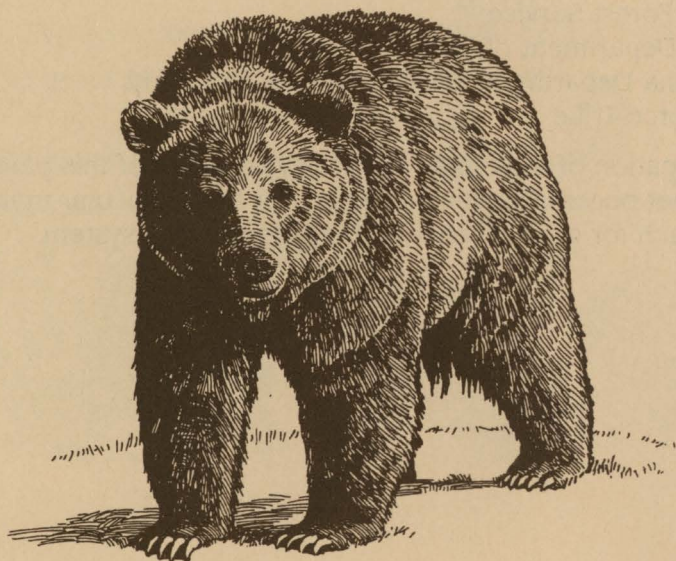


Grizzly Bear Recovery

in the
Bitterroot Ecosystem

Answers to Citizens' Questions



Printed on Recycled Paper

This pamphlet, which addresses questions of local citizens about grizzly bear recovery in the Bitterroot ecosystem, was developed by the cooperative efforts of:

Resource Organization on Timber Supply (R.O.O.T.S.)

Intermountain Forest Industry Association

Potlatch Corporation

National Wildlife Federation

Defenders of Wildlife

Interagency Grizzly Bear Committee

USDI Fish and Wildlife Service

USDA Forest Service

Idaho Department of Fish and Game

Montana Department of Fish, Wildlife and Parks

Nez Perce Tribe

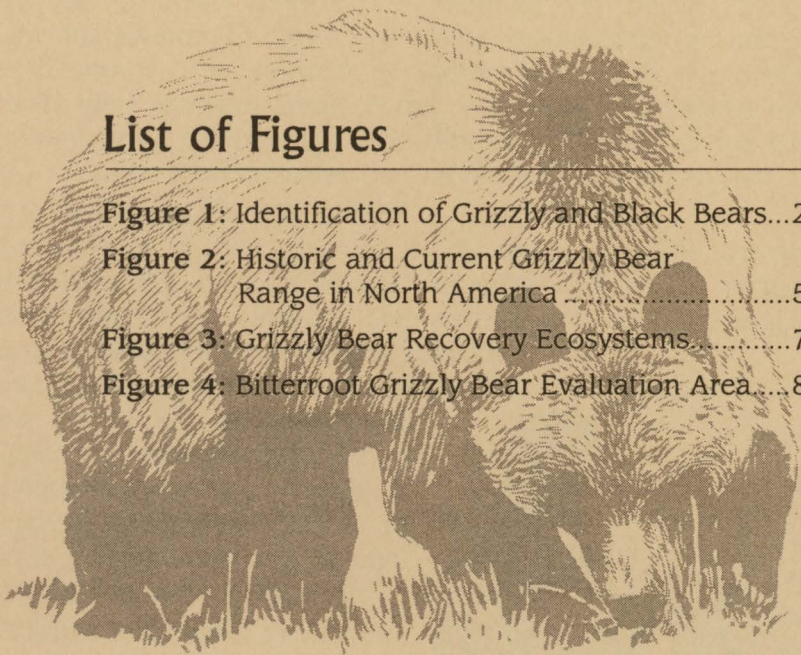
Participation of organizations in development of this pamphlet does not necessarily imply support for any particular management approach for grizzly bears in the Bitterroot Ecosystem.

