

regional highlights

Western Region

Research Scientists from the Western Region attended a conference on Botanical Research and Management held on the Galapagos Island April 12-19, 1987. Lloyd Loop (Research Scientist, Haleakala), Charles Stone (Research Scientist, Hawaii Volcanoes) and Clifford Smith (Unit Leader, CPSU/University of Hawaii) provided an overview of conservation biology in the Hawaiian Islands and stressed its applicability to resource management problems in the Galapagos. Ninety-five registrants – two-thirds from Ecuador, one fifth from the United States, and the remainder from Europe and New Zealand – attended. Loope presented a paper on "Management and Research Efforts to Protect Vulnerable Endemic Plant Species of Haleakala National Park, Maui, Hawaii"; Stone's paper was "Managing the Invasion of Alien Ungulates and Plants in Hawaii's Natural Areas"; and Smith gave a paper on "Weed Management in Hawaii's National Parks."

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Sequoia, Kings Canyon and Yosemite NPs will implement an expanded policy of protecting giant sequoia from black charring by fires when the program of prescribed burning resumes this summer. This decision followed recommendations in a 45-page report by a 7-member Technical Review Committee chaired by Dr. Norman L. Christensen of Duke's Botany Department. The review committee endorsed the NPS policy of using prescribed burns to restore natural ecosystems in the giant sequoia forests of the three parks, recommended that burn plans be formulated with participation of a person trained in landscape architecture, and that greater emphasis be given to long-term monitoring of fire effects, and emphasized that "ecological values are paramount and are not to be compromised for purely aesthetic reasons."

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The Third California Islands Symposium, sponsored by Southern California Academy of Sciences, Santa Barbara Museum of Natural History, and Santa Barbara Botanical Garden, was held on March 2-6, 1987. Papers on the history, geology, archeology and biology of the Channel Islands and other off-shore islands of California and Baja California were presented to approximately 600 attendees. Proceedings will be published later this year.

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Twenty research scientists and park managers from the Western Region participated in a research and resource management workshop at Channel Islands NP on May 11-15, 1987.

Workshop participants identified, prioritized and prepared proposals for research and resource management activities for Santa Rosa Island, a 54,000-acre area acquired for \$30 million on December 29, 1986.

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Thomas J. Stohlgren, Ecologist at Sequoia and Kings Canyon NPs and Dr. Philip W. Rundel (UCLA) published a paper in *Ecological Modeling* (34:245-257) titled "A Population Model for a Long-lived, Resprouting Chaparral Shrub: *Adenostoma fasciculatum*." Chamise, the most common shrub in

California, may be able to survive more than 23 fires (30-80 years apart). The model also evaluates potential changes in population age structure given different fire-caused mortality rates.

Annual Report No. 10, covering calendar year 1986 activities of the NPS Cooperative Park Studies Unit at University of California, Davis, is now available from the Region, covering NPS contracts and NPS activities in the field of scientific research.

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"Breeding Ecology of the Hawaii Common Amakihi" is the title of a paper by Charles van Riper III in *The Condor* (89:85-102), journal of the Cooper Ornithological Society 1987. The paper covers 11 years of research (1970 through 1981) into the ecology and breeding biology of the Common Amakihi on Mauna Kea, Hawaii. Van Riper is head of the NPS/CPSU at U/Cal, Davis.

Alaska Region

Bear-People Conflicts, a symposium on management strategies was held in Yellowknife, North West Territories, Canada in April. Managers and scientists from Canada, the U.S., and Europe attended. "Successful Bear-People Conflict Management in Denali National Park, Alaska" by John Dalle-Molle and Joseph Van Horn and "Seasonal Camping Closures of Important Bear Foraging Sites to Reduce Human/Bear Conflicts" by Gary W. Vequist were among the papers given. Proceedings will be published within a year. For a copy of abstracts and notes on the papers and workshops, contact John Dalle-Molle, Box 9, Denali Park, Alaska 99755.

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A recent publication by James M. Peek, Dale G. Miquelle, and R. Gerald Wright entitled "Are Bison Exotic in the Wrangell-St. Elias National Park and Preserve" appeared in *Environmental Management* 11(2).

