

BLACK BEAR

I. Management History

The black bear is a native species in Vermont. It is the smallest of the three North American bear species, grizzly and polar bear comprising the other two, and the only one of the three found in the eastern United States.

To survive in Vermont, black bears require large tracts of forestland. As a result, historical accounts suggest that the state had a fairly abundant bear population when the first settlers arrived. The influx of settlers into Vermont significantly changed habitat conditions for bears. With their axes, the settlers literally cut their farms out of the forests and progressively whittled away the black bear's habitat – confining bears to those mountainous areas too steep or rocky to farm. It was then that Vermont's bear population reached its lowest point.

Loss of habitat was not the only reason for the decline of the bear population. The rapidly expanding human population used their fat, flesh, and hide to sustain themselves. Not being held in high esteem, bears were treated as vermin, readily associated with crop loss and livestock depredation. In 1831 the Vermont Legislature imposed a bounty on bears. Over the next 110 years, 1,295 bounty claims were paid out.

It was habitat change, however, not changes in the bounty laws that saved the Vermont black bear from extinction. Decades of farmers leaving the land following the Civil War led to a pattern of reforestation that provided great benefit to the bear population. Sentiment towards black bears began to change as well. Perhaps echoing the conservation views championed by President Teddy Roosevelt, Vermonters began to view bears and other wildlife as an important natural resource. In 1941 not only was the bounty on bears repealed, but they could only be hunted between June 1 and December 31 each year. Not insensitive to the potential bear damage farmers could incur, Vermont's Legislature obligated the Department, then known as the "Fish and Game Service," to reimburse persons for damages to "livestock." This is still the law.

Laws and regulations affecting the management of black bears during the twentieth century became more frequent as Vermont's human population



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continued to grow. Beginning in 1955 the reporting of harvested bears was required. In 1961, the season was shortened to the 91 days between September 1 and November 30. Other changes regulating the harvest of bears occurred over the next three decades, including prohibiting trapping (1967), limiting the harvest to one bear per season (1968), a prohibition on baiting and requiring bear houndsmen to hold a special permit (1972), and reducing the season length twice (1974 and again in 1990).

During this time of changing management and reforestation, the bear population has grown from an estimated 2,000 bears in 1975 to approximately 5,000 in 2008. Today bears are found in approximately 80% of Vermont from the Massachusetts border to Canada. Compared with their status 100 years ago, black bears are in a secure position. The greatest threat to the survival of black bears is in the form of fragmentation of their habitat (for example, roads and mountainside homes). This situation presents new management challenges for the twenty-first century. Vermonters have indicated they are satisfied with current population levels and wish to see them maintained during the next ten-year management period.

Ensuring the existence of a viable bear population and meeting public expectations for an abundant bear population while, at the same time, not having so many bears that they become a nuisance to agriculture and home owners will be the focus of the management actions contained in this plan.

1997-2006 Plan Accomplishments

► **Recommendation 1. *Revise black bear population objectives to reflect public interest in slightly increasing bear populations and repopulate suitable areas currently unoccupied by a breeding bear population.***

► **Strategy 1.1 *Analyze population data to determine current population levels and establish revised population objectives.***

❖ **Action:** The Department monitored growth of the state's black bear population. Population models indicated that Vermont's black bear population was relatively stable between 1985 and 1990 with about 3,000-3,400 bears existing in the state. Estimates indicate that the steady growth in the bear population occurred over the next ten years with about 4,800-5,200 bears existing by 2000.

► **Strategy 1.2 *Reduce black bear harvests by establishing a bear license or regional management zone.***

❖ **Action:** Reduced Vermont bear harvests from 1996 through 1998 resulted from a combination of widely distributed food supplies and the shortening of the length of the bear season beginning in 1990 that contributed to an increase in the statewide bear population. The plan's population goals were met without establishing a bear license or regional bear management zones. Another reason, however, that these actions were not taken was an increasing level of nuisance bear activity. As nuisance bear complaints increased, Department staff became concerned that a black bear license might reduce hunter participation to the point where harvests would

no longer be an effective bear management "tool." When a bear license was proposed, initial legislative language proposed a fee that the Department felt would discourage hunter participation. For these reasons, the Department abandoned efforts to establish a black bear license.

► **Recommendation 2. *Continue bear habitat conservation strategies such as Act 250, land acquisition, review of wood-to-energy harvest operations, and town and regional planning. The Department should pursue regulated logging and explore instituting a habitat stamp.***

► **Strategy 2.1 *Continue Department efforts on Act 250, land acquisition, review of wood-to-energy harvest operations, and town and regional planning.***

❖ **Action:** Between 1997 and 2006, Department staff reviewed 283 Act 250 projects that could potentially affect an estimated 1,000 acres of critical black bear habitat. As a result of subsequent revisions in these projects, a total of 12,621 acres of black bear habitat were protected during this ten-year period. The Department also published *Conserving Vermont's Natural Heritage*, a book to guide town planning for wildlife habitat, including black bear habitat. A new Department employee was assigned to work with town and regional planning agencies to guide conservation of wildlife habitat.

► **Strategy 2.2 *Pursue regulations on logging in critical bear habitat.***

❖ **Action:** The Department participated on the Heavy Cutting Committee that directed legislation on heavy cutting in Vermont. Department recommendations

to include critical bear habitat in this legislation were not incorporated into the law.

► **Strategy 2.3 *Investigate establishing a habitat stamp.***

❖ **Action:** Various funding "stamps" were discussed with a legislative committee but no action on a habitat stamp occurred.

