

# **NJ Black Bear Case Study**

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The Northeast Black Bear Technical Committee (NBBTC) explains the importance of conserving the NE Black Bear as a public trust resource, the main objective and heart of The North American Model of Wildlife Conservation. Historically this concept was initiated by the overexploitation of wildlife by early American hunters & anglers desperate to bring back the species they were deteriorating. After extinctions of once thriving species like the Buffalo, a very significant natural resource for Native American civilizations and Wild Western trade, sparked an environmentalist era where wildlife conservation principles wisely raised the attention of humans that their decisions are critically influential for disturbances in nature. Because human-influenced disturbances on wildlife throughout history has led to species extinctions (i.e. habitat loss, fragmentation, climate change, etc.), logical analysis towards the importance of community/social interactions of humans in connection with ecological systems is crucial for balancing attitudes and making wise hunting regulation decisions for managing the NE Black Bear in NJ.

Logically linking the effectiveness of hunting as one of the more successful approaches in Black Bear Damage Control and human conflict, the NBBTC explains that rule-making progression and implementing effective federal regulations on hunting requires increased public participation in order to yield more sustainable approaches and use of wildlife as a vital resource. At the same time the committee wisely explains that preserving cultural hunting traditions brings humans closer to nature and generates a higher level of appreciation toward wildlife. In other respects, increasing ecological appreciation will initiate increasing community and public participation. The correlation between the rising appreciation of wildlife as a natural resource and increasing public participation is historically proven by The North American Model of Wildlife Conservation. Another logical perspective from the NBBTC is their passionate approach toward the importance of science-based research and ecologically educated public awareness necessary for management of the NE Black Bear, and wildlife in general. Consistently monitoring and researching wildlife and the biodiversity of ecosystems is also essential for humans to comprehensively adapt to change on this planet. In other words, it exposes human disturbances on ecological systems, as well as progression toward implementing scientifically enhanced game management solutions with ecologically sensitive policies. Therefore, logically connecting trends throughout history and in order to enhance a more sustainable/higher-quality of life for the near and far prosperity of future generations is beneficial for all life on this planet and a good quality of the NBBTC's perspective. In *An Evaluation of Black Bear Management Options*, put together in 2012, the committee explains, "management policy and decisions are rooted in science and support an ethic of fair-chase and legitimate use of harvested wildlife," and, "adherence to these tenets has allowed game management to function successfully while retaining strong support among the generally non-hunting public," (NBBTC, 2012, p. 6). Relatively speaking, the NBBTC intelligently symbolizes the importance of balancing human dimensions of wildlife and furthering science-based research needed for monitoring management strategies of the NE Black Bear in NJ.

Even though increased public participation is logical and needed for more effective management and education of the NE Black Bear in NJ, not everyone can understand the knowledge and "NBBTC's attitude" toward the value of the NE Black Bear. The NBBTC assumes, "people tend to view bears as intelligent, culturally significant, charismatic and similar to humans," but this statement is actually more complex than the NBBTC has stated (NBBTC, p. 21). According to the article *Public's Attitude Toward Bears and Their Conservation*, Kellert explains, "attitudes toward bears, and more generally, wildlife are regarded as resulting from 4 interrelated factors," (Kellert, 1994, p. 44). Those four factors include 1.) basic wildlife values, 2.) knowledge of

wildlife, 3.) perception of individual species, and 4.) human/animal relationship, ultimately making education of wildlife for the public very broad and complex. For instance and more in depth, basic wildlife values explained by Kellert include,

1. *Aesthetics* that primarily focuses on the attractiveness or beautification appeal of wildlife.
2. *Dominionistics* that focus on the sporting aspect to master or control of wildlife.
3. *Ecologistics* that refer to the environmental system as a whole and its connection to wildlife species and natural habitats.
4. *Humanistics* or affection towards animals as individuals and the anthropomorphic associations of large groups of wildlife species.
5. *Negativistics* of the indifference and fear of wildlife that leads to avoidance of species.
6. *Naturalistics* or emphasis of outdoor recreation and direct experiences of wildlife.
7. *Scientistics* that primarily focus on biological functions of species and physical attributes.
8. *Utilitarians* emphasis on the relationship or practical value between wildlife and the habitats they associate with/in.

