

West Virginia Wildlife Series

*A Guide to Mammals of West
Virginia*

Black Bear (*Ursus americanus*)



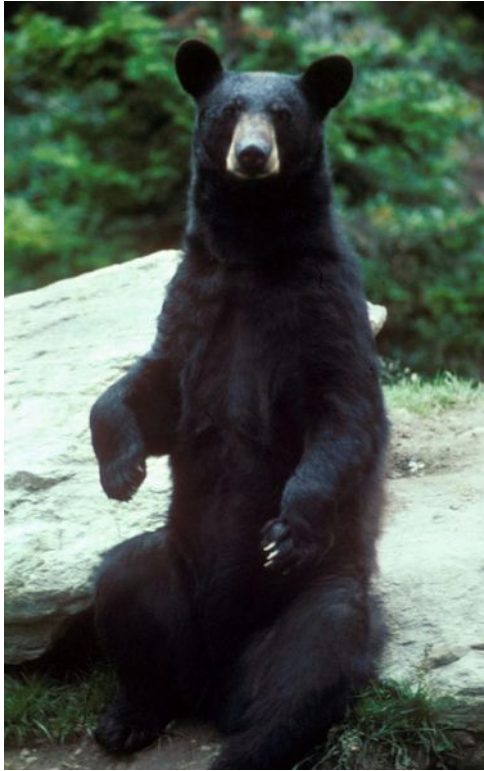
Volume 5

Characteristics:

Black Bears are the most abundant and widely distributed of the three species of North American bears. They have been recorded in all states except Hawaii. In Alaska, black bears occur over most of the forested areas of the state. They are not found on the Seward Peninsula, on the Yukon-Kuskokwim Delta, or north of the Brooks Range. Populations in the east-central and southern United States remain in the protected mountains and woodlands of parks and preserves, though bears will occasionally wander outside the parks' boundaries and have set up new territories, in some cases on the margins of urban environments in recent years as their populations increase. Although there were probably once as many as two million black bears in North America long before European colonization, the population declined to a low of 200,000 as a result of habitat destruction and unrestricted hunting. By current estimates, more than 800,000 are living today on the continent.

Black bears are the smallest of the North American bears. Adult bears stand about 29 inches at the shoulders and measure about 60 inches from nose to tail. The tail is about two inches long. Males are larger than females. An average adult male in spring weighs about 180-200 pounds. They are considerably lighter when they emerge from winter dormancy and may be 20 percent heavier in the fall when they are fat.

Black bears are most easily distinguished from brown bears by their straight facial profile and their claws which are sharply curved and seldom over $1\frac{1}{2}$ inches in length. Positive identification can be made by measuring the upper rear molar which is never more than $1\frac{1}{4}$ inches long in the black bear and is never less than that in a brown bear. Black bears have adequate senses of sight and hearing. They do have, however, an outstanding sense of smell.

**Range:**

Black Bears inhabit heavily forested areas, dense bush and wooded mountains throughout most of the East. They tend to wander a good distance, usually 2 to 15 miles.

Habitat:

The American black bear's scientific name is *Ursus americanus*. *Ursus* is Latin for "bear," and *americanus* was the name given to the black-colored bears observed by the first Europeans in the Americas.

An estimated 500,000 black bears roamed North America prior to European settlement. Though they still occur in sizeable numbers, black bears are extinct from certain Midwest states, but they may still be found in 42 of the 49 states (bears are not found in

Hawaii). The bear's historical range in Mexico is unknown although black bears may be found in five or six of Mexico's north-central states. Hunting, forest clearing, and urbanization impacted the range of the black bear, which is mainly a forest animal. It may be seen, however, in canyons of the Southwest, especially in late summer or early fall.

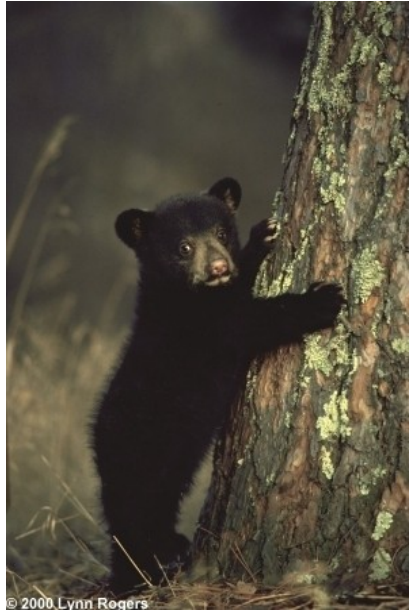
Diet:

Black bears are creatures of opportunity when it comes to food. There are, however, certain patterns of food-seeking which they follow. Upon emergence in the spring, freshly sprouted green vegetation is their main food item, but they will eat nearly anything they encounter. Winter-killed animals are readily eaten, and in some areas black bears have been found to be effective predators on newborn moose calves. As summer progresses, feeding shifts to salmon if they are available. In areas without salmon, bears rely primarily on vegetation throughout the year. Berries, especially blueberries, are an important late summer-fall food item. Ants, grubs, and other insects help to round out the black bear's diet. Male bears may occasionally prey on their own young. Bears are omnivores and their diets run the menu from grasses to carrion. They eat insects, berries, nuts, roots, grasses, herbs, bees, honey, insects, fish, young deer or elk, road kill, dog food and human food. Like Yogi, a black bear never saw a picnic basket it didn't like.