► **Recommendation 3. *The Department will propose establishing a black bear license.***

❖ **Action:** As described in Recommendation 1, efforts to establish a black bear license were abandoned due to concerns over an increasing bear harvest, increased nuisance bear complaints, and potential for decrease in bear hunter participation. The concern was that this action might result in an increase in the bear population to a point where it exceeded the target population objective established by the plan.

► **Recommendation 4. *Regional management zones may be used to adjust bear harvests to meet higher population objectives.***

❖ **Action:** Regional management zones were also considered as a management tool to increase bear numbers in areas where suitable habitat remained unoccupied. Expansion of the bear population during the previous planning period eliminated the need to adopt management zones.

► **Recommendation 5. *No changes to season length or structure will be initiated until after it is determined if a black bear license will be established.***

❖ **Action:** Bear population goals were achieved without the implementation of a bear license, regional management

1997-2006 Plan Accomplishments

zones, or changes in the season structure. Changes in length of the season could be needed in the future to meet bear population objectives.

- **Recommendation 6. The Department will propose hunting hours for bears be changed to correspond to those for deer.**

- ❖ **Action:** These changes were established in state statute.

- **Recommendation 7. Work closely with the Vermont Bear Hound Association to discuss issues of concern.**

- ❖ **Action:** Department staff participated in many meetings with the Bear Hound Association to discuss bear issues, such as length of training season, nonresident dogs, procedures for addressing public perception/landowner conflicts, and public education. This

cooperative effort has resulted in regulatory changes in bear hound permits related to the ownership and residency requirements of dogs listed on permits. It has also led to successful dealings with negative human-bear interactions. The Department worked to modify state statutes related to black bear causing property damage.

- **Recommendation 8. The Department will establish a monitoring program on the sale of all bear parts through a mandatory tagging program.**

- **Strategy 8.1 Evaluate level and nature of sale of bear parts.**

- ❖ **Action:** The Department conducted a survey of successful bear hunters to determine the nature of using harvested bears and bear parts, including whether parts were being sold. Survey results

indicated that bear hunters fully utilized harvested bears. The sale of gall bladders and other parts was found to be insignificant and no threat to the sustainability of Vermont's bear population.

- **Strategy 8.2 Department will establish a monitoring program through mandatory tagging for the sale of bear parts.**

- ❖ **Action:** Results from the Vermont hunter survey indicated that a mandatory tagging program was not necessary to protect Vermont's bear population. It was determined that costs associated with mandatory tagging would not provide a cost-effective benefit in management of the already growing bear population. Department staff continued to monitor the global and national markets for bear parts.

II. 2010-2020 Black Bear Management Issues, Goals, and Strategies

ISSUE 1. Bear Population Size and Distribution

GOAL: Identify an appropriate bear population objective that ensures the viability of a wild, free-ranging bear population, provides for hunting opportunities, and satisfies human social expectations and tolerances for nuisance bear occurrences.

Black bears can be found throughout Vermont where preferred food and cover is located (Fig. 4.1). They are secretive animals that prefer to travel among forest and shrub habitat, usually only using fields and large forest openings at night or in low light. Normal bear behavior includes a strong avoidance of humans. Given these bear characteristics, the greatest bear population densities are found along the spine of the Green Mountains and in the Northeast Kingdom counties of Orleans,

Caledonia, and Essex. Because male and female bears lead separate lives, it is important to recognize the differences in the territorial ranges that each sex selects. Males are more solitary and tend to roam further in search of food and shelter. During the breeding season (June) older, more dominant males will search wider areas for receptive females. Females, on the other hand, tend to use smaller home ranges having high quality food sources and security for raising cubs.

Central to the management of a species is the need to accurately estimate the size of its population, the factors that influence growth and decline of the population, and the distribution of the population across the landscape. Based on this information, management goals can be met that satisfy the species' biological needs and human expectations.

Unlike other big game species, estimates of the bear population must be made using five-year averages. There are several reasons for this: bears live longer, they have a low reproductive rate, and harvests vary, depending on food supplies. Although the five-year averages do not pinpoint current bear populations,



they do reflect population trends very well up to the previous year. The data for making population estimates include all known bear mortalities (nonhunting and hunting) and include such factors as age, sex, and location of harvest.

Figure 4.2 illustrates the estimated average Vermont black bear population beginning with the five-year period 1983-1987. The graph shows two periods of population increases – the early 1990s and the late 1990s/early 2000s. The 2003 – 2007 estimated population was between 4,600 and 6,100 bears in 2007. This represents an estimated 27% increase over the 1997 population estimate. These increases in the black bear population are consistent with management goals laid out in the previous plan.

In developing the current management plan, the Department sought Vermonters’ opinions on whether bear populations in their county should increase, stay the same, or decrease. The majority of Vermonters surveyed (57%) wanted to see bear populations in their county remain the same, 16% wanted the population to increase, 7% wanted it to become lower, and 20% either didn’t have an opinion or didn’t know (Fig. 4.3)

In general, Vermonters’ opinions on bear populations were consistent across regions of the state. There were two exceptions: in Central Vermont 22% of the respondents supported an increase in the population and in Chittenden County 28% of respondents either had ‘No Opinion’ or ‘Didn’t Know’ (Table 4.1). Of those Vermonters favoring to increase bear populations, wanting to see more bears and the value of bears to

