

## The Black Bear

by Linda Spielman

Misconceptions abound when it comes to the black bear. We visualize them as much bigger than they are, but their average shoulder height is only about 2 ½ feet. We picture their movements as lumbering and ungainly, but unless they're in a state of panic, bears move with fluidity and grace. We imagine that they are ferocious hunters, but meat makes up only a small percentage of their diet.



Black bears are the smallest North American bear and the only one found in the east. But even black bears need plenty of space—they require large home ranges in which they can move among a variety of food sources as each becomes available through the seasons. Good locations for winter dens are also essential if bears are to be year-round residents. Habitat degradation and uncontrolled hunting during the 19th and early 20th centuries caused steep declines in eastern black bear numbers, but recent decades have seen the recovery of many populations. In the mature forests and varied habitats of Hammond Hill bears can travel safely between feeding areas and find good sites for winter hibernation, and they are found there in all four seasons.

The ability of bears to hibernate over the winter is one of the marvels of animal physiology. During its long slumber a bear does not eat, drink, or defecate, and it recycles waste to produce the small amounts of water and protein that it needs to stay alive. By the time it emerges in spring a bear has lost between a quarter and a third of its body weight, but most of that is the fat which was stored in the previous summer and fall rather than muscle mass. A hibernating bear's metabolism drops by about 50% and its heart rate goes from 50 – 60 beats per minute down to 10 – 15. There is less of a decrease in body temperature, only about 8 ° Fahrenheit, and because of this a sleeping bear can be aroused relatively easily. If hibernation alone was not amazing enough, pregnant sows are able to give birth and care for their young in the midst of their winter's slumber.



*Right Front Track*

Upon emergence in early spring, a bear's metabolism is still at a low level, and it gradually reactivates over the course of several weeks. During this time the animal remains in the vicinity of the den, rests a lot, and doesn't eat. Sows which have given birth over the winter emerge later and stay near the den longer so the tiny cubs can be protected from the unpredictable weather of early spring. But eventually hunger intensifies and bears begin to wander in search of food.

The spring menu is rather limited, consisting mainly of the tender buds, flowers, and unfolding leaves of grasses, forbs, and woody plants. Bears are drawn to south-facing slopes and sheltered wetlands, where choice early foods like the flowers of skunk cabbage and the new shoots of sedges and cattails can be found. But these foods are not very rich in calories and they don't begin to meet the energy needs of an active black bear. If carrion is available it is gladly consumed, and bears may raid the caches of nuts and seeds collected by squirrels and chipmunks. A bear that is lucky enough to find a resting fawn makes quick use of this high-energy bonanza. They're basically eating everything they can find, but black bears continue to lose weight until sometime toward mid-summer when fruits and nuts begin to ripen.



*Scat*

Black bears are rather shy and secretive, and they would rather flee than have a confrontation with a human. But strangely enough, they also engage in behaviors aimed at announcing their presence. They leave claw marks and bite marks, they break or bite off small branches, and they rub their bodies against tree trunks. Creosote-treated power poles are a favorite bear message board, and lean-tos and rustic signs may also be inscribed.



*Claw marks on Apple Tree*



*Bite Marks*

The sign shown in the photo was bitten with the canine teeth to create a characteristic dot-dash pattern. Bear marks tend to be visually conspicuous, but they also carry chemical messages, and a passing bear can identify known individuals simply by smelling the claw or tooth gouges or the broken or rubbed trees. During mating season these announcements may help to bring males and females together, but the rest of the time they serve to keep bears apart. Bears (except for sows with cubs) are really solitary animals, and it's much better for everybody if energy-wasting conflicts can be avoided.

We humans can see these bear-to-bear messages too, although we can't read the olfactory signatures. Bears also leave clues in the course of their feeding activities. The apple tree in the photo has claw marks made when a bear climbed to reach apples in the upper branches, and the scat shows how fond bears are of black cherries. Tracks are often the hardest kind of evidence to find, especially in a thickly forested area like Hammond Hill. But it's worth the effort to look in likely spots. I've found tracks on the muddy edges of ponds and in low, wet spots along trails and forest roads. Finding bear tracks or sign is always thrilling. The presence of animals like black bears makes our natural areas more balanced and whole—and it also makes them feel just a little wilder.