

About Bears



Glacier National Park is bear country. Traveling through bear country is a rare opportunity to establish a relationship with nature, not as a conqueror but on equal terms. This folder will acquaint you with bears and some specific characteristics of grizzlies and black bears. Learning about bears and being aware of their ways will enable you to more fully appreciate this unique experience.

GLACIER NATIONAL PARK

Measurements in this folder are metric. If you don't think in terms of metric units, they're easy to convert—One meter equals about one yard. Multiply kilograms by 2¼ to get pounds.

Prepared by:
K. L. McArthur
Research Division
Glacier National Park

PHOTO CREDITS:

1. C. Martinka, 2. B. Graff, 3. D. On,
4. K. McArthur, 5. D. Shea, 6. J. Jokerst.
All others: National Park Service.

Published by Glacier Natural History
Association in cooperation with
Glacier National Park



Black Bear

Ursus americanus

Glacier is the home of about 500 black bears. Black bears are the smallest North American bears, weighing about 90 kilograms and standing 1 meter tall. On its hind legs, an adult black bear stands about 1½ meters tall.

The highest point of a black bear is the middle of its back—it has no prominent shoulder hump. In profile, its muzzle is straight. Despite their name, black bears are not always black—they may be honey-colored or blond, and even a black one may have a tan muzzle or a white spot on its chest. Black bears sometimes change color as they grow older.

An adult black bear can run 50 meters in 4 seconds. Their short, curved claws enable black bears to climb trees, and black bears are also good swimmers.

Grizzly Bear

Ursus arctos

About 200 grizzlies live in Glacier. A grizzly is an awesome creature. An adult grizzly may weigh 160 kilograms or more and is 1¼ meters tall at the shoulder. Upright, it stands 2 meters tall and can reach even higher with its forepaws.

The highest point of the grizzly's back is its hump, a great mass of muscle over its shoulder—and an indication of the bear's immense strength.



Grizzlies have impressive claws on their front feet which make their footprints unmistakable. Used primarily in digging, the claws are dull and cannot be used to climb trees. Nevertheless, with the help of well-placed branches, grizzlies have been known to climb more than 7 meters into a tree.

The grizzly's head is round and usually concave or "dished," although face profiles vary considerably. A grizzly may be any shade of brown, from blond to nearly black, or a pattern of several shades. Some grizzlies are silvertip, a beautiful shining effect produced by white-tipped hairs.

The grizzly's ponderous size belies the startling speed with which it can move—an adult grizzly can dash 50 meters in 3 seconds. Grizzlies are also good swimmers, able to swim across lakes.

How Bear Cubs Are Raised

Grizzlies may live to be 25 to 30 years old, but most black bears live only 20 years. Although grizzlies breed for the first time at 5 to 7 years of age, they are not full-grown until 8 to 10 years of age.

Bears mate in early summer, but development of the embryo is delayed until autumn. After a 7- to 8-month gestation period, 1 to 4 (usually 2) tiny cubs are born in midwinter. Nurtured with their mother's very rich milk, they grow from less than ½ kilogram at birth to 5 to 10 kilograms by the time they emerge from the den in spring.

Most grizzly cubs stay with their mother for two summers. During the first summer, the mother bear is very attentive toward her cubs—she seldom lets them out of her sight, nor will she leave them to flee from danger. The cubs watch their mother and learn by mimicking her—where to look for food during each season, how to dig a winter den, and what to do when confronted by people. By the time grizzly cubs' third spring arrives, their mother has taught them to be self-reliant and she abandons them. The littermates may stay together through the summer, and then perhaps even den together, but they will not reunite with their mother. Black bear cubs stay with their mother for only one summer.

The female bear does not breed again while her offspring are with her, so there is an interval of at least 3 years between each time a female grizzly reproduces. In a population of 200 grizzlies, there are only about 15 females with new cubs in any given year. This very low reproductive rate makes it difficult for a grizzly population to expand.



