Living in Harmony with BEARS

Living in Harmony with Bears

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Living in Harmony with Bears is a project of the Alaska State Office of the National Audubon Society. It is designed to help people co-exist with brown/grizzly bears (Ursus arctos) and black bears (Ursus americanus).

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Please be aware that both species of bears are individualistic and certain bears may be unpredictable. There is always inherent risk in any interaction with bears. The goal of this booklet is to reduce that risk.

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People and Bears

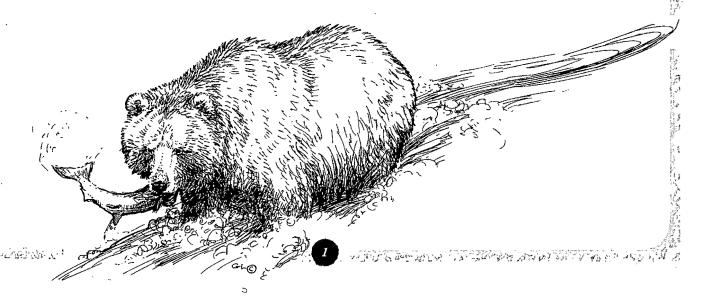
Alaskans are faced with the challenge of sharing habitats with brown and black bears because of increases in human population, resource development, tourism, and recreation.

HUMAN ACTIVITY AFFECTS BEARS. The effect of human activity on bears is cumulative and often difficult to detect. While most of Alaska presently has stable populations of brown and black bears, this could change very quickly in some areas of the state.

WE CAN MINIMIZE CONFLICT. Homeowners, hunters, recreationalists, or anyone concerned about bears can minimize conflict by addressing the habitat and behavioral needs of these wonderful animals.

THERE ARE MORE PEOPLE THAN BEARS IN ALASKA. Bears are difficult to count. There are estimated to be about 35,000 brown bears and more than 100,000 black bears in the state. There are at least 600,000 people.

ALASKANS WANT BEARS. Alaskans are fortunate. They have decided they want to keep bears around. Surveys have shown that both residents and visitors value bears as a renewable resource and as animals that can be observed and enjoyed.



A Brief History

Relationships between people and bears have varied over time. Only recently we have decided we must conserve predatory animals.

WE HAVE LIVED TOGETHER FOR THOUSANDS OF YEARS. Bears and people have lived together in Alaska for thousands of years. During this time we have killed the same game, fished the same streams and rivers, and walked the same trails.

EARLY CULTURAL TRADITIONS INCLUDED FEAR AND RESPECT. Bears held, and continue to hold, an important place in the lives of Alaska Natives. Cultural traditions include both fear and respect, ritualized burial of bear remains, and many anthropomorphic stories about the behavior of bears. Native insights and beliefs about bears are a rich part of our heritage. Except for localized instances, aboriginal hunting and living patterns had little effect on bear populations.



SETTLERS TREATED BEARS AS
COMPETITORS. Pioneers in Alaska
showed little respect for bears. They
recognized bears as animals to be
exploited or as competitors to be
exterminated. It was common to
homestead near a salmon stream and
shoot bears until no more came. This
wanton waste, along with unregulated
hunting practices, led to the creation of
game regulations and wildlife refuges.

TODAY MOST BROWN, OR GRIZZLY BEARS AS

THEY ARE SOMETIMES KNOWN, ARE KILLED FOR THEIR TROPHY VALUE. Many black bears and occasionally brown bears are killed for food. Bears of both species are sometimes killed out of fear for life or property.

BEAR VIEWING HAS GROWN IN POPULARITY. During the past two decades bear viewing has become increasingly popular. Successful bear viewing operations as well as individuals have found bear watching highly rewarding.

The Bear Facts

Alaska is bear country.

WE CAN EXPECT TO MEET BEARS ALMOST ANYWHERE. Brown bears occur almost everywhere. Densities are highest in places with few people, good habitat, and plentiful salmon. These places include Kodiak Island, the Alaska Peninsula, and the northern islands of Southeast Alaska.

Black bears range over the three-fourths of the state where there are trees. There are no black bears on Kodiak and most of the Alaska Peninsula. They are rare north of the Brooks Range, on the Yukon-Kuskokwim Delta, and the Seward Peninsula. In Southeast Alaska black bears are common on the mainland and most islands with the exception of Admiralty, Baranof, Chichagof, and Kruzof.

BLACK AND BROWN BEARS COME IN MANY DIFFERENT COLORS. Although most black bears in Alaska are black, they can be brown or even bluish gray like the "glacier bears" of Southeast Alaska. Black bears with brown coats have been seen near Anchorage but not on the Kenai Peninsula.

Brown bear colors vary from very blond, to dark chocolate brown, to black. Male brown bears are usually darker than females.

BROWN AND BLACK BEARS LOOK DIFFERENT. Brown bears have a pronounced hump between their shoulders. Black bear faces have straight or "Roman" profiles while brown bear faces tend to be slightly concave or "dish shaped." Brown bear muzzles are the same color as their coats, while those of black bears often have tan or brown markings.

Black bears have short curved claws for climbing trees. Brown bear claws are apt to be twice as long and much straighter. It is extremely difficult to identify a bear by its tracks, but it helps to know that the toes of a black bear form a slight arc while those of a brown bear are almost straight across. The toe imprints of a brown bear are almost joined together, while those of a black bear are wider apart.

BROWN BEARS ARE BIG. Brown bears come in all sizes and shapes. A first-year cub emerging from its den might weigh 15 pounds while an adult male, fat from a summer of gorging on salmon, can weigh half a ton or more. Young bears and cubs may double their body weight during the summer and fall months. Mature bears gain 30 or 40 percent of their body weight during the summer and may put on several pounds of weight in a single day.

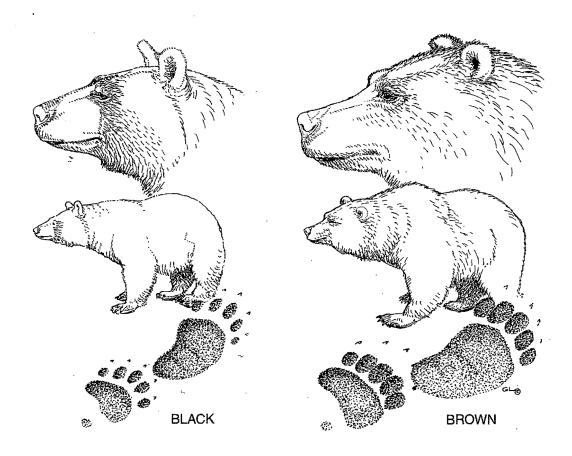
At mid-summer a mature female brown bear weighs between 250 and 600 pounds. A mature male can weigh anywhere from 600 to well over 1,000 pounds. One tranquilized male on the Alaska Peninsula weighed 1,275 pounds in the spring. There is a report of a bear on Kodiak Island tipping the scales at almost 1,500 pounds.

