

Western Region

Two recently published Technical Reports are available from NPS/CPSU at U/AZ: Technical Report NPS/WRUA/NRTR-93/01, **Case study of research, monitoring, and management programs associated with the saguaro cactus (*Carnegiea gigantea*) at Saguaro National Monument, Arizona**, by Joseph R. McAuliffe; and Technical Report NPS/WRUA/NRTR-93-09, **Review of the Air Quality Biological Effects Research Program, Saguaro National Monument, Arizona**, by Saguaro National Monument Air Quality Biological Effects Research Review Panel. To obtain copies write to NPS/CPSU/UA, 125 Biological Sciences East, The University of Arizona, Tucson, AZ 85721, or call 602-670-6885.

Water Resources Division

A revision to the NPS Floodplain Guidelines was formally adopted by the National Park Service. The new guideline maintains the policy of protecting life, property, and natural floodplain resource values by avoiding use of floodplains whenever possible. The principal changes in the new guideline are separation of Floodplain and Wetlands guidance and delegation of Statement-of-Findings approval from the Director to the Regional Director.

Additionally, the revised guideline is intended to be more concise and procedurally efficient than the previous guideline.

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WRD staff traveled to Hagerman Fossil Beds National Monument in the Pacific Northwest Region to take part in a meeting of the Erosion Task Force. The Task Force is addressing the problem of continuing landslides that threaten fossil beds at the Monument. There was unanimous agreement that the landslides are caused by a buildup of the water table in perched aquifers caused by leakage from irrigation practices on the bench above the river. An article on this project will appear in a later issue of **Park Science**.

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For a summary of programs, activity areas, and accomplishments involving the Water Resources Division in 1992, the **1992 Annual Report** of the Division is available from Judy Rouse, (303) 225-3502.

Pacific Northwest Region

The Regional headquarters have been moved, as of December 1993, to the following address: 909 First Ave., Seattle, WA 98104-1060; the telephone number has been changed to (206) 220-4798.

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"Distribution and Status of the Fisher (*Martes pennanti*) in Washington" is the title of an article in **Northwestern Naturalist** (73:69-79) by Wildlife Ecologist Doug Houston (at Olympic NP) and Keith B. Aubry, USFS Pacific Northwest Research Station at Olympia, WA. The fisher is a marten-like animal almost twice the size of the marten.

Aubry and Houston determined the current distribution of fishers in Washington using sighting and trapping records and found their occurrence west of the Cascade crest to be strongly skewed toward low to mid-elevations. The animal still occurs in the Cascade Range and Olympic Mountains and in portions of the Okanogan Highlands, but apparently it is very rare. They predict that available habitat for fishers would be enhanced by minimizing forest fragmentation, maintaining high forest-floor structural diversity, preserving snags and live trees with dead tops, and protecting swamps and other forested wetlands.

Alaska Region

The 3rd Glacier Bay Science Symposium, "Creating Glacier Bay's Research Role Within Park, Regional and Global Contexts—a Plan for Action," was held in September 1993 at Glacier Bay NP and Preserve (GLBA) headquarters in Bartlett Cove. The conference was dedicated to the memory of Richard Goldthwait, one of the pioneer glaciologists to work in the bay, and was jointly sponsored by GLBA, Friends of Glacier Bay, and Northern Illinois University.

Dr. Daniel Engstrom of the U/MN chaired the meetings. More than 130 attended, including scientists, members of the local community, and representatives from the new National Biological Survey (NBS). A series of technical sessions covered all aspects of research within the park—geology and glaciology, terrestrial and marine succession, and various species accounts, both botanical and zoological.

Five workshops, with participation from all attendees, brainstormed a vision for the future of science at Glacier Bay. The hoped-for result will be an action plan to help guide the park's science program as the NBS is created and as resource issues continue to face the park. Symposium proceedings will be published in 1994.

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Larry Whalon has been selected as new Chief of Resources for Northwest Alaska parks (Cape Krusenstern National Monument, Kobuk Valley NP, and Noatak National Preserve). Whalon comes from the Bu-

reau of Land Management, where he was a Natural Resource Specialist/Botanist. He holds a master's degree in botany (rare plants) from U/WY.

Mary Beth Moss has been named new Chief of Resource Management for Glacier Bay NP and Preserve. She comes from the USFS's Oregon Dunes NRA, where she was a Resource Management Specialist.

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A panel of park and regional natural resource staff, appointed by the Regional Director, is evaluating the existing AK Region natural resource program and alternatives for its redesign. A professional outside facilitator, who has worked with several natural resource agencies, is guiding the process. The panel is focused on the natural resource functions needed for the region, as opposed to narrow subject areas. The intent is to develop an organization that provides management with strong science and natural resource information for use in their everyday decision making.

