

# Opposing Views on the Appropriate Method of Deer Population Control

Ashley Storey

The exponential growth of deer populations across the North American continent has led many citizens to view deer overpopulation as a blight on the land that needs to be eradicated as effectively as possible. In the last few decades, deer numbers have literally exploded and now exceed 30 million nationwide (Johnson, n.d.). It is generally accepted (even amongst a majority of animal rights activists) that there is a growing need to control burgeoning deer populations (Riverdeep, n.d.). What is disagreed upon are the steps that should be taken to reach this common goal. People throughout these deer inhabited territories vary in their perceptions of the issue, and maintain differing stances on how they believe the issue should be handled and resolved. To better understand the nature of this conflict, relevant ecological and historical information must first be presented. After this, the conflict will be assessed and followed by some ideas for successful deer population management and a workable conflict resolution strategy in conclusion.

The white-tailed deer (*Odocoileus virginianus*) occupies vast plots of land throughout most of North America. Adults generally weigh between 23 and 180 kilograms. They can be recognized by their red-brown coats in the summer, and their grey-brown coats in the winter, with the under parts of the tail, belly, chin, and throat showing white all year (Wildlife & Waterfowl, 1999). Deer feed upon a variety of mast, succulent fruit, herbs, grass, twigs and leaves of woody plants, and fungi, depending on season and location. Adult deer require 6 to 8 pounds of green food per 100 pounds of body mass daily ("NC State," 1995) and tend to feed in the early morning and in the early evening until dusk. On average, a deer's territory rarely spans an area larger than 300 and 400 acres in the coastal plains region. Deer are prolific breeders and one male might impregnate a host of other females. A doe, or a female deer, matures on average between the ages of 2 or 3 years and typically gives birth to twins each year for 10 or more years (Johnson, n.d.). If populations are not managed, deer populations soon exceed the available food supply. Overpopulation stresses the land and also results in unnatural stress on an entire herd. Both the outbreak of disease and crop and seeding damage can result from overpopulation ("NC State," 1995). Deer populations left unscathed by biological hindrances will grow exponentially, and the doubling time for the entire North American deer population is a mere 3 years. Growth

of this nature will continue until something serves as a limiting factor of growth, for example lack of food or the introduction of predators (human or animal) (Johnson, n.d.). Three important factors for maintaining a healthy deer population are: an adequate food source, plenty of cover, and water.

Hunting seasons vary in different parts of the United States. In the State of Michigan, the season spans the autumn months. There are many reasons why people hunt. Many hunters have been noted as saying that they believe deer hunting is a “positive activity,” and that hunters do everyone a favor by shooting them [deer] (Nappo, 1998). Typical documentation expressing the general public’s feelings and concerns related to deer control issues often illustrate that people fear the economic, incidental, and health risks associated with overpopulation. Animal rights groups acknowledge the problem of overpopulation as well, however, their concerns center on the quality of life afforded to the deer, which is often seen to diminish as a result of overpopulation. Evidence of this can be seen in a variety of models. One most notable model presents a scenario of a slow and perceived merciless starvation of the overpopulated species, due to an inadequate supply of resources, exceeding the carrying capacity of the land.

When examining the history of the white-tailed deer, it is easy to see how today’s current deer population issues have been affected by actions taken in the past. In fact, earlier in the 20<sup>th</sup> century, white-tailed deer were rare in the Midwest. Uncontrolled hunting had reduced their numbers to about 500,000 nationwide, and some states had no deer at all. In an effort to protect the remaining deer, legislation was passed. Legislation passed in the 1920s and 1930s was integral in limiting hunting, particularly of does (Johnson, n.d.). The plan worked, almost too well some might say. It seemed as if the populace had failed to recognize the most basic of biological principles, laid out by such predecessors as Malthus and Darwin (concerning population growth without hindrance), and overlooked the consequences of such drastic action. The white-tailed deer’s numbers rebounded slowly at first, and then more quickly (Johnson, n.d.), and over the years the deer population continued to grow unchecked.

Other factors also came to the forefront, aiding in the deer population’s growth. Natural predators, such as the wolf and mountain lion, were eradicated through private interest efforts. Sport hunting, which placed emphasis on the buck, created unnatural population ratios (few bucks to many does). Human sprawl and development also were to blame, resulting in the creation of many new feeding grounds. It began to look as if, from a biological perspective, the

potential for deer population growth was all but limitless. Currently in Michigan there exists 193 deer for every 1000 residents (Johnson, n.d.).