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Introduction

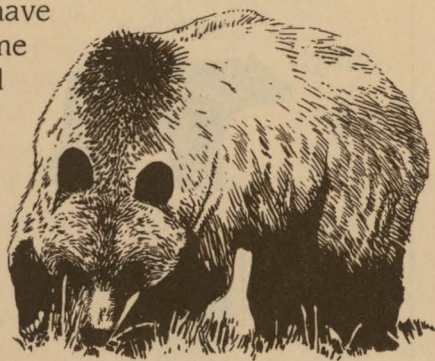
When the Lewis and Clark expedition crossed the Bitterroot Range on their way to the Pacific Ocean, they found a land rich in wildlife. Now, nearly two centuries later, the Bitterroot Mountains of central Idaho and western Montana still sustain a broad diversity of wildlife. It's home to over 100,000 deer and elk, numerous smaller animals such as hares and grouse, and rare predators such as fisher, lynx, and wolverine. Within the Bitterroot Ecosystem lies the largest wilderness area in the contiguous United States.

Today, however, one part of the Bitterroot Ecosystem is missing: the grizzly bear.

After more than a century of unregulated killing, the once-common grizzlies were exterminated from the Bitterroot Mountains. The grizzly bear no longer strips bushes teeming with berries, fishes for spawning salmon, or digs in the alpine rockslides for ground squirrels or moths. The Bitterroot Ecosystem is the only one of the six grizzly bear recovery areas in the western states without even a remnant grizzly population. The Bitterroot Chapter of the Grizzly Bear Recovery Plan indicates that ample food and habitat still exists for a recovered grizzly population.

People differ in their views of grizzly bears. For some, the grizzly symbolizes the essence of wild America and strikes images of power, freedom and beauty. They recognize it as a native species that is missing from much of our wild public lands. Many Native Americans have great respect for the grizzly. Some people express feelings of fear and intimidation at the mention of grizzly bears. Others worry more about government regulations than they do about bears.

This pamphlet seeks to provide factual answers to your questions about grizzly bears and grizzly recovery in the Bitterroot Ecosystem. It begins with the premise that public lands in central Idaho and western Montana contain enough room for both people and grizzlies.



Natural History of the Grizzly Bear

How do grizzlies differ from black bears?

Grizzly bears are the species Ursus arctos. We call it the grizzly bear here in the western United States, but the same species in coastal Alaska and Canada, Europe, and Asia is known as the brown bear. The average springtime weight of an adult male grizzly in the Rockies is 350-400 pounds; females weigh about 200-300 pounds. Grizzlies that live along the Alaska coast can weigh much more due to the availability of rich food sources (such as the annual runs of Pacific salmon). Average life-span for a wild grizzly is 15 to 20 years; the oldest grizzly captured in North America was a 35 year-old female in the Cabinet Mountains of Montana.

The black bear, a common inhabitant of the Bitterroot Ecosystem, is a separate species Ursus americanus. This smaller bear is found in 32 states, Canada and Mexico. In spring, adult male black bears

Fig. 1: Identification of Grizzly and Black Bears

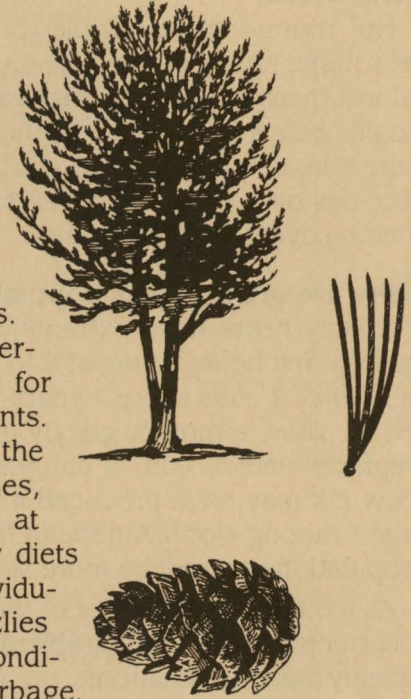


in the Rockies average 200-250 pounds and females weigh about 150 pounds.

It is sometimes difficult to differentiate black and grizzly bears in the wild. Both have coat colors varying from cinnamon to black. However, several key features can assist identification (Fig. 1). Grizzlies have long, curved front claws, a dish-shaped face in profile, and a hump at the shoulders. The black bear has smaller front claws, a straighter facial profile, and a less pronounced hump.

What do grizzlies eat?

● Grizzlies are omnivores that eat both plants and animals during the seven months (April to November) when they are active. In the Rocky Mountains, grizzlies feed primarily upon a variety of roots, grasses, forbs, nuts, and berries. They also scavenge meat from winter-killed big game carcasses and dig for grubs, ants, moth larvae, and rodents. Fish are not a significant food in the diet of Rocky Mountain grizzlies, though some may become adept at fishing for spawning trout. Grizzly diets can vary considerably between individuals and between ecosystems. Grizzlies also can become attracted and conditioned to human foods and garbage, thereby losing their usual wariness of humans.



