



Cornell University  
Cooperative Extension

# New York's Wildlife Resources



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## Black Bear (*Ursus americanus*)

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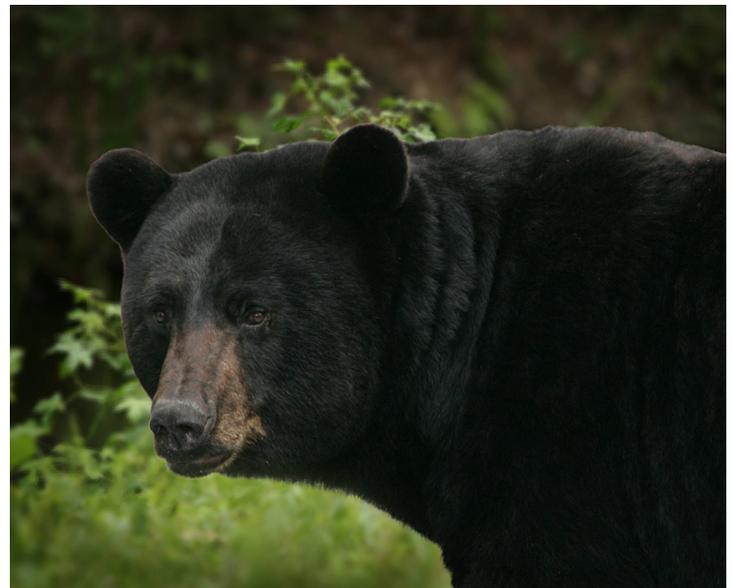
### Description

The black bear is the second largest mammal in New York, and one of the most exciting to see. This robust animal, with its characteristic barrel-like body and flat footed, shuffling gait, is valued by hunters, photographers, and wildlife watchers alike. It has broad, long broad head; a long muzzle; relatively small eyes; erect, short, rounded ears; flat-footed; and a short tail. The fur of a black bear is shaggy, long (except in mid-summer) and soft. Bears begin shedding their thick winter fur about mid-June, and a coat of new, short hair covers the bear through summer. By early autumn, the fur is long and full again.

Color among black bears varies from light, cinnamon brown to jet black. The lighter colored animals are more common in western states. Most black bears encountered in New York are entirely jet black, except for the snout which may be partially brown; some individuals may have a white chest patch.

Black bears vary considerably in size. In New York, an adult male (boar) may reach a length of 2 m (6.5 ft), a shoulder height of 1 m (3 ft), and an average of 135 kg (295 lbs), although a few individuals grow to 270 kg (600 lbs) or more. Females (sows) are generally smaller than males of the same age, typically reaching lengths of 1.3-1.5 m (4.2-5 ft), shoulder heights of 0.75 m (2.5 ft) and weights averaging 73 kg (160 lbs). Size difference is the only readily visible difference between sexes in black bears.

The black bear exhibits numerous facial and body expressions, which communicate their dominance and submission to other bears. These nonaggressive gestures are frequently used to warn approaching humans as well. Black bears have an acute sense of smell, but



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their vision is comparatively poor. Bears are color-blind and near-sighted. Their hearing is believed to be similar to that of humans. They occasionally growl, "woof," or click their teeth together when threatened, and females communicate with their cubs using low grunts that signal cubs to climb a tree when danger is near or to descend after it has passed.

Bears are habitual, frequently following trails. Bears establish trails over their range and mark these trails by standing on their hind legs and clawing or biting an occasional tree. It is possible that they communicate with one another in this fashion as well.

Extremely agile for their size, bears sometimes stand erect on their hind feet to see and smell better. Their top speed is 30 mph (48 kph) over short distances. Black bears climb easily and swim well.

## Distribution and Abundance

Black bears are found in 40 states from Alaska to Mexico. The third largest population of black bears in the eastern United States resides in New York; only Maine and Pennsylvania estimate larger populations. Approximately 6,000-7,000 bears currently inhabit the state.

Black bears have long been part of New York's wild-life legacy. When colonists arrived during the seventeenth century, most of New York was covered with mature forest—prime bear habitat. As the colonists cleared the forest, the number of bears declined. By the late 1800's almost 75 percent of the land in New York had been cleared of forest for farming. With most of their habitat removed, the situation for black bears deteriorated.

Black bears undoubtedly survived best in the Central Adirondacks where, despite heavy logging, the marginal fertility of the land discouraged agriculture and the habitat did not change drastically. As farmland abandonment increased throughout the state in the late

1800's, large areas began reverting to forest. As the forests matured, they provided more suitable habitat for bears. Over half of New York's land area is inhabited by black bears.