Black bear cub

How Bears Stay Alive in Winter

Since little food is available during winter, bears couldn't survive if they remained active. The date a bear enters its den depends on the abundance of food during the previous summer. In Glacier, most bears enter their dens during November.

While hibernating, a bear's heart rate and breathing slow, and its body temperature drops. Since its metabolic rate is so low, the bear loses little fat during hibernation. When it leaves the den in April, however, snow is still on the ground and few plants have sprouted, and it is a week or two before the bear's digestive system can adjust to being active again. During this critical period, the bear must rely on every ounce of fat it stored the previous summer.



A grizzly constructs its den by digging horizontally about 2 ½ meters into a slope. The soil must be deep enough and of a consistency that won't collapse in the middle of winter. After the bear enters its den, snow seals the entrance, insulating the interior from the wintry air outside. The grizzly chooses a den site where the air outside is cold so the insulating snow will be less likely to melt—if it did melt, not only would cold air enter the den, but the bear might find itself sleeping in a puddle of chilly meltwater.



Black bears don't usually dig their dens since they don't have the grizzly's long front claws and powerful shoulder muscles. Instead, they hibernate in rotten trees or hollow logs, beneath tree roots, or in brushy thickets.

Arrival of Europeans Spelled Doom for the Grizzly...

Native Americans, living on the same land as grizzlies, recognized the similarities between themselves and the grizzly—they ate the same food, had similar bones and organs, and the great bear could even walk like a man. Many tribes believed the grizzly was a brother or cousin. Others believed that the first Indians were children of a bear and a woman.

The first Europeans to see grizzlies were Spanish explorers of the Southwest in



the 1500's. Other explorers roaming the West found grizzlies in foothills, river-bottoms, and brushland, south as far as central Mexico, east across the Great Plains, and west to the Pacific coast. A priest on board a ship anchored in Monterey Bay in 1602 wrote of watching grizzlies feeding on a whale carcass on the beach. In 1805, Lewis and Clark saw many grizzlies in the vicinity of the Great Falls of the Missouri River where the bears fed on carcasses of bison swept over the falls. At that time, the bears had no reason to fear people. The grizzly's lack of fear, coupled with its inclination to fight back when threatened or injured, won it a reputation for ferocity as well as its scientific name *Ursus arctos horribilis*.

As civilization spread, grizzly range receded. Convinced that the bears posed a threat to them and their livestock, people exterminated grizzlies near settled areas. In many places, bounties were placed on grizzlies. Grizzlies did not retreat into inaccessible wilderness because they couldn't tolerate people—on the contrary, only the grizzlies that already inhabited inaccessible areas escaped man's persecution. After little more than a hundred years, self-perpetuating grizzly populations remained only in large remote areas of Wyoming, Montana, and Canada. Even in Glacier, there were few grizzlies when the park was established in 1910.

In 1975, the grizzly was designated a threatened species, one that was not yet in danger of extinction but would probably become so if their numbers continued to decline.

...or Did It?

Establishment of Glacier National Park in 1910 created an area where the grizzly is protected, where a truly wild grizzly population is to be restored and preserved and people are no longer allowed to eliminate the bears they fear.

Maintaining a wild grizzly population in a national park is no simple task, however. Harmful effects that people, often unwittingly, have on bears must be identified and eliminated. In Glacier, some bears have become accustomed to the presence of people, and a few become so flagrantly aggressive that they must be destroyed. Although conflicts between bears and people are rare, those that do occur generate exciting news stories that evoke apprehension and public sentiment against bears.



Protecting Bears and People

Glacier National Park is a natural area, but a **managed** natural area. It must be managed in order to prevent pervasive human influences from destroying the very qualities that make it priceless. Rather than manage the park by manipulating the wilderness and its wild inhabitants, however, it is human use that is manipulated in Glacier while the natural processes are allowed to proceed as they will. You may find a trail closed or fishing restricted—this is to protect you from the bears and to protect the bears from influences you and other people unintentionally have on them.

Are Bears Bad Tempered or Friendly?

