

# Section 4: Conservation

## Chapter 9: Wildlife Conservation

### In this chapter, the student should learn:

1. Two reasons for a decline in wildlife populations
2. The difference between conservation and preservation
3. The difference between a renewable and non-renewable resource
4. Two benefits regulated sport hunting provides to wildlife conservation
5. Two funding sources for wildlife management programs

### Historical View Of Land Use

To understand wildlife management completely, we must first learn its history. Before European settlers arrived in America in the early 1600s, unpolluted lakes, rivers, prairies, and forests stretched across this country. The landscape had no roads, cities, or industries.

The land held an abundance of many kinds of wildlife. **Wildlife** consists of *those animals that range freely in their natural environment, not kept in zoos or held as pets or farm animals*. Some of Ohio's original wildlife populations included:

- deer
- bears
- wolves
- elk
- bobcats
- mountain lions
- wild turkeys
- squirrels
- skunks
- badgers
- bald eagles
- songbirds
- numerous fish, reptiles, amphibians, and insects

This country was soon settled with people. Towns, cities, and industries replaced the habitat that was once home to wild animals. **Habitat** is *an area that supplies everything wildlife needs to live including food, water, cover, and space*.

### Habitat



Cover



Water



Food



Space

### WILDLIFE CONSERVATION KEY TERMS

Wildlife  
Habitat  
Conservation  
Preservation  
Poaching  
Bag Limits  
Propagation  
Wildlife Management  
Limiting Factor  
Renewable Resource  
Non-Renewable Resource  
Carrying Capacity  
Predators  
Prey  
Game  
Sport Hunting



OHIO DEPARTMENT OF NATURAL RESOURCES  
DIVISION OF WILDLIFE

## MISSION STATEMENT

We are dedicated to conserving and improving the fish and wildlife re-sources and their habitats, and promoting their use and appreciation by the people so that these resources continue to enhance the quality of life for all Ohioans.

One of the largest hardwood forests on the earth made up Ohio's original habitat. However, the forest soon fell to the settler's ax, and the ground was plowed to make way for agriculture. Wetlands were drained and made ready for farming to meet the needs of man. This destruction of habitat was, and still is, the leading cause for the decline of some wildlife populations.

In addition, there were very few laws during the early 1800s to control hunting and trapping. As a result, uncontrolled hunting and trapping added to the decline in wildlife populations. Many people made a living as market hunters and trappers because they made a profit in towns and cities where fur and wild game were in demand.

Industries such as sawmills, gristmills, tanneries, and distilleries grew in number as time passed. The industries led to polluted air and water that is harmful to wildlife populations. The wildlife habitat in Ohio became polluted, destroyed, or changed. Animals had to adapt, migrate, or die.

Ohio became a state in 1803. Less than 100 years later, bears, bison, mountain lions, wolves, white-tailed deer, and wild turkeys disappeared from our state. Many other wildlife species were

greatly reduced in Ohio. Some wildlife, like the passenger pigeon, became extinct.

The early settlers used natural resources without thinking of the future. The people did not realize that they were hurting wildlife or that they were using up all of the natural resources.

This led concerned outdoorsmen and legislators to take action to help our wildlife. In order to do this, a wiser and more conservative approach to using natural resources was needed.

The State Legislature formed the Ohio Fish Commission in 1873 to reverse the decline in fish populations. This was the first major step in initiating wildlife conservation in Ohio. In 1886, the agency was given responsibility for game animals as well as fish and became the Ohio Fish and Game Commission.

The first efforts of the Fish and Game Commission were to enforce new laws through fish and game wardens. Game wardens (now known as wildlife officers) are law enforcement officers that specialize in wildlife laws. These laws were made to protect wildlife that was in danger of being eliminated from Ohio.

Laws were passed that made fishing, hunting, or trapping

these animals illegal until their numbers returned to healthy levels. This would permit hunting and trapping the game without harming the overall population. Taking the surplus population of game animals has proved to be a wise and important tool for wildlife management.

Hunters were allowed to hunt or fish for animals with higher population levels under strict controls. The laws included open and closed seasons to insure that only surplus game was harvested. **Bag limits**, or the number of animals that can be legally taken in a single day or season, also helped to make sure that only surplus fish and game were taken.

