

## ***SAFETY IN BEAR COUNTRY***

*by*

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### **OBJECTIVES**

The primary objective of this presentation is to better acquaint people with bears, their life history, their behavior, and how humans fit into their lives. This information will help you make more rational decisions while you are in bear habitat and/or when you encounter a bear. Hopefully, you will then be in a better position to have a positive interaction with a bear, rather than being faced with a threatening situation. A better understanding should also give people a greater appreciation for bears and, hopefully, fewer bears will be destroyed as "nuisance" bears, or under the provisions of the state's defense of life or property provisions.

### **INTRODUCTION**

Since childhood we have been inundated with mixed signals about bears. On one hand we are thrilled and terrified with stories of bears mauling and eating people for little or no reason. These stories are reinforced by our instinctual fear of something that is bigger and more powerful than we are, and is capable of harming or killing fellow humans. Yet, on the other hand, we see trained bears in circuses and we watch television programs in which bears are cute, cuddly and kind. These bear images are reinforced by the stuffed "teddy bears" that offer companionship and security to millions of children. Unfortunately, neither of these extreme images accurately portray the truth about bears in their natural environment.

All of Alaska, including the urban areas, are bear country. Anytime we travel off the beaten path we have a responsibility to both the bears, and ourselves to behave in a knowledgeable and responsible manner. The more we understand about bears, the less we will fear the unknown. Once we overcome our "bearanoia", and think of bears as intelligent, wild animals that are potentially dangerous, but would usually rather be left alone, we can make rational decisions about how to avoid bear encounters and how to handle it if we do come face-to-face with them.

### **BEAR IDENTIFICATION**

Three species of bears live in Alaska: the black bear; the brown/grizzly bear; and, the polar bear. Because each of these species has a different life-style, and somewhat different behavior patterns, it is important to recognize what type of bear you are dealing with.

Black bear: Identification: Black bears are the smallest, and most abundant of the bear species in Alaska. They are about 5-6 feet long and stand about 2-3 feet high at the shoulders. They range from 200 to 500 pounds. While they are most commonly black, other color phases include brown (cinnamon), and rarely, gray (blue) and white. Muzzles are almost always brown. Black bears can be distinguished from brown bears by: 1) their head shape (a black bear's nose is straight in profile, a brown bear's is dished); 2) their claws (black bear's are curved and smaller, brown bears are relatively straight and larger); 3) their body shape (when standing, a black bear's rump seems to be higher than its shoulders; a brown bear's shoulders are usually higher than its rump); and, 4) by their ears (a black bear's ears are more prominent than a brown bear's ears).

Range: Black bears live throughout Alaska, except on the Kodiak Islands, the Alaska Peninsula, some islands, and the extreme northern and western portions of the state.

Typical Habitat: Black bears can occupy a wide range of habitats, but they seem to be most common in forested areas. Black bears are not uncommon in and around human settlements in Alaska.

Brown bear: Identification: Brown and grizzly bears are the same species. They can be over 8 feet long and stand 5 feet high at the shoulder. Weights are typically from 600 - 800 pounds, but can reach 1500 pounds. Colors range from blonde to dark brown. Coastal bears (referred to as brown bears) are the largest land carnivores and are usually medium to dark brown in color. Interior bears (referred to as grizzly bears) are smaller and usually have light tips on their hair, giving them a grizzled appearance. A brown bear's muzzle is the same color as it's body. Cubs frequently have a white collar around their neck and shoulders. The dished-face and large shoulder hump are distinguishing features of the brown bear.

Range: Brown bears live throughout Alaska, except for the southern portion of the panhandle in southeastern Alaska, and on the Aleutians and some other islands. Biologists estimate that there are from 30,000 and 45,000 brown bears in the state, and in most areas the numbers are stable. Highest densities occur on Admiralty Island, the Kodiak Islands, and the Alaska Peninsula.

Typical Habitat: Brown bears can, and do, use virtually every type of habitat in the state. Although they are less common around human settlements than black bears, brown bears can live in close proximity to people.

Polar bear: Identification: Polar bears are about the same size as coastal brown bears. Colors range from white to yellow. Black nose is prominent. Head shape is similar to that of a black bear, but their long tapering necks make polar bears' heads appear to be small in relation to their body size.

Range: Coastal Alaska and offshore waters from Bristol Bay to the Arctic. Ice conditions dictate local polar bear abundance.

*Typical Habitat:* Islands, coastlines and waters near pack ice and ice-floes. Rarely occurring far inland, except for denning females.

