



IFW Management Ensures Healthy Bear Population

By Jennifer Vashon,
Wildlife Biologist and Bear Project Leader
Maine Department of Inland Fisheries & Wildlife

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Maine's large bear population provides a wide range of benefits to residents and visitors alike. The Department of Inland Fisheries and Wildlife's goal, designed with considerable public input, is to maintain the bear population at its current level.

We are the agency responsible for the protection and enhancement of the state's inland fisheries and wildlife. Our management of wildlife is based on balancing both biological and social concerns to maintain healthy wildlife populations, while minimizing conflict between wildlife and people, and providing recreational opportunity (e.g. hunting, trapping, and wildlife viewing) to the people and visitors of Maine.

Hunting and trapping is our primary management tool for game animals and furbearing mammals. Hunting and trapping, specifically through season length and bag limits, is how we manage numerous wildlife populations, whether it be deer, bear, geese, coyotes, or turkeys.

While it is a sport, hunting in Maine is also a business that drives a significant segment of the economy. Over 200,000 people hunt in Maine each year, and those hunters generate nearly a half a billion dollars (\$453.9 million) in economic activity in Maine. That figure includes \$27.4 million in state sales and income tax revenue. It particularly supports rural economies.

This article will provide information about black bear ecology, its status in Maine, and how IFW biologists manage black bears to ensure the future of bears in Maine.

Black Bear Ecology

The black bear is one of 3 bear species that occur in North America and is the only bear found in the eastern United States. Black bears were once found across the United States with the exception of the plains states. At the time of European settlement, excessive killing of bears and clearing of land led to the decline of black bears throughout their range.

In response to declining wildlife and fish populations, the practice of wildlife conservation was born. In the late 1800s, state and federal fish and wildlife agencies were formed, hunting seasons and bag limits (i.e. number of animals allowed to be harvested) were established, and game wardens were hired to enforce laws.

At the onset of the industrial revolution, farms in the northeast were abandoned, and these areas began reverting to forest. It wasn't until the 1930s when the wildlife management profession was

formally recognized, and state and federal fish and wildlife agencies were guaranteed funding of wildlife research through the Federal Aid Act. As a result, fish and wildlife research programs were initiated, our understanding of wildlife increased, bounties were lifted, and species were protected.

The increase in forested habitat, coupled with regulated hunting, allowed black bear populations to recover throughout much of their historic range. Black bears now occur in 37 states and have recovered to levels that allow 28 states to have a hunting season on bears.

Maine is home to the largest black bear population in the eastern United States and has one of the largest populations in North America (Oregon and Washington have similar black bear populations). Black bears can be found in all but the southeastern portion of Maine.

Black bears are omnivores eating both meat and vegetation, although vegetation makes up a significant portion of their diet. Black bears are associated with forested habitat. The seasonal availability of food determines, which forested areas bears use, although forested habitats are also sought for cover, primarily for shade and protection.

In the spring, bears forage on fresh, emerging grasses and the buds and fresh leaves of aspen and other hardwoods. In the summer, they forage on berries and insects, and in the fall they forage on a variety of foods including nuts, cherries, and apples.

Generally, adult female black bears weigh between 150-200 lbs, and adult male weigh between 250-350 lbs. However, some male black bears can exceed 500 lbs.

Bears can live up to 30 years in the wild. Black bears provide extensive care to their offspring, as female bears only produce a litter every other year. Female bear give birth to 1-4 cubs in the winter. The cubs emerge with their mother from their den in the spring, and stay with their mother until the following spring.

Nutritional condition of female bears determines when they will first produce a litter of cubs. In Maine, a female bear will produce her first litter between the ages of 4 and 6 years. If it is a poor food year where there are not many acorns, beech nuts or berries, bears may not produce cubs.

Due to parental care, 60 percent to 70 percent of the cubs survive their first year; starvation and predation (generally from other bears) are the leading causes of death for black bear cubs. Once a bear reaches maturity, natural mortality is low, because bears have few predators, with the exception of other bears and humans, and disease and starvation is low.

Conflict between bears and humans are a result of several factors. Natural food shortages as a result of a drought can cause bears to travel more in search of food. Bears in their search for food will come in contact with humans and human associated foods (e.g. bird feeders, garbage, crops, etc.). When humans begin to develop areas occupied by bears, bears that had previously little contact with humans begin to interact with people. Finally, if bear populations increase, bears are forced to occupy areas that were previously less desirable. Often these areas are associated with human developments, and bears will come in closer contact with people resulting in increased conflict.