The farther north you go in Alaska, the smaller the brown bears tend to be, although there are some large ones in the interior. Size is somewhat dependent on what the bears have to eat and for how long they have to eat it. Coastal and Kodiak brown bears gain their great size because of the availability of salmon during the summer and fall.

Male brown bears are usually bigger at a given age than females, occasionally reaching almost five feet at the shoulder and nine feet in height when standing. Males have bigger, broader heads and thicker necks than females. They are frequently covered with battle scars, inflicted in fights with other males and the occasional irate female.

BLACK BEARS ARE SMALLER. Like brown bears, black bears change weight with the season. A big black bear can be larger than a small brown bear. Generally in Alaska mature females weigh between 100 and 250 pounds and males 200 to over 400. The largest black bears in the state are found in Southeast.

BEARS LIVE FOR A LONG TIME. No one knows how long bears can live. Each year bears are killed that are in their twenties. Several years ago a bear was killed in Kodiak that had been ear-tagged and lip-tattooed 34 years earlier. There are two females in their thirties among the brown bears that gather each year at McNeil River State Game Sanctuary on the Alaska Peninsula.





One way to minimize conflict with bears is to avoid them. It makes good sense to know where bears are, as they move seasonally in response to food availability and social pressures.

BEARS USE LARGE AREAS. Home ranges vary in size from a few to hundreds of square miles.

SPRING IS A CRITICAL TIME. Bears usually leave their dens in April or May. Older males usually come out first and females with new cubs last. Many bears, especially those with cubs, stay near the den for a week or more. This is a critical time. Food is scarce, and predation by other bears is possible.

BEARS ARE PROTECTIVE OF THEIR FOOD. During the spring, moose and caribou in a weakened condition can become easy prey for bears. Newborn calves and the remains of animals that died during the winter are even more important food sources. Bears protect both carrion and fresh kills against ravens, eagles, wolverines; wolves, and other bears. They do this vigorously and sometimes charge people who venture near. While bears can be disturbed while feeding at any time of the year, spring is a time to be especially cautious.

EXPECT BEARS TO BE ANYWHERE AS THEY SEARCH FOR MATES. Most mating takes place from mid-May to the end of June, but can continue through the summer. Male bears move through their home ranges to assess the reproductive potential of the females that live there. Female brown bears entering estrus travel more than females with cubs. This increases their chances to find a male. Hikers should be aware that spring bears are on the move and can be anywhere, from high mountain valleys down to the seashore.

WATCH OUT FOR THE SECOND BEAR! Female brown bears may mate with several males in a short time. Bears aren't more aggressive at this time of year, but older males become very intent and may come very close as they pursue the object of their affection. If you see a female moving along a trail in May or June, watch for a male to be somewhere nearby.

YOUNG BEARS SOMETIMES ENTER HUMAN SPACES. When a female comes into estrus, she becomes intolerant of her cubs. Frequently the mother is attracting males, which the cubs rightly fear. A mother that is weaning her cubs may actually bite and chase them. Weaned cubs are hungry and learning their new status in bear society. These "emancipated" two- and three-year-old bears, on their own for the first time, often come in contact with people as they look for places to live free of competition from more dominant bears.

SUMMER: A TIME FOR FEEDING. To find a bear during the short Alaska summer—go where the food is. As mating ends, vegetation ripens, and salmon become available, bears localize their movements.

After losing weight all winter and through the early spring, summertime is a period when bears can begin dramatic weight gains. Bears may feed continuously for twelve or more hours, take a short nap, and resume eating.

LET SLEEPING BEARS LIE. Very large males rest wherever they want to, usually close to what they are feeding on, and not far from bear trails. Brush near salmon streams is a favorite location. Females may rest in cover adjacent to feeding areas, but to avoid large males, they are apt to move farther. Studies have shown that female brown bears on the Kenai Peninsula rest as far as two miles from salmon streams.

Normally nothing bothers resting male brown bears except for other male brown bears that stumble upon them. Such encounters involve lots of growling and other threats—sometimes a few bites—as the resting bear acts defensively. A person blundering into one of these resting bears can have a very frightening experience.

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Single females, females with cubs, and sub-adults all yield to mature males. Their resting places reflect this. These bears like to be where they can see and where large males aren't likely to be. Ridges above creeks, tidal flats, sandbars and beaches, even cliff faces, are good spots.

DURING THE FALL BEARS MOVE BACK AND FORTH BETWEEN FOOD SOURCES. During the fall months bears continue to move to the areas with the most nutritious food. If you know when the berries are going to be ripe, there is a good chance the bears do too. However, if both ripe berries and salmon are available, expect movement from one resource to another.

Hunting season may draw some bears to areas where they have learned to scavenge food from animals shot by hunters, from "gut piles," and from messy camps.

Bears move to den sites in the late fall as weather cools, salmon disappear, and vegetation goes into dormancy.

BEAR-HUMAN INTERACTIONS CAN OCCUR IN WINTER. During the winter, when food is scarce, bears hibernate to conserve energy. Typically they stay in their dens for four to seven months. Brown bears can be aggressive even when they are denned, as predation by other bears does occur, they sleep lightly, and they can respond quickly to an intruder. Conflict with humans during this time is not likely—but occasionally takes place.

Although they like areas of seclusion, bears may den anywhere. Most dens are dug in well-drained soil that will remain frozen all winter. A brown bear can move incredible amounts of dirt as it prepares its den. A brown bear may excavate a den up to six feet long and three feet high.

Bears give birth while hibernating. Cubs are born in January or February. Both species usually have two or three cubs, but litters of four are sometimes seen. Brown bear cubs den with their mothers for two additional winters, black bears for one. Sometimes cubs stay with their mothers for an extra year.

Bear Behavior

When a bear meets a person, it often reacts as it would to another bear. Understanding this behavior is the best way to avoid negative interactions.

BEARS ARE PREDICTABLE. Bears exhibit predictable behavior. This trait can be beneficial to people if they come into contact with bears.

BEARS AREN'T BOOGIEMEN. Bears are not malicious. Except for extremely rare predatory behavior, they are not out to "get" people. Unless they are forced to be around humans to be near a food source, they usually choose to avoid us.

BLACK AND BROWN BEARS HAVE EVOLVED DIFFERENT STRATEGIES FOR SURVIVAL. The adaptations of both species have molded their relationships—and reactions—to people.

Black bears are excellent climbers. When a black bear is threatened it usually runs from the threat or goes up a tree. With cubs out of danger, female black bears don't have to make vigorous defenses—risking potential injury. Although black bears tend to retreat from people, they are still incredibly strong animals that can cause injuries.