In New York, black bears historically inhabited three separate ranges, the Adirondack range, the Allegany range, and the Catskill range. Due to expanding bear populations in southern New York over the last few decades, the Allegany and Catskill ranges have merged, and are now referred to as the Southern Black Bear Range. This range totals over 41,000 km<sup>2</sup> (15,850 mi<sup>2</sup>). The Adirondack range is now called the Northern Bear Range, and totals 33,200 km<sup>2</sup> (12,800 mi<sup>2</sup>).

The Northern Black Bear Range, with its extensive unbroken tracts of forest and limited human use, is the largest area of black bear habitat. Virtually all of the Adirondack Park falls within this range. Current estimates place the bear population of this area at about 4,000-5,000 individuals. The habitat in this region is mostly steep, rugged, and forested, with only a few roads. There are thousands of lakes and ponds, many vast wetlands, and headwaters of the some of the state's primary watersheds. In this range, food is abundantly available throughout the growing season. Wet plants and succulents arrive in the spring, blueberries and raspberries are abundant in summer, and black cherries, beech nuts, and acorns are available in the fall. However, the weather can have a profound effect on the food source each year. Bear-human conflicts have resulted most often from carelessness, but occasionally may be related to the failure of some seasonal foods, causing bears to move widely in search of food.

The Southern Black Bear Range contains a wide variety of habitats, from the Allegany Plateau to the Catskill Mountains and the Taconic Highlands. About 2,000 bears occupy the range. Extensive tracts of unbroken forest in the Catskill Forest Preserve and high peak country characterize the northern Catskills, while the southern range, with lower elevations, is comprised of large tracts of privately owned woodlands. The Allegany Plateau contains forested lands and intermingled agriculture. Unlike the northern range, much of the southern range is a patchwork of farms reverting to old fields, shrubs, and trees of varied ages, and much of the land use in this region is not ideal bear habitat. Recent research shows that bears are adapting to forest fragmentation by increasing home-range size. This puts bears at an increased risk of becoming a nuisance to landowners, as well as being killed on highways. The southern black bear range has been slowly expanding northwards into populated sections in western and south central New York.



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## Life History

### *–Breeding and Reproduction*

Black bears, both males and females, reach sexual maturity between 2.5 and 3.5 years of age; first mating typically occurring at this time. The breeding period is relatively brief, with mating activity occurring in the summer, mostly in June and July.

The black bear is an animal that exhibits a reproductive phenomenon called delayed implantation. When mating occurs, the eggs are fertilized and the zygote (fertilized egg) begins the process of cell division but does not grow beyond the blastocyst stage (hollow ball of cells). The embryo does not attach to the wall of the uterus or continue to grow until late fall. Cubs are typically born January and early February while the female is still in the den. Thus during the gestation period, which is about 220 days, actual fetal development only occurs during the last 20 weeks.

Twins and triplets are the most common litter size, but the documented range in number of cubs is from 1 to 6. At birth, the young are blind, almost hairless, weighing about 168 to 280 grams (6-10 oz), and measuring about 20 cm (6 in) long. When the cubs emerge from their den with their mother in early spring, they weigh 2.3 to 6.8 kg (5-15 lbs). The cubs are weaned by about 8 months of age (by late August to early September). They accompany their mother throughout the active season and den with her during their first winter, at which time they weigh almost 25 kg (55 lbs). The bear family group will emerge the following spring and continue to travel together until June when the breeding season begins. At this time the yearling offspring will typically leave the adult female and no longer associate with the adult or each other. Adult females will not breed while nursing a litter or cubs. Therefore, under normal circumstances adult females will breed and produce a litter or cubs only every other year. However, if the litter perishes in early spring the female may breed during consecutive years.

Black bears are relatively long-lived wild mammals; the oldest New York bear was 42 years old. In wild populations cubs and yearlings are most numerous. New York bears harvested during hunting season average about 5 years of age, though the average age of bears overall in New York is thought to be higher.

Black bears are relatively free of parasites and diseases, and infestations and outbreaks having minimal impact on overall mortality rates and population sizes. Trichinosis, low levels of round worms and low frequencies of mange and ticks have been found in New York's bears.

Legal harvest by hunters is the primary source of mortality for black bears in New York. Vehicle collisions are another source of mortality, especially during droughts or other periods of unusual food availability or shortages, which cause bears to move more extensively in search of food.

### *–Home Range and Movement*

The black bear is essentially a solitary animal. It is rare to see more than one bear at a time, with the exception of a sow with cubs. Adult bears have large home ranges, with males traveling up to 100 mi<sup>2</sup> (250 km<sup>2</sup>), and females traveling 25 to 50 mi<sup>2</sup> (65-130 km<sup>2</sup>). Home range size is extremely variable and depends largely on season and availability of food resources. Young males dispersing from their mothers' home ranges have been known to travel 100 miles or more to new locations. Bears are predominately nocturnal, with most of their travel and feeding activity occurring at night (a factor contributing to their infrequent sighting by humans). In essence, they tend to lead a nomadic existence within a limited range.