Do grizzlies kill big game animals?

● Occasionally. In certain areas of Yellowstone National Park, for example, some grizzlies prey on elk calves for a few weeks in June. Grizzly bears rarely kill adult big game.

How much area does a grizzly need?

● Grizzlies are large animals and need an abundance of nourishing foods. For example, an adult grizzly may consume the caloric equivalent of 10 huckleberry pies in one day. Grizzly bears move across the land in response to the distribution and seasonal availability of

key foods. Consequently, movements may change from season to season and from year to year. Home ranges of adult female grizzlies in North America often are 50 to 150 square miles. Adult males have much larger home ranges, often 300 to 500 square miles. Grizzlies are not territorial. Home ranges of several bears may overlap, and bears may congregate at sites of abundant food.

Do grizzlies disperse long distances like wolves to colonize new areas?

No. Young female grizzlies often inherit a portion of their mother's home range, whereas young males may roam further. In several instances where resident bears have been moved up to 75 miles to alleviate a local problem, the animals returned to the site of capture. Nonetheless, of 460 grizzly bears radio-collared in the U.S. Rockies over the past 25 years, not a single one has moved from one recovery area to another.

Why are grizzly bear populations so vulnerable?

Grizzly bears have extremely low reproductive rates. A female grizzly first bears young at 5 to 8 years of age. On average, she has a litter of 2 cubs every 3 years, but only one may survive to adulthood. Thus, a mother grizzly may be 10 years or older before she replaces herself with a daughter of breeding age. (In contrast, a cow elk may have produced 4 to 5 mature daughters by a similar age.) Among North American land mammals, only Arctic musk ox populations reproduce more slowly than do grizzly populations.

As a direct consequence of this low reproductive capacity, grizzly bear populations cannot absorb a high death rate. For established grizzly bear populations, no more than 5-6% can be killed by humans annually or the population will decline. (Elk herds may absorb 15-30% annual mortality.) Survival of adult female grizzlies is especially crucial. Historically, excessive mortality at the hand of man led to the demise of the grizzly.

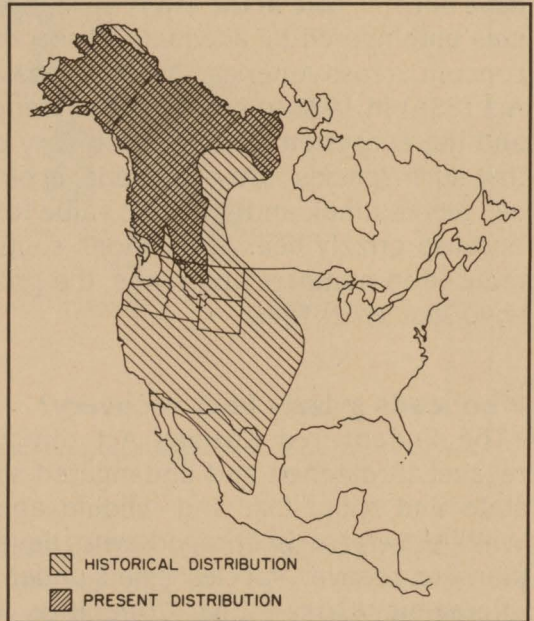
What was the grizzly bear's historical range and numbers?

For thousands of years, grizzlies lived in a wide variety of habitats throughout most of western North America. They were found from the Great Plains to the Pacific Ocean and from the Mexican highlands to the Arctic Ocean (Fig. 2). Grizzly bear experts estimate that more than 50,000 grizzlies lived in the contiguous United States prior to European settlement.

What is the current status of grizzly bears?

Presently, the grizzly bear is found in only 2 percent of its former range south of Canada (Fig. 2). Approximately 800 to 1,000 grizzlies remain in 5 scattered populations in Montana, Wyoming, Idaho, and Washington. Only 2 areas—the Northern Continental Divide Ecosystem (including Glacier National Park and the Bob Marshall Wilderness) and the Yellowstone Ecosystem—have populations of several hundred grizzly bears. The other areas have 5-30 grizzly bears each.

