



Happy New Year, with wishes that 2022 is a better year for all.

During 2022 Bear Smart Durango will Email monthly educational newsletters about our local American black bears (***Ursus americanus***). If you have specific questions that you would like answered or topics that you would like discussed, please send those questions and topics to **Nancy Kimble, BSD Education/Outreach Volunteer, at nancy.n.kimble@gmail.com**.

Please share this information with your friends, family, and neighbors who live in black bear country. If you are a librarian, teacher, homeschooling parent, and/or otherwise work with a group of students, these monthly newsletters would be a great resource for presenting lessons about black bears.

BSD has fully vaccinated and boosted volunteers available to provide presentations, readings of bear books, and other educational activities to groups of all ages. Please Email **Nancy Kimble** to discuss options and scheduling.

JANUARY 2022 BEAR SMART DURANGO EDUCATIONAL NEWSLETTER

American black bears are the smallest of the three species of bears that live in North America, with the other two being brown bears (including grizzlies and Kodiaks) and polar bears. American black bears are only found in North America.

While the smallest in size of North America's bears, black bears are the most numerous, with a population of 500,000 to 800,000.

Understanding Black Bears: Black bears are powerful and strong enough to attack and kill people; but, they very seldom do. They could easily defend their young; however, they are more likely to flee. They are naturally shy and wary of humans; but, they are adaptable and resourceful enough to live among us. They are naturally curious when they encounter something new/unfamiliar, a trait that helps them avoid danger. They are very intelligent, flexible, and good climbers, all attributes that help them survive in a complex and ever-changing world.

How Old Is That Black Bear? Black bears are often classified as: cubs (less than a year old), a yearling (over a year), sub-adults (2-3 years old), a new adult (4-7 years old), a middle-aged adult (8-15), and an old adult (16+). Female black bears normally mature at 3-5 years of age. Some wait even longer until their first mating.

Black bears are omnivores, eating mostly plants (e.g., grass, leaves, acorns, and berries) and some meat (e.g., carrion and insects). As a bear ages, their teeth become worn down, rounded, and discolored, resulting in the teeth being a good indicator of age.

Adult males (boars) average 200-400 pounds. Adult females (sows) average 150-300 pounds. An adult black bear standing on two legs is about 5-7 feet tall; so, about the height of humans.

During the feeding frenzy (hyperphagia) period, bears often gain about 30 pounds of fat.

Bears are neither the ferocious man-eating beasts of movies or nightmares, nor the cuddly teddy bears of cartoons and storybooks. Like humans, bears have both general characteristics and individual temperaments and behavior patterns.

What Is The Difference between Hibernation and Torpor? Black bears do not “den” because it is cold. They put themselves to sleep for the winter due to dwindling natural food supplies. In far northern Minnesota and Canada, black bears may spend six months in their dens. In southern latitudes where food is available all year, bears may den for shorter periods and sleep less deeply. In Florida, only pregnant females den for winter; other bears may “nest” in dense vegetation for a few weeks or a month.

Bears make their dens in natural caves, hollow trees and logs, or shallow cavities they have dug out beneath tree roots. Some bears “nest” in a tree-hollow far above ground or make a bed on the ground out of twigs and vegetation to patiently wait for winter to cover them with an insulating blanket of snow.

A denning bear is a marvelous example of recycling at its best. It can go as many as 200 days without eating, drinking, or visiting the outhouse. Bears have a unique ability to reuse protein byproducts and they lose fat, not muscle, while they live off the fat reserves they worked so hard to acquire during hyperphagia. They also recycle calcium back into their bones, avoiding the bone loss that is typically caused by long periods of inactivity.

Some scientists believe that black bears do not fully hibernate, because hibernating mammals like bats, marmots, and squirrels enter what is almost a state of suspended animation; that body temperatures drop drastically, and metabolic processes slow nearly to a halt. True or “deep” hibernators must wake up every few days and reboot their metabolism, drink some water, go to the bathroom, and nibble some stored food before sinking back into oblivion.

Scientists call what bears do **torpor**, which involves physiological changes related especially to both temperature, metabolism, and water balance. Hiberna-

tion is a long-term, multiday torpor for survival of cold conditions.

A bear’s body temperature only drops 12 degrees during their denning period. Respiration drops to just one breath every 45 seconds, compared to six to ten breaths a minute while bears are active. Heart rates drop by more than half, from 40-70 beats per minute to 8-19 during hibernation. Thanks to their big fur coats, body heat is lost slowly, which allows bears to cut their metabolic rates by 50 to 60 percent.

Bears often change position in the den, and may even wander out into the world for brief periods, then go back to their den to sleep. Because bears do not have to warm up before they can move quickly, a denning bear can swiftly react to danger; so, do not crawl into a bear den during the winter.

When Are Black Bear Cubs Born in Colorado? The breeding season begins in May and lasts until early July, with mating mainly occurring during June. The actual implantation of the fertilized eggs (called blastocysts) is delayed until late fall or the beginning of denning season. If the female does not gain sufficient body fat or weight during the summer and fall, the embryos will not attach and instead are absorbed into the female’s body.

Pregnant female bears are usually the first to enter dens, with adult males being the last to do so. Cubs are born in the den in January or February. Litter sizes range from one to six, depending on the productivity of the surrounding habitat. Cubs are born blind, weighing between one-half and one pound. Once they leave the womb, they find their way to their mother’s teats, where they feed on milk and grow until spring. Mother bears tend to be affectionate, protective, devoted, strict, sensitive, and attentive toward their cubs, raising them to an age where they can survive on their own (about a year and a half).

[Primary sources: Living with Bears Handbook by Linda Masterson and the BSD website at www.bearsmartdurango.org]