Neither . . . bears are individuals. One may be more aggressive, while another is more fun-loving. But all bears are solitary animals, and they won't associate with any other bears except their immediate family or mates. Bears may gather at a place with abundant food, but this is for eating, not socializing.

Bears may be active anytime, day or night, most often during morning and evening twilight. When not foraging, they rest in **daybeds**—next to a log in a windfall, in dense brush, or in the depression left by an uprooted tree.

Bears are very intelligent and curious. Although their vision is adequate, they generally rely on their phenomenal senses of smell and hearing. When a bear first detects you, it may stand upright, with ears erect, moving its head back and forth and sniffing the air, using all its senses to try to identify what you are. It may cautiously circle you until it picks up your scent. Once it identifies you, it may try to intimidate you by charging to within 2 meters before it withdraws. Grunting, woofing, snapping jaws, and heavy breathing add to the frightening effect. A truly wild bear will rarely intentionally attack unless it feels threatened or provoked.

Living in Familiar Territory

Every bear has a **home range** which it knows and frequents. The bear has places in its home range where it can find what it needs during each season—it remains in one part of its home range for awhile and then moves on, traveling to different areas as snow recedes, plants sprout, and berries ripen.

Having spent most of its life there, a bear is intimately familiar with its home range. It knows where its neighbors are likely to be and avoids them. It also knows where trails are. Bears use trails just as people do since it's easier to travel on a trail than through the underbrush. Most bears are aware that people also use trails. If you travel off-trail, however, you will probably surprise any bear you meet (a very dangerous situation!) since it will not be expecting to see a person there.

Young bears roam until they find habitat that is not already occupied. Having been on its own for only a short while and still looking for a home of its own, a young bear is adventurous and curious about the world and everything in it, and it won't hesitate to tackle a challenge or

investigate a novel object it discovers. This natural behavior can lead to trouble in the presence of people, especially if the bear develops destructive or aggressive tendencies that are rewarded with food.

Bear Signs

You may not see a grizzly during your visit to Glacier. Still, if you are observant, you may discover that one passed that way only a few hours earlier. Look for its **tracks** on the trail—a five-toed footprint as long as yours but twice as wide, with claws extending well beyond the toes. It's difficult not to notice a grizzly's massive **dropping** of partly digested berries, seeds, and grass (not hay!).

As your trail skirts an alpine meadow, look for areas of **turf turned over** so recently that no new plants are growing on the exposed soil—evidence of a grizzly's feast on flower bulbs or its pursuit of a burrowing animal.

In the forest, look for a **bear tree**—while standing on its hind legs, a bear bites and scratches the tree, leaving vertical scratch marks and peeled bark as high as 4 meters above the ground. It seems as though the bear tries to reach higher each time than it did the time before. (Remember this if you ever climb a tree to avoid a grizzly!)



Recent grizzly digging



Grizzly tracks

For Bears to Eat, They Must Kill a Lot, Right?

No. Bears are omnivores—about 90% of a bear's diet is made up of the most nutritious and energy-rich portions of plants, whereas about 10% of its diet consists of animal matter.

Black bears are reluctant to venture far from tree cover and, unlike grizzlies, prefer to remain in the forest. An unbroken expanse of forest doesn't provide enough food, however, and there must be openings with grassy meadows, berry patches, and streambottoms where the bears can satisfy their appetites for fresh vegetation and juicy insects.

Grizzlies, on the other hand, need habitat with a variety of **skirt turned over** so recently that no new plants are growing on the exposed soil—evidence of a grizzly's feast on flower bulbs or its pursuit of a burrowing animal. Grizzlies, on the other hand, need habitat with a variety of evergreen forests, alpine meadows, brushy snowchutes, grasslands, and burned-over areas. In the spring, grizzlies graze on nutritious grass and horsetail shoots in wet meadows, and roam deer and elk winter ranges and the bases of avalanche chutes in search of carcasses of animals that died during the winter. A grizzly caches uneaten meat for later meals by covering it with dirt, twigs, and leaves—and guards its possession vigorously!