## BEAR LIFE HISTORY

Although bears are often creatures of habit, they are also intelligent, and each has its own unique personality. The way a bear reacts is often dictated by what it has learned from its mother, the experiences it has had on its own, and, of course, the instincts that nature provided. So like other intelligent animals, such as dogs, we can make general statements about bears, but few people can accurately predict their behavior.

The most important sense organ for a bear is his nose. They have an incredible sense of smell, and they seem to trust it more than any other sense. Hearing and sight are also important, but to a lesser degree. A bear's hearing is probably better than ours, but not as keen as a dog's. Their sight is probably comparable to that of a human.

Both black and brown bears have similar life styles, although they do not usually get along with each other (brown bears will kill and eat black bears). Where both species occur in the same area, black bears tend to favor forested habitats while brown bears favor more open areas. Throughout the rest of this presentation we will deal with only black and brown bears. For most of us, the likelihood of encountering a polar bear is remote.

Bears are opportunists, relying on their intelligence and their senses to find food. They use differing habitats throughout the year, depending on the availability of food and other necessities of life. The amount of area a bear covers in a given year is partially dependent on how far it has to go to satisfy these basic needs. In some areas, such as Kodiak Island, individual bears have home ranges of less than a square mile. In other areas, home ranges can encompass hundreds of square miles. Males usually range over larger areas than do females.

In the spring, black and brown bears began coming out of their dens. Males are usually the first bears to emerge (usually in April), and females with new cubs are usually the last (sometimes as late as late June). When bears emerge from their dens, they are lethargic for the first few days, frequently sleeping near their dens and not eating. When they do start eating, they seek carrion (dead moose, caribou, sea mammals, deer, etc.), roots, and emerging vegetation. In coastal areas, beaches become travel corridors as bears seek these foods.

In the early summer, bears continue to eat new grasses and forbs as they develop in higher elevations. Moose and caribou calves are also important foods where they are available, and in some areas of Alaska bears and other predators kill significant numbers of these calves each year.

In areas where they are available, salmon are the most important food to bears from June through September. It is one of the few times that bears are found in large groups, and it is the time that most people see bears. Bears often travel, eat and sleep along streams for weeks at a time.

Other summer foods for bears include salmonberries, grasses, forbs, ground squirrels, and occasionally, adult moose and caribou. When bears kill or scavenge large prey they commonly cover the portions they cannot eat with sticks and duff. A bears may remain near a food cache for days and it will defend it from all intruders.

During the late summer and early fall, bears move inland and consume tremendous quantities of blueberries, elderberries, soapberries and other types of succulent fruits. As the seasons progress toward winter, a bear's diet becomes more varied. The last remaining berries and salmon are sought, as are live and hunter-killed moose, deer and caribou. This is the time that bears are trying to put on the final deposits of fat before their long winter naps.

In October and November, bears move into their denning areas and begin preparing a suitable den. Black bears usually den in holes excavated under large trees or rock outcrops, or in small natural cavities. Brown bears usually dig their dens in steep alpine areas. Dens are just large enough for the bears to squeeze into. Bears rarely eat, drink, urinate or defecate while they are denning. They sleep deeply, but do not truly hibernate, and they can be awakened by loud noises or disturbances.

Cubs are born in the den, usually in January. Black bear cubs usually stay with their mothers for a year and a half, and brown bear cubs usually stay with their mothers for 2.5 to 3.5 years. Black bears are sexually mature at age 2 and brown bears are sexually mature at age 4-8. Mating season is in the spring (May and June) and both species are polygamous (multiple mates). Both black and brown bears can live for 25 to 30 years, although most live less than 20 years.

#### BEAR/HUMAN INTERACTIONS

Given the choice, most bears would prefer to be left alone to pursue the finer things in life, like food and the opposite sex, but they share their homes with other creatures, including humans. We intrude on virtually every aspect of a bear's life. There are cabins, camps, airplanes, boats, cars, ORV's, fishermen, photographers, hunters, hikers, field workers, and on and on. Bears are normally pretty tolerant of these activities, and if they can find a secure way to avoid them, they will.

We can help the bears make a graceful retreat, and avoid many close encounters by letting them know we are around. Walking in groups, talking and wearing noise making devices such as bear bells all serve to warn a bear of your approach. Whenever possible, avoid hiking and camping in areas where bears are common, such as bear trails through heavy brush or along salmon streams. Keep an eye out for bears and bear sign. If you happen upon a dead animal, especially one that is covered with sticks and duff (a bear cache), immediately retreat (but don't run) the way you came and make a detour around the area. If you see a cub up a tree or a small bear walking by itself, again, immediately retreat and detour around the area. Like all young animals, cubs wander away from their mothers, but female bears are furiously protective when believe their cubs are threatened.