### *–Habitat and Food*

Black bears are typically found in extensive areas of forest however, they are adaptable and will use open and developed areas where food and shelter can be found nearby. New York State has a relatively high percent of forest cover, diverse food resources and an abundance of water. Due to changes in land use and reforestation, New York's bear habitat has improved and significantly increased in area over the last 100 years.



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Black bears are omnivores and feed on grasses and forbs in the spring, soft mast and insects in the summer, and soft and hard mast in the fall. Bears also feed on a variety of crops including corn and honey. Although black bears predominately feed on plant materials, they are opportunists and will eat whatever is available, including amphibians, reptiles, small mammals, fish, carrion and garbage. Given the opportunity, black bears will nearly always avoid people. However, bears that learn to associate people with the availability of food can learn to overcome their fear of people. Bird seed and other food sources such as open garbage dumpsters, compost piles, barbecue grills, and direct bear feeding can habituate bears to humans, and lead to negative human-bear interactions. To minimize these problems, deliberate and intentional feeding of bears is illegal in New York.

### *-Hibernation*

Black bears are not true hibernators. True hibernators, such as bats or woodchucks, enter a torpid state during which their body temperature fluctuates slightly above the temperature of their den. The black bear's body temperature drops about 10° F but remains relatively constant. This permits bears, unlike true hibernators, to become active very quickly. Physiologically the black bear has adapted well to winter's food scarcity. Bears obtain their nourishment from large stores of fat under the skin, occasionally exceeding 10 cm (4 in) thick, and surrounding its internal organs. The denning period typically lasts 4 months but may occasionally last up to 6 months, during which time the bear does not eat, drink, or defecate. Bears rarely leave their den during winter. However, abnormal atmospheric conditions, such as extensive winter rains resulting in den flooding or extended periods of very warm late winter temperatures, may result in some winter activity. Dens can take many forms: in caves, crevices in rocky outcrops, large culverts, hollow logs, hollow snags, or brush piles, or under tree roots or blow-downs, under houses, or in shrubby thickets.

Hibernation is triggered by the shortage of available food. Female black bears tend to den earlier than males, and pregnant females are among the first to den. Typically, female bears enter a den during October or November, and males enter their dens in November or December. Except for newborn cubs, bears do not eat, drink, urinate or defecate during the denning period. Males leave their dens in March or April. Females leave their dens later than males, sometimes as late as May.

## **Economic and Social Values**

The positive values of bears are frequently intangible, such as the value of seeing or photographing a wild bear, tracking or interpreting bear sign, pursuing one afield, or just knowing that this secretive large mammal roams free over much of New York. Bear hunting produces tangible benefits to the economy in the form of revenue generated from the sale of sporting arms, ammunition, and sportswear, as well as travel, meals and lodging.

Bears are also a tangible source of food for those who hunt them. However bears, like pigs, have been known to carry Trichinosis and as such, bear meat should be cooked to a minimum internal cooking temperature of 137° F. The incidence of trichinosis in bear is less than two percent in New York, and with proper precautions, there should be no more concern for this disease than there is when eating pork.

Black bears occasionally do become bothersome when they take advantage of improperly protected artificial foods such as agricultural products, bird feeders, and refuse. These negative encounters often can be minimized through preventative management such as the use of electric fences to protect apiaries, and bear-proof dumpsters at campgrounds. Properly storing trash cans out of the reach of bears, keeping pet feed indoors, and taking bird feeders down during the months when bears are active are also important preventative measures.



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## Management

Once limited to small, isolated populations in only the most inaccessible mountain regions of the state, successful bear management has allowed black bear populations to increase dramatically in number and distribution in recent decades. However, as bear populations increase, human-bear conflicts also increase, and managers are challenged to balance diverse public interests related to bears. The New York State Department of Environmental Conservation (NYSDEC) is responsible for the management of bears in the state. Their management objectives are to maintain bear populations at levels acceptable to the public, promote bear hunting as an important tradition and management tool in New York State, minimize the frequency and severity of human-bear conflicts, and foster understanding and appreciation of black bears through communication about bear ecology, management, and conflict avoidance.

Black bear populations are secure for the foreseeable future, and the black bear in New York State is a legacy that can be passed on to future generations.

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\*Revised extensively from Decker, D.J., O'Pezio, J., Kelley, J.W., Goff, G.R., and R.J. Howard, Jr. 1981. *New York's Wildlife Resources: Black Bear*. Cornell Department of Natural Resources with permission from D.J. Decker and G.R. Goff.

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