant Consortium with funding from NASA continues to support research of Rajakaruna and his botany students on plant ecology and physiology of extreme habitats. A \$5000 grant will allow Harris to continue his research this summer on the lichen-soil relations of a copper and zinc contaminated soils. Lichens have often been used as indicators of environmental pollution. Harris' work, including ongoing research at COA, will also open avenues to consider the use of plants to remediate the toxic mine spoils in and around Hancock County.