

Two NPS Scientists Speak on Science Role in Parks

The National Park Service's science program will come under scrutiny at two national meetings this spring. Attendants at the 50th North American Wildlife and Natural Resources Conference in Washington, D.C. (March 15-20) will have the opportunity to hear Clifford J. Martinka, senior scientist at Glacier NP, discuss "A New Role for Science in the National Parks." On May 28, as part of the annual meeting in Los Angeles of the American Association for the Advancement of Science, NPS Resource Management Specialist John Dennis will speak on "Building a Science Program for the National Park System."

Dennis will be appearing as part of a panel on "How can science be used more effectively to manage natural resources in national parks?" Phyllis Myers, senior associate of the Conservation Foundation, will moderate the panel.

Also slated to appear on the AAAS panel are Bob Barbee, Yellowstone NP superintendent, and Dave Graber, research scientist at Sequoia/Kings Canyon NPs. Barbee's assigned topic is "From Grizzlies to Geysers: Science Challenges Tradition;" Graber's is "What the Visitor Doesn't See: Restoring Scientific Integrity to Natural Resource Management."

James Teer and Michael Mantell round out the AAAS panel. Teer is director of the Welder Wildlife Foundation and will describe "Why We Recommend a Million Dollars to Study Grazing in Capitol Reef NP." Mantell is a senior associate of the Conservation Foundation; his topic is "The Limitations of Science:

Uncertainty, Politics and Values in Managing Park Resources."

Abstracts of Martinka's and Dennis's presentations follow:

Building a Science Program

National Park System resources are preserved for use of current and future generations of people. National Park Service experience in preserving while providing for use demonstrates the value of scientific information for decision-making. The NPS natural and social science program began in the 1930s from private funding. After a period of minimal effort, the NPS rejuvenated this program in the late 1960s, decentralized it in the early 1970s and slowly expanded it. Today, the NPS allocates 2.4 percent of its budget and 2 percent of its personnel to natural and social science activities conducted by park, cooperative university unit, central office, other government, or contracted scientists. These activities provide extension services, informal reports and formal research papers on topics ranging from applied, specific resource component questions to long-term, ecosystem questions.

The integration of science with park management through park resource management plans and the linkage of scientists with resource managers provides the program's strength (because science is directly part of decision-making) and its potential weakness (because scientific independence is at risk). The building of NPS science for the future seeks to maintain the strengths and minimize the weaknesses so that the NPS can respond to the ever-increasing human ability to manipulate natural ecosystems and the increasing pressure that the sea of human development exerts on the islands of naturalness that are the parks.

John G. Dennis

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New Role for Science

Conservation of natural ecosystems is generally considered to be a primary mission of national parks. Scientific knowledge has played an increasingly important role in the management of natural resources within parks. Science programs expanded rapidly during recent decades and are currently integral to many national park organizations. Descriptive studies and management experimentation have been primarily related to park missions. Results have pointed to solutions for many park problems but also have emphasized a need for research that includes adjacent lands.

An improved understanding and potential for mitigation of external influences are distinct benefits of regional research packages. In turn, regional resources benefit through the availability of baseline information against which exploitive practices can be compared. Parks are thus in a position to provide a rationale for wise use of natural resources on a regional basis.

This emerging role for park science may be expected to elevate the value of parks, with science ultimately assuming a position commensurate with resource conservation and visitor enjoyment in park missions. The new role will require an emphasis on research design, interagency teamwork and long-term continuity of data collection.

Clifford J. Martinka