Even if we do everything possible to avoid meeting a bear, sometimes bears come to where we are. Bears are both intelligent and opportunistic, and they express these qualities through their curiosity. This curiosity frequently brings them into "human habitat". When this happens, we often feel vulnerable, and the bear is sometimes viewed as a threat or a nuisance.

In most cases, a curious bear will investigate "human sign", perhaps test it out (chew on a raft, scratch a door, bite into some cans, etc), and leave, never to return. Most people would regard this as a nuisance and they would have a good story to tell but it would be the end of the encounter. However, if the bear was rewarded during his investigation by finding something to eat, it could be a different story. Like dogs, it is easy for a bear to find food or garbage and keep coming back for it, but it is hard to stop them from doing it once they have been food-rewarded.

That is why we emphasize the importance of keeping human food and garbage away from bears. When in bear country, always think about the way you store, cook and dispose of your food. Never feed bears. This is both illegal and foolish. Food should be stored in air-tight containers, preferably away from living and sleeping areas. Garbage should be thoroughly incinerated as soon as possible and carried out. Fish and game should be cleaned well away from camp, and clothing that smells of fish, game or food should also be stored away from sleeping areas. Menstruating women should take extra precautions to keep themselves as clean as possible, and soiled tampons and pads should be treated as an other form of organic garbage.

Once a bear has obtained food from people, it may continue to frequent areas occupied by people. If a bear doesn't find any more food or garbage after the next few tries, it may give up and move back into a more natural feeding pattern. Occasionally, though, the bear will continue to seek human foods and can become a "problem bear". Some bears become bold enough to raid campsites and break into cabins in their search for human's food.

As we mentioned earlier, it is difficult to untrain a bear that has attained food from humans. The first step is to make sure that the food source is removed. The next move is to try convince the bear that it is not worth his time to attempt to get more human food. Shooting bears in the rump with cracker shells, flares, rubber bullets and bird shot are common methods of "aversive conditioning". These are also very dangerous techniques, because they may seriously injure a bear if not done properly and/or they may cause a bear to attack the shooter. None of these methods are fool-proof, and if the bear continues to be a problem, it is often killed.

People often ask biologists in the Department of Fish and Game to move problem bears out of their area. This technique has been tried time and again both here in Alaska and in other areas, and it is rarely successful. Like ducks and geese, bears seem to have a natural homing instinct, and even when they are moved hundreds of miles across rugged terrain, they usually return to where they started. Another concern with moving a problem bear is that while on its way home, a bear that is accustomed to getting food from humans may seek out "human habitat" and cause problems over a broad area. For all of these reasons, the Department of Fish and Game has a statewide policy recommending against moving problem bears.

## UNDERSTANDING BEAR ENCOUNTERS

Bears are basically solitary animals. The only times they are in the company of other bears is while they are in a family group (sows and cubs), during the mating season, and in areas where there is a lot of food (such as salmon streams and open dumps). Over the centuries, bears have developed a complex set of signals to communicate their concerns to other bears. During chance encounters or in food-related encounters, the primary message in this bear language is to say "stay away from me". That message is also punctuated with a more subtle message that says "I'm the toughest animal in the area and if you challenge me you'll be sorry" or it says "I know that you're tougher than I am, so I won't challenge your dominance". By expressing these messages through body-language and noises, bears can assert themselves, or retreat gracefully, without fighting. There is an obvious advantage to avoiding a fight when you are dealing with an animal as powerful as a bear. Consequently, it is to our advantage as humans to try to understand what a bear is telling us so that we can avoid killing a bear or being mauled by a bear.

The most important thing to remember throughout the following discussion of bear encounters is that we are making general statements about a complex situation. Every bear has its own individual personality and every bear/human encounter is different. The value of simplifying these encounters into a series of rules is that at least you'll have a better idea of what may be going on in a bear's mind, and how you may be able to defuse the situation.

