

## Chapter 2

# WILDLIFE CONSERVATION

### Objectives

- Identify the major sources of funding for managing New Jersey's wildlife resources.
- Explain the difference between conservation and preservation.
- Explain the five basic elements of habitat.
- Explain the basic concept of carrying capacity as it relates to wildlife.
- Explain the role of game laws, seasons and bag limits as wildlife management tools.
- Identify the role of the hunter as a tool of wildlife management.
- Explain the meaning of wildlife management.
- Identify the role of the **NJ Fish and Game Council**.

### What is Wildlife?

**Wildlife** is a word we use to describe any animal that does not depend on man for survival, or that man does not intentionally take care of. Wildlife can include all animals such as mammals, birds, reptiles, fish and insects.

**Population** is the term used to describe the number of animals of a particular species located in a given location at one time. The population of deer on your farm may be 45 while the population of deer for New Jersey may be 180,000. Populations are always changing.

**Game animals** are animals that can be hunted. The **NJ Fish and Game Council** decides which game species can be hunted from an approved list of game species. Not all game species have open seasons. Animals such as bobcat and tundra swans are considered game species but have no current open season in New Jersey.

**Non-game animals** are animals that cannot be hunted. Eagles, hawks, songbirds and owls are examples of non-game species.

### Role of the New Jersey Fish and Game Council

The **NJ Fish and Game Council** is assigned the task of setting the seasons and bag limits for all game species, along with the way

they may be hunted. The council consists of 11 volunteers appointed by the governor. Here is the breakdown:

- 6 sportsmen representatives
- 3 farmer representatives
- 1 representative of the general public
- The Endangered and Non-Game Species advisory committee's chairperson

New Jersey is very lucky to have such a council. This ensures that our wildlife is being managed by sound management techniques. New Jersey has some of the most progressive wildlife management programs in the nation. The end result is healthy wildlife populations that everyone from New Jersey can benefit from.

## Why is Wildlife Important?

Animals are a product of the land that they live on. Therefore, healthy animal populations are a sign that our environment is healthy as well. The healthy environment that the animals depend on is the same healthy environment that we live in. The high quality of life in New Jersey is directly related to the sound management of our natural resources. There is an important value, known as **intrinsic value**, that wildlife has, that you can not attach to a dollar sign. All people in New



Jersey can benefit from knowing that we have streams full of native brook trout, skies with eagles and falcons, and woods with bear and bobcat. The vast majority of the over eight million people that live in New Jersey will probably never see a bobcat or catch a native brook trout. However, if you take any one of these species away, New Jersey wouldn't be nearly as nice of a place to live.

Wildlife brings millions of dollars into New Jersey's economy. Think of all the money you spend on a typical hunting trip. Money you spent on equipment, gas, breakfast, lease fees, licenses, butchering etc. Many shops close to public hunting lands depend on your business during the hunting season. For many small businesses, opening day of small game and deer are the two busiest days of the year.

## Wildlife Management

There are several different ways of managing our wildlife. One is through **conservation**. This is the wise use of our natural resources without wasting them. Another is **preservation**. This is the saving of natural resources with no consumptive use.

Managing wildlife may sound like an easy task but it is not. Modern wildlife management is both a science and an art of working with habitats, animal populations and people to achieve specific human goals. The purpose of wildlife management is to maintain populations of wild animals at levels, which are consistent with the best interests of wildlife and people. Wildlife needs to be managed as an asset and not a liability.

**Wildlife Management = Managing  
People + Wildlife + Habitat**

## What is Habitat?

**Habitat** is the place where wildlife lives. Food, water, cover (shelter) and living space are the major components of habitat. For a piece of habitat to be high quality, all the components must be arranged close enough to each other to be utilized easily by a particular species. Therefore, arrangement is the fifth component of habitat.

