

The Bear Facts: Grizzly Recovery in the Bitterroot Ecosystem

by

Grace A. Wang

School of Forest Resources, The Pennsylvania State University



Background

Few species have captured the imagination of the American public like the grizzly bear (*Ursus arctos horribilis*). It is one of the largest North American land mammals, with male grizzly bears often reaching 7 feet tall, weighing 300–600 pounds, and female grizzly bears 200–400 pounds. They are an omnivorous species, with a diet that includes elk carcasses, sometimes sheep, berries, and whitebark pine seeds, among other items.

Although grizzly bears historically ranged throughout most of the western United States, habitat loss and excessive human-caused mortality have drastically reduced numbers of this species. It is estimated that prior to European settlement there were ~50,000 grizzly bears; it is estimated that only 800–1,000 grizzly bears exist on approximately 2 percent of their historic range in the lower 48 states now. Biologically, grizzly bears have the second slowest reproductive rate of all North American mammals, making it difficult for them to rebound from threats to their survival. Females reach maturity at 4–9 years, and generally give birth to two cubs every three years.

The Endangered Species Act

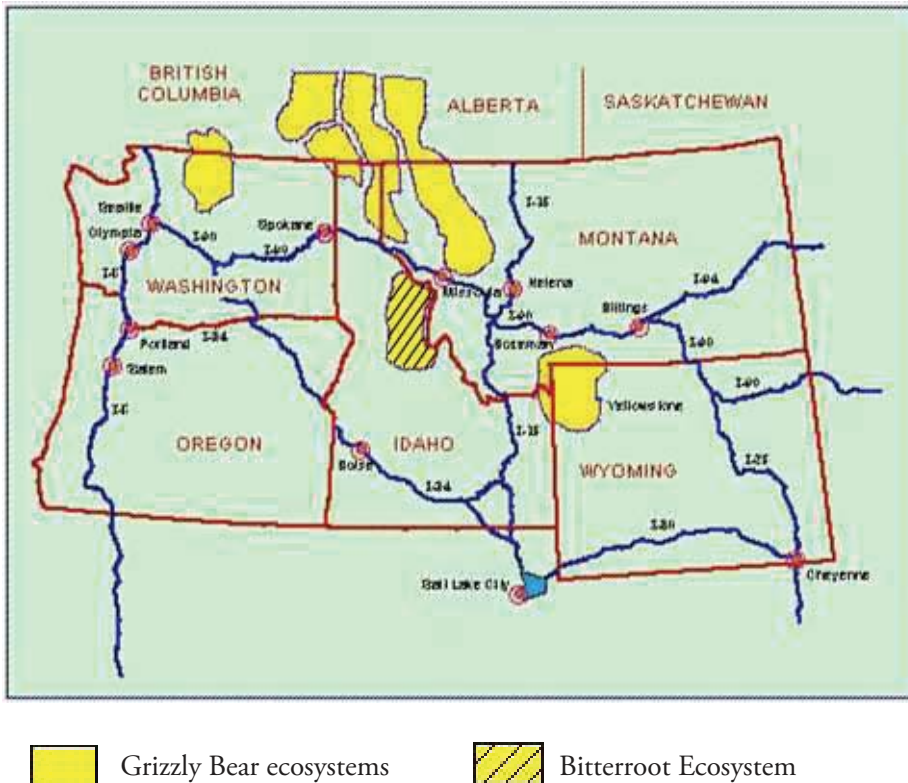
Congress enacted the *Endangered Species Act of 1973*. The ESA declared national policy “that all Federal departments and agencies shall seek to conserve endangered species and threatened species and shall utilize their authorities in furtherance of the purposes of this [Act].” The ESA defines an *endangered species* as “any species which is in danger of extinction throughout all or a significant portion of its range.” A *threatened species* is defined as “any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.” Four key sections of the ESA provide its basic structure:

- A formal listing process used to identify threatened and endangered species, protect critical habitats, and the drafting of recovery plans.
- Federal agency consultation with the appropriate Secretary (Interior or Commerce) before taking any action that might affect a listed species.
- Prohibition of the “taking” of listed species and damage to their habitats. The term “take” means to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct.”
- Penalties for violations of the ESA.