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Brown bears live in coastal forests but have also learned to exploit treeless habitat. They are more likely than black bears to defend themselves when threatened. A brown bear's first line of defense is to retreat, but it can be very aggressive towards other bears and people it perceives as threats.

BEARS CAN BE VERY SOCIAL. Bears are often described as asocial when compared to wolves, chimps, or lions. This may be true when making comparisons, however, to use the term asocial to describe bears is incorrect. While bears do not join in hunts, they can coexist in very close proximity to each other. The bears of a region are usually familiar with one another and meetings consist of complex social exchanges.

BEARS ARE NOT TERRITORIAL. Being territorial means keeping other members of your species away from a given area. Wolves and primates are territorial—bears aren't. Bears, like people, share home ranges. This mutual use of land and resources is a basis for bear social behavior.

BEARS LIVE IN A DOMINANCE HIERARCHY. Mature males are at the top of the hierarchy, and sub-adults and cubs at the bottom. Bears establish and maintain their social position and place in the hierarchy by acting aggressively.

Single females and females with cubs are almost always submissive to mature males but have a loose hierarchy within their own group. This hierarchy is based on age, size, and temperament—some bears are more aggressive than others.

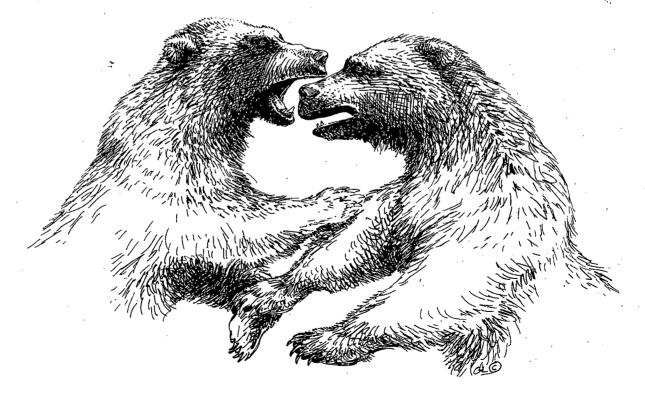
BEARS DEFEND PERSONAL SPACE. Bears, like humans and other animals, have a critical space—an area around them that they may defend. Once you have entered a bear's critical space you have forced the bear to act—either to run away or be aggressive. The size of the critical space is different for every bear and situation.

BEARS DON'T SHARE. Bears do not share food. Female bears do not present food to cubs—the cubs must take it. When a female kills a fish or a moose calf she immediately begins to eat. The cubs fight among themselves and with their mother to get what they can. If what they grab cannot be immediately consumed—like a moose leg or a fish head—the piece will be vigorously defended. This behavior accounts for some of the aggressive and defensive interactions that take place with people, especially when they disturb feeding bears.

BEARS HABITUATE, OR BECOME ACCUSTOMED, TO PEOPLE JUST LIKE THEY DO TO OTHER BEARS. Because plentiful food resources can be localized—salmon in a stream or berries on a mountainside—bears have evolved behavior that allows them to tolerate each other at close distances. This behavior is transferred to their relationship with humans. If they are not shot or harassed, bears habituate to people the same way they do to each other.

BEARS REACT TO NEW THINGS IN THEIR ENVIRONMENT. New objects or situations often frighten bears. Behaviorists call this "strange object response." After an initial fright, bears will often investigate what alarmed them. This is not an aggressive act and shouldn't be regarded as one.

BEARS ARE NOT ALWAYS AWARE. Bears, particularly adult brown bears, are not always aware of what is going on around them. They are at the top of the food chain and have few concerns. A big bear following a trail doesn't always look ahead. A bear can literally blunder into an unsuspecting person.



Bear Communication

It helps to understand bear language.

BEARS COMMUNICATE IN DIFFERENT WAYS. Bears communicate by seeing, touching, vocalizing, and smelling. Their communication helps keep mothers and cubs together, relieves social tensions, and allows bears to feed in close proximity to one another.

BEARS THREATEN ONE ANOTHER. Bears are large and powerful animals capable of causing injury to one another. Their communication reflects this. They frequently use threats and displays as alternatives to actual fighting. A bear sometimes uses this same behavior to communicate with us.

VISUAL SIGNALS HAVE MEANING. Many visual signals used by bears are similar to those of canids—wolves, dogs, and coyotes. The most common signals in aggressive displays are body movements. Walking, running, sitting, and lying down are actions that convey meaning. When a bear wants to indicate it is subordinate to another bear it simply moves away, sits, or lies down. The bear is saying it does not want to fight for dominance, a fishing spot, or an estrus female. Conversely, a bear can convey dominance by approaching at a walk or run.

A bear uses head and mouth movements as well as body orientation. A bear may circle an adversary with head high—then drop it and begin a series of short open-mouthed lunges—as it becomes more aggressive.

A bear about to make contact may have its ears flattened against its head. This may signal the bear's intentions—but it also protects the ears from bites. Approaching bears often have their ears cocked forward; doubtlessly they are listening for clues.

A BEAR STANDING ON ITS HIND LEGS IS NOT ACT-ING AGGRESSIVELY. Contrary to popular belief, a standing bear is not a threatening bear. When bears stand on their hind legs, they are trying to get a better look at or smell what interests them. Bears can see at least as well as people.

BEARS USE MANY VOCALIZATIONS. Bears of both species have excellent hearing and make distinct sounds, usually in conjunction with different body postures. Most communication occurs when bears are close together, although cubs will make a crying call when separated from their mothers.

Black bears make low guttural noises as well as blowing sounds when they are apprehensive. Brown bears of close social rank use low level vocalizations to communicate when near one another.

Vocalizations may serve more than one purpose.

An agitated female brown bear makes popping sounds by bringing in air, clicking her teeth, and moving her cheeks. As she "pops" she draws in scent, warns that she is agitated, and alerts her cubs.

Black bears likely vocalize more than brown bears. This may be an adaptation to the limited visibility of their forested environment.

SALIVATING

Most bear vocalizations expressed towards people are threats which bears use as they react to a stressful situation. Like lunges by brown bears, and ground swatting by black bears, vocalizations help to diffuse a situation and almost never lead to physical contact.

TENSIONING

BEARS COMMUNICATE THROUGH PLAY AND TOUCHING. It is very important to realize that while bears communicate through aggressive interactions, they also have peaceful, non-threatening exchanges. One of these interactions is play. A wrestling match between two bears contains many of the actions and postures seen in a potentially damaging fight, but the motivations and intensities are different.