In 1913, hunting licenses were first required for Ohio residents. This money was used to fund Ohio's wildlife management and wildlife law enforcement programs, and this is still the primary source of funding for wildlife programs.

## The Birth Of Wildlife Management

**Wildlife management** is "The art of making land produce and sustain an annual crop of wild game for recreational use and wildlife viewing." Wildlife management began to grow as a

profession in the early 1920s. The first wildlife managers established hunting regulations and propagated animals. **Propagation** means to raise fish or wildlife in captivity.

As wildlife management grew, common and widely accepted values were established. Research and experimentation led to different management methods that benefited wildlife.

It became obvious to wildlife management pioneers that good habitat was necessary for healthy wildlife populations. Changing the land to a healthy habitat was the key to encourage wildlife species to return to Ohio. They knew that Ohio needed a good supply of the four habitat factors to benefit wildlife.

The four habitat factors are food, water, cover, and space. If any of these are missing or are in short supply, it becomes a limiting factor to healthy wildlife populations. A **limiting factor** is any harmful element such as disease, bad weather, or poor habitat that may cause wildlife populations to be limited. A task of wildlife managers is to reduce a wild animal's limiting factors.

All wildlife species need to be managed according to their own habitat needs. A wildlife



## DID YOU KNOW?

- Division of Wildlife private lands biologists work with private landowners to improve wildlife habitat.
- Ninety-five percent of the land in Ohio is privately owned.
- Wildlife managers work hard to provide excellent habitat on Division of Wildlife-owned lands.
- The Division of Wildlife's wildlife management professionals track, survey, and perform research projects on both wildlife species and the habitat where they thrive.
- The ODNR Division of Wildlife owns more than 165,000 acres of public hunting and fishing grounds.
- Wetlands are home to more wildlife species than any other habitat type. More than 16,000 acres have been restored or enhanced by the Division of Wildlife since 1990.

manager must be familiar with the habitat needs of each wildlife species to create the right management plan. For example, a cottontail rabbit eats mostly grasses, clover, and other plants and needs brushy cover for shelter. A squirrel eats mainly nuts and seeds and needs woodlands for shelter. Foxes need holes for shelter and eat mostly mice and small rodents.

## Conservation vs. Preservation

One key wildlife management principle is that wildlife can be used and will replace itself. *A natural resource that can be replaced or replenished and available for continued use such as animals, trees, and other plants is a **renewable resource**. A **non-renewable resource** is one that can't be replaced after it is used such as coal, oil, or natural gas.*

Because it cannot be replaced, we may stop using a nonrenewable resource in order to keep it from being eliminated. *No use of a resource is called **preservation**. A renewable resource may also be protected for a time if the levels of the population are too low to be hunted or trapped and replaced naturally.*

However, because wildlife is a renewable resource, we may hunt or trap it responsibly without harming the resource. *The wise use of our resources is called **conservation**. It is wise to use a resource that renews itself to control populations and diseases, and protect habitat.*

Wild animals have a tremendous ability to reproduce (give birth) and increase their numbers. For example, each spring many wild animals breed and give birth to their young. Often, the population becomes greater than the carrying capacity of the habitat. ***Carrying capacity** is the number of each wildlife species that can live within a certain area and remain healthy and not damage the habitat.*

A good way to understand carrying capacity is to imagine putting too many people in a canoe. The canoe has a weight capacity in order to stay afloat. If too many people are piled in the canoe, it will sink. Likewise, if the wildlife carrying capacity of a certain habitat is exceeded, the wild animals and the habitat will suffer. The excess wildlife will likely suffer from disease, stress, or die of starvation. The vegetation of the habitat can be seriously damaged or depleted.

The wildlife manager's task is to help maintain the populations of wild animals at or below the carrying capacity so that no damage is done to the animals' habitat.

Leaving nature to take care of excess wildlife is often cruel and irresponsible. Man has dramatically altered the original landscape. Most of the predators that helped control wildlife populations naturally have been eliminated from Ohio. ***Predators*** are animals that hunt and eat other animals, such as bobcats, wolves, and mountain lions. ***Prey*** is the animal that is hunted and eaten by predators.

Without these natural predators, it is necessary for wildlife professionals to use management practices and conservation to ensure healthy wildlife populations. Nature alone is no longer capable of maintaining populations at healthy levels in today's world.