Grizzly bears were listed as a threatened species in the lower 48 states in 1975. At that time, the Bitterroot Ecosystem (BE) was listed as one of three areas where grizzly bears were known or thought to exist and where recovery should be emphasized. Earlier in the 20th century, grizzly bears were widespread inhabitants of the Bitterroot Mountains in central Idaho and western Montana, although the last verified death of a grizzly bear in the BE occurred in 1932 and

the last tracks were observed in 1946. No verified tracks or sightings have been documented in more than 50 years, and the best scientific evidence available indicates that there are no grizzly bears in the BE at this time.

Figure 1. Map of Grizzly Bear Ecosystems in the northern Rocky Mountains.



The Recovery Plan

In 1982, a federal grizzly bear recovery plan by the U.S. Fish & Wildlife Service (FWS) called for the evaluation of the BE as a potential recovery area. En ensuing studies indicated sufficient habitat existed in the BE to support 200–400 grizzly bears. In 1991, the Interagency Grizzly Bear Committee endorsed the BE as a recovery area and authorized the FWS to pursue grizzly bear recovery. The ultimate long-term goal of the plan is removal of the grizzly bear from threatened status in the lower 48 states.

The Draft Environmental Impact Statement

The FWS released a *Draft Environmental Impact Statement* (DEIS) in 1997, describing four alternatives that represent different approaches to grizzly bear recovery and management in the Bitterroot Ecosystem of central Idaho and western Montana:

Alternative 1. Reintroduction of a Nonessential Experimental Population Alternative

Section 10(j) of the Endangered Species Act provides the authority to designate certain populations of listed species as nonessential “experimental populations” to promote species conservation. This designation is more flexible than “endangered” and allows private landowners some flexibility in dealing with reintroduced animals. The goal of this alternative is to accomplish grizzly bear recovery by reintroducing grizzly bears designated as a nonessential experimental population to the Bitterroot Ecosystem. Central to this is creation of a Citizen Management Committee (CMC) to conduct grizzly bear management within the framework of local concerns. The CMC would be given the task of managing this grizzly bear population.

Alternative 2. The No Action Alternative—Natural Recovery

The goal of this alternative is to allow grizzly bears to expand from their current range in north Idaho and northwestern Montana southward into central Idaho and western Montana, and to recolonize the BE. Ultimately, the goal is natural recovery of grizzly bears in the BE.

Alternative 3. The No Grizzly Bear Alternative

The purpose of this alternative is to prevent grizzly bears from naturally re-establishing in the BE. Congress would need to pass legislation to remove grizzly bears in central Idaho and portions of western Montana from the list of threatened species. The FWS would stop all funding and management activity toward bear research, education, and management in central Idaho. The states of Idaho and Montana would remove grizzly bears from the protection of state law within the BE.

Alternative 4. Reintroduction of a Threatened Population with Full Protection of the ESA

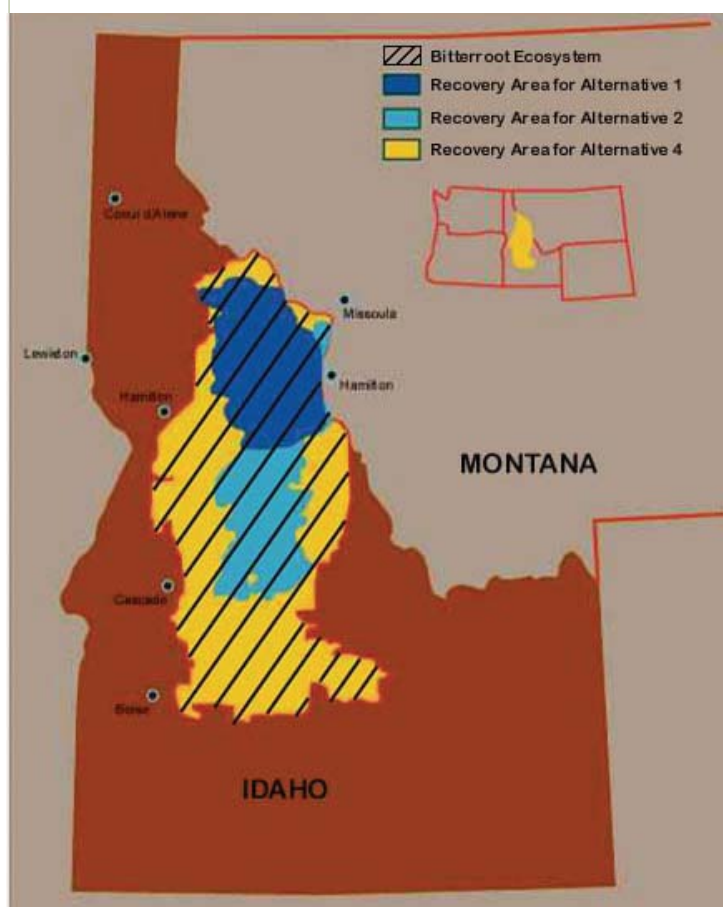
The goal of this alternative is to achieve recovery through reintroduction and extensive habitat protection and enhancement to promote natural recovery. The grizzly bear would have full status as a threatened species under the provisions of the ESA.

