

superintendents' corner

Editor's Note: Robert C. Haraden, superintendent of Glacier NP, this spring presented a paper entitled "Practical Considerations in Management of a Biosphere Reserve" to the India-U.S. Workshop on Biosphere Reserves and Conservation of Biological Diversity in Bangalore, India. Since the paper was subtitled "A Manager's Perspective," we thought it appropriate to present excerpts in the Superintendent's Corner.

The designation of Glacier National Park as an International Biosphere Reserve has added a new dimension to park management. Attention has been drawn to scientific and educational values along with the very practical usefulness of preserving genetic diversity. It further enhances our efforts to generate greater interest in research values of parks.

Part of our interpretive effort tells the story of Glacier as a park that has worldwide importance. We embrace the idea of preservation of this mountain environment for international research, education, and training, while at the same time providing for visitor enjoyment.

Out of the 1980 Report to the Congress on internal and external threats to the parks came the determination that Glacier was the most threatened park in the system. This may have been a little misleading, since Glacier did a very thorough job of identifying its threats while some other areas treated the assignment less seriously.

Nonetheless, serious external threats to the integrity of Glacier exist. They range from proposed extensive coal strip mining within eight miles of the park boundary in Canada and within drainages that come into the park to fluoride emissions (now being mitigated) from an aluminum plant within six miles of the park, to logging, oil and gas exploration, homesite development, and road construction on adjacent state and U.S. Forest lands and trespass livestock grazing along the Reservation boundary.

Individually, these impacts are important because of their direct effects on the park; more important is their cumulative effect — on the park and on the wildlife that ranges in and out of the park, especially the grizzly bear, bald eagle, and northern gray wolf. These problems arise from, and are complicated by, the fact that Glacier's boundaries were established on political rather than ecological lines. This is true of most U.S. National Parks.

The State of the Parks report has drawn attention to the need for additional research at Glacier and some research funding has been redirected, especially toward basic inventories and baseline monitoring. The Park's Resource Management Plan (RMP), designed to deal with some of these issues, has its roots in a master plan, which sets this goal for natural resource management:

"Park ecosystems will be managed to protect, preserve, or restore where necessary, natural biotic relationships for the scenic, educational, and scientific benefit of the visitor."

Areas of attention include, but are not limited to (1) protection and restoration of the natural vegetative, wildlife, and aquatic systems; (2) re-establishment of the natural role of fire; (3) evaluation of external sources of resource damage; (4) encouragement of natural science research to provide scientific criteria for conservation, management, and/or restoration of the natural ecosystems; and (5) use of public input in making management decisions.

The 1960s marked a major change in the direction of park research. Management began to recognize the need for credible information on which natural resource decisions could be made. An agency funding program was implemented and scientists were put on the park staff to address pressing needs. National environmental legislation in the 1970s strengthened and supported park research.

Today's program is dramatically different from just a decade ago. Staff scientists conduct studies in con-



St. Mary Lake Narrows — Glacier NP

cert with management requirements. University contracts and interagency agreements fill the voids. Scientific research demands are increasing and an expanding data base is helping us protect and manage park resources.

Glacier National Park was established as an International Biosphere Reserve in 1976 . . . recognizing it as a representative area for its conifer forest and alpine tundra and its designated responsibility to preserve genetic integrity in the plant and animal communities.

We are providing specific Man and the Biosphere (MAB) exhibits at the park and weaving MAB into our interpretive programs and environmental study areas, into our talks to service clubs and other outside speaking engagements, and into our information releases to the various media outlets.

A severe lack of public knowledge about MAB exists at present, but as we tell the story, we heighten public awareness of the global significance of national parks and equivalent reserves. Our June (1982) symposium at Glacier, in concert with the Canadian Waterton Lakes National Park, addresses management of the parks in relationship to their adjacent lands. It examines the issues and problems in the context of research, monitoring, and education, and seeks to identify research and management strategies that might contribute to improved administration and use of complexes of multipurpose and multiagency lands in the future.

The introduction of exotic fish into the park between 1912 and 1972, the recent detection of measurable degrees of acid precipitation in Glacier NP, and other examples of degrading changes, all draw attention to the importance of MAB-oriented research. The research cannot be accomplished too fast. Managers cannot always wait for results; they are liable to find themselves dealing with multiple environmental threats before all the information is at hand.

To gain the support for such research, we need public understanding . . . good brochures, technical aids such as slide/tape programs, video presentations and other good exhibitry.

While national parks are ideal barometers of the world's environmental condition, they depend for their support on human use. For this reason, some of our research needs to be directed toward people management. For me, as a manager, this is as important as research directed toward the grizzly bear. One is unalterably tied to the other, just as is everything else in the universe.

Park interpreters play a key part in explaining the role of resource management and research to the public. We may not be able to save Glacier NP as we know it today unless there is a change in the attitude of people about how we manage the lands surrounding the park. Such a change would constitute a new land management ethic. I would hope that the research, education, training, and public information resulting from the fact that Glacier is an International Biosphere Reserve, would lead toward public support for that new ethic.

**Robert C. Haraden, Superintendent
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