This one interrelation of basic wildlife values alone exposes the complexity of different human perceptions and opinions toward the NE Black Bear. Considering higher socioeconomic people are normally college-educated and make more money in North America, Kellert uses previous data from studies to support these people's attitudes stating they are more, "likely to express pronounced interests in the outdoor recreational experience of bears, as well as strongly support this animal's conservation and protection," (2004, p.45). In other words, their attitudes are more leaned to the ecologicistic and naturalistic value of wildlife.

According to the NJDFW, "Hunting is a safe, legal, and responsible use of the wildlife resources and a legitimate means to control over-abundant game species is a cost effective manner." This creates the assumption that, adaptive management with hunting substantially reduces the risk of maintaining unsustainable harvest levels and negatively impacts population growth. This also assumes that hunting reduces damage and nuisance incidents caused by problem bears. According to *Population Management of Bears in North America*, "it is generally implied that an increase in the number of nuisance bear complaints reflects an increase in bear numbers," and vice versa, "increased bear complaints reflects a change in human use of bear habitat" (Miller, 1989). This evidence from Miller and previous evidence presented from Kellert, exposes the relevance behind basic wildlife values associated with the NE Black Bear, and excludes hunters in this scenario that are actually funding for conservation of the species. In fact, Kellert explains how, "various studies have identified highly utilitarian and dominionistic wildlife values among rural, large-property owning and resource depending groups," which expressed, "little support for moralistic and humanistic wildlife values," and, "inclined to endorse attitudes of exploitation and subordination of bears for the sake of enhancing various human interests and practical needs," (2004, p. 45). This also supports the NJDFW's definition of hunting. On the other hand, Miller also exposes that, "increased human bear conflicts more commonly correspond to a decrease in bear population numbers," (Miller, 1989). Miller's evidence shows that hunting alone cannot control black bear population numbers and that there is more to the situation. Explained by the NBBTC, "females produce only a few cubs every other year." (2012). Therefore, if the population is over hunted, it will take years to re-establish itself due to such low birth rates. Studies in Alaska from 1984-1988, concluded 75% of 4,691 male bears were killed in the spring season, where only 64% of 2,887 total male's were harvested in the fall season. This evidence supports the NBBTC and NJDFW, as well as the historical value of the North American Model of Wildlife Conservation. This also adds

proof that there is a misconception about hunting among the non-hunting public, as well as a misunderstanding towards the ecologicistic and naturalistic value of wildlife exhibited by hunters and lacked by complainants in conflict with the Bear.

In respect to updating the Comprehensive Management Policy for the NE Black Bear in NJ, hunting currently is not at its full potential of effectiveness. Hunting is currently a 6 day season which runs concurrent with deer season in December. Black bears are not the main target during this season, because many hunters choose to hunt deer rather than bear. It has been shown by the study in Alaska that mainly sexually mature male bears are killed during both the winter and spring seasons. Here in New Jersey, there is only a winter season. A winter season for NJ Black Bear is not an effective management tool because mating occurs around May or June, and the gestation period is approximately 220 days. Not only are the females denning down in the winter months for hibernation aspects necessary for their pregnancy, but later returning males still roaming are more frequently harvested during the hunting season. Another issue associated with hunting black bear is the public's reaction and attitude towards the basic wildlife values. Many special interest groups oppose the hunting of black bears, and use agitation techniques to reduce or eliminate hunting (Miller, 1989). This forces wildlife management agencies to spend much time and money in working with these groups to avoid much blowback. All of this effort toward the human dimension side of the hunting takes away from efforts to modify the hunting regulations in order to make them more effective.

After a thorough analysis of the data from past trends of bear hunting, and comparing how it occurs in New Jersey, it can be concluded that the bear hunting season needs to be modified. With the hunting season in place currently in New Jersey, it is most likely that a hunter will bag a sexually mature male bear. This does not help control the population, because bears mate in the mid-summer months. Knowing the mating pattern of bears comes to the conclusion that hunters are most likely killing male bears who have already passed on their genes to the next generation, and are missing the females who are now pregnant and going to add to the bear population.

To resolve the hunting season issue, the December hunting season needs to be altered. It should begin sooner than the first week of December, and it should not coincide with the deer season. Hunters are choosing to hunt deer instead of bear, and by December females are already beginning to den. The male black bears den later than the females, and are therefore the only bear to hunt. A perfect example of this is the Alaska report. Within in four years of continual spring and winter seasons, 4,691 bears were killed in winter and 2,887 were killed in spring. 75% of the winter bears were male.