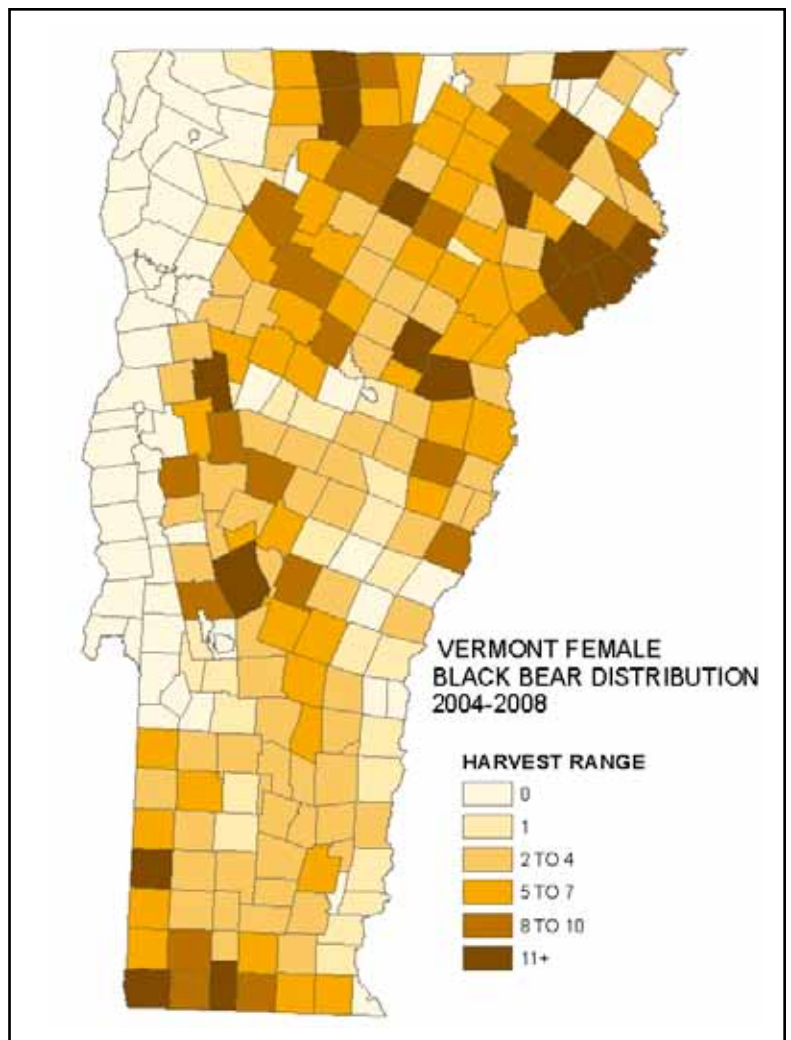


Figure 4.1 Distribution of female bears from harvest data, 2004-2008.

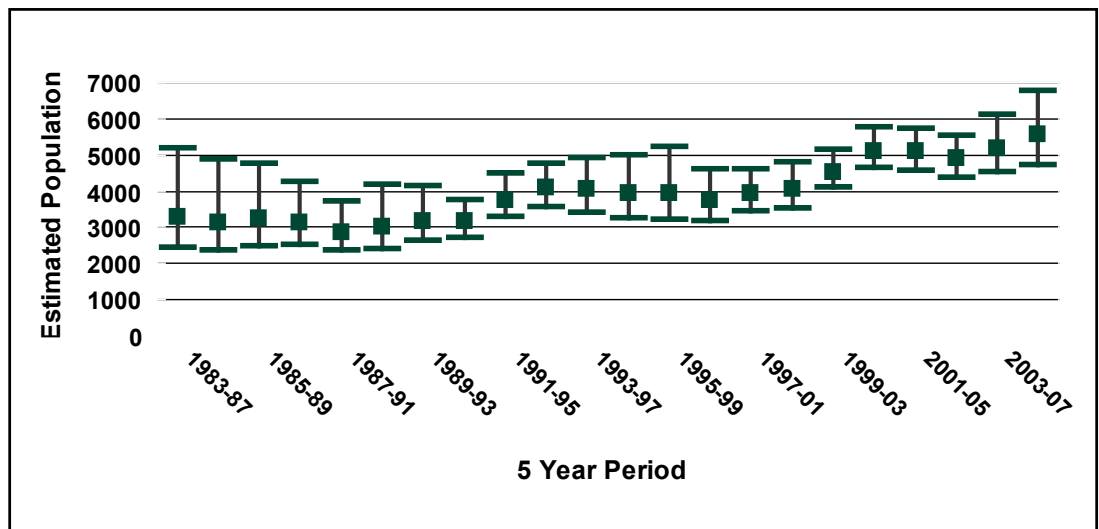


Figure 4.2 Estimated Black Bear populations by 5-year blocks, with 80% confidence limits, 1987-2008.

the ecosystem were given as the primary reasons. Residents of the Central and Southern Vermont regions who wanted bear population increases were particularly interested in seeing more bears. Statewide, reducing bear-human conflicts was the primary reason given for wanting decreases in local bear populations.

In contrast to Vermonters' general satisfaction with bear populations in their county, bear hunters satisfaction declined significantly from 75% to 54% since the previous survey was conducted in 1996. Dissatisfaction increased from 20% to 32% during the same survey interval. The survey was not able to query the rationale for the decline, but factors other than bear population levels, such as access to unposted land or a low bear harvest the previous year may have influenced respondents' opinions.

Management Strategies

- 1.1 Update and re-evaluate Vermont's black bear population model to reflect the most current harvest and biological parameter data available.
- 1.2 Evaluate and develop hunting season structures that align population estimates with biological data, habitat limitations, and public satisfaction data to sustain a bear population between 4,500 and 6,000 animals.

ISSUE 2. Bear Habitat Conservation

GOAL: Maintain a no net loss of function and value of existing bear habitat.