**Habitat = Food + Water + Cover +  
Living Space + Arrangement**

Good habitat provides for healthy wildlife populations. Poor habitat means little or no wildlife. Each species of wildlife has its own habitat requirements. The wildlife habitat in your area that is good for turkey may not be good for grouse. However, most of the time different animals share habitats. Many non-game animals share habitats that hunters preserve for game animals. Some of the best woodcock breeding habitats that hunters work with are also home to the endangered bog turtle and several species of rare salamanders.

Many times animals converge where two different components of habitat meet, like where the forest (cover) meets a corn field (food). This place where two different types of vegetation meet is called **edge effect**. Many times this edge effect causes a wider variety and



a higher amount of game than just the forest or the corn field could support alone. Working to protect and improve a particular habitat is the primary way of increasing a wildlife population.

## Does Habitat Ever Change?

Succession changes habitat over time. Succession is the natural progression of vegetation and wildlife populations of an area. The open farm field near your house today will not look the same in the future if it isn't farmed. An open field that isn't touched will soon be full of natural grasses and forbs, utilized by small rodents and some songbirds. If left untouched, the grass field will be replaced by a shrub layer, which will be the home of the cottontail rabbit. As the old field gets older, more woody vegetation such as cedars will grow in. This becomes good escape cover as well as browse for deer. The mature hardwood forest will eventually take over giving habitat for turkeys and black bears. Succession can be set back naturally when the forest is destroyed by a natural fire or a wind shear, or by man when he clears the land for farming. Managing specific wildlife species involves managing the habitat to remain in a particular stage of succession.

## How Many Animals Can the Land Hold?

The number of animals that the habitat can support throughout the year is called the **carrying capacity**. The better the quality of the habitat, the greater the carrying capacity. When animals exceed their carrying capacity, the excess die from starvation and other natural causes. Animal populations that exceed their

carrying capacity may degrade the habitat in which they live. This means that wildlife can not be stockpiled. By not shooting rabbits this year, doesn't mean that we will have more next year. The surplus rabbits will die from diseases, accidents, predation, old age and other factors.

The changes that occur to a population over time are considered population dynamics. The two biggest factors are birth rate and death rate. When the birth rate is greater than the death rate, populations are increasing. When the death rate is greater than the birth rate, populations are decreasing.

## **How Does Hunting Affect the Animal Populations?**

Populations are always fluctuating. Most hunting that takes place across the country harvests the surplus animals, animals that are going to die anyway. This helps keep animal populations healthy and within their carrying capacity. Many studies have been done on game species proving this fact.

What about populations that are growing past their accepted carrying capacity and are now viewed by some as a liability? Can these numbers be reduced? Hunters may affect these rates through aggressive and liberal seasons such as those with deer and snow geese. These liberal bag limits and long seasons are aimed at harvesting the surplus animals, along with part of the breeding population. Hunters as wildlife managers have reduced deer herds to more acceptable levels in areas they can access, which we all can benefit from. It is important to remember that regulated sport hunting has never led to the extinction of any wildlife species.

## **Who Pays for Wildlife Management?**

You and your fellow hunters pay for most wildlife management activities in our state. The New Jersey Division of Fish and Wildlife receives funding from the sale of hunting licenses and permits. In addition, the Division receives money each year from the Pittman-Robertson Act also called the Federal Aid In Wildlife Restoration Program. This money is generated by the sportsmen in the form of an excise tax. Firearms, ammunition, and certain archery products are subject to this 11 percent tax which is collected and shared each year among the 50 states, for use in wildlife management activities. This federal money is used to pay for this book you are reading!

## **What is the Biggest Threat to Wildlife Today?**

Habitat loss is the biggest threat to wildlife today. Regulated hunting has never caused a wildlife population to become extinct. Market hunting and significant habitat loss in the 1800's were generally responsible for the demise of several species. Can you believe that 100 years ago there were virtually no deer or turkey left in New Jersey? Sportsmen at that time were the first people to try to protect valuable habitat through taxes they brought upon themselves. The result of these caring sportsmen have been the thriving animal populations we have today. Sportsmen were the first conservationists and are still the best. Join a local conservation organization in your area to secure a healthy environment for the future.

**The future of wildlife depends upon you!**