These four alternatives represent different approaches to grizzly bear recovery and management. They were developed for evaluation in the DEIS because they encompass public concerns raised during scoping and to reflect a full range of alternatives. Two alternatives (Alternatives 2 and 3) do not necessarily meet the purpose of and need for action, but were included in the DEIS to be responsive to public comments, to provide a full range of alternatives for consideration, and to meet the requirements of the National Environmental Policy Act (NEPA). NEPA ensures that environmental factors are weighted equally when compared to other factors in the decision making process undertaken by federal agencies. As part of this, NEPA requires that federal agencies prepare an environmental impact statement for projects they are requesting funding for from Congress. All four alternatives in the DEIS reflect public comments and suggestions identified through issue and alternative scoping.

Stakeholders / Public Concerns

- Governor Phil Batt of Idaho and Senator Conrad Burns of Montana argue that grizzly reintroduction will lock up the region's timber reserves while jeopardizing the safety of constituents in the area: "Reintroduction will pose a significant public safety risk for Idaho's citizens, and many tourists who visit our wilderness areas."
- Ravalli County Commissioner (Montana) Jerry Allen tells the federal government: "We don't want the bears. I'm worried about the livestock and about the safety of my neighbors."
- Some comments from other local citizens:

Figure 2. Grizzly Bear Recovery Alternatives in the Bitterroot Ecosystem.



“Grizzly bears attack people, and unlike the Fish & Wildlife Service, I do not believe there is an acceptable level of injury and death caused by grizzly bears.”

“We do not need our forests and other public lands shut down and put people out of jobs to encourage the grizzlies to roam into our backyards and endanger our lives.”

- Logging representative Jim Riley: “I don’t claim to speak for all loggers; but in general we are not afraid of living with grizzlies. What we fear most is having the federal government come in here and shut down traditional forms of resource extraction like logging to accommodate bears.”
- The environmental group Defenders of Wildlife supports reintroduction of the grizzly bears as an “experimental population,” and would like to set aside ~5,785 square miles of territory, allowing logging and grazing in the outlying areas. More significantly, their plan allows for a team of “citizen managers” to voice local concerns. Hank Fischer of Defenders says: “This is a struggle between the purists and the pragmatists—and we’re the pragmatists. Any plan that puts people second to bears just isn’t going to fly. If you don’t have the support of locals, these wildlife populations simply won’t survive.”
- The environmental group Alliance for the Wild Rockies champions a plan that would give full protection under the ESA, allowing federal biologists to manage reintroduction while keeping politics at bay. They call for setting aside ~21,645 square miles of territory for reintroduction. Alliance executive director Mike Bader counters the Defenders plan: “The only thing that got compromised in [the Defenders] plan is the grizzly bear; introducing grizzlies without significant habitat protection is like boarding them on a sinking ship.”

Questions

1. What are the major issues—economic, safety, animal rights, civil right—for each stakeholder group?
2. Are the opinions of local citizens more or less important than those of decisions makers in Washington D.C.? Why or why not?
3. Given that reintroduction will occur on federal public lands, how important are the opinions of all citizens? Do you think that non-local citizens should have a say in grizzly bear reintroduction?
4. How important are local financial concerns in the decision to reintroduce grizzly bears? And which businesses are most likely to benefit or lose?
5. Taking all factors into consideration, which alternative truly benefits the grizzly bear population?
6. What are the ecological concerns related to grizzly bear reintroduction?
7. Which is more important in this case: the process or the outcome?
8. How might grizzly bear reintroduction affect the different extractive industries (mining, timber, grazing)?
9. Why might different environmental groups disagree?

