

Alaska Bear Habitat

by John Hechtel

Protecting large areas of brown/grizzly bear habitat is essential if Alaska is to maintain abundant bear populations for the future. Bears cannot survive in the wild without adequate habitat. Alaska currently supports 30-40,000 grizzlies from the lush coastal forests of Southeast to the barrens of the Arctic Slope. The wide geographic distribution shows the bears' ability to use a variety of habitat types.

The term "habitat" is used in a number of different ways and is often thought of in the narrow sense of a vegetation type. In a broader sense, however, habitat refers to all the ecological factors in the area where bears live. For any site to be considered bear habitat, it must provide the right kinds and amounts of food, water, cover and space in a suitable arrangement that bears need to survive and reproduce. The quantity and quality of habitat determine the potential distribution and number of bears an area can support, as well as sizes of home ranges, average sizes of bears, and their ages at sexual maturity.

Trying to measure habitat quality or to determine specific habitat requirements—especially those factors that may be limiting or critical to the maintenance of a bear population—is exceedingly difficult. Unfortunately, grizzlies disappeared from much of their historic range across North America before their ecological needs were understood.

Adequate food is the most obvious factor essential for good bear habitat. During the 4-6 months grizzlies are active, they must store enough fat to survive 6-8 months of hibernation. The habitat must contain enough of the right kinds of energy-rich, high-quality plant and animal foods. The food sources must be readily available within the distances the bears can easily and safely travel. One way biologists try to measure the quality of bear habitat is by studying what bears eat and assessing the amount of food present. But the whole picture is quite complex. What a scientist sees bears eat at a certain place and time is not necessarily what the bears prefer or what is nutritionally most important. Also, the arrangement and interspersions of vegetation types (a diverse vegetative mosaic generally provides better quality bear habitat) and access to the areas with minimal danger are also important.

It is easy to see why food, water, escape cover, denning areas, or critical sites such as salmon streams are important. Understanding the significance of how these factors are arranged or the bears' requirements for space and isolation is more difficult. Bear/habitat relationships are complex and our knowledge of them is not complete.

Threats to the quantity and quality of bear habitat in Alaska increase as human activity and development encroach on wilderness. Human activity can extensively alter

or destroy habitat; for example, building dams, clearcutting old-growth forests, clearing land for agriculture, or grazing. Destruction of habitat is only a small part of the problem. Frequently, degradation of habitat quality is a more insidious threat. Human activity such as oil and gas exploration, back-country recreation, road building, and the building of subdivisions may affect habitat quality primarily through increasing human presence and access. Development is not entirely incompatible with grizzly conservation but the potential for conflicts increases with the frequency of human/bear contacts.

The effects of habitat degradation and destruction tend to be cumulative, meaning the combined impact of a series of activities is greater than the sum of each. Habitat quality can change as a result of bears avoiding preferred feeding or denning sites because of disturbance; of bears being unable to use habitat without significant risk of being killed by hunters, poachers, or in defense of life or property; or because food becomes scarce as a result of overfishing or overhunting. As large areas of intact bear habitat are carved into smaller and smaller parcels, the ability of bears to effectively use the habitat decreases while their vulnerability increases. Often bears are more willing to coexist with people than vice versa. As human habitation spreads into bear habitat, bears are eliminated because the public considers their presence threatening or inappropriate. Bears which learn to use human food sources such as dumps, hunter kills, pet food, etc., are usually killed. Each new human activity in bear habitat presents a new source of danger and increases the probability that a bear with a home range in the area will be shot.

The future of grizzly bear conservation in the state will depend on our success in convincing people of the inherent value of wild bear populations in Alaska, as well as our ability to control numbers of bears killed, to protect bear habitat, and to regulate human activity in critical bear habitat. Through long-term research we must keep improving our understanding of the ecology, population dynamics, and habitat requirements of grizzly bears and the impacts of disturbance, development, and human activity on bear habitat. In the southern 48 states grizzlies may survive only in isolated wilderness areas; we should be able to do better in Alaska. In spite of their low reproductive rates, grizzlies were once the dominant carnivore throughout much of North America. They are tough, intelligent, and adaptable animals; capable of doing well if we protect their habitat.

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