

WHITE-TAILED DEER POPULATION MANAGEMENT

The white-tailed deer is a very popular animal. People enjoy seeing, studying, hunting and just knowing deer are around. Deer also attract much attention due to their interactions and effects on plants, other animals, and humans. These interactions generate many calls to manage deer numbers.

Deer population management consists of actions taken to cause deer numbers to reach or stay at a desired level. Is population management needed? The following information about deer and deer management is intended to help answer this question.

The White-tailed Deer

The white-tailed deer is very adaptable and successful and occurs over much of North America. It thrives in a variety of habitats including landscapes predominated by people and their activities. In many areas there are as many or more deer now as ever before.

Deer have been known to live 18 years in the wild. They have a high reproductive capacity that likely evolved to offset losses to predators, such as wolves, cougars, and humans. When predation and other losses are low and food resources are plentiful, deer populations can double every 2 to 3 years. Left alone, deer numbers often reach high levels. High deer populations cause concerns about plant species, wildlife habitat, deer-human interactions, and the deer themselves.

Deer and Natural Communities

In many areas deer may be second only to humans in the ability to affect plant and animal communities. Deer populations often overuse the very plants they depend upon for food. In

cases all vegetation within the reach of deer is eaten and some plants are eliminated. Deer can influence the types of trees present in a forest for decades. Deer also influence the availability of food and cover for other wildlife species. Some wildlife species benefit from the effects of deer while others are harmed. Many studies have shown these effects. Studies on the Allegheny National Forest in Pennsylvania found that as the number of deer increased the number of plant and animal species present declined.

The physical condition of deer also declines as populations grow and food resources are depleted. This results in higher winter malnutrition losses, poorer fawn survival, and fewer fawns being born. These losses can halt or slow population growth. However, only rarely does a population decline occur that relieves the pressure on the vegetation. If a population decline occurs, plant species may recover and deer numbers again rebound. As this cycle repeats in a given area, peak deer populations and the physical condition of deer may become progressively lower. Problems associated with deer rarely completely disappear as a deer population fluctuates. Some, such as the risk of losing plant species preferred by deer, may become progressively worse.

Deer and Human Interests

Deer influence many people's lives. These influences can be very direct, such as impacting one's livelihood or health. Orchardists, nurserymen, and other farmers sometimes suffer heavy losses due to deer. Thousands of deer/vehicle collisions occur annually which put people at risk and cause millions of dollars in damage. Research has found that the demand for deer management is highest when human health issues arise. In Westchester County, New York, where concerns about car-deer collisions and the perceived role of deer in the incidence of Lyme

disease is high, researchers found that about 3 of 4 people surveyed believed there was a need for deer management.

Deer Management History

Over the last century the need for, and the intent of, deer management have changed considerably. Changes were primarily influenced by the number of deer present. During the 1800s deer numbers were greatly reduced due to extensive land clearing for farming and unregulated shooting. Management actions in the late 1800s and early 1900s sought to protect deer. These early regulations, and the abandonment and reforestation of unproductive farmlands allowed deer populations to expand.



Larger deer herds eventually produced conditions, by the mid-1900s, where management interests in many areas changed. Deer population control, not growth, became the goal of management efforts. Today, the intent of management programs, over much of the deer's range, is to stabilize or reduce deer numbers.

Why are Deer Managed?

Deer managers strive to assure that the positive values of deer, such as viewing and hunting, can be realized while minimizing the negative values, such as undesirable habitat alterations and deer/vehicle accidents. Management actions reflect a variety of



interests: protecting human health and livelihood, protecting plant and other animal species, providing recreational opportunities, and maintaining healthy deer herds. Management programs have been highly successful in balancing deer populations with other interests. Importantly, these programs have never posed a threat to the existence of deer.

Is Deer Population Management Necessary?

Whether deer need to be managed, or should be managed has often been debated. Personal experiences, interests and values all contribute to one's opinion on this issue.

Some conflicts with deer can be dealt with using repellents or fencing. Site specific damage control efforts, however, often redirect pressure elsewhere and do not address what is commonly the underlying cause - too many deer. Controlling deer numbers is the only viable means to deal with many problems, such as habitat damage and widespread agricultural damage.

Humans have affected most, if not all, natural systems and have had to take the responsibility and assume the role of population manager for many species. This includes not only the role of protector, through wildlife and habitat protection efforts, but in some cases, an expanded role in controlling the numbers of a species. The absence of most predators, which may have historically influenced deer numbers, leaves humans to fill this important role.

The reasons given in support of deer management often include the issues discussed above, but include many other interests. Recreational interests, particularly hunting, drove many of the early management actions and

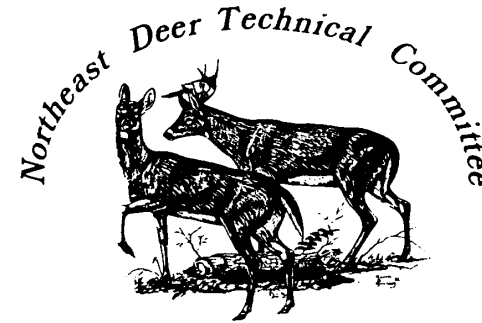
continue to be a consideration today. Most natural resource management agencies are required by law to consider a wide range of interests when setting management plans. No single interest, be it in recreational opportunities, agricultural concerns or the welfare of deer, dictates management programs. With rare exception, deer population management programs are necessary to respond to prevailing human interests in deer.

Summary

Just as humans can and do influence the habitat and well-being of many species, so do deer. Deer management programs attempt to balance the needs of deer, humans, other wildlife and plants. Management poses no threat to the existence of deer and can reduce conflicts between deer and other species. Ecological, economic, and human health interests all provide reasons to manage deer. Nearly everywhere the white-tailed deer occurs, laws have been established directing that deer be managed for the public good. These laws and many surveys provide evidence of the broad public support for deer management.

The public's frequent calls for solutions to conflicts with deer leaves little question that deer management is appropriate and necessary. Debates on this subject typically focus on methods, rather than intent. For a review of deer management options, see: "An Evaluation of Deer Management Options." For a review of cases where deer management needs and options were extensively debated and hunting programs implemented, see: "Case Studies In Controlled Deer Hunting." To obtain these documents or other information on deer contact your natural resource management agency. A great deal has been written on the white-tailed deer; books such

as White-tailed Deer Ecology and Management, are excellent sources of information. This publication is a product of the following organizations:



The Northeast Deer Technical Committee is a group of professional deer biologists from the northeastern United States and eastern Canadian Provinces. They are committed to the study and wise management of our deer resources.

The Northeast Wildlife Administrators Association.
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Written by:
David Riehlman, Wildlife Biologist - NY
Lori Suprock, Wildlife Biologist - RI
William Hesselton, Wildlife Biologist (retired)

Illustrations by:
Jean Gawalt, Wildlife Biologist - NY

THE NEED FOR DEER POPULATION MANAGEMENT