References

- Blanchard, Bonnie M., and Richard R. Knight. “Biological Consequences of Relocating Grizzly Bears in the Yellowstone Ecosystem.” *Journal of Wildlife Management* 59 (1995): 560–65.
- Eberhardt, L.L., and R.R. Knight. “How Many Grizzlies in Yellowstone?” *Journal of Wildlife Management* 60 (1996): 416–21.
- Fischer, Hank. “Bears and the Bitterroot.” *Defenders* Winter 1996/97:16+.
- Garshelis, David L. “The Grizzly Bears of Yellowstone: Their Ecology in the Yellowstone Ecosystem, 1959–1992.” *American Scientist* January/February 1997: 72.
- “Historic Plan Paves Way for Grizzlies’ Return to Idaho’s Bitterroot Region.” *National Wildlife* December/January 1996: 60+.
- “Montanans Learning to Live with Grizzly Bears.” *Environmental News Network* 29 September 1998: <http://www.enn.com/news/enn-stories/1998/09/092998/bears25.asp>.

- Oko, Dan. "Dispatches: The Debate That Roared." *Outside* March 1998:
<http://outsideonline.com/outside/magazine/0398/9803dispwildlife.html>.
- Peacock, Doug. "Making the West Safe for Grizzlies." *Audubon* November/December 1997: 46+.
- "The Possible Link." <http://www.defenders.org/defenders/grizgene.html>.
- Quammen, David. "Island of the Bears." *Audubon* March/April 1995: 82+.
- "Grizzly Bear Reintroduction." National Wildlife Federation: <http://www.nwf.org/nwf/grizzly/index.html>.
- Rembert, Tracey C., and Jim Motavalli. "Troubled Homecoming: Through Reintroduction Programs, Predators are Returning to the Wild, Challenging our Expectations and Fears." *E* March/April 1998: 28+.
- Robbins, Jim. "Scientists are Disputing the Fate of the Grizzly." *New York Times* 23 June 1998: B12.
- Stevens, William K. "Debating Nature of Nature in Yellowstone." *New York Times* 23 June 1998: B9+.
- United States. Department of the Interior. Fish and Wildlife Service. *Grizzly Bear Recovery in the Bitterroot Ecosystem: Draft Environmental Impact Statement*. Missoula, Montana: U.S. Fish and Wildlife Service, July 1997.
- _____. _____. Fish and Wildlife Service. *Grizzly Bear Recovery in the Bitterroot Ecosystem: Summary of the Draft Environmental Impact Statement*. Missoula, Montana: U.S. Fish and Wildlife Service, July 1997.
- Waller, John S., and Richard D. Mace. "Grizzly Bear Habitat Selection in the Swan Mountains, Montana." *Journal of Wildlife Management* 61 (1997): 1032–39.
- Wuethrich, Bernie. "Wayward Grizzlies Spark Debate." *Science* 25 October 1996: 493.
- Young, Donald D., Jr., and Thomas R. McCabe. "Grizzly Bear Predation Rates on Caribou Calves in Northeastern Alaska." *Journal of Wildlife Management* 61 (1997): 1056–66.
- _____. "Grizzly Bears and Calving Caribou: What is the Relation with River Corridors?" *Journal of Wildlife Management* 62 (1998): 255–61.



Credits: Grizzly Bear from *Summary of the Grizzly Bear Recovery Plan*: U.S. Fish and Wildlife Service, 1993. Figures 1 and 2 redrawn by Jim Stamos (UB Dept. of Biological Sciences) from Chapter 2, figures 2–3 and 2–2 respectively, of the *Grizzly Bear Recovery in the Bitterroot Ecosystem: Draft Environmental Impact Statement*. Missoula, Montana: U.S. Fish and Wildlife Service, July 1997.

Case copyright held by the **National Center for Case Study Teaching in Science**, University at Buffalo, State University of New York. Originally published June 1, 1999. Please see our **usage guidelines**, which outline our policy concerning permissible reproduction of this work.