



## Grizzlies: Big, Brown, Berry-eating Bears



This grizzly bear cub will spend a total of three or four years with its mother before living on its own. What things are important for a mother bear to teach her cub or cubs?

Grizzly bears are magnificent wild creatures that live and eat and play and hibernate in Denali National Park and Preserve. Black bears live in the park too, but you are much more likely to see a grizzly. Seeing a grizzly bear is at the top of many people's list of what they want to do when they visit Denali.

Bears are omnivores, which means they eat both plants and animals. They live to be 20-30 years old. In Denali, where they eat mostly plants, female bears (called sows) weigh 200-400 lbs, and males (called boars) weigh 300-500 lbs. One fat bear weighed 800 lbs! Coastal

bears that eat large amounts of salmon grow much bigger and heavier. *Grizzly* and *brown* are names for the same bear.

Be safe in bear country. While hiking or camping, don't let bears get your food. Make noise while hiking so you don't surprise a bear. Respect bears and stay at least 300 yards (300 meters)\* away.

Read below about bears and how they are adapted to life in Denali, then turn the page to learn about (1) wildlife biologists and their research, (2) the life cycle of bears, and (3) what bear foods or sign you can see in Denali.

### ADAPTATIONS FOR LIFE AS A GRIZZLY BEAR



**Muscles in Shoulder (hump):** for powerful digging



**Long Claws:** for digging dens, or roots or ground squirrel burrows



**Sharp Teeth:** for tearing or grabbing prey (moose calf or ground squirrel)



**Strong Molars:** for grinding plant foods like roots and stems



**Fall Feeding Frenzy:** to eat enough to survive winter



**Thick Fur and Fat Layers:** for hibernating during time of low food

\* To understand this distance, find the *Resting Grizzly* sculpture at the Denali Visitor Center. Walk from there to the Murie Science and Learning Center. That distance is 300 yards (300 meters)!

# Wildlife Biologists at Work



From a helicopter, a wildlife biologist darts a bear with a sleep drug. The bear rests safely while the biologist measures the bear, pulls a tooth, takes a blood sample, and attaches a radio collar.



The biologist weighs a grizzly bear using a sling, a tripod, and a scale that measures up to 1,000 pounds.

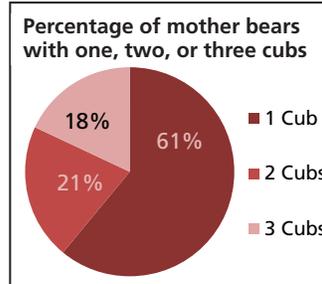


Wildlife biologists protect wildlife and visitors by closing areas that are critical wildlife habitat, checking that backpackers use bear-resistant food containers, and sharing the message: **Keep Wildlife Wild!**

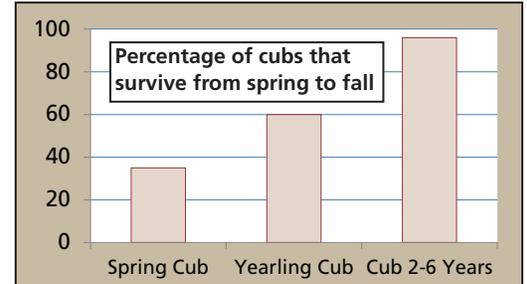
# Grizzly Bear Research in Denali

## Bear Populations

Wildlife biologists radio collared 50 sows in the area between the Muldrow Glacier and the Herron River from 1991 to 2009, in order to count how many cubs per sow were born, which is called *productivity*, and to check over a season what percentage of cubs survived, called *survivorship*.



Is it more common for a sow to give birth to one cub or two cubs?



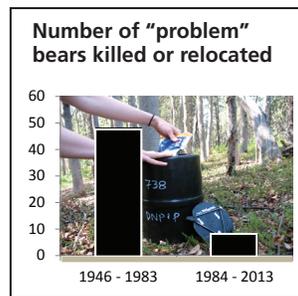
Suppose a biologist counted 100 spring cubs early one summer. Based on average survivorship, how many cubs would still be alive in the fall?

## Success with Bear-resistant Food Containers

Denali asks visitors to report any interactions with a bear. Each year, biologists tally the number of reported *incidents*, which are when a bear acts aggressively or touches a person, or causes property damage or personal injury. Before 1984, many bears got human food and garbage.

These incidents meant biologists had to remove the “problem” bears. Starting in 1984, biologists educated visitors to store human food away from bears and required backpackers to use bear-resistant food containers (see photo with graph).