Southeast Region

From Bob Hickman, Resource Management Specialist at SERO, comes a 3-page single-spaced listing of the research scientists and employees who are transferring from the SE Region of NPS to the National Biological Survey (NBS). The detailed listing expresses appreciation and recognition for their contributions to the Region and the heartfelt hope for a continuing close relationship with the NPS. "They have been," he says, "and we hope will continue to be 'highlights' in the Southeast Region."

Hickman's submission is evidence of thorough research into the expertise and accomplishments of each of the fond-farewellers. Here, regrettably, we have space only to list their names:

Joseph D. Clark, Stephen Cofer-Shabica, D. Martin Fleming, Gary Y. Hendrix, William F. Loftus, Stephen C. Nodvin, Francis P. Noe, Charles R. Parker, John D. Peine, Michael B. Robblee, William B. Robertson, Jr., Caroline S. Rogers, Theodore R. Simons, James R. Snyder, Michael A. Soukup—all scientists. Also transferring to NBS are Michael Kunze, Janet Rock, Virginia Garrison, Ellen Gorinan, Linda Grober, Holly Belles, and Marlena Hovorka. All will be missed and are wished well.

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A recently published report from the Region is B. R. Johnson's **Mitigation of Visitor Impacts on High Montane Rare Plant Habitat**: An integrated strategy of design,

Regional Highlights

interpretation, and restoration at Craggy Gardens, Blue Ridge Parkway. NPS/SERBLRI/NRTR-93/07.

S. P. Bratton and S. Miller have had accepted for publication a report on **Historic Field Systems and the Structure of Maritime Oak Forests, Cumberland Island National Seashore, GA.**

Mid-Atlantic Region

For several years, Shenandoah NP has undertaken to control exotic brown trout populations in four park streams. More than two decades ago, exotic brown trout were introduced into the lower reaches of these streams outside the park boundary. Under an agreement with the VA Dept. of Game and Inland Fisheries (DGIF), the stocking of non-native trout in waters continuous with park waters was discontinued in 1985. The primary method of control is intensive electroshocking of known brown trout habitat in the park, and removal of browns during low water periods in late summer.

Despite five years of intensive efforts, significant populations persist; their range continues to expand upstream. In 1993, several hybrid brown/brook trout (tiger trout) were captured, indicating a new threat to the genetic purity of the native trout populations of isolated park streams.

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A recovery plan for the Shenandoah salamander is in the final stages of development. No substantial change in park management appears to be required in order to implement this plan. The recovery strategy will be to protect the habitat from human disturbance. Some minor restrictions concerning trail maintenance and fireline construction may be necessary.

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Shenandoah NP's Natural Resources and Science Chief David Haskell attended the final 1933 meeting of Virginia State Science Advisory Board for Air Pollution. Final reports from the committees on Adverse Impacts, Pollution Prevention, and Risk Assessment were presented and discussed. Also discussed were progress of the park's Air Quality Management Plan and the NPS Eastern Region's Air Quality Plan.

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Concerns about excessive white-tailed deer populations in Shenandoah NP's eastern park units continue to be studied. Park resource management staff have been involved in a cooperative effort with the Virginia DGIF to assess deer health throughout the state. Analysis of parasites and fat storage from six park

deer indicated the deer were in good health this summer, despite observations that deer habitat condition has been degrading for the past decade.

The reason for the good current health of these sample deer seems to be the recent increase in understory vegetation in response to gypsy moth-induced tree mortality. This sudden increase in forage may be improving deer health and thus increasing birth rates and the deer population in general. Concerns are that widespread tree mortality in the park could lead to a deer population explosion.

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Colonial National Historical Park, working with VA Institute of Marine Science, has begun a parkwide urban groundwater impact study. Wells have been installed at 21 locations and first quarter samples are being analyzed. Quarterly sampling will include inorganics and organics over a 1-year period. Final results and available data will be analyzed and recommendations made for long-term monitoring and management.

Under a challenge cost share cooperative agreement with NC/State/U, the park is developing automated GIS applications dealing with wildfire analysis and planning, and wildlife observations. Also, fire management unit values-at-risk maps are being finalized using the GIS and integrating cultural, natural, and infrastructure information.

The park has contracted with the VA Division of Natural Heritage to prepare a detailed monitoring plan for the different natural heritage occurrences and habitats identified in a recent survey. This will include both state and federally listed species.

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Michele Batcheller of PA/State/U has been hired as the wildlife biologist responsible for researching and developing the DEIS for white-tailed deer management at Gettysburg National Military Park/Eisenhower National Historic Site. Four chapters already are completed.

Gettysburg NMP/Eisenhower NHS has begun to inventory all its fauna. The research is being conducted by PA/State/U students Greg Keller, Ian Harrell, and Ron Rohrbach under direction of Dr. Richard Yahner, wildlife management professor. Historical fauna research reports, park maps, and wildlife observation records have been investigated and field work began in Spring 1993. The study is expected to take several years. Although no state or federal rare, threatened, or endangered fauna species have been discovered within the parks, some species not previously known to occur here have been documented.