Historically, black bear management programs concentrated on regulating the legal harvest of the species to ensure that the population was sustainable. Today, management objectives in Vermont revolve around maintaining wild, free-ranging, viable populations of black bear as well as the conservation of bear habitat. Wildlife managers are looking toward conservation of large blocks of interconnected forestland and protection of the most critical areas of black bear habitat as the best

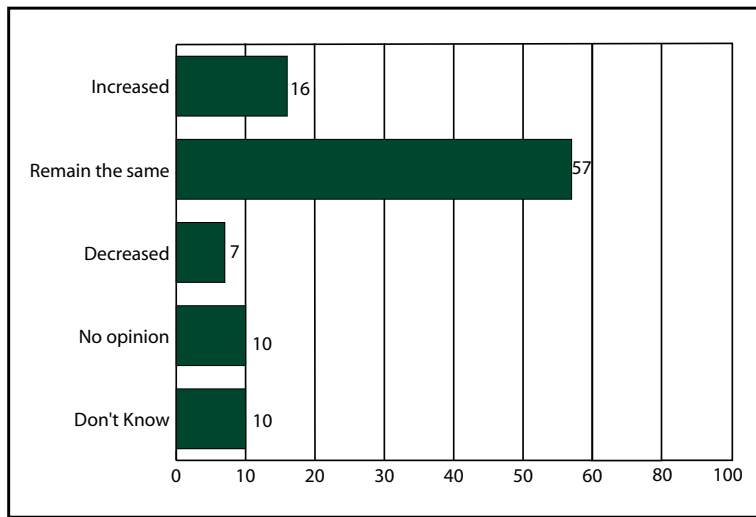


Figure 4.3 .Vermont residents' opinion regarding future bear population change

Table 4.1 Vermont Residents' Opinions on Desired Bear Populations by Region.

Region	Increase	Same	Decrease	No Opinion	Don't Know
Chittenden	10 %	56 %	5 %	14 %	14 %
Northeast Kingdom	17 %	60 %	9 %	8 %	6 %
Central Vermont	22 %	54 %	7 %	7 %	10 %
Southern Vermont	18 %	60 %	7 %	7 %	9 %

long-term strategy for sustaining Vermont's bear population.

In Vermont, black bears require large forested areas that have a variety of food resources, particularly hard mast such as acorns and beechnuts, and provide core habitat for successful reproduction and allow them to avoid humans (Hugie 1982; Hammond 2002). Black bears rely on concentrated stands of American beech trees located at least one kilometer from roads and houses as an essential fall source of high nutrition food needed to build fat reserves prior to denning for the winter (Hammond 2002; McLaughlin 1998; McLaughlin et al. 1994; Wolfson 1992; Hugie 1982; Beeman et al. 1977). Researchers have found during years that beechnuts are in short supply, bears travel great distances to find alternative food sources and incur heavier mortality rates (McLaughlin et al. 1994). The availability of hard mast in the fall affects the minimum reproductive age and rate and cub survival. Simply put, concentrated stands of beech trees used by black bears are critical to the survival and reproduction of bears in Vermont.



Other important hard and soft mast food resources in Vermont include acorns, cherries, berries, apples, and mountain ash.

Vermont's bear population has increased in recent decades as forests have increased over the landscape and recent bear management strategies have encouraged population growth. Bears are now found throughout much of the state, yet the greatest concentrations of Vermont bears are found in "core" habitats that tend to be remote from roads, human developments, and human activity. Vermont black bears need large forested blocks of sufficient size to meet the home range and food requirements of female bears and cubs. The existing range, although becoming increasingly more fragmented in some parts of the state, has been sufficient to support an increasing bear population. Large public and private forest land holdings play an important habitat conservation role in this regard.

A recent study at the University of Vermont, however, indicates that increases in human development will diminish bear habitat (Donovan et al. 2007). The study projects that between the years 2000 and 2020, the number of housing units in Vermont will increase by at least 12,107 and that most of these units will occur in what are now relatively undeveloped locations. Under this scenario, the occurrence of black bear would likely decline in some areas of the state in the next 12 years (Fig. 4.4).

In the mid-1980s, the Department recognized the negative impact that housing developments were having on key black bear feeding and travel areas and began recommending through Act 250, the state's land use and development law, protection of

critical bear habitat. For six years during the 1990s, Department biologists studied the movements and behavior of radio-collared bears in relation to roads, houses, ski trails, and various recreational activities. The findings from this study have helped the Department in its efforts to work with developers to include the habitat needs of bears into their long-term planning processes (Hammond 2002).

Today, the Vermont Fish & Wildlife Department provides advice and technical assistance for the protection of critical bear habitat, such as beech and oak stands, wetlands, and travel corridors. For example, the Department has been working with the Vermont Agency of Transportation to address the issue of habitat connectivity by developing wildlife suitability maps identifying areas that support animals that require large areas, such as black bear and moose. These maps help identify areas that should be conserved and managed so that animals can safely cross roads that bisect their habitat. The map also provides towns and regional planning commissions with a focus for land use planning (Fig. 4.5).

Public opinion surveys suggest that Vermonters continue to strongly support many forms of habitat conservation. Surveys also found that the public supports land conservation efforts in order to maintain the existing habitat base. In addition, 89% of the respondents said it was important to them to know that species like the black bear exist in Vermont, even though they are seldom seen. Eighty percent of Vermonters support using Act 250 as an important habitat protection tool (Duda et al. 2007). Although Act 250 is unique and effective legislation, it does not apply to development involving all critical bear habitat. A survey conducted by Responsive Management (Duda et al. 2007) found that 92% of the general public supported the Department working with town or regional planning commissions to design town plans that address and preserve important wildlife habitat. As a result, the Department has increased its efforts to work with towns and regional planners by providing technical assistance and on the ground assistance for related issues involving conservation of wildlife habitat.