All parties involved seem to recognize that in recent years deer populations have increased to numbers unsupportable by wildlife habitat alone (“In Defense,” n.d.). However, the issue that ignites controversy is exactly how deer populations should be managed. There are two major positions on this issue. On the one hand, there are those that believe deer populations should be managed through non-hunting related methods of control, or through use of implemented biologically understood principles (e.g. reintroduce natural predators and cease in the creation of new feeding grounds). On the other exists those that believe hunting is the appropriate solution.

Those who support means of natural regulation tend to stress the importance of controlling deer birth rates. They cite that immediately after a hunt, the remaining animals flourish because there is less competition for food and the remaining animals live healthier lives, with increased reproductive rates. They also state that if left alone by humans, the ratio of does to bucks would be more equal. This brings into question whether sport hunting should be banned, thus allowing for the proposed natural regulation of deer populations (“In Defense,” n.d.). Over the years many individuals have also stressed the inhumane nature of hunting tactics employed. Two methods used for deer population control include sharp shooting and the “net and bolt” method. Sharp-shooting is a common practice in most residential areas trying to control deer populations. The deer are shot by a sharpshooter perched in a tree. The “net and bolt” method lures deer through use of corn meal and the deer are then caught in a net and killed with a skull-puncturing device.

One group that stands out against the hunting of deer is the animal rights organization In Defense of Animals. In Defense of Animals flatly rejects hunting as a reasonable and effective means of controlling deer populations in the long term. They see today’s deer population as a result of environmental mismanagement, and believe that the only effective way to restore a natural balance is to “recreate” (in all ways possible) the environments indigenous to blighted areas. In other words, they strive to restore the native conditions thought to have been found before human interference.

Some individuals also argue that many of today’s pressing problems involving deer-human interactions leave humans partly to blame. It is a fact that the number of car-deer

collisions increases dramatically when the deer season starts, as the deer are flushed out of their natural habitats by hunters (Nappo, 1998). Bait piles are another problem. Used by hunters to attract large numbers of deer, bait piles aid in the spread of bovine tuberculosis. These piles serve as points of contact between both deer and humans. These interactions have in the past been seen to contribute to the spread of deer ticks, which commonly carry a strain of virus resulting in Lyme disease in humans (transmission occurs when a human is “bitten” by an infected tick). The boom in the deer population can arguably be traced to human activity as well. Targeting bucks (for ornamental horns) also aids in the population increase, due to the fact that one buck might mate with many females. So to control the population, female deer need to be limited proportionately (Nappo, 1998).

There is another side to this argument, one that is at odds with the previous perspective. It holds that hunting is an effective and humane method of excess deer population control. Hunting regulates and monitors the death rate of the deer population. Hunters stress the benefits of hunting. Hunting is viewed by many as a positive activity, a natural way of “depleting the number of deer,” or “harvesting” as it is otherwise called (Nappo, 1998). Most hunters and fractions of the populace view deer as a nuisance, and some even go so far as to refer to them as “rodents.” Right now, ideal conditions for the growth of the deer population exist. The number of natural predators has dwindled in size, leaving humans to take their place, as many hunters feel (Riverdeep, n.d.).

Social welfare interest groups, the outdoor supply industry, and farmers all stress the positive social impacts of hunting. This activity can serve as a source of food for low income families, and the selling of the hide and other remains commercially can serve as a source of income. The sport serves as a form of recreation and tradition for many and greatly benefits the gun and outdoor supply industry. Farmers see the controlled deer population as a way to maintain economic stability, and to protect crops and yield profitable harvests. Hunters also see the value in better managing the land in an attempt to control deer populations, resulting in less deer but more older-age bucks (Mich. Forestry Assoc., 2002).

The idea of deer contraceptives has been proposed by those parties in favor of non-hunting methods of controlling the deer population. Such parties argue that there are numerous viable solutions to the problem of deer overpopulation. However, when one looks more closely at the idea of deer birth control, it is obvious that the current technique would be impractical to

implement on a large scale. For the contraceptive to be administered, each doe would have to be captured and treated individually. Furthermore, an oral contraceptive has yet to be developed (Johnson, n.d.). Those that support non-hunting methods of deer population control also see a change in land management policies as a very necessary step. One proposal aimed to curb large deer populations asks the populace to take an active step in limiting deer access to vegetation in human habitations through the use of fencing, sprays, and better urban and rural planning techniques (“In Defense,” n.d.). Logging practices are also in need of change. Current clear cutting methods create “browse” vegetation for deer, which without proper containment techniques can easily result in a population surge. These issues must be addressed through legislation, and without this necessary step, supporters of non-hunting methods feel that little will be done to develop new techniques and to limit the access of deer to inexhaustible feeding and breeding grounds.