The bond that exists between mother and cubs is constantly reinforced through play, touching, and nursing. Siblings constantly touch and play together. Brown bears of similar social rank share elaborate greetings of rubbing and sniffing. Males and females use these same social signals during the mating season.

SCENT COMMUNICATION PLAYS ITS PART. Bears have an excellent sense of smell which they use to communicate. Bears sniff urine, feces, and footprints and have preferred rubbing spots—places where they both rub against and bite trees and bushes, likely leaving scents.

SOMETIMES BEARS SALIVATE AND YAWN WHEN THEY COMMUNICATE. Bears frequently salivate during aggressive encounters. This most likely indicates that they are agitated to some degree. Sometimes a bear will yawn during or after a social interchange. Again, this is thought to indicate some level of agitation.

Safety in Bear Country

Sometimes in spite of our good intentions we have unwanted encounters with bears.

BE PREPARED. Plan how you are going to react when you meet an inquisitive, intelligent, and potentially dangerous animal in the backcountry—or in your neighborhood.

BE PREDICTABLE. Many bears in Alaska have had interactions with people.

As our population increases this number will grow. What a bear learns in one encounter influences what it does in the next. Try to make every encounter positive—for you and the bear. If we want bears to be non-threatening and predictable, it is important that we reciprocate.

BE CAREFUL. Bears don't like to be surprised. If you are hiking in a place where you can't see, make your presence known by talking or clapping your hands. If you are hunting you will probably be walking very quietly. Move slowly and be especially alert.

TRAVEL WITH A GROUP. While this isn't always practical, the larger the group the smaller the risk of attack. Groups of people seem to intimidate bears. Bears are more likely to approach one or two people than larger groups. Keep close together. Being strung out along a trail creates many groups of one.

DON'T APPROACH BEARS. Moving towards a bear is aggressive behavior—it forces the bear to react. If you inadvertently approach a bear and feel the bear is not aware of your presence, take advantage of the situation and slowly move away. Carefully watch to make sure the bear is not following.

A BEAR MAY APPROACH YOU FOR DIFFERENT REASONS. It might be habituated or used to people and simply walking by at a distance it is comfortable with. The bear may be curious. You may be on its trail. You may be in the bear's personal space, and it feels threatened. It may want your food. A female bear may perceive you as a threat to her cubs. A bear may want to dominate you and, in extremely rare circumstances, investigate you as potential prey.

MAKING EYE CONTACT WITH A BEAR IS UNLIKELY TO INFLUENCE THE BEAR OR TO AFFECT THE OUTCOME OF AN ENCOUNTER. It is important to keep the bear in sight so that you give yourself the opportunity to detect important visual clues to the bears behavior.

KEEP CALM. If a bear approaches, keep calm. It is assessing the situation as it moves towards you. It's picking up clues as fast as you are giving them. If you get excited, the bear could too. It may change from being curious to being frightened.

A mother with cubs may change from defensively keeping you away, to becoming highly stressed and going on the offensive—attacking in a punishing display.

IDENTIFY YOURSELF AS HUMAN AND DON'T RUN. If a bear becomes increasingly stressed and aggressive, talk to it in a low voice. DON'T RUN. Bears can go about 35 mph—even the fat ones!

INCREASE YOUR DISTANCE. Bears avoid antagonistic encounters by moving away from one another. If the bear is not moving towards you, very cautiously try to move away. If your movement causes the bear to move towards you, stop and hold your ground. When you do this you are using body language to say, "don't mess with me."



BEARS MAY COME QUITE CLOSE. Bears may come close as they threaten and decide what to do. If we behave correctly, identifying ourselves, standing our ground, or giving the bear room, the bear will make the right decision—sometimes not as quickly as we would like—and move off.

IF A BEAR PERSISTS...and continues towards you—hold your ground. The bear is interested in you or something you have, and may cause you bodily harm. Yell and wave your arms or anything handy. You are trying to tell the bear you are not intimidated. Groups of people should stand shoulder to shoulder to project a larger presence.

MOST CHARGES STOP SHORT OF CONTACT IF YOU REACT APPROPRIATELY. A head down, open-mouthed, running charge is a bear's trump card. It is a defensive reaction to a perceived threat. The bear is telling you that it is highly stressed and you are in the wrong place. Charges happen so quickly there isn't much time for reaction. A charge almost always ends short of contact.

IF A BEAR ATTACKS...If, and only if, a bear makes physical contact, fall to the ground on your stomach and protect your face and neck. If the bear rolls you over, try to get back into this position. The bear is almost certainly making a defensive attack and will stop when it feels it has eliminated any threat. When the bear stops, keep as still and quiet as possible. Stay that way until you believe the bear has left the area. Movement and sound can initiate new attacks. If the attack persists and the bear continues to bite long after you assume a defensive posture, it is likely making a predatory attack. Fight back vigorously.

IF YOU CAN POSITIVELY IDENTIFY THE BEAR AS A BLACK BEAR... Do not drop to the ground. Fight back as if your life depends on it—at this point it may. You are almost certainly involved in a predatory attack and the bear is trying to kill you. Try to focus your attack on the bear's eyes and nose.

IF A BEAR OF EITHER SPECIES ATTACKS YOU IN YOUR TENT...FIGHT BACK!

DETERRENTS. Pepper spray is a legitimate tool. However, due to misinformation it can give people a false sense of security. The effect of pepper spray in different situations is uncertain. It should not be used as an alternative to preventative measures and common sense. If you take pepper spray into the field, know its limitations and how to use it. If used incorrectly pepper spray can disable a user. In certain situations pepper spray has been known to be an attractant, with bears actually licking at and rolling in spray residue. Pepper sprays are designed to be sprayed at bears at close range, not on tents, airplane floats, boats, and cabins—places where we don't want bears to visit or chew on.

Bear Attacks

Bears sometimes injure people. Such unfortunate encounters will continue to happen as long as we have bears in Alaska. The best prevention is education.

BEAR ATTACKS COMMONLY START WITH LITTLE OR NO WARN-ING, ARE OVER QUICKLY, AND END WITH THE BEAR DISAPPEAR-

ING. Surprise, defense of young and food sources, dominance, predation—there are numerous reasons why attacks occur. Many victims have no idea why they were attacked, and—unless cubs are seen—no idea of the sex of the attacking bear.

HOW OFTEN DO ATTACKS HAPPEN? In Alaska between 1980 and 1999, brown bears killed 13 people and injured 75 others. In the same period black bears killed two people and injured three.*

EACH YEAR BEARS ARE KILLED IN DEFENSE OF LIFE OR PROPERTY. In Alaska it is legal to kill a bear in defense of life or property (DLP). Over 1,000 brown and black bears were killed in defense of life or property between 1985 and 1996. The law makes it clear a bear cannot be legally killed because of human harassment or provocation of the animal or by an unreasonable invasion of the animal's habitat. It cannot legally be killed because of improper disposal of garbage or a similar attractive nuisance. A bear can be killed if all other practical means to protect life and property are exhausted. If a bear is killed it is the property of the state. If a bear is killed the skull and hide with claws attached must be surrendered to the Alaska Department of Fish and Game and a report completed within 15 days.