*#1) Bear sees you, you don't know the bear is around - This is the most common bear/human encounter. Given their choice, most bears avoid detection by people and will simply move away when they sense a human. Contrary to the horror stories we've all heard, bears are not hiding behind every bush, waiting to attack people.*

*#2) You see a bear and it doesn't seem to know you are there - Move away slowly. Avoid intercepting the bear if it is walking. If possible, detour around the bear. If the bear is close to you, stand where you are or back away slowly. Do not act threateningly toward the bear, it may know you are there but it has chosen to ignore you as long as you are not a threat.*

*#3) You see the bear and the bear sees you - Do not act threateningly, but let the bear know you are a human. Wave your arms slowly, talk in a calm voice, walk away slowly in a lateral direction, keeping an eye on the bear. Unless you are very close to a car or a building, never run from bears. In a bear's world, when something runs it is an open invitation to chase it. Like dogs, bears will chase a running object even if they have no previous intention of catching it. Bears can run as fast as a race horse, so humans don't have a chance of outrunning a bear.*

*#4) You see the bear, the bear sees you and stands on its hind legs - This means that the bear is seeking more information. Bears stand on their hind legs to get a better look, or smell, at something they are uncertain of. It's your cue to help it figure out what you are. Help the bear by waving your arms slowly and talking to it. In spite of all the snarling, standing,*

stuffed bears we've all seen, standing is not a precursor to an attack. Bears do not attack on their hind legs. It's also important to remember that when a bear goes back down on all-fours from a standing position, it may come towards you a few steps. This is normal, and probably not an aggressive act.

*#5) The bear sees you, recognizes you as a human, but continues to come towards you slowly* - This may mean several different things, depending on the bear and the situation. It may mean that the bear does not see you as a threat, and just wants to get by you (especially if the bear is used to humans, as in a National Park); the bear wants to get food from you (if it has gotten food from people before); the bear may want to test your dominance (it views you as another bear); or, if it is a black bear it may be stalking you as food (a very rare occurrence). In all cases, your reaction should be to back off the trail slowly, stand abreast if you are in a group, talk loudly and/or use some sort of noise making device. If the bear continues to advance, you should stop. At this point it is important to give the bear the message that if he continues to advance it will cost him. Continue to make loud noises and present a large visual image to the bear (standing abreast, open your coat). In bear language, bears assert themselves by showing their size. If an adult brown bear continues to come at you, climbing 20' or higher up a tree may also be an option if one is next to you (remember, never run from bears). Keep in mind, though, brown bear cubs and black bears can climb trees and adult brown bears can reach 10-15 feet high.

*#6) The bear recognizes you as a human and acts nervous or aggressive* - When bears are nervous or stressed they can be extremely dangerous. This is when it's important to try to understand what is going on in the bear's mind. Nervous dogs bark and snarl. Nervous bears growl, woof, make popping sounds with their teeth, rock back and forth on their front legs, and often stand sideways to their opponent. A universal sign of a nervous bear is excessive salivation (sometimes it looks like they have white lips). When a bear shows any of these signs, stand where you are and talk in a calm voice. Do not try to imitate bear sounds, this may only serve to confuse and further agitate the bear. If you are in a group, stand abreast. If you have a weapon available be prepared to use it.

*#7) Bear charges* - If all of the other signals fail, a bear will charge. Surprisingly, however, most bear charges are just another form of their language and they do not end up making contact. The vast majority of these are "bluff charges", that is, the bears stop before making contact with their opponent. There are many different types of bluff charges ranging from a loping uncertain gait to a full blown charge. If a bear charges, stand still. If you have a weapon, take appropriate action, but remember, if a bear is wounded, a bluff charge may immediately turn into a real charge as the bear's mind shifts from an offensive mode to a defensive mode.

*#8) Bear attacks* - When all else fails, a bear may attack. Attacks may be preceded by all of the behaviors we have previously described or they may be sudden. Seemingly unprovoked attacks are often the result of a bear being surprised (and feeling threatened), a bear defending its food cache, or a female defending her cubs. When a bear attacks, it typically runs with its body low to the ground, legs are stiff, ears are flattened, hair on the nape of the neck is up and the bear moves in a fast, determined way. Front paws are often used to knock the opponent down and jaws are used to subdue it.

If you are attacked by a bear, your reaction depends on the type of bear that is attacking. If it is a black bear, fight vigorously, for your life may depend on it. Black bears have been known to view humans as prey, and if you struggle with the attacking black bear, it probably will go elsewhere for its meal. Brown bears are a completely different story. Brown bears attack because they feel threatened, and they will continue to press the attack until the threat has been neutralized. If you fight and struggle, the bear will continue to fight, and a human has little or no chance to defeat a brown bear in battle. If you roll into a ball, place your hands behind your neck, and lie still when you are attacked, a brown bear will no longer see you as a threat, and may stop the attack. Although it sounds foolish to play dead while being attacked by a bear, this has been proven time and again to be the best way to survive a brown bear attack. It should be noted, however, that if you fall down and play dead before a bear actually makes contact, the bear may come over to you and try to figure out what is going on.