Hunters have different ideas on how to better manage the issue of population. They say that the hunting season needs to be extended. That the bag limit (the maximum amount of deer allowed per hunter) should be increased to 4 or more animals. Incentives should be enacted to encourage the shooting of antlerless females, resulting in more proportionate male to female ratios in the deer populations. Local herds in residential areas should be thinned out each year through use of professional sharpshooters or bow hunters. Meat from culling should be donated to charity to increase community support (Johnson, n.d.).

In Michigan, several legislative attempts have been made to address the rising deer population. One such attempt is a recent petition calling for the mandatory addition of siren warnings to cars (also known as “deer-whistles”). The petition states that nationwide, hundreds of thousands of deer are reported killed by vehicles yearly. Yet, no national recognition has been given to these “gentle creatures.” The petition calls for all vehicles to be equipped with warning devices, so that deer will be able to acknowledge that a vehicle is approaching (“The Petition,” 2002). This is projected to save lives, lower insurance rates, and result in fewer human-deer interactions.

Michigan’s Governor Engler also formulated a plan for deer population control in an attempt to eradicate tuberculosis. In an Executive Directive to the Departments of Community Health, Agriculture, and Natural Resources, Governor John Engler called for a strategy to eradicate bovine tuberculosis in Michigan white-tailed deer. It was decided that a mandatory

feeding ban was necessary to minimize the concentration of animals and crowding of deer to avoid the possible transmission of the disease (“Engler,” 1998). This ban was ended before the beginning of the next hunting season. Hunting bans are issued accordingly as new diseases are discovered to have affected local herds (usually on the statewide level), but few bans have endured the test of time and rarely exist longer than one hunting season.

Although several legislative issues have been addressed, it is important to note that the legislation enacted so far has not been sufficient to effectively manage deer populations. If anything, it helps to curb the negative effects of overpopulation (such as disease and negative inter-species interactions) but does not serve to actually solve the problem. Environmental problems such as these are difficult to solve for many reasons. They often involve intractable or deep-rooted values. However, one of the most important components of beginning to resolve the conflict is to address just who the individuals involved really are, or in other words, who are the stakeholders.

One fortunate commonality between all parties involved is their ability to recognize the importance of population control and maintenance. This is an invaluable starting point for coming to some sort of an agreement amongst the stakeholders. The primary conflict, however, is the way in which the parties involved believe population control should occur. To better understand just what each stakeholder’s primary interest is, it is best to briefly outline each stakeholder and their position on the issue. Homeowner’s vegetation serves as food for deer, which contributes to the problem of overpopulation, while at the same time deer often end up destroying ornamental and costly shrubs and plants. Affected homeowners must also be concerned regarding the use of hired sharpshooters shooting around homes and families (i.e. children and pets). Local politicians vary on the issue accordingly. If hunting promotes local business and large tracts of the community is covered in revenue producing farms, pro-hunting stances are usually taken. Then again, if the local deer are a beloved feature of the community, life preserving methods of management are usually favored. Most hunters support hunting as a way of life, an intractable belief. It serves them in many ways, including recreationally and financially. Animal Rights Activists are concerned with the humane treatment of the animals, and worry about the current methods being used to control deer populations. Often, these groups believe that the issue of overpopulation is due to human interaction and mismanagement and that it is our responsibility to rectify the situation responsibly. Forest rangers are involved for they

manage a large percentage of the deer's natural habitat; they need to be aware of smart management techniques (i.e. the benefits of regular forest fires in controlling deer populations). The timber industry is involved as their current practices of clear cutting proliferates the growth of underbrush that aids in the population explosion. It is important to consider those individuals who might have personal affiliations with the animal, such as those to whom it has religious implications (tribal cultures). It would also be wise to bear in mind those who have been involved in a deer related automobile accident, or contracted a deer related disease such as tuberculosis or Lyme disease. The views of these people and their opinion on what should be done might vary depending on the nature of their experiences. They may call for more awareness, new vaccines or technology, improved legislation, etc...