After 1984, when visitors learned to keep human food away from bears, the number of “problem” bears (that had to be removed) dropped by about: (a) 10% (b) 50% (c) 85%

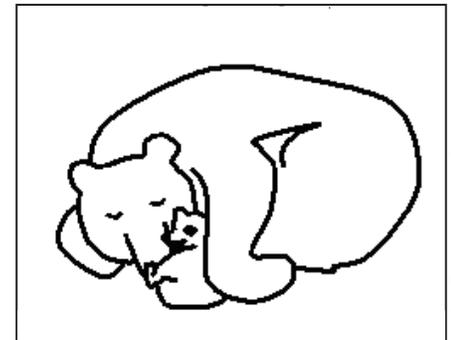


# Snapshots from the Life...



## Mother Grizzly Bear Hibernates

Grizzlies mate in summer. Bears eat thousands of berries and other foods all summer and fall. When it turns cold and snowy in October or November, bears find dens at higher elevations. The mother grizzly hibernates.



## Grizzly Bear Cub is Born

The sow gives birth to one or two or even three tiny cubs (each weighing less than one pound) during hibernation in January or February. Even if the mother does not wake up when the cub is born, the cub will nurse and grow bigger.

## Grizzlies in Native Culture

Many Native Alaskans believe that at one time animals and people shared a common society and language. Bears and humans could sometimes change form, one becoming the other. Bear spirits must be treated with respect. Bears are



revered for their power, size, gentleness, and curiosity.

Athabascans near Denali believe people should not talk about bears while the bears are hibernating.

Look at the Haida artwork of a bear. What physical features of a bear are shown in the art?

## Grizzly Track

The large gray footprint on this page is a life-sized paw print of a grizzly bear. Is it a front or hind paw (see bear feet in photos)? Is it bigger or smaller than yours?



## What Do Bears Eat?



Eskimo Potato  
(roots in spring, fall)



Bear Flower  
(greens in summer)



Crowberry  
(berries in fall)

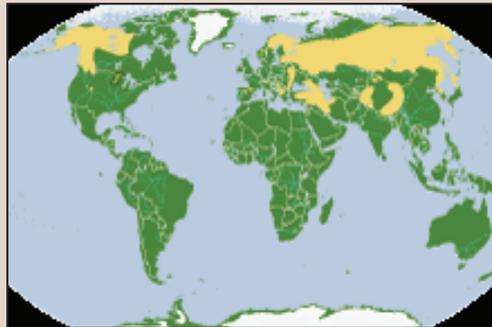


Lowbush Cranberry  
(berries in spring-- they last until then)

Grizzlies in Denali eat mostly plants— roots in spring and fall, grasses and other plant leaves and stems in summer, and berries, berries, and more berries in late summer and fall.

## Grizzlies Worldwide

Grizzly bears (also called brown bears) have a wide northern distribution across several countries and continents (see yellow on map). Their range used to be larger, extending farther south in western North America.



## ...of a Grizzly Bear Cub



Spring Cubs are cubs that were born "this" year. The cubs in the photo are about 5 months old.



Yearling Cubs are cubs that were born "last" year. The cubs in the photo are about 18 months old.

### Out of the Den, Lots of Learning

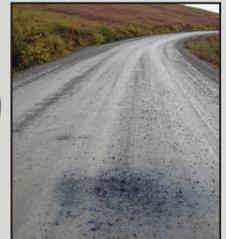
In May, the sow and her cub or cubs come out of the den. The sow will begin teaching her young such things as how to find food and how to cross a river. She protects her cub or cubs fiercely from attacks by wolves and other bears.

### Growing and Learning for More Years

Cubs stay with their mother for three or four years (including hibernating with her). When she is ready to mate and have a new set of cubs, she sends them off to be on their own. A young sow has cubs of her own when she is five to nine years old.



Soapberries



Blueberries



You can learn what a grizzly was eating by looking at its scat (poop).

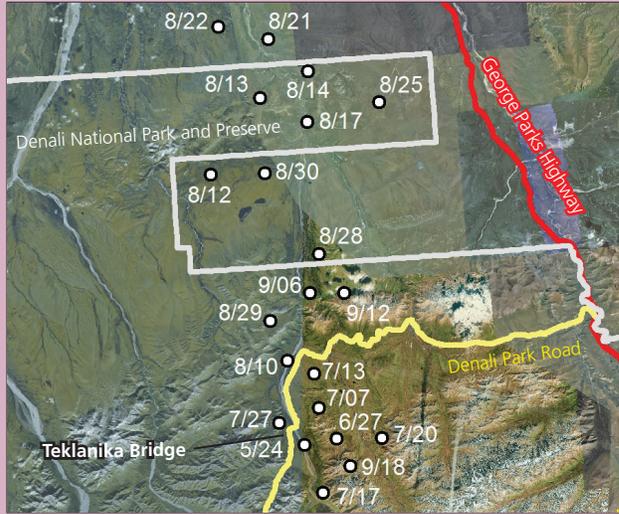


Grizzlies also eat moose and caribou calves, and ground squirrels. Do you think the bear will get a meal or will the cow moose fend off the bear?