Actual maulings by bears are very rare. Alaska has more bears than anywhere else in the world, and there are hundreds of thousands of people living, working and playing in these bears' back yard. Yet, since 1900, there have only been an average of about 2 people per year mauled by bears in the state, and very few of those instances have resulted in death.

#### WEAPONS FOR BEAR PROTECTION

As a last resort, a bear may have to be shot. When this is the only option, it will likely be in a situation that has a sudden onset. Therefore, it is important that you are familiar and comfortable with whatever weapon you decide to carry. Remember that if you wound a bear, you make the situation worse.

There is an on-going debate as to what is the best weapon to use for protection from bears. Here are just a few of the pros and cons for some of the more popular weapons:

- Pistols:* PROS - convenient to carry, always with the person, can be used in close quarters during an attack, rapid fire possible.  
CONS - very dangerous to humans (accidents), much practice needed to be proficient, may not be powerful enough to stop a large bear.
- Shotguns:* PROS - can be loaded with a variety of projectiles, effective at close range in brushy situations, rapid fire possible, easy to use.  
CONS - inaccurate and ineffective at medium to long range, heavy to carry, potentially dangerous to humans, may not be powerful enough to stop a large bear.
- Rifles:* PROS - very powerful calibers are available, accurate at both close and long range.  
CONS - much practice required for accuracy in an emergency situation, range of bullet makes it dangerous to humans for a long ways, heavy and awkward to carry, rapid-fire is difficult with bolt action rifles.



*Bear*

- Sprays:*    PROS - easy to carry and use, little risk of permanent damage to bears and humans, effective in many situations.  
              CONS - may change a false charge into a real charge, ineffective at ranges greater than 20', ineffective in windy conditions, dangerous if accidentally discharged in a closed area such as an aircraft cockpit.

There are also long discussions about where is the best place to shoot a charging bear. In reality, a person usually has little time to contemplate shot placement in a true bear attack. If you have a choice, its best to aim at the shoulder and chest area. Bear's skulls are very thick and covered with large muscles, so head shots may not be effective. Once you have made the decision to shoot a bear, you have a responsibility to finish the job you've started. Keep firing until you are out of bullets or you are absolutely positive the bear is dead. A wounded bear can be dangerous to you and anyone else who comes into the area.

Regardless of the weapon you choose, it is imperative that you realize that the most effective tool you have against an attacking bear is your brain. Although bears are intelligent animals, we are smarter and we can often think our way out of a bad situation if we try. We must never let the weapon we carry become a replacement for common sense.

**LAWS CONCERNING BEAR/HUMAN INTERACTIONS**

There are two regulations governing bear/human interactions in Alaska. The first prohibits feeding bears or leaving garbage that attracts them (5 AAC 92.230). The other sets the guidelines for taking a bear in defense of your life or property (DLP) (5 AAC 92.410). These DLP provisions specifically state that a bear cannot be killed legally if the problem is caused by the improper disposal of garbage or some other attractive nuisance, or if it is brought about by harassment or provocation of the animal, or an unreasonable invasion of its habitat. The regulation also defines what is considered "property". If a bear is killed under the DLP provisions, the hide and skull are the property of the state and must be turned over to Fish and Game as soon as possible. The person that shot the bear is also required to submit a written report on the incident within 15 days.

**SUMMARY**

Bears are very intelligent, wild animals. They are neither man-eaters nor real-life stuffed animals waiting to be cuddled. People who live or work in bear country have a responsibility to themselves and to the bears to attain a greater understanding of bears, for it is only through such knowledge that we can allay our fears and better appreciate bears. This will, in turn, result in safer interactions for both humans and bears.

A few basic rules of thumb include: a) think of bears as large wild dogs; b) always keep food and garbage away from bears; c) try to avoid areas where bears are likely to be found and make noise when you are in areas where you are likely to encounter bears; d) if you encounter a bear, don't panic, try

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to understand the message the bear is conveying; e) never run from bears or imitate bear sounds; f) if a bear attacks, stand where you are - fight if its a black bear, play dead if its a brown bear; and, g) if you decide to carry a weapon in the field be proficient with it and know its limitations.