Status of Black Bear in Maine

The black bear, once regarded as a pest species, had a bounty on its head in Maine until 1957. In the 1930s, the state legislature first recognized the black bear as a valued game species, but protection was limited. By 1966, the black bear was formally recognized as a valued species; hunting season and bag limits were established, and MDIFW biologist began monitoring the harvest.

In the early 1970s, the department recognized that simply monitoring the harvest and adjusting the hunting season was not sufficient for ensuring the future of black bears in Maine.

In 1975, the department began an intensive study of black bears. It is one of the longest running research studies of black bears in North America. Through this research, we are able to estimate how many bears are born and how many die (i.e. the population growth rate) each year. We are also able to assess the quantity and quality of habitats for supplying food and shelter to Maine's bears.

This research continues today. Over the last 28 years, we have studied 2,049 bears (1,698 research bears and 351 bears tagged as nuisance bears). All female bears captured in our study areas are equipped with a radio collar and monitored from aircraft equipped with radio receiving equipment throughout the year. In 2003, we equipped 79 female bears with radio collars. Each winter, we track each radio collared female to her winter den to evaluate the condition of the female, and document the birth of cubs or survival of her previous litter of cubs. During an average winter, we visit between 45 and 55 dens. This winter, we anticipate visiting about 50 dens.

Maine's current population of black bear is approximately 23,000 bears. Entering the 1990's, Maine's bear population was approximately 18,000 bears.

Black Bear Management in Maine

Our management of black bears is not limited to research and monitoring of the harvest, but it also includes public involvement. Every 15 years, IFW biologists prepare a document (species assessment) that summarizes our current knowledge of bears in Maine.

It addresses the current status, as well as, the future status of Maine's bear population and bear habitat, and the public demand for bears, both hunting and non-hunting demand. A public working group is convened to review this document and to recommend management goals and objectives for bears on a statewide or regional basis.

In 1999, we convened a public working group representing diverse perspectives to make recommendations for bear management through 2015. Those invited to participate included those with wildlife viewing interests, hunting interests, and business interests.

After their review, the public working group felt that Maine's current bear population was adequate to maintain bears, minimize conflicts, and provide recreational and viewing opportunities. The working group recommended that we maintain bear populations at 23,000 bears statewide. The Department implemented this recommendation as our current management goal for black bears.

Our primary tool for maintaining bear populations at objective levels is through managing the bear hunt. Through our research, we have determined that bear populations in Maine can be sustained with a harvest between 3,500 - 4,000 bears annually. With our current 13-week fall season and the various methods (bait, traps, hounds, and still hunting) we use to hunt bears, we are able to maintain our statewide bear population at 23,000 bears by harvesting an average of 3,712 black bears each year. Around 78 percent of our bears are harvested during the bait season, 10 percent with the aid of dogs, 2 percent by trapping, and the remainder by still hunting or unreported methods.

Our data shows us that about 30 percent of hunters that take to the woods each fall during the baiting, dog or bear trapping seasons are successful in killing a bear. By contrast, in 2003, our moose hunters averaged an 80 percent success rate, turkey hunters were successful 36 percent of the time, and in 2002, 22 percent of the deer hunters were successful.

Our management of bears has been very successful. We have one of the largest bear populations in North America with an estimated 23,000 bears statewide. We have very few conflicts between bears and people (avg. 185 per year since 1999) and about 14,000 bear hunters and 175,000 deer hunters are provided the opportunity to hunt bears each fall, and countless Maine residents and visitors are provided the opportunity to view, photograph, and watch bears each year.

If forced to amend the traditional bear hunting methods that we currently use, the department will have to review our current hunting season structure to determine if we can harvest the 3,500 to 4,000 bears necessary for maintaining bears at 23,000. This may require lengthening the hunting season, establishing additional seasons (e.g. spring season), or increasing the bag limit.

If we are unable to meet our harvest goal, the bear population will begin to grow and conflicts between bears and people will increase. If bear populations increase, a species that is highly valued and considered a symbol of the wild may once again be regarded as a pest, as it was for many years.

For more information on black bears and other animals, please visit our website at:
<http://www.mefishwildlife.com>.

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