

North Atlantic Region

The Appalachian Mountain Club has been selected to conduct a five-year study of visitor use and impact patterns on Isle au Haut in Acadia NP. The NPS is required by statute to establish visitor carrying capacities for Isle au Haut, which will assure negligible adverse impacts on the island's natural resources, conserve the character of the island's small village, and protect the quality of the park visitor's experience. AMC will determine the amount and pattern of visitor use on Isle au Haut and will measure the rate at which any degradation of natural resources is occurring. They will then determine the level of visitation above which the ecosystems on the island would be unable to return to a condition within their natural range of variation during the next visitor season. The level of visitation thus identified will be used as the carrying capacity for Isle au Haut.



SUNY/Syracuse has begun a five-year study on the interactions between white-tailed deer and vegetation within Saratoga NHP. The principal thrust of this research will be to determine impacts of deer on vegetation succession in areas of the park that now are old fields or shrubland, but which were forests in 1777, and to suggest measures which might be con-

sidered to mitigate these impacts.

In addition, a thorough understanding of the deer herd in and around the park will be obtained by examining deer food habits and the habitat preferences, behavior patterns, daily and seasonal movements, and population dynamics. These data will enable the park to manage the local deer herd, in cooperation with the State of New York, and should result in reduction in the damage caused by deer on neighboring farms and orchards.



Steve Maddock has joined the NAR Office of Scientific Studies and is responsible for deer studies, visitor impact studies, and the National Natural Landmark program within the region. Steve has spent the past eight years performing environmental compliance and planning duties throughout the Region and previously worked for the US Forest Service as Project Leader of the Cooperative Outdoor Recreation Research Unit at North Carolina State University. His Ph.D. in conservation and resources management is from the University of Michigan. Maddock has held positions with the Soil Conservation Service, USDA; School of Forestry, North Carolina State University; and the Appalachian Mountain Club, Boston, MA.



A Cooperative Agreement was signed this year with the University of Massachusetts for development of a general research program related to vegetation and fire ecology and fire-wildlife interactions. Six projects were initiated under this agreement in FY 84. These include: (1) an investigation of the use of fire to maintain historic, open fields of Saratoga National Historical Park; (2) an investigation of the effects of mowing and burning on the reproduction of huckleberry (*Gaylussacia boccata*); (3) a white-tailed deer management study at Morristown National Historic Site; (4) a white-tailed deer management study at Fire Island National Seashore; (5) the development of a fire management plan at Acadia NP; and (6) a "pulse study" at Roosevelt-Vanderbilt NHS.



Peregrine falcons were reintroduced to Acadia NP this year under a Cooperative Agreement with the College of the Atlantic. This program will continue for at least the next four years.



Jim Allen has been involved with numerous studies to define causes and feasible managerial solutions to regional coastal problems of both natural and man-induced beach/dune erosion, inlet dynamics, bar-beach interaction, ORV impacts, nearshore sediment transport, and shoreline changes at CACO, FIIS, and GATE. Through the Barrier Island Significant Resource Problems, Dr. Allen's "geographic" training also has been utilized in "bi-regional" chores at San Juan NHS (El Morro), Canaveral NS, DeSoto NM, Gulf Islands NS, a MAB evaluation, and at Assateague NS.