

Chapter 4

Furbearer Management



Content Standard - *Students use knowledge of furbearer management principles, practices, and issues to explain current management programs in Michigan*



FWS Photo

Biologist with wolf.

Responsible trappers learn about wildlife and take action to conserve it for future generations.



FWS Photo

Volunteer works on nest box at U.S. Fish and Wildlife Service Refuge.

Introduction

Wildlife management is a science. Wildlife biologists are professionals. Biologists apply the principles of ecology to maintain and manage wildlife. Many biologists are as highly trained as physicians, lawyers, or college professors.

Some wildlife biologists specialize in the management of furbearers and their habitats. Furbearer biologists monitor animal populations, habitat, and diseases that may affect furbearers or cause human health problems. They develop management goals and create plans to meet those goals.

Furbearer biologists set regulations to protect or restore threatened and endangered species, allow for the harvest of surplus animals, or reduce overabundant furbearer populations. They also work to educate landowners and the general public. Without public education, it is difficult to have public support for management programs.

Few people truly understand wildlife management. Along with biologists, some experienced trappers are among the people most knowledgeable about wildlife. This is because trappers must study wildlife and habitats to be successful.

As people learn more about wildlife, they usually care about it more. When caring leads to actions that conserve wildlife for future generations, the person has become a conservationist. This chapter will introduce you to the principles of furbearer management. Through further study and experience, you can develop the knowledge, skills, and attitudes to become a true conservationist.



Identify the government agency with the authority to manage furbearer resources and regulate trapping in Michigan

State wildlife agencies have the authority and responsibility to manage furbearer resources and regulate trapping. The Department of Natural Resources manages Michigan's furbearer resources for the benefit of the citizens of the state. The Department recognizes that furbearers have a variety of ecological, cultural, economical and aesthetic values, and that these values can be positive or negative. Also, because values are determined by people, not nature, the same animal can have a wide range of values depending on the time, the place, and who is being affected by it. In order to responsibly manage furbearers, the Department monitors furbearer populations and harvests, sets regulations, and enforces laws related to furbearers.

Seasons

Trapping and hunting seasons are based on furbearer populations. Seasons are not permitted if they are deemed detrimental to the survival of the species. Once biological requirements are met, further decisions are based primarily on the concerns of people who use, value, or are affected by the resource. Opportunity, fur primeness, damage problems, landowner concerns, nonharvest values, disease and other factors all enter into these decisions and opportunities for public input are provided.

Surveys

Harvest surveys are conducted for all harvestable furbearer species in Michigan. For species that are more sensitive, harvest figures are determined through furbearer registration. For those species, carcasses or teeth also are collected from trappers and hunters, and biological and harvest information are used to assess the population.

Enforcement

Conservation Officers in Michigan enforce the laws and regulations relating to furbearers statewide. Of course, they have many more duties in addition to furbearer regulations, but they always are interested in and concerned about situations where violations are occurring.

It is important, however, for trappers and hunters to police their own ranks and to help enforcement officers by reporting violations. People who take furbearers illegally are stealing from honest citizens of the state.

State agencies have the legislative authority to manage wildlife on behalf of the public.



Silvertip Productions

Trees, like wildlife, are renewable.



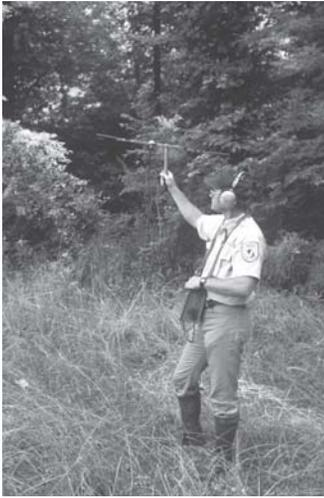
FWS Photos

Oil is a non-renewable resource.



FWS Photo

Beaver lodge and pond - habitat.



FWS Photo

Biologist tracking wildlife.



Explain the difference between a renewable and a non-renewable resource

Natural resources fall into one of two categories: renewable and non-renewable. Renewable resources can be replenished at a rate comparable to its rate of consumption by its users. Plants and animals are renewable resources. For example, when trees are cut down, new trees can grow there again from seeds or sprouts. Similarly, when some wild animals are harvested by people or die due to disease, predation, or starvation, the remaining animals have young and the population renews itself. Trees and animals are resources that can be renewed as long as the habitat is available.

Non-renewable resources are non-living items that are finite and do not regenerate themselves. Coal, oil and natural gas are examples of non-renewable resources.



Identify the components of habitat and name three types of habitats used by furbearers

Wildlife habitat is made up of food, water, cover, and space. Each species of wild animal needs certain kinds of food and cover. Each species also needs a certain amount of space, to provide for its needs.

The quality and quantity of habitat in an area affects the number of species present, and the population level of each species.

Each species of wild animal is associated with certain kinds of habitat. Wetlands, forests, grasslands, and agricultural farms are common types of habitat used by furbearers.

Arrangement is an important characteristic of habitat. When habitat types are mixed, the area will generally support more species and higher populations of wildlife.



Identify two key concepts of sustainable management of wildlife resources

Native wildlife populations are natural resources - biological wealth - that must be sustained and managed for the benefit of present and future generations of people.