Fig. 2: Historic and Current Grizzly Bear Range in North America



Recovery of the Grizzly Bear

What is the legal status of the grizzly bear in the United States?

The grizzly bear (outside of Alaska) was listed as a threatened species under the Endangered Species Act (ESA) in 1975. A threatened species is one that is "likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." An endangered species is further defined as one "in danger of extinction throughout all or a significant portion of its range." The grizzly is also listed as a threatened species under Idaho state regulations and as a game species under Montana state regulations.

With so many grizzly bears in Alaska and Canada, why is the grizzly listed as a threatened species?

Many species of plants and animals—including the grizzly bear—have become rare in the lower 48 states as a result of human activities untempered by adequate conservation. In response to broad concern across America, Congress passed the Endangered Species Act (ESA) in 1973 to conserve threatened and endangered species and the ecosystems upon which they depend. Congress declared that such species “are of esthetic, ecological, educational, historical recreational, and scientific value to the Nation and its people.” Because grizzly bear populations south of Canada have been so reduced in numbers and range, the grizzly was listed as a threatened species in 1975.

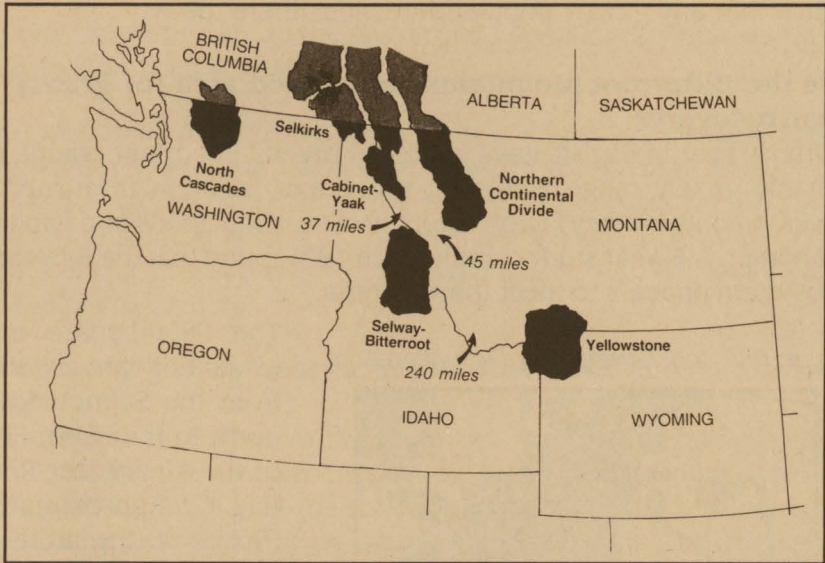
Who leads grizzly bear recovery?

- The Endangered Species Act directs all federal agencies to recover threatened and endangered species in cooperation with state and tribal fish and wildlife agencies. The U.S. Fish and Wildlife Service is charged with developing and implementing plans to recover species listed under the ESA. Since 1983, the Interagency Grizzly Bear Committee (IGBC) consisting of representatives of state and federal agencies has assisted the U.S. Fish and Wildlife Service in grizzly recovery.

What is the grizzly bear recovery plan?

- The Fish and Wildlife Service completed the Grizzly Bear Recovery Plan in 1982 and revised it in 1993. It addressed six grizzly bear ecosystems (Fig. 3): (1)Northern Continental Divide centered around Glacier National Park and the Bob Marshall Wilderness in northwestern Montana, (2)Cabinet-Yaak also in northwestern Montana, (3)Selkirk in north Idaho and northeastern Washington, (4)Yellowstone including lands surrounding Yellowstone National Park, (5)North Cascades in northwestern Washington, and (6)Bitterroot in central Idaho and western Montana. The recovery plan outlines steps to conserve grizzly bear populations and habitats such that the species no longer needs federal protection and can be taken off the list of threatened species. Implementation occurs through state, tribal, and federal management programs (such as National Forest plans).

Fig. 3: Grizzly Bear Recovery Ecosystems



Were grizzly bears ever common in the Bitterroot region?

- Historical evidence indicates that grizzlies were common in the Bitterroot Mountains. Members of the Lewis and Clark expedition killed six grizzlies in 1806 near present-day Kamiah, Idaho. During the late 1800s, the Bitterroot area was well-known for grizzly hunting. For example, a hunter named Wright killed 5 grizzlies in one episode on the Clearwater River and another 13 on a fall trip in the Bitterroot "region." One report estimated that trappers killed 25 to 40 grizzlies in the Bitterroots every year around the turn of the century.