DLP DEATHS AFFECT BEAR POPULATIONS IN URBAN AREAS. Statewide, DLP killings are a small portion of the total number of human-caused bear mortality each year. 3.1% of reported black bear and 5.2% of brown bear kills are listed as DLP. However, in areas like the Kenai Peninsula, Anchorage, and the Matanuska Valley, 6% of black bear and 22% of brown bears kills are classified as DLPs.

DLP KILLS OFTEN INCREASE FOLLOWING BEAR ATTACKS. When a bear attack is reported in the media, the rate of DLP deaths increases dramatically.

THE NUMBER OF BEARS KILLED IN DLP CIRCUMSTANCES IS INCREASING. If we are to have sustainable bear populations, increases in DLP killings will have to be offset by reductions in hunting opportunities. This has already happened on the Kenai Peninsula.

^{*}Tom Smith, USGS Alaska Biological Science Center. Anchorage, Alaska.

Safety Tips for Hunters

Statistically hunters are at greatest risk of having confrontations with bears. These encounters sometimes result in bears being killed—or hunters being killed or injured. By taking a few simple precautions most of these incidents can be avoided.

LEARN ABOUT BEARS BEFORE GOING INTO THE FIELD. Knowing the basics of bear behavior can make your hunt more enjoyable, protect your meat supply, and maybe even save your life.

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BE ON THE LOOKOUT. Be aware of your surroundings and use all your senses. Except in brushy areas, bears aren't usually that hard to see. Watch for fresh tracks and droppings and any obvious places a bear might be feeding or resting. Be careful on bear trails. Be alert while making a stalk. Watch for bird activity. Feeding magpies, jays, ravens, gulls, or eagles often mean feeding bears.

HUNT WITH A PARTNER. Two people are better able to detect a bear, and a bear is more likely to see two people than one. Two people are a better bear deterrent than a lone individual, and partnering is a good safety practice in general.

IF YOU SEE OR ENCOUNTER A BEAR—GO SOMEWHERE ELSE. The bear will eventually move and you can return.

USE DEER, ELK, AND PREDATOR CALLS WITH EXTREME CAUTION. You can attract a bear. Sit back-to-back with your partner. Plan what you are going to do if a bear does come.

LEAVING MEAT IN THE FIELD OVERNIGHT ATTRACTS BEARS. If possible don't make a kill at dusk. Give yourself ample time to butcher and remove meat to safety before dark.

APPROACH A KILL WITH CAUTION. Make plenty of noise and if possible approach with the wind at your back. Keep the carcass in view as you approach.

REMOVE BUTCHERED MEAT AT LEAST 100 YARDS FROM THE KILL SITE AND GUT PILE. This practice allows bears the opportunity to feed on the gut pile instead of the meat, and makes it safer for you on your return trips. Flag the gut pile with biodegradable material so you know where it is. If you are going to make repeated trips, place the meat in game bags, hang or put them where they are visible from a distance, and flag the site. Do not approach your cache until you are positive there are no bears there. Don't drag meat from the kill site to your meat cache. This leaves a scent trail.

NEVER LEAVE MEAT ON OR NEAR A BEAR TRAIL. This makes it too easy for bears.

MAKE LOTS OF NOISE WHEN YOU PACK MEAT. Let the bears know where and who you are.

KEEP MEAT, HIDES, AND BLOOD-SOAKED CLOTHING AWAY FROM CAMP. If possible hang them at least 15 feet up a tree or place them in a secure building. Heavy moose quarters should be placed well away from, but within sight of, camp. If a bear approaches it can usually be discouraged—BEFORE it begins to eat.

IF A BEAR CLAIMS YOUR KILL DO NOT TRY TO DRIVE IT AWAY. The meat is most likely ruined and regulations prohibit killing a bear to retrieve hunter-killed game.

BEAR IN MIND. If you hunt where there are bears you are ethically responsible to do your utmost to protect them. You are responsible for your own safety and for the safety of other hunters.

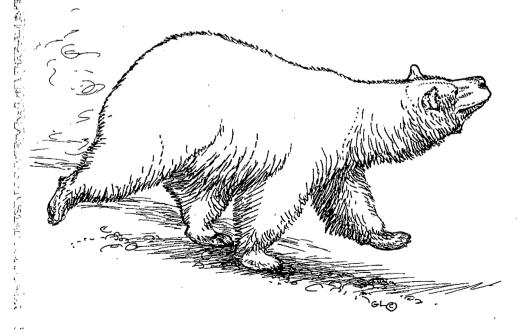
Bears and Food

Keeping bears away from human food is perhaps the most important thing homeowners, campers, and hunters can do to prevent conflicts and confrontations between bears and people.

IT IS AGAINST THE LAW TO FEED BEARS. It is also against the law to kill a bear you have attracted by improperly storing food or garbage.

REMEMBER: A FED BEAR IS A DEAD BEAR. Bad habits are hard to break and bears are creatures of habit. Bears seek out the same wild foods in the same places year after year. Bears conditioned to eating human food behave the same way. They keep returning to the same neighborhoods, campgrounds, and dumpsters, until food is no longer available or until they are killed.

BEARS LIKE GARBAGE. Garbage is both nutritious and available, which makes it ideal bear food.



What we can do around our homes and cabins.

COOPERATE WITH YOUR NEIGHBORS. PREVENTING BEAR PROBLEMS IS EVERYONE'S RESPONSIBILITY. Work within your neighborhood to encourage others to manage their garbage, dog food, bird seed—anything that might attract a bear. Encourage your neighbors not to put out garbage for pickup the night before. If there is a bear in the neighborhood, let people know. Work together to protect your neighborhood and to conserve bears.

STORE GARBAGE AND ANIMAL FEED INSIDE SECURE BUILDINGS OR IN BEAR-PROOF CONTAINERS. Keep your garbage secured until just before scheduled pickup. If you take your garbage to a collection site, do so regularly. Make sure to place it IN the dumpster and close the lid. These collection sites attract bears.

PACK YOUR GARBAGE OUT. At your weekend cabin, keep your garbage in a bear-proof container like a steel drum fitted with a locking lid and take it home with you.

BEARS LIKE PET FOOD, HORSE FEED, MEAT SCRAPS, AND FISH. Keep them in a secure place. Barbecues can also be powerful attractants. Storing them in a protected place and burning off grease after each meal helps to discourage bears.

