By Carolyn Raffensperger

Conflict, Complexity In Law And Habitat

ldo Leopold once said of the intricate interrelationships in nature that "you can regulate them — cautiously — but you cannot abolish them." Because of that difficulty, "to keep every cog and wheel is the first precaution of intelligent tinkering." The 1916 National Park Service Organic Act requires keeping every cog, declaring a two-fold purpose for the park system: "To conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations."

This legislation, passed in 1916, would appear to be a close fit with the purposes of the Endangered Species Act — as long as the Park Service does a good job of ensuring that "providing for the enjoyment" of the park resources truly "leaves them unimpaired for the enjoyment of future generations." Because of some less than intelligent tinkering, however several legal/scientific disputes are converging around the park's populations of bison and grizzly bears.

In August, the Service issued a Winter Use Plan instigated by a legal challenge by the Wyoming-based Fund For Animals following the winter of 1996-97, when 1,500 bison died. 1,100 were killed by the Montana livestock industry because of the threat of brucellosis transmission to cattle when the bison wandered out of the park onto other public or private lands.

Brucellosis is a bacterial disease whose most common symptom in

cattle is spontaneous abortion of a first calf. According to a 1998 report by the National Research Council, it is transmitted through animal contact with contaminated reproductive materials and milk. The state of Montana has had license to kill bison that leave the confines of the park and move into adjacent National Forests so that they don't transmit brucellosis to privately owned cattle grazing on public lands.

Always wanderers, bison have been leaving the park in increasing numbers for National Forest land and state and private land in part because of growing use of snowmobiles in the Yellowstone system. Park management began grooming trails for snowmobiles in the 1970s, and today bison find the trail system an easy route to move throughout the park — or out of it. As a result, some 2,000 bison have been slaughtered in the past four years.

Thus bison are killed in greater and greater numbers when they use the trail system to leave the park, where they interact with humans whose economic interest are affected. But within the park, their numbers are increasing because the same mobility increases their survivability. This is bad news for the grizzly bears, who have been listed as threatened under the Endangered Species Act since 1975. U.S. Geological Survey biologist David Mattson, a leading grizzly expert, has reported that 56 percent of the "total energetic costs" for females is derived from large ungulates, largely scavenged bison. Juveniles depend heavily on bison carcasses too.

Bears avoid humans. As a result, according to studies by Mattson and others, bears won't go closer than about 1.5 kilometers from a trail or road to find carrion. Increased bison survivability means fewer carcasses, and more trails means an increase in the percentage of carcasses near a trail.

The grizzly is now present in only 2 percent of its original range in the Lower 48. Since its listing, however, numbers have slightly increased to a total still under 1,000, of which 400-600 are in the Yellowstone area. Conservation biologists are divided over whether the Yellowstone population is viable, with others declaring that 2,000 are required. Population aside, most agree that habitat dictates the chances of grizzly survival, but the snowmobile trails are just one example of human incursions into bear habitat.

Todd Wilkinson poses what he calls the "grizzly bear paradox": there are more bears than in 1975 but the longterm prognosis is poor because bear habitat is rapidly shrinking through development such as logging and mining, more subdivisions being built in areas adjacent to public lands, increased wildlife harassment from snowmobiles and other off-road vehicles and, of course, fewer bison carcasses.

The Clinton administration favors delisting the grizzly, to show the effectiveness of its environmental programs. Obviously, habitat needs to play an important role in any recovery plan that would achieve delisting. Enter the courts. In 1995, a D.C. District Court judge ruled in two consolidated cases, The Fund for Animals, et a. v. Bruce Babbitt, et al, and National Audubon Society, et al v. Bruce Babbitt, that the Fish and Wildlife Service had acted arbitrarily and capriciously by "issuing a recovery plan that fails to establish objective, measurable criteria which, when met, would result in a determination, in accordance with the provisions of the Endangered Species Act, that the grizzly bear be removed from the threatened species list." Perhaps because grizzly habitat is so problematic, the recovery plan hardly mentions it.

A new recovery plan is expected soon, and conservationists are concerned that political considerations may allow the delisting to go forward. Unfortunately, if the bear is delisted, all protection afforded by the ESA will be removed. The bear may again be subjected to hunting and will continue to be harassed by snowmobilers, and through other human activities.

The political and biological fate of the grizzly is not an example of Leopold's "cautious regulation," and it would be a tragedy indeed if the bear ceases to be one of the most splendid "cogs" in the Yellowstone ecosystem.

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