What happened to the Bitterroot grizzly?

- Hunters, trappers, and sheep herders continued to kill grizzlies in the Bitterroot Mountains until the 1930s. Although some food sources (such as salmon) were lost, other foods remained abundant. Excessive killing apparently eliminated the Bitterroot grizzlies.

Do grizzly bears reside in the Bitterroot Ecosystem today?

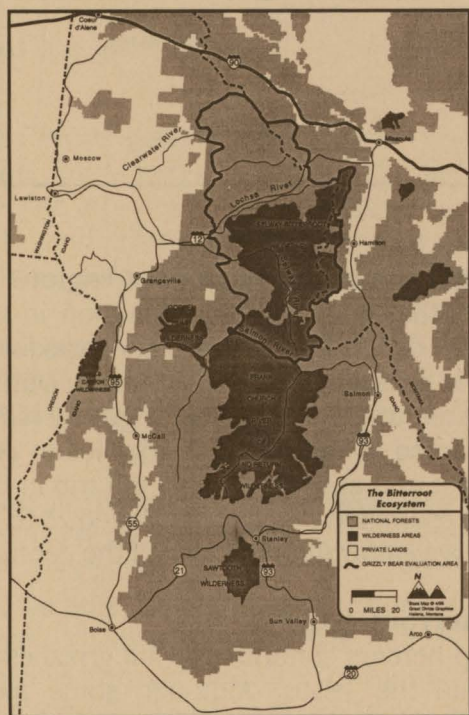
- The last verified report of a grizzly in the Bitterroots was recorded in the 1940s. State wildlife biologists have classified a few of the sightings of bears and/or their sign over the past 50 years as "probable" grizzly reports. Although it is possible that a few grizzly bears

range periodically into the Bitterroots, there is no conclusive evidence that any grizzly population resides there today.

Are the Bitterroot Mountains still a good area for grizzly bear recovery?

Grizzly bear biologists have identified several important criteria for suitable grizzly range. Sufficient space and isolation from human developments is a key factor; diversity of seasonal foods and habitats is another. A 5-year study completed in 1991 found that the Bitterroot Ecosystem appears to meet these criteria.

Fig. 4: Bitterroot Grizzly Bear Evaluation Area



The 5500-square mile evaluation area extends from the Salmon River north to the North Fork of the Clearwater River (Fig.4). Approximately 97.5% of the area is public land managed by the U.S. Forest Service; the remaining area is owned by timber corporations. About 50% of the area is found in the Selway-Bitterroot and Frank Church River of No Return Wilderness designated by Congress. One paved highway bisects this area. No cattle or sheep grazing occurs within the area at present. Thus, there is a large core of remote country. Other

portions of the River of No Return Wilderness south of the current evaluation area might also be suitable.

Satellite images—supplemented by field checking—have revealed a rich diversity and abundance of grizzly habitat in the Bitterroot Ecosystem. It appears that due to geographical patterns of precipitation, habitats north of the Lochsa River may be more productive than

those farther south. Considerable areas of spring range (nearly 1000 square miles or 1/6 of the Bitterroot Ecosystem) occur along the Selway and Lochsa Rivers.

Did the loss of salmon runs in the rivers of central Idaho significantly reduce habitat suitability for grizzly bears?

To what extent grizzlies in the Bitterroot Ecosystem relied upon spawning salmon in historic times is not known. However, grizzly bears elsewhere in the Rocky Mountains fare well without salmon as part of their diets.

How many grizzly bears can the Bitterroot Ecosystem support?

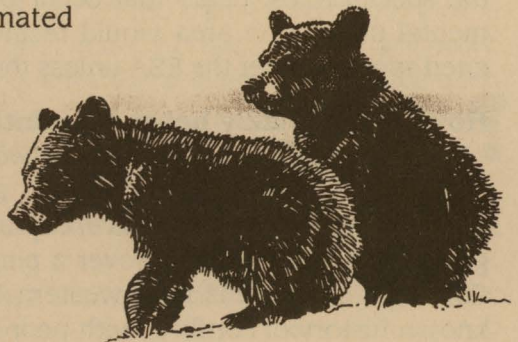
Ecological conditions in the Bitterroot Mountains appear comparable to other grizzly bear ecosystems in the Rocky Mountains. Bear biologists estimate that the food resources in the Bitterroots could eventually provide for an average density of about 1 bear for every 25-30 square miles of public land. Similar densities of grizzlies occur in portions of the Bob Marshall and Yellowstone country. Monitoring the movements and diets of reintroduced bears would provide a more definitive answer.