PLACE YOUR GARDEN SO IT DOESN'T ATTRACT BEARS. Placing your garden in the open, away from cover and game trails, helps to discourage bears. Avoid composting anything you think a bear might like to eat. Fish and meat are favorites, and seaweed and kelp have enough fishy smell to attract hungry bears. Specially designed electric fences have been found to be effective in keeping bears out of gardens and compost piles.

DOMESTIC ANIMALS DRAW BEARS. Keep them where they are safe. Chickens and rabbits kept in outside pens are easy and attractive prey.

BEARS, ESPECIALLY ANCHORAGE BLACK BEARS, LIKE BIRDSEED AND SUET. Don't feed birds between April and late October. Clean up uneaten food and seed hulls each spring when you put you'r feeders away.

What we can do when hunting, camping, and hiking.

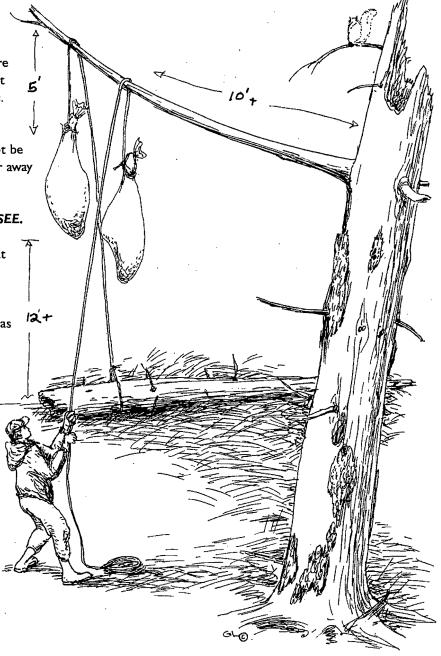
PLAN HOW TO KEEP FOOD AND BEARS SEPARATE BEFORE YOU START OUT. Bear-proof containers should be part of every camping trip in bear country. They are available at major outdoor stores and are required equipment for backpackers in most national parks.

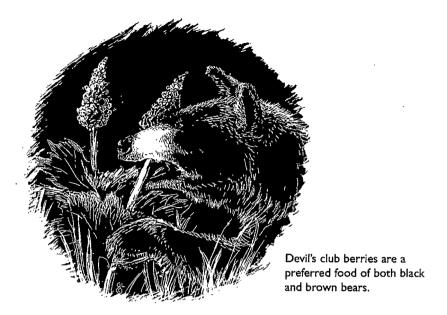
KEEP A CLEAN CAMP.

Don't leave unattended food where bears can get to it. If possible hang your food where bears can't reach it or place it in bear-proof food containers. If you leave camp, don't leave anything a bear might like to eat. If food or garbage cannot be secured it should be placed far away from human and bear activity.

COOK WHERE YOU CAN SEE.

This gives you time to see bears at a distance. Plan what you would do if a bear approached while you were cooking dinner. It helps to keep track of wind direction as bears are more likely to approach from downwind. Many experience outdoors people eat early so that they'll still be awake if a bear comes to investigate dinner smells. Some backpackers even stop and cook enroute to their camp site so that there are no food odors where they sleep.





DON'T COOK SMELLY FOODS. Bacon can bring in bears from a long way—especially if they've had it before. Bears have an incredible sense of smell. Not only do bears react to scents they come upon accidentally; they purposefully use their noses to "search" for food.

DON'T SLEEP WHERE YOU EAT AND COOK. Moving off 100 yards or more is helpful. Keep snacks, toothpaste, cosmetics, and any clothing that has been soiled by food or game butchering out of your tents and with your food supply.

DON'T FISH AROUND BEARS. Do not fish when bears are close enough to notice a fish splashing on your line. This may mean a distance of several hundred yards or more. If bears are fishing where you want to fish, sit down and do some bear watching. Don't let bears get your fish. If you make a mistake and a bear runs after the salmon you have hooked—cut it loose. Bears are quick to associate fishermen with easy fish meals. If you clean fish next to a salmon stream you are likely to attract gulls. Be aware that bears know calling, circling, or feeding gulls mean food. They may come at a run. Always discard fish guts into the water, and place butchered fish in plastic bags. Keep your catch with you. Do not leave it unattended on the stream bank.



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Watchable Bears

Bears are usually best left alone. However, in certain places and with careful planning and behavior, bear watching can be minimally disruptive to bears and rewarding to humans.

DON'T APPROACH BEARS—EVER! That's as simple as it gets. Find a place to sit and wait—OUT IN THE OPEN—WHERE THE BEARS CAN SEE YOU FROM A LONG WAY OFF. DO NOT HIDE. Don't sit directly on a bear trail or on a stream bank. Pick a spot where you don't think bears will walk but where you can see places they are likely to be—like a sedge flat, a salmon stream, or a blueberry patch. A boat is an excellent place from which to watch bears.

THE SAFEST WAY TO WATCH BEARS IS WITH A GROUP OF FOUR OR MORE PEOPLE. Large groups intimidate bears and help to keep you and the bears safe. Groups must stay close together or the "group" phenomenon doesn't work.

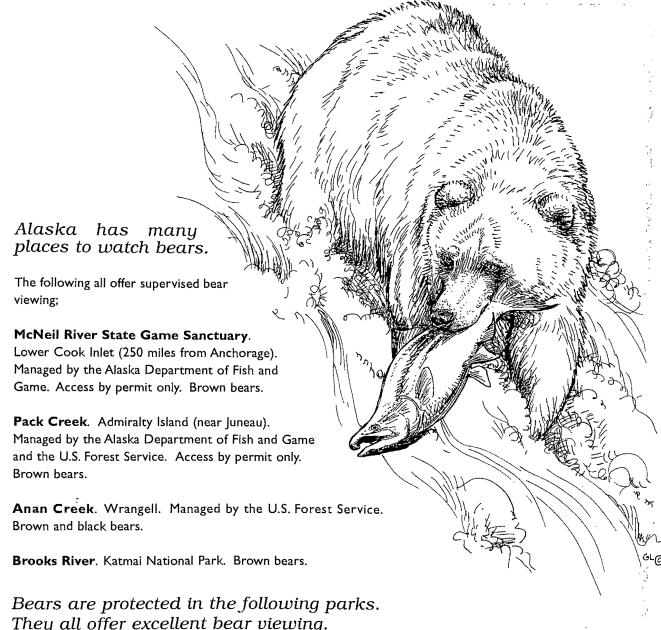
THE FIRST RULE OF BEAR WATCHING: DO NOT INTERRUPT BEAR ACTIVITIES. Think of your presence as a learning experience for the bear. If you see a bear and it reacts to you in any way, you may change the way the bear feels and acts around people. Almost assuredly you are too close. If you scare a bear, you have failed as a bear watcher.