## The Role of Hunting and Trapping

An effective tool that helps wildlife managers keep wildlife populations at desired levels is controlled sport hunting or trapping seasons. These seasons allow hunters to kill a certain number of game animals each year. ***Game*** is wildlife that may be hunted or

*trapped according to legal seasons and limits.*

***Sport hunting*** is a legal recreational activity involving the pursuit of wild animals. Controlled sport hunting and trapping are used to remove excess animals without damaging the overall population. Sport hunting and trapping also provide needed funding through the sale of licenses for wildlife management programs. ***Poaching*** is an illegal activity involving the pursuit of any wild animal. No one should tolerate any form of poaching.

In addition to license-fee money, a tax is collected on hunting and trapping supplies. This tax came from the Pittman – Robertson Act. This act is named after two U.S. Congressmen who sponsored a bill in 1937 that placed a tax on firearms, ammunition, and related hunting gear. Money from the tax is issued to each state for wildlife management and other wildlife programs. Every time a hunter buys hunting equipment, a portion of the money will eventually pay for wildlife programs.



### Pittman-Robertson Act

- Actually called the Federal Aid in Wildlife Restoration Act, P-R was sponsored by Senator Key Pittman (Nevada) and Representative A. Willis Robertson (Virginia). President Franklin Delano Roosevelt signed it into law in 1937.
- It provides an excise tax on firearms, ammunition, and archery equipment.
- P-R money is available to the states to buy, develop, maintain, and operate wildlife management areas.
- P-R money is available to the states and is used for surveys and research necessary to restore wildlife.
- P-R money is available to the states and is used to finance Hunter Education programs. These programs reach about 650,000 people a year.
- People who never hunt benefit from P-R too. Wildlife management areas and wetlands are useful to all nature lovers and watchers. Funds go towards management of all species, game and nongame alike.

## Wildlife Management Success Stories

Since the Ohio Fish Commission first began its work in 1873, numerous fish and wildlife species have returned to healthy levels. The wild turkey, white-tailed deer, ducks and geese, river otters, bald eagles, bluebirds, osprey, and many others made a successful comeback as a result of wise use and management of wildlife and habitat.

For example, wild turkeys were trapped in other states and released in Ohio during the late 1950s. As a result, a species once totally eliminated from Ohio reached a population of 200,000 by the year 2000. There were only four breeding pairs of bald eagles in Ohio in 1979. By the year 2000, 63 nesting pairs had been established. In 2000, the white-tailed deer herd was estimated to be at 550,000 after being eliminated from Ohio 100 years earlier.

Thanks to the work of wildlife managers, Ohio is nationally recognized for its trophy bucks and large deer herd. Lake Erie is now known as the “Walleye Capital of the World” and as one of the world’s best smallmouth bass fisheries.

## LOSS OF PRIVATE HUNTING LAND OF CONCERN TO OHIO SPORTSMEN AND WOMEN

In the state of Ohio some wildlife species have been eliminated from certain areas due to a loss of habitat. This reduction of habitat causes concern for sportsmen in other ways. The increased urbanization of our rural areas results in less access to suitable hunting land. As houses devour a landscape that was once predominantly farmland, much of this acreage is no longer available for hunting. Safety concerns with houses, businesses, and roads have resulted in the remaining areas to be closed. These concerns create problems on other huntable areas as well.

The remaining private land receives more pressure from sportsmen and women because they have been forced to find other areas in which to pursue hunting or shooting sports. As a result, many landowners no longer allow hunting because of the increased demand for hunting privileges on their limited land.

Sportsmen and women can help curb this problem by becoming involved in land use issues in their communities. They might also consider joining an organization like the Ohio Izaak Walton League. They are working to protect our rural landscape so that there will always be a place to enjoy our outdoor pursuits. The Ohio Izaak Walton League can be contacted at (419)-465-2283.

Did you know that between 1992 & 1997:

- 829,000 acres of farmland were developed for other uses.
- 10,000 farms comprising 1.1 million acres are no longer in agricultural production.
- 65,000 acres of farmland were lost each year on average.

Information taken from *Protecting Open Space Heritage in Ohio (POHIO)* brochure, an Izaak Walton League publication.