What are the most important factors for successful grizzly bear recovery?

Perhaps the most crucial element in grizzly conservation is public acceptance, especially by local citizens. Conservation strategies that incorporate sound science and address local concerns are essential for successful grizzly recovery.

How does the Bitterroot Ecosystem fit into overall grizzly recovery efforts?

Bear biologists have estimated that habitat in the Bitterroot Ecosystem eventually could support more than 200 grizzly bears. This would increase the current minimum number of grizzlies in the contiguous United States by 25-35%. Establishment of a third



major grizzly population in the remote Bitterroot mountains would contribute significantly to long-term conservation and recovery of the grizzly bear.

What are some options for recovering grizzly bears in the Bitterroot Ecosystem?

The Bitterroot Ecosystem is unique in that it is the only designated recovery area without at least a remnant grizzly population. A full array of options for grizzly bear recovery will be considered, including (1) no action (natural recolonization), (2) reintroduction of an "experimental population", and (3) reintroduction of a "threatened population" with standard protection under the Endangered Species Act. Because grizzly bears do not readily colonize distant areas, most bear biologists consider recovery by natural recolonization unlikely. Consequently, recovery will likely require reintroduction to restore a viable population.

What is an "experimental" population?

- In 1982, Congress amended the Endangered Species Act to permit greater management flexibility for species that are reintroduced to their historic range. The purpose of the added flexibility was to garner more local support for restoration efforts. Such populations may be designated as "experimental" and managed within a delineated area according to special rules designed to balance needs of both people and listed species. Citizens can be involved in crafting such management rules.

What if grizzlies show up outside the boundaries established for an experimental population?

An experimental population must be identified by a geographic boundary, marking of release animals, or other means specified in the special rules. Bears that occur outside of a delineated experimental population area would receive full protection as a threatened species under the ESA unless they were otherwise identifiable.

How might grizzly bears be reintroduced?

- The purpose of reintroduction would be to establish a small *colony* of bears from which a population could grow. Reintroduction would involve capturing a few male and female grizzlies (4 or 5) annually over a period of several years in British Columbia or perhaps northwestern Montana. Only bears with no known history of conflicts with people would be considered candi-

didates for reintroduction. Suitable bears would be released at remote wilderness sites within the Bitterroot Mountains of central Idaho.

How will grizzlies be monitored after releases?

All released bears would be fitted with radio transmitters and their movements monitored frequently.

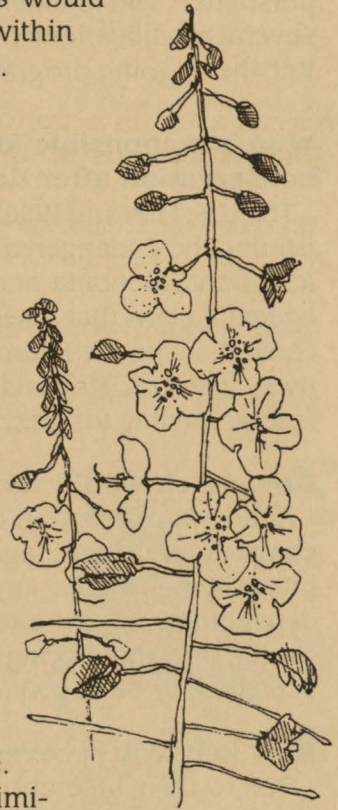
Have grizzly bears ever been introduced successfully to new area?

Yes. During 1990-94, the U.S. Fish and Wildlife Service translocated four young female grizzlies into the Cabinet/Yaak Ecosystem near Libby, Montana to augment a small population of grizzlies in danger of extinction. These bears were captured at high-elevation sites in a remote area of southeastern British Columbia and had no prior history of conflicts with people. Habitat and food resources there were similar to the release area in the Cabinet Wilderness.