As the snow recedes, grizzlies frequent subalpine meadows, grazing on plant sprouts, digging up the bulbs and roots of glacier lilies and wild onions, munching on cow-parsnip, pursuing ground squirrels, and foraging for ants, beetles, and other insects. Huckleberry bushes are especially abundant in burned-over areas, and black bears as well as grizzlies gather to feast on the berries as they ripen in late summer.

As winter approaches and the air turns frosty, grizzlies move toward their den sites. They continue to eat berries, supplemented with grass and roots.

The **typical** grizzly frequents the lowlands in spring, alpine meadows in midsummer, and brushland and forest during autumn, and yet grizzlies are frequently encountered in dense brush throughout the summer. In fact, the "typical" bear is probably as mythical as the "typical" person. Every bear is an **individual**, with individual likes and dislikes.

Favorite Grizzly Foods



Cow-parsnip



Huckleberries



Ground squirrel



Glacier lilies

What Do Bears Need Besides Food?

Bears have to eat voraciously during the summer in order to gain enough weight on which to subsist during and immediately after hibernation. So bear habitat must have a lot of food available. Adequate food is not enough, however—bears also need places for a den and daybeds, and minimal conflict with people. And these must be sufficient not just for one bear, but for enough bears to perpetuate the population. Thus an area of good habitat must be extensive if bears are to survive there.



Grizzly bears in an alpine meadow

What Can You Do to Increase Your Safety?

As long as you are in bear country, your safety cannot be guaranteed. There **are** some things you can do to minimize the danger, for yourself and for those who follow.

While you're in the park, do what you can to keep bears from becoming accustomed to the presence of people nearby or becoming conditioned to think of food whenever they see a person. Because so many people have been led to believe that bears are cute buffoons, when they encounter a real one, unthinking people don't give it the respect due a wild animal. Even if a bear looks tame, don't approach it. It may ignore you but react violently the moment you enter its "personal space."

While hiking—

Hike with a friend.

Hike only during the day, not at night or during twilight.

Make enough noise so that bears will know you're coming. If you and your companions can't keep up a loud conversation, wear a loud bell or dangle a can of pebbles.

Don't wear cosmetics or deodorant or take loosely wrapped food with you.

Women should not hike during their menstrual period.

Use **extra caution** where hearing or visibility is limited—in brushy areas, near a stream, where the trail rounds a bend, or on windy days.

While camping—

Keep your camp clean.

When you're not eating or cooking, store your food in your car or suspended high in a tree. Don't underestimate the ingenuity of a bear!

Use only freeze-dried food, and use a stove instead of building a campfire.

Keep your clothes, tent, and sleeping bag free of food odors.

Sleep well away from where you cooked and where you stored your food.

Dispose of your garbage properly—in a bearproof garbage can or pack it out of the backcountry. Don't bury it. Burn only inedible trash.

Remember that a bear will claim any food it finds, even yours.

Preventing A Confrontation Is Your Key to Safety

If you act wisely in bear country, your chances of becoming involved in a dangerous confrontation are remote, but the danger cannot be entirely eliminated.

If you are confronted by a bear, do your best not to threaten it, but don't show your fear either. Remain calm and slowly back away, talking quietly to the bear. Drop something (not food!) to divert the bear's attention. Don't run since doing so will only incite the bear to chase—and you can't outrun a bear. Climb a tree only if you can reach it without running. The bear may try to intimidate you by charging but stop before it reaches you.

If you are attacked, don't resist. Curl up on the ground, protecting your vital spots, and play dead. The bear will usually leave once it thinks it has conquered the threat.



Do You Care?

Bears occasionally wander through nearly every campground in the park, and one may well pass through your campsite at night. Finding no food available, it will go on its way. If you carelessly left any food out, though, even your dirty dishes from supper, the bear will do its best to get it and may damage you or your belongings in the process. And it will return, probably a little more bold, to look for food from the next people who use that campsite. Eventually, the bear will become so dangerous that it must be destroyed—for the protection of other bears as well as people. All because of that first careless person.

Be cautious but not fearful—respect the wild country and its inhabitants.