# Activities

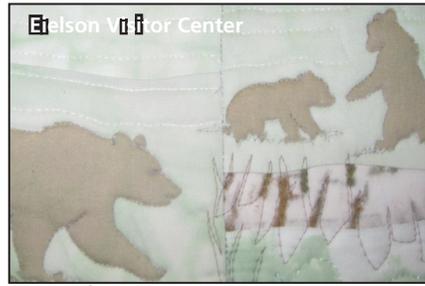
## Track the Bear

A grizzly sow wore a radio collar in summer 2006. The dots show where she was on each date (e.g., 5/24 is May 24). Connect the dots to show her travels during the summer. How many times did she cross the park road (yellow line)? In what month(s) did she spend time outside the park (park boundary is white line)?



## Bears in Art

Find these or other art bears in Denali—or create your own. Which is your favorite? Why?



Seasons of Denali by Ree Nancarrow



Resting Grizzly by William Berry



Visit Toklat and place the bear passport stamp here or draw your own bear.



Denali Spirits by Marian Berger-Mahoney

## Bear Sign

Look for where bears have chewed, dug, walked, or pooped. Check off the bear signs you see.



Chewed sign



Hole dug by bear



Bear tracks



Bear poop

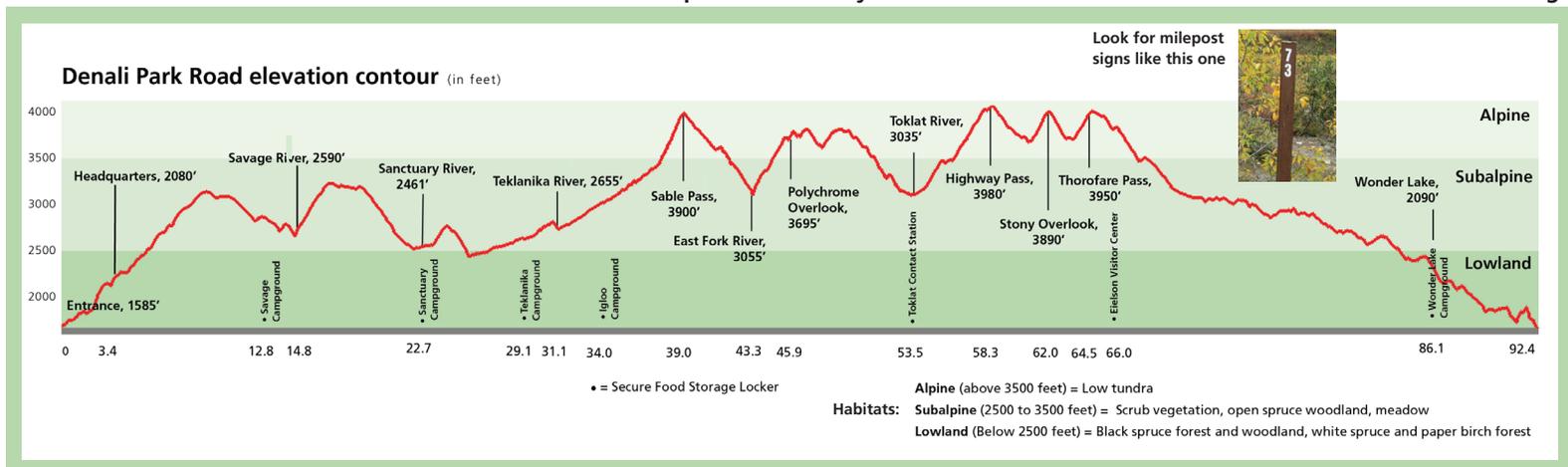
## Grizzly Coin

Find an Alaska quarter. Hold a small piece of paper over the coin and rub across the surface lightly with a pencil to make the image appear. Why is this bear likely not a Denali bear?



## Where are the Bears?

From the bus, be alert for bears, landmarks, and mileposts (see photo, Milepost 73; some miles have no sign). When you see a bear, note the nearest landmark or milepost. Put an X on the red line above that spot. Stack Xs if you see more than one bear. What habitats are the bears using?



Answers for Activities on inside page.

For more information Denali National Park and Preserve, pat\_owen@nps.gov