National Park Service Sets Out the Welcome Mat for Science

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More than once in its 83-year history, the National Park Service has been criticized for giving short shrift to science in managing the 280 park properties that contain significant natural resources. NPS natural resources managers have made periodic efforts to base management decisions on scientific information. Now, NPS is trying again, with its "Natural Resources Challenge: The National Park Service's Action Plan for Preserving Natural Resources" (online at www.nature.nps.gov/challengedoc). NPS officials say the plan, released in August 1999, portends a culture change within the agency.

Neglect of science was profound during NPS' first five decades. In 1929, George Wright, an assistant park naturalist in Yosemite, had to persuade NPS to allow him to conduct wildlife surveys using his own funds. In the 1930s, NPS employed only nine biologists, and science had essentially no role in the park management of the 1940s and 1950s. Mission 66, a massive park development program initiated in the 1950s, included $1 billion for facilities development and only $30,000 for science programs. Two reviews of NPS activities in the early 1960s spoke of the near absence of science in park management.

Recognizing this shortcoming, NPS has developed its new plan to bring science front and center in park management. The plan calls for preserving and restoring national park resources for future generations, improving park management through greater reliance on scientific knowledge, and broadly promulgating knowledge gained through scientific research in national parks for the benefit of society.

What makes this attempt more promising than previous efforts, says Bob Krumenaker, who coordinated the NPS Steering Committee that produced the plan, is the fact that senior leadership is engaged in the effort and that this leadership has in turn engaged Congressional interest in park management. In particular, while the plan was in development, the 105th Congress enacted the National Parks Omnibus Management Act of 1998, which added research to the NPS mandate. The law directs NPS to encourage others to conduct research in the parks for the benefit of park management as well as for its broader scientific value. It also requires the Secretary of the Interior to ensure that park management is enhanced by the availability and use of a broad program of the highest quality science and scientific information.

The House Appropriations Committee's approval of the entire $20 million requested for the NRC in fiscal year 2000 represents a further vote of confidence for NPS' commitment to, in the words of the committee, "carry out a systematic, consistent, professional inventory and monitoring program, along with other scientific activities, that is regularly updated to ensure that the Service makes sound resource decisions based on sound scientific data."

For scientists who wish to conduct research in the national parks, the new plan promises a warm welcome in place of the indifference, or even resistance, that often greeted requests for research permits. The plan says that "parks can and should be centers for broad scientific research and inquiry. Research should be facilitated in parks where it can be done without impairing other park values." NPS is already moving toward this goal by proposing new, uniform guidelines and application forms for research by outside scientists (to be available online), establishing a Sabbatical-in-Parks program for visiting scientists, and improving the career track for natural resource managers so that those who issue permits are more likely to have scientific training and expertise.

The agency also promises to be more open to advancing scientists into management positions, so that in time, parks could even come to be managed by scientists. NPS also plans an aggressive effort to recruit new people to its natural resource management workforce.

In addition to enhancing the quality of science in the parks, the changes are intended to increase the role of science in the management of park resources. Indeed, park superintendents will be evaluated in part by trends in resource conditions. To help guide resource management, a biological inventory and monitoring program is also in development. Once methods and standards have been approved, the program will be implemented in all parks, which will be organized into geographical and biome-based networks for better coordination. Each park network will work with a university-based Cooperative Ecosystem Studies Unit (a recently developed partnership among NPS, the US Geological Survey, and other federal agencies) to help NPS protect, manage, and learn from the public lands.

NPS is off to a running start in implementing the plan, with 14 actions already underway. If NPS achieves all that it has set out to do in this ambitious plan, then the welcome mat for science in the parks may come to resemble a red carpet. ❑

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