PERSPECTIVE

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Policies violate the law

By Charles Kay

Yellowstone National Park is administered under what is termed "natural regulation," or hands-off management. According to this view of nature, predators have no effect on ungulate populations; instead, the number of elk and bison is determined by the available food supply. When these animals exceed the food supply, the weaker ones die. In other words, the National Park Service contends it is natural for thousands of elk and bison to starve to death.

Historical evidence contradicts this claim. In the past, Native American hunters kept the numbers of elk, deer and bison low, so there was no overgrazing. As a result, Yellowstone supported a great variety of plants and animals.

Today, Yellowstone's northern range is overpopulated by elk and bison. Their overgrazing has denuded the range, destroyed plant communities, eliminated critical animal habitat and devastated riparian songbirds. The result has been a drastic decline in biodiversity.

Riparian areas, the land alongside streams and rivers, have the greatest biodiversity of any habitat type in the West and are critical to ecosystem management. The roots of willows, aspen and cottonwoods are critical in maintaining streambank stability.

As elk have eliminated woody riparian plants from Yellowstone, major hydrologic changes have resulted. David Rosgen, one of North America's leading hydrologists, reported 100 times more bank erosion on Yellowstone's denuded streams than on the same willow-lined streams outside the park. Several streams in the park have eroded down to Pleistocene gravels, something that has not happened in 12,000 years.

What has happened in Yellowstone clearly violates the park's Organic Act, the Endangered Species Act and other federal legislation such as the Clean Water Act.

If this had happened on public grazing allotments outside the park, it would violate U.S. Forest Service and Bureau of Land Management standards.

Yellowstone's elk and bison populations have destroyed the park's willow

Please see KAY on 8I

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GRAZING: Bison find the grazing tough in winter at Yellowstone. Now comes a controversy over whether the National Park Service has allowed the populations of grazing animals to grow too large.

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communities by repeatedly browsing those preferred plants. Tall willows on the northern range have declined by more than 95 percent since Yellowstone was established in 1872.

That the decline is due to excessive browsing, not other factors, is shown at "exclosures" — fenced plots that exclude elk and other ungulates. A 1986 study showed that browsed willows outside exclosures averaged only 13 inches tall and produced no seeds. In contrast, protected willows averaged nearly 9 feet tall and produced over 300,000 seeds per square meter of canopy cover.

Yellowstone's elk population also dramatically impacts aspen, by repeatedly browsing new shoots from which the trees regenerate. If present trends continue, aspen will be ecologically extinct in Yellowstone within our lifetimes.

Aspen provides the highest biological diversity of any forest type in Yellowstone, so its loss has ramifications far beyond the elimination of a single species.

Beaver were once common in the park, but that species also is ecologically extinct on Yellowstone's northern range because overgrazing has eliminated the aspen, willows and cottonwoods that beaver need for food and dam-building.

By building dams, beaver prevented stream erosion and created riparian habitat. With the virtual elimination of beaver, the park has suffered a tremendous loss in biodiversity.

Bears, which are primarily vegetarians, also have been severely affected. Unlike their counterparts in other ecosystems, Yellowstone's grizzlies eat virtually no berries, because browsing ungulates have destroyed those once plentiful shrubs. This forces the bears to seek food outside the park, where they often run afoul of humans and are destroyed.

Giving Yellowstone's bison additional areas to roam outside the park will never solve the bison problem. Under "natural regulation," bison numbers will simply increase until the animals are again forced by starvation to move beyond whatever boundary has been set.

"Natural regulation" is a failed ecological hypothesis that must be rejected as a valid scientific interpretation of the real world. Yet the Park Service continues to deny that Yellowstone is overgrazed, or, if it is, that "natural regulation" is to blame.

The agency, though, has not been receptive to independent review of its program. In the early 1990s, the Society for Range Management, the Ecological Society of America, the American Fisheries Society, and the Wildlife Society asked the Park Service for approval to conduct an independent review of the Yellowstone situation, but they failed to obtain permission. More recently, a group of eminent ecologists informed the Secretary of the Interior they would be willing to serve, without pay, on a panel to review the entire Yellowstone matter, but the Secretary declined.

If the Park Service has nothing to hide, why hasn't it welcomed an independent review of Yellowstone's management?

The problem is not confined to Yellowstone. Karl Hess, Jr., has documented how "naturally regulated" elk have overgrazed Colorado's Rocky Mountain National Park. In New Mexico's Bandelier National Monument, elk-induced soil erosion threatens archaeological resources.

Congress should appoint an independent commission of qualified scientists to review "natural regulation" management and park science in Yellowstone. What is needed is a fair hearing for the available evidence. If we cannot straighten out Yellowstone, there is little hope for the rest of our national parks.

Congress should also mandate an independent park science program. This conclusion has been reached by every panel that has ever reviewed park management. Since the Park Service has never followed any of those recommendations, Congress must legislate the needed changes.

Moreover, if independent scientists are to critically evaluate various aspects of park management, then Congress must establish a mechanism to directly fund that research.

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