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Dr. Dale L. Taylor was selected to fill the region's vacant wildlife research biologist position. Dale began his career with the National Park Service as a seasonal employee in 1973 at Grand Teton NP and became a permanent employee there in 1977. From 1977 to 1981 he served as a fire ecologist at the South Florida Research Center. In 1981 he accepted a similar position with the Bureau of Land Management in Anchorage, Alaska. He transferred to the Anchorage office of the U.S. Fish and Wildlife Service in 1984 as their marine mammal coordinator.

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Al Lovaas served on a panel at the Northern Section of the Wildlife Society annual meeting held in Juneau March 31 through April 2, 1987. Al presented a paper in response to the question "How does your agency treat economic values of wildlife and fisheries and of what importance are those values in decision-making?"

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Gary Vequist gave a paper on April 3, 1987 in Juneau at the Fourth Northern Furbearer Conference entitled "Sea Otter Recolonization of Ancestral Range in Glacier Bay National Park."

North Atlantic

The North Atlantic Region held its First Triennial Conference on Science and Resource Management in Northeast National Parks on the University of Massachusetts-Amherst campus March 30-31, 1987. See picture on opposite page. More than 100 NPS park managers, scientists, resource managers, interpreters, and contract scientists met to discuss resource problems, research results and their application to resource protection.

We were welcomed by the University Provost, Dr. Richard O'Brien, who discussed the University's commitment to quality research in the public interest and by Dr. Eugene Hester, new NPS Associate Director for Natural Resources. The new Regional Chief of Interpretation, Cindy Kryston, spoke of new efforts to utilize science in interpretation. Mid-Atlantic scientists as well as Southeast Region and Washington Office representatives also attended.

The papers and posters presented reflect resource problems and research needs unique to the North Atlantic Region. The topics ranged from river otter, bald eagles, peregrine falcons and piping plovers to PCBs, DDT, Lyme disease, sick marshes, dead fish and missing benthos. The problems addressed also reflect the resource concerns common to all NPS areas, including visitor use impacts on trail systems, baseline information requirements, environmental monitoring and geographic information systems. Other issues addressed include air and water pollution in Northeast National Parks, wildlife management issues, shoreline and bluff erosion, the role of fire management in fire management planning and resource management amidst conflicting jurisdictions.

Program abstracts from the meeting are available from Office of Scientific Studies, National Park Service, 15 State Street, Boston, MA 02109.

Mid Atlantic Region

Regional Chief Scientist John Karish reports availability of three new Regional Research Program reports. "The Experiential Aspects of Recreation – A Review of Relevant Literature and Suggestions for Future Research" by Joyce Berger and Richard Schreyer involves extensive literature search and a series of in-depth interviews with noted researchers in the area of leisure studies and related fields. Other reports include "Rare Plants and Natural Communities of the New York side of the Upper Delaware Scenic and Recreational River Corridor" by Lauren Lyons-Swift and "Gypsy Moth Risk Assessment for Shenandoah NP" by Durland Shumway and Todd Bowersox.

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Regional Scientist Jeff Marion sends news of two new publications. "Methods for Estimating Recreational Use: A Bibliography" includes references arranged by the following visitor use estimation methods: visitor observation and counts, trail counters, road traffic counters, interviews and questionnaires, photography (several types), self registration, and permits. "Ecological Impacts on Recreational Sites at New River Gorge National River, West Virginia" by Marion and Dave Cole describes impacts on well-established sites along the New River and evaluates the differences in impacts on sites used primarily by two distinct clienteles – local fishermen and commercial rafters. Copies are available from Jeff Marion, Star Route 38, Milford, PA 18337.

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Southwest Region

Natural and Cultural Resources Management on April 6-10 held a workshop for resources management personnel who represented different disciplines and parks in the Southwest region. Objectives of the workshop were to explore similar problems, discuss alternatives, common solutions, and future directions for both natural and cultural resources management. The workshop was well attended, by nearly 40 field personnel including interpreters, maintenance personnel, managers, and an excellent mix of disciplines. In addition, there were representatives from the Denver and Fort Collins offices of Water and Air Resources as well as numerous regional staff. A poster session was held on Wednesday evening and over 100 persons were in attendance to view and discuss various on-going resources management projects in the region.