There should be an additional 6 day season around August. Most bears have already mated, and the real active bears are going to be the males and the females who did not mate. The result would yield a more even sex ratio between the bears, and more bears would be taken by hunters because hibernation has not begun yet. The winter season should still remain in effect, but should begin a week earlier as to not coincide with deer season. By doing this, a larger number of bears will be harvested. Instead of only 272 bears that were harvested in 2014, this number will double just like the example of Alaska did.

The 6 day season that is in place currently is a 6 day firearm permit for hunting black bear in NJ. There is an opportunity here to include a greater number of hunters. The implementation of a bow season as well as the firearm season will create more of a draw for many hunters. Bow hunters tend to like more of a challenge, and would definitely find interest in the permission to

hunt a bear with a bow in NJ. Firearm hunters do enjoy hunting, but as Aldo Leopold has said, there is something unique about a man who hunts with a bow. If bow is added to the during the same season times that firearm is permitted, a wider variety of hunters as well as a greater number of hunters are guaranteed to participate. A greater participation will lead to more bears taken, and with more bears taken at these particular times of the year will lead to a more even sex ratio and a stabilization of the population.

Exploitation of the NE Black Bear has evolved over time, in respect to balancing human interest and needs that occupy their habitat. Using basic wildlife values to determine the different attitudes of stakeholders is very important for successfully educating the public and effectively implementing a management policy for the NJ Black Bear. This includes increasing the public's participation in hunting in order to raise awareness on the significance of wildlife's value in nature and society. In order to accomplish greater participation and honest perspectives from the public, there should be a detailed survey that professionally questions the public's attitude on value of the NE Black Bear. This could include creating an incentive for the public to actually take the survey by providing some sort of bonus initiated by funding from environmental friendly agencies that are regionally relevant to the NE Black Bear's habitat. Considering the NE Black Bear's habitat extends over state boundaries, regionally approaching the plan would require some cooperation on the topic of further deforestation and corridor eliminations, adapting to climate change's stress on the NE Black Bear and its resources, as well as other factors needed to implement the most successful policies needed for the future. Furthering enhancing research and technology in benefit of all wildlife will aid to alterations caused by humans, as well as help educate the future. Not only will addressing education and better hunting regulations for the NJ Black Bear help with reducing human bear conflicts, but also allow humans and the Black Bear to co-exist in the densely populated state of NJ.

When you professionally consider all the relevant stakeholders input, survey and balance the relevant stakeholder opinions, offer wildlife management education and ecological awareness, scientifically monitor and research species and effectiveness of management strategies, offer recommendations from comprehensive management plans toward more efficient management strategies, you can ultimately gain more stakeholders and increase more support from the public. This will increase the funding needed for research, as well as enhance progression. Progression enhancement includes adaptive management strategies, money to research better management, revisions and updates in CMPs, and this cycle will continue and ultimately generate a larger more diversified group of stakeholders. The more diverse and larger your stakeholder group becomes the more social interactions between stakeholders which can lead to more effective management approaches. In other words increasingly diverse social interactions allow for more advanced and efficient research to do done with more stakeholder funding and participation. Also increasing wildlife appreciation is directly connected and beneficial for ecological systems and society, as well as needed for progressive regulations lacking individualistic human needs detrimental to ecological systems. This means better management for all wildlife, and certainly exposes many challenges for society. With all that being said, multiple adaptive management strategies for NJ's Black Bear is certainly more effective than one. Therefore, relating social ecology with human-influenced disturbances on wildlife can be essential for educating people and advancing research necessary to balance the human impacts detrimental to wildlife.

Although much of New Jersey consists of suburban area, there are still many large-property and resource depending groups. With this in mind, there is a conflict of ideas within the residents

of New Jersey. Suburban residents do not push for exploitation and subordination of black bear populations as much as these rural areas. This must be taken into consideration when public outreach is attempted.

Coupling the public outreach with the expansion of the hunting season will result in an effective management technique. The residents will be educated more thoroughly, and all views will be taken into consideration. Keeping the December hunting season and opening a 6 day August season as well as permitting hunting with bows will result in a greater number of bears taken. The sex ratio will be less skewed toward male bears with the implementation of the August season, and by doing this we are dropping the breeding population lower. By coupling these techniques, a very effective management program can be put into place to better manage the rising bear population. This is all the more reason to balance the perspectives that humans portray on the NE Black Bear, and lean towards effectively managing this species.

### **Works Cited**

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