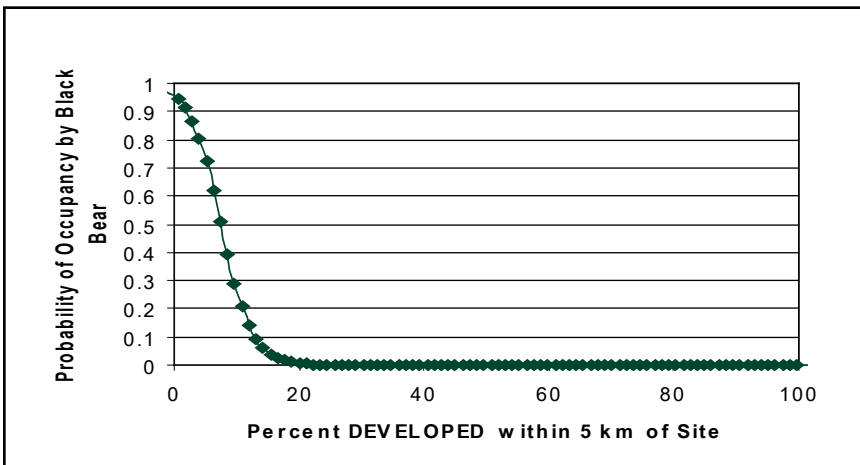


Figure 4.4. Probability of occupancy of a site by black bear in Vermont in relation to the percent of development.

Management Strategies

- 2.1 Maintain and enhance habitat protection efforts through Act 250, wood-to-energy harvest review, work with town and regional planning commissions, land acquisition, and other conservation methods.
- 2.2 Provide technical assistance in managing for critical bear habitat in the Use Value Appraisal program.
- 2.3 Revise and update “A Landowner’s Guide, Wildlife Habitat Management for Vermont Woodlands” to include habitat management recommendations for black bears.

ISSUE 3. Human/Bear Conflicts

GOAL: Minimize the overall number of negative interactions occurring between bears and humans to achieve acceptable levels of human safety and social acceptance.

Bear populations, like all wildlife populations, are normally restricted by two factors — biological carrying capacity and cultural carrying capacity. As described previously, biological carrying capacity is the maximum number of animals an environment will support on a sustained basis. Population density and distribution depends on availability of food, cover, and space. Cultural carrying capacity is the maximum number of bears that can coexist compatibly with local human populations. Bear habitat can often support more animals than the public is willing to tolerate. Bears are large animals capable of causing extensive property damage and even human injury.

Department personnel have documented an increase in the number of people reporting conflicts with bears since the last management plan (1997-2008). This is also reflected in survey data from 2007 that found 14% of wildlife damage incidents were related to nuisance bears. This represents a seven-fold increase from 1996 when only 2% of incidents were related to nuisance bears. In spite of this increase in bear/human conflicts, a large majority of Vermonters (70%) are tolerant of bears on their property while only 18% are not (Duda et al. 2007). Had Vermont residents not had this tolerance for bears, the Department expects that many more might have registered reports of conflict given the increase in both bear numbers and the human population in the past ten years.

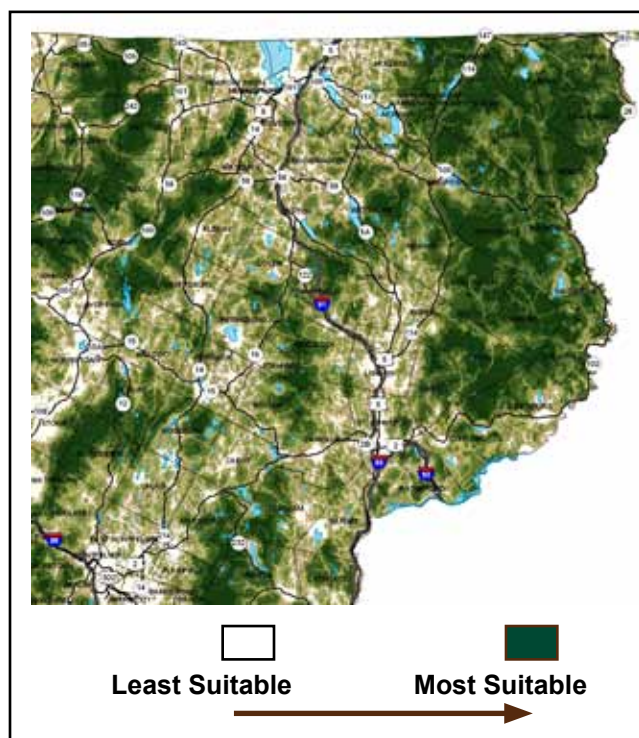


Figure 4.5 Wildlife Suitability Map example for black bear and other wide-ranging species.

Hunting plays a significant role in shaping Vermont’s cultural carrying capacity for bears. The Vermont Fish & Wildlife Department uses regulated hunting both to provide harvest and utilization of bears and as a tool to maintain bear numbers at target population levels throughout the state. Hunting also teaches bears to be wary of humans. This reduces the number of bears that might become “nuisance animals” causing damage to livestock or farmers’ crops, raiding dumpsters, or entering buildings in search of food.