Life Cycle:

1-5 cubs are born in January to early February generally every second year. The Black Bear young weigh only one-half a pound at birth. This uniquely North American bear is generally nocturnal and solitary. It is classed as a carnivore although most of its diet consists of vegetation such as twigs, buds, leaves, nuts, roots, various fruits, corn and berries. Before winter it puts on a great

supply of fat, then holes up for the winter in a sheltered place. Hunting Black Bears is a popular sport, the meat is eaten and often the hides are made into rugs. Mating can take place anytime from June through July. Apart from that time, black bears are usually solitary, except for sows with cubs. The fertilized egg will not implant in the uterus until the fall. The cubs are born in their dens following a gestation period of about seven months. The cubs are born blind, nearly hairless, and weigh under a pound. Upon emerging from the den in May, they



may weigh about 5 pounds and are covered with fine wooly hair. They are able to follow their mothers quite well. One to four cubs may be born, but two is most common. Cubs apparently remain with their mothers through the first winter following birth. Bears mature sexually at 3 to 6 years of age, depending upon their environment. In their more southern ranges they will breed every other year unless a litter is lost early during the first summer, then the sow will breed again that year. In more marginal environments such as northern Alaska, black bears keep their cubs with them an extra year and will breed every third year. Bear dens vary by locale and conditions. A cave, fallen trees, brush piles, culverts, the base of tree roots, and under buildings all may house the wintering bear. One tree den, found in Louisiana, was 96 feet above the ground.

Black bears can live to 30 years in the wild but most often live for only about 10, mostly because of encounters with humans. More than 90% of black bear deaths after the age of 18 months are the

result of gunshots, trapping, motor vehicle accidents, or other interactions with humans. ([Lariviere, 2001](#))

Winter dormancy:

Black bears spend the winter months in a state of hibernation. Their body temperatures drop, their metabolic rate is reduced, and they sleep for long periods. Bears enter this dormancy period in the fall, after most food items become hard to find. They emerge in the spring when food is again available. Occasionally, in the more southern ranges, bears will emerge from their dens during winter. In the northern part of their range, bears may be dormant for as long as seven to eight months. Females with cubs usually emerge later than lone bears. Dens may be found from sea level to alpine areas. They may be located in rock cavities, hollow trees, self-made excavations, even on the ground. Current research points to reduced thyroid gland activity as the primary motivator for black bears to hibernate, but this is still under investigation. Early researchers believed that the onset of hibernation was due to the snow, temperature changes, decreased atmospheric pressure or a decrease in daylight hours. But a skinny bear will continue to forage in the winter, despite the "rule" that it should be hibernating. That bear might not survive the winter burning up its limited fat supply.

Black bears are not true hibernators like chipmunks and ground squirrels, for example. True hibernators lower their heart and breathing rates to about 10 percent of their normal activity. Black bears lower their body temperature about 10 degrees and their breathing and heart rates decrease slightly (although some lower their breathing and heart rates considerably). They are better described as "groggy," alternating between sleep and periods of "teenager wakefulness."

Black bears, unlike true hibernators that burn protein reserves, use their fat reserves for energy. Their urea, from the urine, is recycled back into the production of muscle tissue, and a bear may gain muscle mass in winter although it may lose 20 to 40 percent of its weight. Most of this is from the fat reserves gained during the summer and fall. One interesting side note is that humans on a starvation diet have problems with the formation of gallstones. Bears produce an acid called ursodeoxycholic acid that is stored in their gallbladders. This acid prevents gallstones, enhances digestion and enables the bears to lose fat, not muscle mass, during their winter slumber. Though some black bears are taken illegally for their ursodeoxycholic acid, a black market product, a synthetic form of this acid has been created using cow bile. The product is used to prevent or dissolve gallstones



During a five-month hibernation, a female bear gives birth to two or three cubs (rarely up to six). Though the bears mate in mid-summer, the fertilized embryos do not implant on the uterine wall until November. This delayed implantation means that the young

will be born in January. The cubs are born with their eyes open and are active after five or six weeks. They nurse on high-fat milk and snuggle up with the sow to stay warm.

When the cubs and sow leave the den in the spring, the cubs weigh four to eight pounds. The young quickly gain weight and may tip the scales between 15 and 165 pounds by mid-summer, depending upon the availability of food. Generally, the cubs will spend the next winter with their mother in a winter den before they disperse the following spring.

