

# Some Comments on Natural Resources Management<sup>1</sup>

*Al Lovaas*

Reviewing proposed new natural resources and science guidelines, policies, and reorganization schemes, caused me to reexamine some fundamentals and attach examples to them. The thoughts expressed are not new or at all profound, but perhaps they will elicit some interest.

## **An Observation**

The visitor brochure for Denali National Park and Preserve has pictures of mountains, a caribou, a wolf, an Arctic ground squirrel, a moose, a grizzly bear and three Dall sheep. Are those features more important than others, such as mice, moss, and mosquitos? Sure; that's why they got their pictures on the paper. Visitors come thousands of miles to see Mt. McKinley and the pictured wildlife, but are indifferent to moss and don't want to contend with mice and mosquitos. Importance, though, is relative. What the brochure emphasizes is importance in attractiveness to visitors. We don't manage natural zones to enhance visitor attractions.

## **The Ground Rules**

The goal for natural zones, rather, is to maintain system structure, integrity, and function. To paraphrase a Dave Graber talk<sup>2</sup>: the aim is unimpeded interaction of native ecosystem processes and structural elements; and to quote George Pring<sup>3</sup>: "There are no primary or secondary resources in nature. The first lesson of ecology is that all resources, all facets and features of an ecosystem, are equivalently important and indispensable because they support one another." The Alaska National Interest Lands Conservation Act (ANILCA) mandates optimal functioning of entire ecological systems. By those rules and laws, resources in natural zones cannot be managed to give preference to species which might be especially important in their attractiveness to visitors. USNPS was not always that thoughtful. At Denali for example, wolf reduction programs were carried out until 1953, for the purpose of protecting Dall sheep and other 'good' animals<sup>4</sup>. Visitors, at least subliminally, understand the ecosystem concept; after all if they just wanted to see a moose or a bear they would get a better look in a zoo, but that's not what they travel thousands of miles to experience. And overuse of parks, a major problem, is an indication the concept is popular. Areas are designated as national parks because they contain outstanding features but once a park is designated, all features in natural zones become equal in status. It's the rules.

## **A Contrast**

In historic zones, differences in importance are important. The house where a commemorated person lived is more important than the barn where his/her horse lived, or the shed where the tools were stored. And the development is the most important element of a development zone. If a natural tree dies a natural death and falls

naturally across a road, it is removed so the development can function as planned.

### **A Thought**

Should national parks be managed differently by changing the rules? No. That conclusion is based on my favorite quotation from the Management Policies: "The concept of perpetuation of a total natural environment or ecosystem, as compared with the protection of individual features or species, is a distinguishing aspect of the Service's management of natural lands." This concept is included in point 4 of the Director's 12-point Plan: "Communicate both here and abroad the importance of ecosystems and their processes, not just individual features." I put it there when our Region was assigned to elaborate that point, which is to "share effectively with the public our understanding of critical resource issues."

### **An Illustration**

In the 1970s, I was a biologist in a relatively small national park that contained bison. Other herds were located nearby, leading to an inter-agency, inter-disciplinary meeting to discuss management of those interesting animals. I happened to lead off, giving a slide talk to describe the park, how it was fenced on the boundary, but was otherwise open except for small headquarters and campground enclaves. My slides illustrated the annual roundups by helicopter.

changed the name of the Kenai National Moose Range to the Kenai National Wildlife Refuge and required management "to conserve fish and wildlife populations and habitats in their natural diversity." That is not quite the same as required for the Noatak National Preserve (USNPS): "to assure the continuation of geological and biological processes unimpaired by adverse human activity," but it's close. Conversely, ANILCA provided for consumptive uses, sport and/or subsistence, in most of the new USNPS areas in Alaska. But consumption was subordinated to preservation through requiring maintenance of natural and/or healthy wildlife populations.

### **Another Illustration**

After designation of Katmai National Monument (now Park), but prior to establishment of USNPS presence, well-meaning but unintentionally arrogant persons from another government agency constructed a fish ladder to help salmon get over Brooks River Falls on their spawning runs. The fact that salmon surmounted the falls for thousands of years, at least those genetically programmed to do so, was ignored in the seemingly universal human effort to make things "better." I use the word "arrogant" because a pristine wilderness basin and lake largely isolated aquatically by a natural waterfall seems to me to have wondrous scientific and aesthetic values which should not be tampered with by man just to put a few more salmon into commercial fishermen's nets. Our recent proposal to remove the ladder created an astonished response and furor. In Alaska, fish ladders are almost sacred, they are to be built, not dismantled, even though we could show that removal of the out-of-place Brooks Falls ladder would have an infinitesimal effect on the salmon population and commercial harvest. While we are presently stymied, the disagreement at least temporarily stopped frequent requests for other aquaculture developments in Alaska parks. Critics of ladder removal pointed out correctly that USNPS condoned and even built several structures just as obtrusive to the natural scene: a lodge, roads, cabins, a bear-viewing platform, a foot bridge, etc. But we muted that criticism by arguing while the USNPS Organic Act requires conservation of scenery, natural objects and wildlife, it also requires provision for "enjoyment of the same." There is a profound difference between development designed for visitor use and safety and development for enhancement of natural resources.