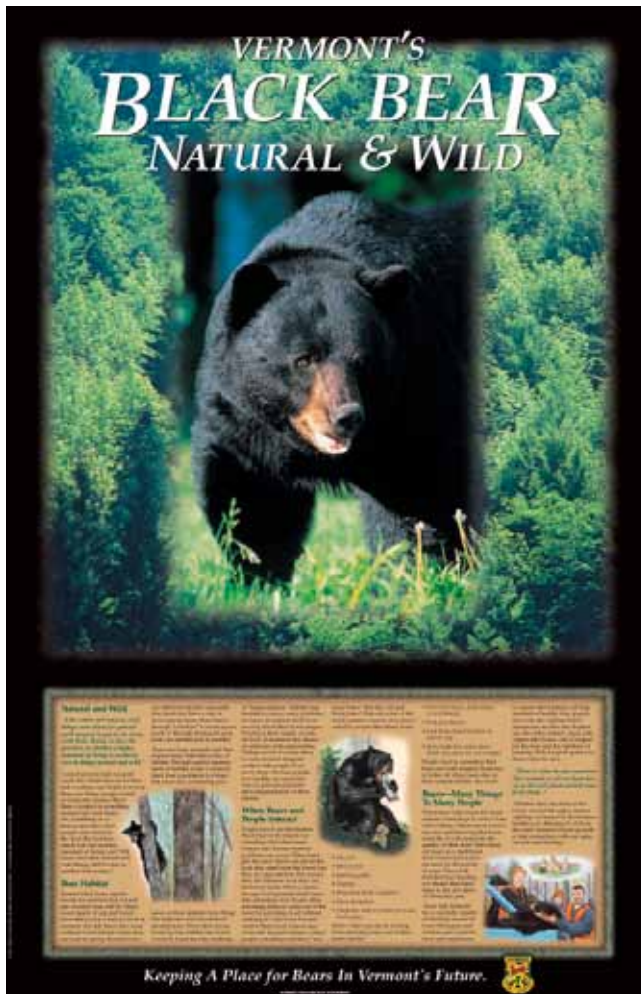
The history of hunting and utilizing bears for food in Vermont is a long one. The Department believes that regulated hunting and the training of hunting dogs helps keep Vermont’s bears wild, which in turn has encouraged a higher cultural carrying capacity. The extreme wariness of the Vermont black bear may be related to the bounty system that was in place for 110 years ending half way through the twentieth century. Following the end of the bounty system, liberal hunting seasons and the chasing of bears with hounds has continued to make bears wary of humans. Currently, nuisance bear situations are more likely to occur when there is a shortage of natural food sources that cause them to become bolder in their search for food.

Generally, the wariness of black bears limit their exposure to human-occupied landscapes. A



shortening of the bear hunting season in 1990 resulted in a planned increase in the bear population, resulting in more bears attempting to establish home ranges in less secluded areas that had previously been unoccupied. Vermont now has more bears living in closer proximity to human residences. This situation has increased the likelihood of undesirable human interactions. These situations include, but are not limited to, the destruction of farmers' crops, commercial beehives, and fruit orchards; the killing of livestock; the raiding of garbage barrels and bird feeders; and an increase in the number of bear-motor vehicle collisions.

The Department has developed posters, brochures, and public service announcements designed to increase awareness and to help the general public understand black bear behavior and to live better with black bears (Fig. 4.6). These public outreach efforts advise citizens to remove bird feeders from their yards when bears are not in hibernation and discourage feeding bears through the slogan, "A fed bear is a dead bear." Game wardens also advise and help landowners who report damage from bears.



Management Strategies

- 3.1 Update statewide policy for handling black bear/human conflicts.
- 3.2 Improve and disseminate outreach/education materials and messages for minimizing human/bear conflicts.
- 3.3 Monitor bear/human conflicts and explore new strategies for reducing the number of complaints from the public.
- 3.4 Use permitted houndsmen with trained bear hounds to haze bears and keep them wary of humans.

ISSUE 4. Bear Management Strategies and Season Structure

GOAL: Optimize public hunting opportunity for the utilization of bears for food and other appropriate purposes and ensure hunter satisfaction within biologically sustainable regulations.

People hunt for many different reasons, but over 90% of hunters who were surveyed listed the reason they hunt black bear was "for food." Most hunters also have a deep appreciation of the out-of-doors and love and respect the species they pursue during hunting season and watch during the rest of the year. This appreciation often results in hunters leading efforts for increased harvest regulation, habitat protection, and other conservation initiatives.

There are currently 25 laws and regulations that regulate the harvest, utilization, and sale of bears in Vermont. Black bear season is currently set on a statewide basis with no regulatory differences among wildlife management units. The season length is one of the longest in the nation, running from September 1 to the Wednesday following the opening day of the November deer rifle season. Use of trained hunting dogs to hunt bears is allowed in Vermont by permit only. Baiting for the purpose of taking bears is prohibited. The bag limit is currently set at one bear per licensed hunter per season.

The management of Vermont's black bear population through regulated hunting offers several challenges.

Figure 4.6 Two-foot by three-foot black bear poster developed by the Department for distribution to the public.

Annual black bear harvests are sometimes more reflective of food availability, weather events influencing the timing of denning, and other factors affecting bear movements instead of simply increases or decreases in the population (Fig. 4.7). For this reason, managing a bear population requires reviewing several years of harvest information before proposing regulatory changes to the hunting season. The low reproductive rate and longevity of black bears further complicate management by delaying bear population responses to harvest adjustments (Fig. 4.8).

Black bear hunting participation rates in Vermont are relatively low, remaining significantly below that of white-tailed deer and wild turkey. They have decreased from an estimated 28% of hunters in 1996 to 17% in 2007 probably as a result of shortening the length of the bear season that overlaps with the November rifle deer season. Prior to shortening the season in 1990, bear harvest levels were greatly affected by deer hunters that opportunistically harvested black bear while pursuing deer. Given these facts, it may come as no surprise that bear hunting satisfaction decreased from 75% to 54% between 1996 and 2007.