Omnivores:

Some animals eat both plants and animals. They are **omnivores**. Omnivores include mammals like [grizzly bear](#), [striped skunk](#) and [raccoon](#) and birds like the crow, the [blue jay](#) and the woodpecker. Because they will eat plants and animals, omnivores survive well in many environments. Some omnivores, like the [raccoon](#), the [opossum](#) and the seagull have no problem adapting to living near humans. They often will dig through garbage cans, dumpsters and gardens to find food.

What did you have to eat today? If you are like most humans, you probably had meat and plants! Humans are omnivores too! Our teeth are designed to eat both meat and plants. Our front teeth help us rip into meat and bite into fruits and vegetables, and our molars help us grind up meat and chew fruits and vegetables. Many omnivorous animals also have teeth that help them eat both plants and animals.

Diseases common to Bear:

If bear flesh is used for human food, it must be well-cooked as Alaska bears have been known to have trichinosis. This disease is transmitted by eating infected meat that is not cooked thoroughly.

Communication:

Bears will pop their jaws, flatten their ears, rise up on hind legs, snort, woof, whine, blow, roar, moan, wail, cough, and bellow, depending upon their emotion. Posturing, the orientation of head and body sends a display signal to other black bears about one's standing in the community. Black bears tend to flee when confronted by humans, but may charge or stand their ground.

Behavior:

Bears are extremely powerful animals and potentially dangerous to humans. They are usually highly cautious and secretive, but if they have a food supply, they may defend it against all intruders. Encounters with humans, especially near garbage dumps and fish drying racks, may occur. Sows with cubs must always be respected. A rule of thumb is never to come between or near a mother bear and her young.

Normally, these bears snort in a characteristic way and move off. They have, however, attacked without apparent provocation. Several persons have been victims of these unprovoked attacks. In general, all bears should be considered as potentially dangerous and should be treated with respect. Black bears that appear unafraid of humans and will allow people to approach closely should be treated with utmost caution.

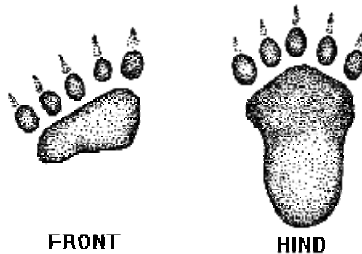
Identifying Bear Scat:

Bear droppings may be confusing at times, though generally they have a distinctive form, with a tendency to maintain a fairly even diameter. Bears will eat meat whenever they can, killing animals as large as a moose - or feeding on carrion. On such a diet the scats are likely to consist chiefly of hair. Remember however, that a bear is pretty much a vegetarian, and a large proportion, probably the majority, of the scats you find will consist of grass, sometimes

roots. There may be a mass of wood debris mixed with ants, or a mass of pine nuts, or berries in season. Coyotes eat pine nuts too, but their droppings are smaller. A straight diet of strawberries may produce a semi-liquid mass.

Bear scat is massive, reflecting the size of its maker. Usually cylindrical, dark brown to black when fresh. Smooth and unsegmented with flat, untapered ends when the animal has been feeding mostly on berries, vegetation, and insects; ant, beetle, and grasshopper legs often apparent in scat. Deposits become more like those of other predators when a bear has been feeding on deer-size kills or carrion, tapered at one or both ends, with small bones and fragments sheathed within a spiraled outer layer of fur. Length may range from segments of about 2 inches to scats as long as 8 inches; diameter from 1 to 2 inches, with larger diameters indicating larger bears.

Black Bear Tracks:



The tracks of this slightly pigeon-toed creature are characterized by the overlapping of the hind prints onto those of the front. The heel pad of the rear foot is long and vaguely resembles that of a human. Five toes with equally long claws are evenly spaced along the top of this pad.

Black Bear prints resemble small human prints, but they are wider and show claw marks. The small inner toe rarely registers. The

forefoot's small heel pad often shows in the print, and the hind print shows a big heel. The bear's slow walk results in a slightly pigeon-toed double register with the hind print on the fore print. More frequently, at a faster pace, the hind foot oversteps the fore-foot. When a bear runs, the two hind feet register in front of the forefoot in an extended cluster. Along well-worn bear paths, look for 'digs' - patches of dug up earth - and 'bear trees' whose scratched bark shows that these bears climb.

Front Foot: $4 \frac{1}{2}$ in L x 4 in W

Rear Foot: $6 \frac{7}{8}$ in L x $3 \frac{1}{2}$ in W

Straddle: 17.2 - 18.8 in

Trail Width: 14 in

Slow Stride: 18 - 20 in

Running Stride: 2 - 5 ft

This series of Wildlife guides has been compiled and edited by Bill Church.

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