EACH YEAR MORE BEARS COME INTO CONTACT WITH PEOPLE. Be aware that any bear you see may be at least partially habituated or used to people. Many bears have become used to back-country hikers. When the salmon are running, coastal brown bears are frequently exposed to sport fishermen. Bears have to learn to tolerate people in order to eat. Bears with these experiences are apt to come quite close to you, perhaps without seeming to notice your presence.

BE PREDICTABLE AND STAND YOUR GROUND. It is your responsibility to be predictable. Subadult bears frequently approach groups and sometimes make aggressive displays. It is important these bears don't learn to make people move. Hold your ground. Remember, bears are intelligent animals. They are curious and likely interested in you. You are watching them and they deserve the chance to watch you. Your behavior determines how a bear is likely to act in future encounters with people.

FEMALES WITH CUBS APPROACH TOO. Females with cubs habituate very quickly to wildlife viewers. They will tolerate or may even approach groups of people.

BEARS CAN BE WATCHED AND ENJOYED ALMOST EVERYWHERE. However, it is often in the best interest of both bears and people to watch where bears are protected from hunter harvest or frightened residents. This is the ethical thing to do. Even if we may not consciously want to habituate bears, they can become accustomed to our presence without any effort on our part. Human-habituated bears—that don't associate people with food—are remarkably tolerant and relatively safe to be around. However, these same bears are sometimes perceived as threats by uninformed people and dealt with accordingly.



They all offer excellent bear viewing.

Kenai Fjords National Park. Black bears.

Katmai National Park. Brown bears.

Lake Clark National Park. Brown and black bears.

Denali National Park. Brown and black bears.

The Kodiak National Wildlife Refuge has an excellent publication on bear viewing. It advises both where and when to watch brown bears within the refuge, where they are plentiful but hunted.

Planning and Managing for Bears

The cumulative effects of human activities have reduced bear habitat across North America. Successful bear management must include bears, people, and habitat.

ALASKANS ARE STEWARDS OF ONE OF THE LAST LARGE BROWN BEAR POPULATIONS IN THE WORLD.

More than 98 percent of the brown bears in the United States and more than 70 percent of the brown bears in North America live in Alaska. In Alaska we still have the opportunity to safeguard bears and bear habitat and not repeat the mistakes of the Lower Forty-Eight.

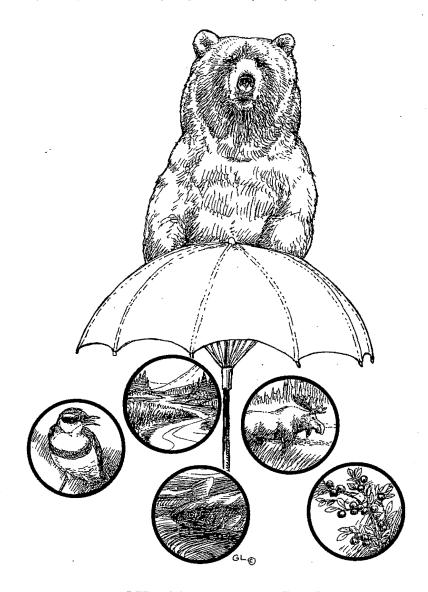
THE BOTTOM LINE FOR MANAGEMENT IS

SIMPLE. If we want to manage for sustainable bear populations in the long term, the number of bears that die—whether by human or natural causes—cannot exceed the number of births.

PRECAUTIONARY MANAGEMENT IS KEY.

Because bears reproduce slowly, we must be cautious in our management. Our decisions must be grounded in sound science and when in doubt managers should err in favor of bear protection.

PLANNING SHOULD BE PROACTIVE. It makes economic and environmental sense to plan for bears while we still have healthy populations. Being reactive to the decline of bears and other wildlife can be costly if money is spent on reintroduction and habitat restoration. An example of proactive planning is The Kenai Brown Bear Conservation Strategy. This plan was developed to ensure sustainable brown bear populations on the Kenai Peninsula and is a cooperative effort to avoid crisis management.



BEARS SHOULD BE CONSIDERED IN ANY DEVELOPMENT PLAN THAT INVOLVES ACCESS INTO BEAR HABITAT. Improved human access into bear country, whether by car, plane, or off-road vehicle, affects the ability of wildlife managers to conserve bears. Planning to minimize disturbance and access, and to restore damaged habitat, should be part of every project. Maintaining and protecting large contiguous areas of important bear habitat is the best way to sustain bear populations and prevent habitat fragmentation. Small, isolated populations are the most vulnerable to local extinction.

BEAR POPULATIONS CAN SUPPORT HUNTING. However, we must carefully monitor populations and defense-of-life-or-property mortality to prevent overharvest.

BEAR MANAGEMENT MAKES SENSE. WHAT'S GOOD FOR BEARS IS GOOD FOR THE ECOSYSTEM. Bears are "umbrella" animals. If we manage the habitat needed for sustainable bear populations, we also safeguard the habitat needed by other wild animals.



Kenai Bears

tor in black bear conservation.

THE KENAI PENINSULA IS HOME TO BOTH BLACK AND BROWN BEARS. Because forest cover makes counting extremely difficult and costly, no scientific measurement of bear density has been developed. However, managers estimate there may be 3,000 black bears and 250-300 brown bears living on the Kenai.

BLACK BEARS ARE COMMONLY SEEN ON THE KENAI. They are numerous on the south side of Kachemak Bay all the way to Seward. Curiously, not many brown bears inhabit this region. While their home ranges are usually small, black bears are capable of moving long distances to eat ripening vegetation. Because they reproduce more rapidly, are less likely to be aggressive, are better tolerated by people, and are more numerous, Kenai black bears are more secure than Kenai brown bears. In the future, habitat loss on the Kenai may become a fac-

BROWN BEARS ARE ATTRACTED TO SALMON SPAWNING STREAMS. Studies have shown that almost all Kenai brown bears utilize spawning salmon and make seasonal movements to tributaries of Kenai Peninsula river systems.

BROWN BEARS ON THE KENAI ARE LIKELY GEOGRAPHICALLY ISOLATED.

The northern Kenai Peninsula narrows to a nine-mile wide strip between Prince William Sound and Cook Inlet. Development and human activity may restrict the movement of bears through this area. In effect, Kenai brown bears may be isolated from the rest of Alaska. Because the brown bear population on the Kenai will not likely be supplemented by bears moving in from elsewhere, safeguarding breeding-age females is a management focus.

KENAI BROWN BEARS WERE LISTED AS A "POPULATION OF SPECIAL CONCERN" BY THE ALASKA DEPARTMENT OF FISH AND GAME IN 1998. The listing is considered a preventive measure to focus research and management attention on the population, to avoid future problems and ensure a sustainable population of brown bears on the Kenai.

