

1995 PARK SCIENCE FEATURE ARTICLES IN SUMMARY

BY GENERAL SUBJECT

RESOURCE RESTORATION

- Several agencies cooperated in an ambitious project to reconstruct the long-disturbed, Washington, D.C. Kenilworth Marsh **(1)**:1,16-18.
- Planning that included site suitability assessments and hydrologic and vegetation monitoring will be key to wetland restoration in Indiana Dunes National Lakeshore **(1)**:23.
- Biologists introduced captive-bred ferrets in Badlands National Park as part of the National Black-footed Ferret Recovery Plan **(2)**:1,16-18.
- Larvae of the threatened northeastern beach tiger beetle were translocated from the Chesapeake Bay to the Sandy Hook unit of Gateway National Recreation Area **(3)**:1,16-17 (see illustration, far right).
- An experiment compared three potential methods for restoring native vegetation to razed residential sites within Indiana Dunes National Lakeshore and their costs **(4)**:18-20.
- Managers and biologists prepared for summer and winter releases of black bears within Big South Fork National River and Recreation Area **(4)**:24-26.
- Following a wildfire, Santa Monica Mountains National Recreation Area and its neighbors came together to revegetate part of a 32-acre site using native plants **(4)**:28-30.

POPULATION ECOLOGY

- A multiyear landscape ecology study of nesting loons at Isle Royale National Park began to answer some basic population ecology questions of the wilderness bird **(1)**:20-21.
- Satellite radiotelemetry used with falcons and eagles from Alaska and Arizona-Utah parks revealed astonishing details about their sometimes intercontinental migrations **(2)**:20-24.
- Tagging studies suggested that Hawksbill turtles migrate long distances between their Buck Island Reef National Monument nesting grounds and wintering areas elsewhere in the Caribbean **(2)**:25.

GENERAL WILDLIFE

- Wolves are rapidly returning to the Michigan Upper Peninsula and Pictured Rocks National Lakeshore where park staff are assisting regional educators and other managers in tracking the recovery **(4)**:15, 27.
- Park managers and interpreters gained useful information on the behavioral ecology of the striped skunk at Great Smoky Mountains National Park **(4)**:22-23 (top photo).
- Resource managers at Yosemite, Sequoia, and Kings Canyon National Parks reported reductions in bear-human conflicts over the last 15 years **(4)**:31.

INVENTORIES

- Pecos National Monument mammal surveys provided the data needed to link the 1993 hantavirus epidemic with a rodent population explosion in the Southwest **(2)**:12-13.
- Spruce grouse at Acadia National Park were studied and may be making a comeback, but fragmented habitat on Mount Desert Island will complicate managing for species success **(3)**:10-11 (middle photo).

GEOLOGIC RESOURCES

- Polyurethane foam proved to be a portable, affordable, and easily managed material for low-impact sealing of remote and potentially dangerous abandoned mines **(1)**:14-15,28.
- Visitor impacts ranging from inadvertent trail widening to illegal collecting of pocket-sized volcanic bombs lead resource managers at Craters of the Moon National Monument to initiate a photography-based geologic features monitoring program **(1)**:22.
- Geologists and atmospheric scientists measured the ratio of cosmogenic to atmospheric hydrogen in surface basalts at Capulin Volcano National Monument suggesting that the mountain is much older than previously thought **(2)**:10-11.
- After 60 years of incorrect interpretation, paleontologists set the record straight on a late Triassic dinosaur track at Gettysburg National Military Park **(2)**:9.

WATER RESOURCES

- The U.S. Geological Survey NAWQA program provided a likely means for Morristown National Historical Park to establish a park water quality sampling site for monitoring long-term water quality trends **(1)**:28.
- A review of federal wetlands regulations indicated that while they can slow park construction projects, they also minimize park facilities impacts and provide protection from external threats **(2)**:14-15.

MARINE RESOURCES

- Unpaved road erosion and subsequent marine resource sedimentation in Virgin Islands National Park are shown to be linked, indicating the need for immediate corrective action **(2)**:26-28.

PARTNERSHIPS

- The NBS science centers are a potential source for park technical assistance, but networking is a key to tapping this resource (2):29-31. The NBS Midcontinent Ecological Science Center focuses on ecological research and technologies development to improve biological systems understanding and management in the western interior United States (3):12-14.
- Twenty parks with resource management inventory and monitoring project needs received a total of \$1,200,000 from the Canon Corporation to get the work accomplished (4):12.
- The National Biological Service requested widespread input in documenting the history of land use in North America, potentially resulting in a tool that would allow land managers to project likely outcomes of future land perturbations based on historical ones (4):21.
- Students from the Buffalo National River watershed learned water quality analysis techniques and spoke out on the value of the regional resource (3):15,17.

GENERAL RESOURCE MANAGEMENT

- A resource manager gained inspiration from a series of natural events (a wildfire and both a bald eagle nest and a rare lily population discovery) that occurred in close proximity with one another over 4 months in Isle Royale National Park (1):13.

RESOURCE MGMT. ADMINISTRATION

- The Assistant Secretary of the Interior convened an ad hoc task force to recommend measures to advance the natural resource discipline under NPS restructuring (2):8,15.
- Grand Canyon National Park reorganized its science and resource management functions in a new science center that accentuated partnerships (3):23.
- Colorado Plateau parks considered NPS restructuring and the resulting clusters of ecologically similar parks advantageous in addressing water resource issues related to Glen Canyon Dam (4):14,27.

FIRE MANAGEMENT

- A landscape-scale fire history study of the Jemez Mountains near Bandelier National Monument revealed frequent fires until the 1890s and suggested the need to allow fire management programs to proceed with prescribed burns today (3):18-19.
- Glacier National Park carefully used its updated fire management plan to allow several prescribed natural fires to run their courses (3):18-19.

DATA MANAGEMENT

- Yellowstone National Park unveiled a computerized rare animal reporting system that facilitates data analysis and retrieval (2):3.
- A natural resource bibliography of Pacific Northwest park-held references was the first of its kind and served as a model for other subsequently developed park and regional bibliographies (2):19.

GIS

- An ambitious project to develop a regional GIS database will allow national parks to develop interagency partnerships for ecosystem management based on scientific principles (3):24-26.

SOCIAL SCIENCES

- Sociologists described the visitor-employed photography technique of assessing visitor values, applied at Rocky Mountain National Park (1):10-12.

ARCHEOLOGY

- Archeologists documenting cultural resources at a Yellowstone National Park grizzly bear habitat rehabilitation site teamed with geologists to reconstruct dates of prehistoric human activity (3):28-31.
- When examined under a scanning electron microscope, pictographs at Amistad National Recreation Area revealed an unusual mineral accretion of a biological origin that both protects and obscures the rock art (4):1,16-17 (bottom photo).

MEMORIALS

- Reminding us that field research has risks, a NBS field station leader reported the deaths of Florida cougar researchers Craig Johnson and Scott Shull when their airplane crashed in Big Cypress National Preserve during an aerial survey (1):24.
- Alpine botanist and oldest and longest serving park ranger Carl Sharsmith died at 91 (1):25.

PUBLICATIONS

- Park Ranger Rick McIntyre's *A Society of Wolves* was reviewed as a well-researched, engaging personal account on the biology of the wolf (1):26-27.
- *Saving Nature's Legacy* was characterized as a readable synthesis of the important aspects of the broad discipline of conservation biology (3):27.
- *These American Lands* was cast as both a major resource in and an advocacy organization's (the Wilderness Society) interpretation of the history of federal land management (4):11.
- The Natural Resources Publication Office announced the availability of six new publications (1):27.

