

The Challenge of Wilderness Stewardship

The 1964 Wilderness Act and subsequent wilderness legislation have resulted in the designation of over 106 million acres of the United States as wilderness. Charged with the responsibility of protecting a significant portion of federal lands as wilderness, the federal land management agencies with responsibility for wilderness stewardship (Bureau of Land Management, Fish and Wildlife Service, Forest Service, and National Park Service) have often struggled with how to translate legislative direction into policy and management practices. The direction to manage wilderness in a manner that protects natural ecosystems and minimizes interference with natural processes provides a huge challenge for those who often feel their first priority is to fulfill the more specific missions of their individual agencies (e.g., management for healthy wildlife populations, provision of opportunities for recreation, or maximization of multiple use of forest or range lands). When coupled with rapidly changing environmental, social, and technological conditions (Vitousek et al. 2000; Stankey 2000; Watson 2000), wilderness managers are faced with immense challenges.

In recent years there have been a number of accounts of the management challenges faced by those charged with the stewardship of our wilderness heritage. A recent report by the Pinchot Institute for Conservation (2000) provides a thorough review and critique of the challenges of managing federal wilderness lands as a “system”—the National Wilderness Preservation System that was established by the 1964 Wilderness Act. That report elaborates on the difficulties the wilderness management agencies have had in developing and implementing a common set of guidelines for wilderness stewardship. Cole (2001) has articulated the need to address two major management dilemmas: providing for access while at the

same time protecting natural conditions, and the difficulties of trying to maintain an unmanipulated, or wild, condition while also protecting, or restoring, natural conditions. Graber (1995) has detailed some of the challenges of managing to perpetuate native ecosystem elements and processes in national parks. Others have focused on specific threats to the wilderness system (Wolke 2003) or have detailed how individual agencies, such as the National Park Service, have struggled to fully embrace their wilderness stewardship mandate (Sellars 1999). The importance of science to the resolution of difficult management challenges has often been articulated (e.g., Pinchot Institute for Conservation 2000) but investment in

science has seldom been adequate. Several conferences focusing on science and wilderness have attempted to both highlight quality research and address the challenges of effectively applying scientific findings to policy and management issues (Lucas 1986; Cole et al. 2000).

The intense interest that the challenges of wilderness stewardship have generated in recent years led the National Park Service's National Wilderness Steering Committee to organize three symposia for the April 2003 George Wright Society / Cultural Resources 2003 Joint Conference, "Protecting Our Diverse Heritage: The Role of Parks, Protected Areas, and Cultural Sites." Wilderness science and management clearly was a dominant theme at the conference, with a number of additional sessions and individual presentations organized or presented by others. The sessions were well attended and generated stimulating discussion and interaction. This obvious interest in wilderness led us to propose that selected conference papers addressing wilderness issues be combined into a special theme issue of *The George Wright Forum*. The papers in this issue represent the results of that effort.

In the first paper, David Cole addresses the importance of recognizing the uniqueness of wilderness as well as the need for increased commitment, attention, leadership, and financial resources from the federal wilderness agencies. He is concerned that the current management environment encourages compromise between divergent purposes and values, and

that while compromises may be advantageous to individual wilderness areas, they can reduce the overall value of the National Wilderness Preservation System. He calls for improved cooperation, planning, and policy development between the agencies as necessary to preserve the full intent of wilderness as a system.

Cole describes two dilemmas facing wilderness managers, one of which is the need to often choose between restoring the naturalness of wilderness ecosystems or intentionally trammeling wilderness ecosystems (by intentionally manipulating them). David Graber's paper discusses this issue in more depth, coming to the conclusion that there is nothing in legislation or National Park Service policy that precludes active ecological restoration. Further, the paper advances Graber's personal view that the values to be gained through ecological restoration far exceed those that would be lost.

Peter Landres and others outline the challenges that face those proposing to do science in wilderness as well as those assigned the responsibility of judging what kind of science is appropriate in wilderness. They build the case, based on historical, legal, and policy perspectives, for the need for a better process for evaluating the appropriateness of scientific activities in wilderness. Jack Oelfke and collaborators build on the issue of doing science in wilderness with a case study of the long-term research on wolf and moose populations at Isle Royale National Park. They review the long history of this rich data set and address the conflicting values the park had to face in deciding whether to

allow continued manipulation of the wolf population to facilitate the clear scientific values of continuing these studies.

Brian Glaspell and cooperators report on research into the wilderness experiences of recreational users at Gates of the Arctic National Park and Preserve in Alaska, which are often considered to represent the wildest end of the spectrum of conditions in wilderness. Their work attempts to better understand these experiences, as part of an effort to inform management designed to preserve these experiences. Steve Lawson and his collaborators report on a developing technology—computer simulation modeling—that can be a valued tool for wilderness recreation management. Simulation models can help wilderness managers monitor recreation more cost-effectively, as well as fine tune their management programs. The case study in Lawson's paper shows how simulation models were used to develop realistic alternatives for managing campsite use at Isle Royale National Park.

Gary Somers' paper addresses the often contentious relationship between cultural resource specialists and wilderness managers in the National Park Service. He details the various cultural resource and wilderness laws and policies that direct Park Service activities. He concludes that park managers must fully consider all

relevant direction and that neither cultural resources nor wilderness should trump the other. He argues that increased dialogue and understanding between cultural resource specialists and wilderness managers is both desirable and necessary.

Finally, Wes Henry and Steve Ulvi describe recent National Park Service efforts to provide more effective direction to wilderness management in the agency through the activities of the National Wilderness Steering Committee. This group, which includes representatives from across the agency, has made significant progress in reporting on the state of Park Service wilderness as well as providing guidance on wilderness planning and a variety of difficult wilderness management issues. The committee is in the progress of developing an action plan that will provide additional direction for NPS wilderness managers.

Management of wilderness in the National Park Service, as in the other federal agencies, requires the balancing of numerous purposes and values. It is a challenge. We hope that the papers in this issue of the *Forum* provide a broad context for better understanding wilderness stewardship challenges and some of the efforts being made to address them. We also hope that these papers illustrate how science can contribute to our understanding of wilderness issues.

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