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DEFENSE OF LIFE OR PROPERTY KILLS AND REPORTS OF NUISANCE BROWN BEARS HAVE BEEN INCREASING. Statistics show that human/brown bear encounters and maulings have increased in the past decade on the Kenai. Two fatalities have occurred since 1998. The number of public reports of nuisance bears has significantly increased, reaching over 80 in 1999. An average of four bears have been captured and relocated annually over the past five years to prevent their destruction. Most of these bears were later shot as DLP animals. Until the last decade approximately 2-3 DLPs occurred annually; during the 1990s this number has increased to approximately seven bears each year, or half of the allowable harvest. Most of these kills are younger animals.

THE AMOUNT AND QUALITY OF BEAR HABITAT—SPACE, COVER, AND FOOD IS CHANGED BY MANY DIFFERENT HUMAN ACTIVITIES. Habitat requirements of bears need to be considered if bears are to remain part of the Kenai ecosystem.

THE EFFECT OF THE CURRENT SPRUCE BARK BEETLE EPIDEMIC AND ASSOCIATED LOGGING ON BEARS IS NOT KNOWN. However, both species, particularly black bears, feed on vegetation that grows under old-growth timber. One of these plants is American devil's club. Devil's club berries are a very important food for black bears, which travel long distances in summer and fall to feed on them.

Kodiak Bears

THE KODIAK ISLAND ARCHIPELAGO IS HOME TO ABOUT 3,000 BROWN BEARS. These bears have been isolated from other bears for more than 12,000 years. Black bears do not live on any of these islands.

THE KODIAK NATIONAL WILDLIFE REFUGE WAS CREATED IN 1941 TO PERMANENTLY PROTECT BEAR HABITAT. Refuge lands take up parts of Afognak Island, and the southern two thirds of Kodiak Island. Shuyak Island State Park, at the northern end of the island group, provides further habitat protection.

KODIAK IS A GREAT PLACE FOR BEARS. Because of high-quality habitat, Kodiak bears have some of the smallest home ranges and highest densities of any brown bear population. Kodiak bears don't have to travel far to find nutritious food.

KODIAK BEARS ARE MANAGED COOPERATIVELY BY THE ALASKA DEPARTMENT OF FISH AND GAME AND THE KODIAK NATIONAL WILDLIFE REFUGE. Bear research, management, habitat protection, and healthy salmon stocks have kept Kodiak bear numbers stable in most areas and allowed a slight increase in others.

BEAR HUNTING IS IMPORTANT TO THE ECONOMY. Each year more than 5,000 hunters apply for 319 available permits to hunt brown bears. Both resident and non-resident hunters support the local economy by buying food and equipment, chartering boats and aircraft, and staying in lodges and hotels. Non-residents hunters must be accompanied by registered guides and pay as much as \$15,000 per hunt.

EACH YEAR IN KODIAK APPROXIMATELY 10 BEARS ARE KILLED IN DEFENSE OF LIFE OR PROPERTY. The deaths of these bears reduce the number of bears available for hunters. Because DLPs are likely to be young bears and/or females, this loss has greater effect on the Kodiak population than the harvest of older males commonly killed by hunters.

IN RECENT YEARS THE BEAR POPULATION ALONG THE KODIAK ROAD SYSTEM HAS BEEN INCREASING. One reason for this increase is a change in public attitudes towards bears. Kodiak residents are taking a pro-active stance in bear management and are making a concerted effort to keep bears wild. Efforts by the USF&WS, the ADF&G, the U.S. Coast Guard and the City of Kodiak have resulted in a garbage management policy that is reducing adverse interactions between people and bears.

Property about the very constraint



Anchorage Bears

ANCHORAGE IS A UNIQUE CITY. With a human population of more than 260,000, Anchorage is the only city of its size in the world to have abundant brown and black bear populations within its boundaries. Chugach State Park, Bicentennial Park, Fort Richardson, and the Eagle River Valley offer protected habitat.

AT LEAST 250 BLACK BEARS LIVE IN THE ANCHORAGE AREA AND CHUGACH STATE PARK. Many of these bears spend part of the summer in and around residential areas in the Anchorage Bowl, Eagle River/Chugiak, or Girdwood. The population is thought to be healthy and may be increasing.

THE ANCHORAGE AREA IS HOME TO ABOUT 60 BROWN BEARS. Several are seen in residential areas each summer. Brown bears are more likely than black bears to avoid developed areas. However, as residential development has pushed closer to Chugach State Park, and the number of bears increased, contact with humans has grown.

THE RISK OF BEING INJURED BY A BEAR IS EXTREMELY LOW. Every two or three years a person is injured by a bear in Anchorage. There has never been a reported human fatality from black bears; however two people were killed by a brown bear protecting a moose kill in 1995. By comparison, there are about 600 reported dog attacks on humans in Anchorage each year and in the past 10 years two people have died from moose attacks.

BLACK BEAR HUNTING HAS BEEN CLOSED IN THE ANCHORAGE BOWL AND THE EAGLE RIVER VALLEY FOR MORE THAN TWENTY YEARS. Because unwary bears are no longer hunted near town their numbers may be increasing. Brown bear hunting has been closed in the Anchorage Bowl and Chugach State Park since 1973. In the years following the closure the population increased.

THE ANCHORAGE AREA CONTAINS ATTRACTIVE BEAR HABITAT. Brown bears enter the Anchorage Bowl in the spring to feed on winter-killed moose as well as moose calves from a large moose population. Brown bears also feed on salmon in local streams. Like black bears, brown bears may eat pets and pet food, livestock, birdseed, and garbage.

CONFLICTS BETWEEN PEOPLE AND BEARS ARE INCREASING. A few years ago the Alaska Department of Fish and Game typically received 300 calls each summer about "nuisance" brown and black bears. 1998 saw this number increase to about 1800.

THE NUMBER OF BEARS KILLED IN THE ANCHORAGE AREA IS INCREASING. From 1990 to 1994 about three black bears were killed annually in defense of life and property and by enforcement personnel. From 1995 to 1998 this number increased to between 9 and 16. In recent years between one and three brown bears have been killed per year.

SUGGESTED READING

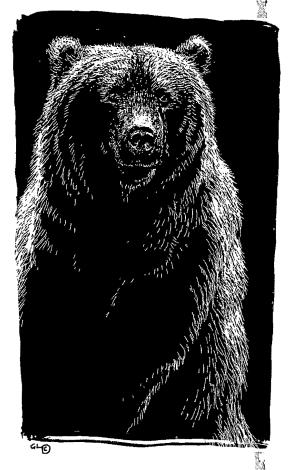
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