There are a variety of management strategies available for stabilizing and maintaining existing bear populations in Vermont while providing hunting opportunities. Listed below are management tools that can, individually or in combination, aid in regulating the bear harvest to meet the statewide population goals of 4,500 to 6,000 bears. It must be emphasized that bear season length and structure have historically been adjusted to increase or reduce the statewide bear population.

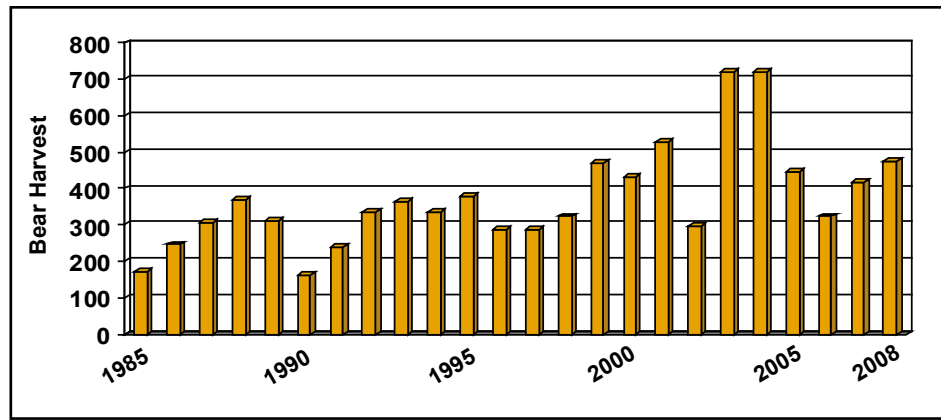


Figure 4.7. Annual Vermont black bear harvest, 1985-2008.

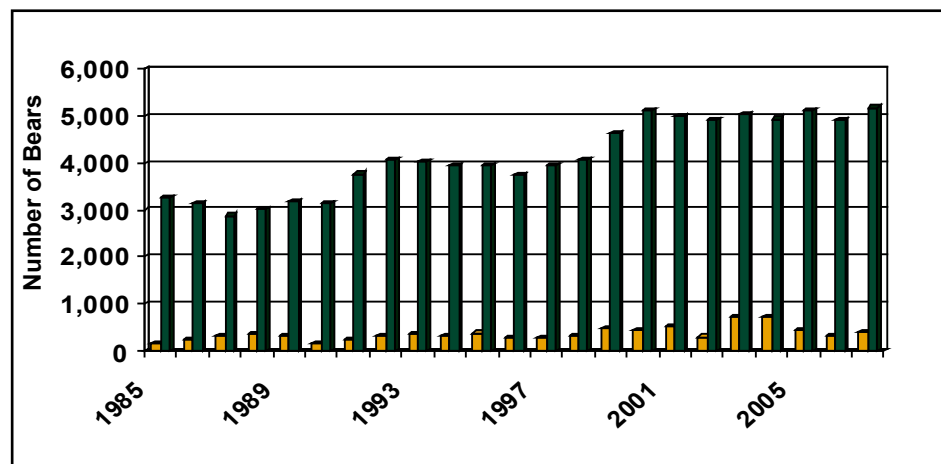


Figure 4.8 Vermont bear harvest as a proportion of population estimate.

Bear License

A key component to an accurate population measure based on harvest is the parameter of hunter effort. Simply examining harvest differences each year cannot provide a reliable correlation between harvest and total numbers of bears. Bear hunters in Vermont are not required to purchase a separate bear license. A bear tag is included as part of the big game hunting license. This license has a long history (at least 45 years) and has resulted in the expectation that a bear tag is part of the value purchased with the big game license.

A separate black bear license would be one way to determine the number of hunters intending to pursue bears each year. However, the sale of separate bear licenses would not provide other important information such as hunting hours expended in pursuit of bears, the number of bear sightings, or WMU preferences. Collection of all of these data could be accomplished without requiring a separate bear license. Since 2000, surveys indicate that 46% of



all bears harvested were taken incidentally by hunters while hunting another game species. Deer hunters took the largest percent of bears, 29% (Table 4.2).

Survey results from 2007 indicate opposition to the establishment of a separate black bear license has remained at 61%. The percent of hunters supporting a separate bear license had declined to 29% in 2007 from 31% in 1995. These results suggest implementation of a separate license would be difficult. Given that Vermont's bear population has been increasing, it is possible that it will be necessary to extend bear season further into the November deer rifle season in the future. Reducing the number of hunters that may take a bear by requiring a new and separate bear license could jeopardize the Department's future ability to control total bear numbers.

Bag Limit

Vermont's statewide bear season bag limit of one bear was first established in 1968. Bag limits may be effective means of adjusting harvest levels to meet particular population goals. The single bear season bag limit has served Vermont well in initially reducing bear harvests and allowing for population growth. New population goals that require stabilizing or potentially reducing the number of bears could involve re-examining the current bear season bag limit. However, increasing the annual bag limit for bears might call for reducing the length of the bear hunting season, a move that could require eliminating the current overlap of bear season with the first five days of the deer rifle season. Increasing opportunity for one segment of the hunting population will likely decrease opportunity for another.

To date, only Oregon, Washington, and Alaska have fall season bag limits greater than one. Several states and Canadian provinces hold a spring bear season that includes its own bag limit. Although increased fall bag limits are a relatively untested management tool, they may be important in stabilizing bear populations if they can be implemented cautiously and other management tools prove to be ineffective.

Table 4.2 Percent of Vermont bears harvested while hunting for a specific species 2001 – 2008.