Primary concerns of the field personnel were identification and documentation of the resources and acquisition of basic inventory information. Current and future ADP use was also a concern.

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Comar, Inc., the contractor who has been developing the bat counting system for the Southwest Division of Natural Resources Management, has delivered the system hardware and provided training for NPS employees. The system, designed to count as many as 16 million objects photographed in a two hour period, is able to analyze VHS video tapes and has potential for counting a variety of wildlife species. The Southwest Region will be reporting population figures for various bat caves in the Southwest including Carlsbad Caverns NP. The system has potential for counting other wildlife; anything that can be photographed as moving horizontally across the screen can be counted. Inquiries can be directed to Dr. Milford Fletcher, Chief Scientist, Southwest Regional Office, FTS 476-6412.

Pacific Northwest

The Student Conservation Assn., Inc. (SCA) is conducting its 3rd annual training series at National Parks and Forests throughout the nation. Instruction is provided by highly qualified personnel whose credentials and collective experience encompasses service with such agencies as USFS, NPS, BLM, SCA, YCC and YACC, the Appalachian Mountain Club and the Appalachian Trail Conference. Curriculum involves students in comprehensive field work projects, from rock structures and trail engineering and design to chainsaw use and maintenance and revegetation and site restoration.

The program, which began in April (at Kings Canyon NP, Calif.) will run through September (at Mount Rogers NRA, VA). For information, contact SCA, P.O. Box 31989, Seattle, WA 98103; (206) 547-7380.

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R. Gerald Wright of the NPS/CPSU, University of Idaho, sends word of a recently published article by himself and C. Pedevillano, "The influence of visitors on mountain goat activities in Glacier National Park, Montana," appearing in *Biological Conservation*, 39:1-11.

Rocky Mountain

Some recent papers describing natural resource research progress and findings within the Yellowstone ecosystem include a second year progress report on "Yellowstone Lake: Tributary Study" by Daniel P. Reinhart and David J. Mattson, "Grizzly Bear, Red Squirrels, and Whitebark Pine: A Third Year Progress Report" by Mattson and Reinhart, and "Habitat Dynamics and Their Relationship to Biological Parameters, 1977-83" by Mattson. All three are products of the Interagency Grizzly Bear Study Team.

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Yellowstone NP has issued a listing of 40 elk and vegetation research projects underway on Yellowstone's northern range and being conducted by resident NPS scientists. The project list rises to 60 when university and outside contract researchers are included. Research categories are winter range analysis (overgrazing issue); summer range analysis (overgrazing/competition issue); fire, riparian vegetation, and aspen topics; rangeland restoration and exotic (alien) plant work; historical conditions: ecological, geological, archeological; life history and ecology of six principal ungulate species; condition and health of principal ungulate species; interspecific competition between wildlife species; effects of human disturbance on elk; predator-prey relationships; and erosion, sedimentation and turbidity. For information on this, contact Norm Bishop, FTS 585-0200, or (307) 344-7381, ext. 2200.

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Dr. Joel Berger of the University of Nevada-Reno will complete field work this summer in Badlands NP on bison reproductive ecology. His four-year research has applications both to management of the park's bison herd and to maintenance of large ungulate populations in other parks and wildlife reserves around the world.

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"Black-tailed Prairie Dogs: Good or Bad?" was just one of several papers presented at the eighth Great Plains Wildlife Damage Control Workshop in Rapid City, SD. Additional presentations on topics studied at Badlands and Wind Cave National Parks were: "Sociobiology and population dynamics of prairie dogs"; "Control of ecosystem processes by prairie dogs and other grassland herbivores"; "Arthropod consumption by small mammals on prairie dog colonies and adjacent mixed grass prairie in western South Dakota"; "Prairie dog overpopulation: Value judgment or ecological reality?"; "Management of prairie dogs at Wind Cave NP"; and "Small mammals: Pests or vital components of the ecosystem?"

The 2-day meeting closed with a panel discussion on prairie dog management and control and its effects on the livestock industry and black-footed ferret recovery plans. Proceedings will be published this fall.

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