

Patuxent Wildlife Research Center

RHODE ISLAND - HOME TO USGS COASTAL RESEARCH FIELD STATION

Vital Statistics

- Headquartered at the University of Rhode Island; established in 1989
- Incorporates cooperative national parks studies unit
- Research focus on coastal ecosystems
- Personnel includes 5 research scientists
- Total research budget: \$400,000 (1997); \$600,000 (1998)
- University of Rhode Island host to new Cooperative Ecosystem Studies Unit with focus on northeast coastal issues
- Collaboration with world-renowned coastal and marine programs

Benefits to Rhode Island

- Collaboration with RI Department of Environmental Management and the Rhode Island Natural History Survey
- Technical assistance on mosquito control, Lyme disease, and salt marsh restoration
- Support for students, faculty and staff at University of Rhode Island
- Conduct research on RI national wildlife refuges

Partnership with University of Rhode Island

- Serve as affiliated or adjunct faculty
- Graduate student funding and direction
- Departmental and University committees
- Sponsor class field trips to national parks
- Graduate teaching in applied coastal ecology, entomology

Examples of Ongoing Research Initiatives

Coastal Ecology

- Ecology of Lyme disease
- Impacts of nutrient enrichments on estuaries
- Assess beach invertebrate fauna in relation to off-road vehicle traffic
- Assess declines in neotropical migrant birds at Fire Island National Seashore
- Assess sea level rise, habitat change, and waterbird utilization at coastal parks and refuges
- Ecological implication of shellfish aquaculture in Cape Cod National Seashore and vicinity

Coastal Processes

- Geomorphic analysis of barrier island dynamics in northeastern National Seashores
- Numerical modeling of estuarine circulation and barrier island breach dynamics at Fire Island and Cape Cod National Seashores

Freshwater Wetland Ecology

- Ecological effects of municipal groundwater withdrawal on wetlands of Cape Cod National Seashore
- Kettle pond macrophytes at Cape Cod National Seashore: species composition and mapping
- Habitat mapping at Northeast Creek, Acadia National Park

Long-Term Ecosystem Monitoring

- Design and test a long-term coastal monitoring program at Cape Cod National Seashore with application to other coastal units of the National Park Service.

Habitat Restoration

- Evaluate and monitor salt marsh restoration at Rachel Carson and Sachuest Point National Wildlife Refuges and Cape Cod National Seashore
- Coordinate a US-Canadian initiative on salt marsh restoration in Gulf of Maine region

National and Regional-level Technical Assistance

- Water quality and wetland protection
- Piping Plover management
- Storms and shoreline change problems
- Vector-borne diseases
- Natural resource monitoring
- Habitat restoration