Bears were captured and translocated in July when diverse foods, especially berries, were available. Each bear was fitted with a radio-collar equipped with a mortality sensor. Biologists monitored each bear often. Most bear movements were localized within 10 miles of the release site, and no bear moved farther than 20 miles. Movements and habitat use by the translocated bears were similar to those of resident grizzlies. One bear died of unknown natural causes about one year after the release. There have been no conflicts with humans; fewer than 10 sightings of the released bears have been reported by the public.

Were local citizens involved in recovery planning for the Cabinet augmentation?

Local residents representing a spectrum of opinions on grizzlies served on a Citizen's Involvement Group as partners with agency



personnel. This citizen group provided direct input which led to several modifications of the proposed action. It continues to monitor the ongoing program.

Who is responsible for grizzly recovery while it is listed and conservation after delisting?

The U.S. Fish and Wildlife Service has the responsibility for administering the Endangered Species Act. If the state wildlife agencies of Idaho and Montana and/or Native American tribes develop management plans that meet the conservation standard of the ESA, they could manage the Bitterroot Ecosystem grizzly population cooperatively with U.S. Fish and Wildlife Service. They would be eligible for federal funding for grizzly management and research.

How much would recovery cost?

Although restoration of a species like grizzly bears would be a complex endeavor, agencies would streamline planning while intensifying public involvement. Recovery costs would vary depending upon the alternative chosen. Cost of capturing, translocating, and monitoring 4-6 grizzlies a year is estimated at about \$160,000, or \$800,000 for a 5-year program.

How long will recovery take in the Bitterroot Ecosystem?

Due to their inherent low productivity, grizzly populations grow slowly...even under the best conditions. Realistically, grizzly recovery in the Bitterroot Ecosystem could take from 30 to 60 years. In an uncertain world, there may be occasional setbacks.

How will we know when the Bitterroot grizzly population is recovered?

Grizzlies are very difficult to census because of their low density and secretive habits. Wildlife scientists are developing a number of methods to assess how well a population is recovering. One important index is the number and distribution of females with cubs. Another is the level of human-caused mortality of bears.

Would the Bitterroot grizzly always be listed under the Endangered Species Act?

No. The goal of the Endangered Species Act is to de-list species once they have reached recovery and a conservation plan has been developed.

How Would Grizzly Bear Recovery Affect Me?

Would "problem" bears be moved into the Bitterroot Ecosystem?

No. Bears with a history of conflict with humans would NOT be reintroduced into the Bitterroot Ecosystem.

What about the safety of hunters, anglers, packers and backpackers in the wilderness?

There is a long history of human-grizzly coexistence in the western United States and Canada. For example, in the Bob Marshall Wilderness in Montana, there have been no grizzly-inflicted injuries in the last 30 years. In Glacier National Park where grizzly bears occur at high density, injuries have been extremely rare (average of 1-2 injuries per year, or about 1 per 1,400,000 visitors). In fact, more injuries and deaths in the National Parks have been due to drownings, gorings by bison, or horseback accidents than have resulted from grizzly attacks. Common-sense hiking and camping practices help reduce the chance of a surprise encounter or rewarding a curious bear with food or garbage. Check with your local offices of the Idaho Department of Fish and Game, Montana Department of Fish, Wildlife, and Parks, Nez Perce Tribe, or the Forest Service for information on hiking and camping in grizzly country.



Is it legal to kill a grizzly in defense of life or property?

It is legal to kill a grizzly in self-defense. The kill must be reported within 24 hours, and an investigation will take place to deter-

mine whether it was indeed a case of self-defense. Grizzly bears cannot be killed by members of the public in defense of property.

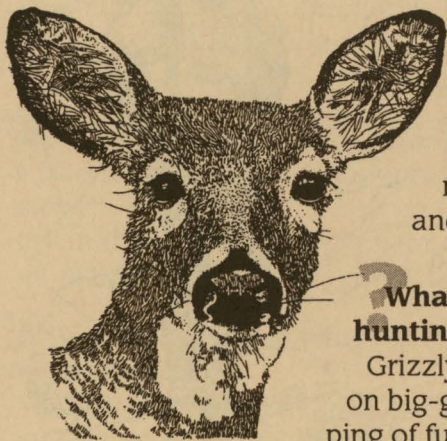
❓ If grizzly bears become a problem, can they be controlled?