SPECIES HUNTED	SEPTEMBER	OCTOBER	NOVEMBER	TOTAL	PERCENT
Bear	1,233	883	264	2,380	54%
Deer	0	473	797	1,270	29%
Birds	4	16	3	23	<1%
Other	15	55	14	84	2%
Unknown	270	230	132	632	14%
Total	1,522	1,657	1,210	4,389	100%

It would be critical to monitor any increased harvest from expanded bag limits to evaluate its effects on regional bear populations and the sex and age of the animals harvested.

The Department believes that revising the bear season bag limit is one possible way to stabilize and control the bear population. Since this method would reallocate the bear resource, any proposal to change bag limits, however, will need to follow a rigorous public outreach effort and significant buy-in from the hunting public.

Regional Management Zones

Management of black bear is currently conducted on a statewide basis because data in measuring hunter effort and distribution are inadequate to inform fine scale regulation of harvest. Although simple to administer, comply with, and enforce, a statewide bear season does limit the flexibility of the Department to adjust the harvest in response to regional issues or variables. In spite of its small size, Vermont does have significant regional differences in bear density, bear habitat use, food supplies, weather patterns, road access, habitat fragmentation, hunting pressure, number of nuisance complaints, and development pressure. As a better understanding of bear population distribution develops, the flexibility to tailor hunting seasons to regional differences may be necessary.

Season Length and Structure

Vermont has regulated the annual bear harvest for the past 40 years by simply adjusting the length of the hunting season. In particular, the number of days that bear season is open during the November deer rifle season has the greatest effect on the total bear harvest especially during years when food supplies are abundant and bears continue to feed instead of going to their dens for the winter.

In 1990, Vermont's bear season was shortened by four days in November (from the second Sunday of deer season to the first Wednesday) in order to reduce bear harvests and increase the population. As previously discussed, this management action was very effective and resulted in a significant increase in Vermont's bear population.

The Department has demonstrated that incremental changes in the number of days that bear season extends into the November rifle deer season is an effective means to regulate the harvest of bears and to adjust the bear population. However, creative ways to achieve population goals on a local or regional basis may be needed in the future. As human and/or bear populations grow, greater flexibility may be needed to address the specific issues to best respond to the needs of bears and people.

Hunting Bears with Hounds

Bear hunting with hounds can be a controversial method to locate and pursue a bear. The Department recognizes and acknowledges that there are issues of public concern such as hounds on private property, the use of telemetry, and the length of the training season. Nevertheless, the Department continues to support bear hunting with hounds as a legitimate and biologically sound hunting method that has advantages in that chasing bears keeps bears wild and minimizes nuisance and other conflicts with humans. Vermont game wardens routinely recommend bear houndsmen to property owners who are dealing with nuisance bears. Houndsmen have come to the rescue of many a farmer who has had problems with bears in their corn, apple orchard, or beehives. Many times, chasing a bear away will prevent its death at the hands of the property owner.

Bear houndsmen are required to have a permit to train and hunt bear with dogs in Vermont. The number of nonresident bear houndsmen permitted to hunt in Vermont is limited to 10% of the resident permit numbers. Recent law changes have placed greater restrictions on the ownership and residency of the dogs permitted to run on the permits of Vermont resident houndsmen. Because the number of bears taken with the aid of hounds is only about 10-15% of the total bear season harvest, bear hunting with dogs is not the most important method for controlling the bear population. The benefits of hunting bears with dogs are significant, however, and the Department will continue to address issues of public concern that would restrict hound hunting in Vermont. The

Department will also continue to work closely with the Vermont Bear Hound Association to discuss and understand the issues of concern and identify actions that can be taken to address them.

Sale of Bear Parts

The Department continues to participate in and monitor national and international assessments of the effect of trade in bear parts on wild bear populations. Recent changes in the market for bear parts along with increasing black bear populations in North America have reduced concerns over this activity in recent years. The 1992 listing of the American black bear as a CITES Appendix I species now also provides significant monitoring of international trade.

The Department will continue to monitor the sale of black bear parts. If trends and activity in the sale of bear parts, particularly gallbladders, is found to be detrimental to Vermont's bear population or pose a threat to bear populations in other parts of the world, it may propose further regulation or prohibition of such sales.

Guided Commercial Bear Hunts

Bear hunters have expressed their concern that commercial guides have been securing exclusive hunting rights to key bear feeding areas such as cornfields near traditional bear travel routes. This allows guides to offer clients a "guarantee" of sorts that they will take a bear because of the high concentration of bears in these areas. Because cornfields may attract bears from several miles, it has been suggested that the cumulative harvest of bears at these sites could have a disproportionate impact on bear populations in several nearby towns. On face value, this seems to be a plausible argument, but it has not been borne out by statistics.

Guiding, when properly administered, can be a quality introduction to hunting and a form of hunter mentoring. These are important components of hunting recruitment and retention. Poorly administered guide services that are purely profit-driven can be very damaging to hunting. Developing some standard for commercial guiding may be a way to assess the effect on the bear population from the guiding industry through analysis of hunter effort and harvest data. A standard might also serve as a marketing tool for guides. Guide programs administered by fish and wildlife departments in other states are not self-supporting and are costly to administer.



Management Strategies

- 4.1 Hunting season management strategies and season structure will be evaluated and adjusted to maintain the population goal of 4,500 to 6,000 bears. Changes in hunting season structure will consider, when necessary, the use of season length, regionalization, or incremental changes to season bag limits to achieve population goals.
- 4.2 Work with partner organizations on issues related to bear management as they are raised throughout the management plan period and develop specific strategies to address them. Such strategies may range from legislative changes to educational efforts.



TIM HALL

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