This conflict involves many stakeholders, each having unique interests. When looking at the two main sides of the conflict, it is easy to come to generalizations about each. For example, it is possible to see how one side favors conservation and the other preservation. Those in favor of hunting deer also tend to favor the philosophy of conservation. These individuals link the hunting of deer with the sustainability of deer populations. A pragmatic approach is taken on the issue by government agencies (i.e. the DNR), which can be observed in the annual reviewing of the local (statewide) deer populations. Those favoring anti-hunting control techniques can be seen as preservationists. There is an intrinsic value of deer, along with a sense of biological value that defines the terms of how one would best ethically control burgeoning deer populations. This same group also tends to follow the non-interventionist approach to dealing with the issue. The non-interventionist model is part of the general environmental model. It argues that nature is an independent, balanced, and unpredictable force. It also goes on to state that if we cannot predict what effects human interaction will have on nature, then it is best to leave nature alone. This is quite apparent in the group's reasoning on the timber industry and urban growth and management. Those in favor of hunting argue that this claim is unfounded and easily refutable. It is argued that if people act responsibly, humanity could actively manage nature and control issues such as overpopulation.

Those groups favoring hunting also tend to follow the cultural model of ecology. Their reasoning is that if you kill deer, their numbers will decline or at least remain stable. This reasoning adheres to very basic scientific principles (i.e. if there are less deer, they will mate less). Those favoring non-hunting control methods more often tend to follow the scientific

model of ecology. They adhere to more complex scientific principles (i.e. in order for the deer population to decrease, the doe to buck ratio must exist at a constant of one to one).

One concept of conflict management that is vital to everyone involved is that of values. Every individual in some form or another has their own inclinations about what is right and what is wrong. It is reasonable to assume that this depends on an individual's worldview in part. Those in favor of hunting can be said to possess an anthropocentric worldview. These individuals believe humans reside at a status above the rest of the natural world, and often value things by how it can be of benefit to humankind. Those in favor of non-hunting methods of control possess more of a biocentric (or ecocentric) worldview. These individuals believe that nature has rights above and beyond its usefulness to humankind.

It is important to note that any stakeholder's position on an issue is rarely black and white. For example, those in favor of hunting might not necessarily hold an anthropocentric worldview, or even believe that by killing any deer the population might be more actively managed. This topic can be addressed by way of distributive justice. Under distributive justice three very important matters are focused on: equity, equality, and need. The most relevant of these three is perhaps need, or the distribution of resources to ensure that all essential needs are met. While many people argue for non-hunting methods of control, they must also realize that by not allowing hunting, they may be depriving this valuable resource from those who need it to live. Quite often, low income families use both the venison meat as food and the pelt as a source of income. For these individuals the matter is one of survival, and an additional source to enhance the quality of their lives.

When looking at the topic at hand this closely, one can easily come to see that this conflict involves intractable or deep-rooted values. For this reason it makes it very hard to resolve. At one end rests the belief that hunting is everyone's right, and an undeniably important part of humankind's history as a whole. At the other end, there is the belief that all things, even animals, have rights, and that these rights are no less important than that of humans. The most popular approach towards environmental conflicts is Alternative Dispute Resolution (ADR). Even if this technique were employed, a complete resolution still does not seem possible. Both sides want completely different techniques employed, and the best resolution would be one that encourages a balance between the two techniques while emphasizing the common goal of effective population control.

To find a common ground between stakeholders, it also seems as though pointing out the strengths of each argument would be helpful. A balance between the two methods would likely result in the most effective method of deer population control. Hunter's should be assured that their hunting rights will be protected, while at the same time those supporting non-hunting methods of control should be assured their voices will be heard as well, both by politicians and the public. It seems as though the best way to control the issue, aside from public education, is through legislation.

Laws should be passed prohibiting practices that directly result in the exponential growth of deer populations. It also seems reasonable that laws should be passed to keep both people and deer safe and healthy. Baiting and other practices that result in the spread of disease are not only bad for the deer, but also the humans that they come into contact with. Infected meat is of no use to the hunter, so by protecting the animals health, they are also encouraging quality herds. Deer whistles should also be required by law where applicable, this is just another way to further ensure people's safety and prevent accidents before they occur .

When asked what lessons can be learned, one of the most valuable lessons it seems is the knowledge that in today's society values and scientific knowledge are often considered equals. This can be very difficult for a third party trying to approach a conflict logically. One must remember not to be afraid to look at new technologies or discount developing options as viable solutions. It is important to take all sides of an issue seriously and to look for common goals between stakeholders that might serve as a basis for negotiation. Many individuals are afraid of change, but when dealing with a conflict, change must inevitably occur. It is a good idea to remind all parties involved that it is not so much change that is happening, but a resolution that is developing.

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