● Bears that frequent areas of high human use, act aggressively toward humans, or kill livestock would be dealt with under protocol already established for other grizzly bear recovery areas by the Interagency Grizzly Bear Committee. Nuisance grizzlies would be relocated rapidly to remote areas or killed by authorized personnel of state, tribal, or federal agencies. For example, individual bears that wandered into areas deemed unsuitable for bear residency (such as agricultural, residential, or recreational developments) could be removed.

❓ What effect would grizzly recovery have on moose, elk or other big-game populations?

Grizzlies feed primarily on vegetation, roots, berries and insects.

Given the abundance of big game, it is unlikely that a low density of grizzly bears in the Bitterroot Ecosystem would have any measurable impact on big game populations. Habitat management can benefit both elk and grizzly bears.



❓ What about possible restrictions on hunting and trapping?

Grizzly recovery should have little impact on big-game hunting opportunities or trapping of furbearers. Grizzly bears are protected as a threatened species under ESA. Black bears are hunted in Montana and Idaho under state regulations. In Montana, use of dogs for hunting bears was prohibited in 1921 and baiting of bears was cancelled in 1948. In central Idaho, baiting of black bears and pursuing black bears with hounds in wilderness areas may be evaluated to assure that these activities do not hinder any grizzly bear reintroductions. Due to the possibility of hunters confusing grizzly bears for black bears, hunter education efforts would be expanded.

Do grizzlies prey on domestic livestock?

Yes. Certain bears occasionally turn to killing livestock, usually domestic sheep. However, no livestock grazing occurs at present in the Bitterroot evaluation area.

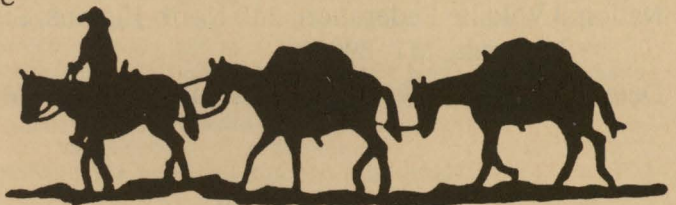
How would timber harvest or mining be conducted on public lands if grizzly bears were restored?

This would vary by land designation and by grizzly recovery alternative. Over half of the Bitterroot evaluation area lies in designated wilderness where no timber harvest or mining can occur by law. On National Forest lands outside Wilderness, Forest Plans determine areas suitable for timber harvest and mining. On certain sites, timber harvest can be an important tool for maintaining or creating foraging habitat for grizzlies (such as shrubs with berries). With appropriate practices such as proper sanitation, mining takes place in other grizzly bear ecosystems.

If grizzlies recolonized the Bitterroot Mountains on their own or were reintroduced under conventional "threatened" status, the Forest Service would be required to consult formally with the U.S. Fish and Wildlife Service on timber sales or mining that might affect the grizzly bear. If grizzlies were reintroduced as an "experimental population", then formal consultation requirements would be waived.

If grizzly bears were restored to the Bitterroots, how would access using forest roads and trails be managed?

Extensive access into grizzly country can increase risk of human-caused mortality and reduce effective use of habitat by grizzlies (in addition to impacts on elk and fish populations). Existing standards and guidelines for elk, fish, and riparian habitat management may be adequate, or some road closures and/or seasonal restrictions may be necessary for grizzly bear security. It's important to remember that bears die from bullets—not from roads or trails. Thus, human tolerance for grizzly bears can be a crucial factor in having room for both people and grizzly bears.



Suggestions for Further Reading

- Craighead, F. C. 1979. **Track of the Grizzly**. Sierra Club Books, San Francisco, CA. 262 pp.
- McNamee, T. 1984. **The grizzly bear**. Alfred A. Knopf, Inc. New York, NY. 308 pp.
- U.S. Fish and Wildlife Service. 1993. **Grizzly Bear Recovery Plan**. Missoula, MT. 181 pp. (For information on purchasing the Recovery Plan call 1-800-582-3421)

For more information contact:

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Lewiston, ID 83501

Montana Department of Fish, Wildlife and Parks, 3201 Spurgin
Road, Missoula, MT 59801

Nez Perce Tribe, Box 365, Lapwai, ID 83540

Bitterroot National Forest, 1801 N. First Street, Hamilton, MT
59840

Clearwater National Forest, 12730 Highway 12, Orofino, ID 83544

Lolo National Forest, Building 24, Fort Missoula, Missoula, MT 59801

Nez Perce National Forest, Route 2, Box 475, Grangeville, ID 83530

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