### **A Digression**

Some question the effort of even trying to regain or maintain natural conditions because 100% success cannot be obtained very often. Indigenous wolves and grizzly bears will never be reintroduced to the North and South Dakota national parks, for example. The answer: we do the best we can. Prescribed fire is more natural than no fire, reduction by trapping of bison populations in fenced parks with ineffectual predators is more natural than no reduction, exotic plants should be removed only to the point where surrounding natural vegetation will be damaged, etc. An unusually simple answer to a complex problem,

although determinations, and methods and means can involve great complexity.

### **A Complication**

By law, some natural elements of natural zones are more equal than others: threatened and endangered species. Adherence to the Endangered Species Act, I believe, will severely tax our management ingenuity because at times it will be at the expense of ecological integrity. Hopefully, the requirements of the Law will be accommodated without turning national parks into *de facto* national wildlife refuges. There is nothing wrong with national wildlife refuges, but mandates for their management do not mirror those for national parks.

### **On Research**

Much of the review mentioned in the first paragraph concerned research, the paucity of it in USNPS and poor use of results. Why not more emphasis on research? The payoff is in the future. We prefer gratification now, payment later on the installment plan. Personally, we are forced to save for the future through salary withholdings for retirement, Social Security, and income taxes and learn to get along on the remainder. USNPS could also save for the future by withholding an inviolate research fund, free from all tampering, and learn to manage on the remainder of its appropriation. Expecting a manager, during a 5 or 6 year job tenure, to budget for a payoff 100 years in the future when present crises often appear overwhelming is unrealistic. But the future belongs to those who prepare for it.

Management is making more use of research findings all the time. Certainly managers in the Alaska Region appreciate and request research. For example, the responsibility for managing the Noatak "to assure the continuation of geological and biological processes unimpaired by adverse human activity" and: "to protect habitat for, and populations of, fish and wildlife, including but not limited to caribou, grizzly bears, Dall sheep, moose, wolves, and for waterfowl, raptors, and other species of birds; to protect archeological resources; and in a manner consistent with the foregoing, to provide opportunities for scientific research," cannot be met without research, and plenty of it, especially considering the consumptive uses allowed there by law.

### **A Lighter-note Conclusion**

The recent recommendations for change mentioned in the first paragraph support closer ties between USNPS and academia. I agree, but why should trees have all the glory? As an equivalent to "forestry," I suggest "parkery." We need young people with degrees in "parkery," awarded by "Parkery Schools" at appropriate colleges and universities. Why not? We are now of age.

### **Notes:**

1. Comments are based on a "brown bag" lunchtime talk presented in the Alaska Regional Office.

2. Graber, D. M. n.d. Rationalizing management of natural areas in national parks. 15pp. Mimeo.
3. Pring, G. W. 1987. Resource protection and the national parks: meeting the challenge of the future. Proceedings of the Conference on Science in The National Parks, 1986, Volume 1:9-19. The U.S. National Park Service and The George Wright Society.
4. Singer, F. J. 1986. History of caribou and wolves in Denali National Park and Preserve—appendices. NPS Research/Resources Mgmt. Report AR-11. 89pp.

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## **Global Ethic: Fostering Parks in America<sup>1</sup>**

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The U. S. National Park System is in place. It represents one of America's outstanding historic achievements. It was 70 years in the making and has grown from 14 national parks and 21 national monuments in 1916 to 343 units in 1988 with an annual operating budget of one billion dollars.

The creation of each unit is an individual story of forward-looking people and groups who were on the cutting edge of the environmental movement of their time. Some did more than others, but they were all part of an era of creating parks in America and a park ethic that has been emulated around the world. We honor many of them when we tell their stories every day in every park in the National Park System.

As a result of their efforts, we are left with the task of stewarding and expanding on a system which includes a wide array of resources—historical, natural and recreational—which collectively are national treasures. Past park managers—decision makers—have dealt with many complex and ever changing issues over the years. They have followed policies, procedures and guidelines, as well as their own professional expertise. From the Lane Letter, with its management principles and twenty-three operational directives, to today's resource management policy, park managers have consistently made resource protection decisions based on known environmental principles. Unfortunately, the impact of increased urbanization and accelerated growth on park resources were not always easily predictable; no one could have anticipated the extent of development pressures of recent years and their long-range impacts on park resources. Nevertheless, resource management decisions over the years were generally made with the best information available.

In 1915, Stephen Mather was able to dynamite Great Northern's sawmill to remove an 'eyesore' and thereby protect a park resource. Today, however, such a 'quick fix' solution would generate more problems than it would solve.

Without a doubt, we need to better protect park resources from adverse influences within, as well as outside of, the boundary. On one