Silvertip Productions

Millions of Americans hunt and trap.



Wildlife biologists focus on protecting, preserving, and improving habitats and ecosystems. It is important to understand that biologists also focus on maintaining sustainable populations of wildlife, not individual animals.

Most species of wildlife, including furbearers, have short life spans. In the long term, individual animals do not endure, but populations do.

Sustainable management of furbearer populations depends upon these two key concepts:

- A focus on habitat
- A focus on the furbearer population



Name three principles that are applied in the harvest of wild animals in North America

Biologists generally look for three requirements before allowing the harvest of wild animals:

- The species is not threatened or endangered
- The harvest techniques are appropriate
- Killing the animals serves a practical purpose



Identify the major factors that affect wildlife populations

Wildlife populations have a cyclic change during the year. Populations are highest after the young are born each year. Some animals die due to weather, food availability, accidents, diseases, and predation; thus the number of animals declines until more are born the following year. Animal populations also change over longer periods of time, usually due to changes in the quantity and quality of habitat.

Some wild animals produce a lot of young. Depending on the species, a few animals can quickly populate an area of suitable habitat. River otters provide one example. In many states river otters were extirpated long ago due to habitat destruction and unregulated killing. In recent years, some river otter

Habitat destruction leads to long term declines in wildlife populations.

Extirpated means that a species no longer exists in a range where it once lived. It does not mean that a species is extinct.



Eyewire.com

Working together, biologists and trappers have restored river otter populations to much of their former range.

Major Factors that Affect Wildlife Populations-

- Changes in habitat
- Carrying capacity
- Limiting Factors such as food, weather, & predation.

Extinction means a species is no longer found anywhere. Passenger pigeons, for example, are extinct.

Wildlife agencies and supporters have restored many species that were once extirpated from entire states. River otters, fisher, and beaver are furbearers that were extirpated from many states and later restored.



USDA Photo

Beaver damage.



FWS Photo

FWS employee sets trap for problem beaver.

Wildlife populations are usually highest in the spring after young have been born.

habitat has been restored. Biologists and trappers captured river otters in states where the populations were high, and released a few in the restored areas. Within a short time, the otter populations expanded to fill the available habitat.

The number of animals a given area can support throughout the year is known as its biological carrying capacity. Limiting factors determine what the biological carrying capacity will be. Food is a common limiting factor. Water, shelter, space, disease, and predation are other types of limiting factors biologists must monitor.

Over the course of many years furbearer populations may decline more than normal due to catastrophic events. Examples include habitat destruction such as forest fires, extreme weather such as blizzards, and diseases (e.g., distemper) and parasites (e.g., mange). If a few animals survive, the population may be capable of recovering when conditions return to normal. During these times, biologists may restrict harvest and take other actions to help the animals or the habitat.



Explain the difference between biological carrying capacity and social carrying capacity

Biologists consider several factors when setting management goals for each furbearer species. Two of these factors include the biological carrying capacity of the habitat, and the cultural carrying capacity. Biological carrying capacity refers to the number of animals the habitat can support. Cultural carrying capacity refers to the number of animals that society will accept, which may be a lower level than the biological carrying capacity.

While some furbearer populations can change dramatically, most populations become stable when their population reaches the biological carrying capacity. In some areas high furbearer populations can cause major problems. Beaver, for example, may flood farm fields and roads, or interfere with city water supply systems. Biologists may decide to reduce the numbers below the area's biological carrying capacity.



Identify regulated trapping as the most efficient and practical means available to accomplish regular furbearer population reductions

Regulated trapping is an important part of wildlife management programs. The regulated use of the furbearer resource is not only acceptable but has significant benefits. When furbearer populations cause conflicts with people, or with other



wildlife species and habitats, biologists may adjust trapping regulations to increase the harvest and reduce the population. Regulated trapping is the most efficient and practical means available to reduce furbearer populations and it does so at no cost to the public.

While furbearer population reduction is not a goal for all furbearer management programs, population reduction in specific areas can be beneficial. Furbearer population control can reduce the number of furbearer problems with people; lower predation on rare, threatened, or endangered species; or reduce damage to habitats and property.

 **Identify situations where trapping is used to directly manage wildlife**

Regulated trapping helps manage wildlife and habitats. Trapping is used to protect many rare and endangered species of plants and animals, wetland habitats, and personal property. Regulated trapping is also used for localized disease control, wildlife research, and wildlife restoration.

In 1997, the U.S. Fish and Wildlife Service (FWS) reported trapping was used on 487 management projects at 281 National Wildlife Refuges.

Trapping can be an important management tool in recovering rare species. The case of the piping plover, a beach nesting bird, is a good example. The piping plover is a threatened shorebird protected by the United States and Canada. In the Great Lakes region, the piping plover is classified as endangered. Foxes, raccoons, mink, and striped skunks prey on piping plovers when they nest. The U.S. Fish and Wildlife Service uses trapping in some states in and around piping plover habitat to reduce local populations of these predators. Some of the other rare species in the United States protected by trapping programs include pink lady’s slippers, pitcher plants, the desert tortoise, sea turtles, Attwater’s prairie chickens, brown pelicans, least terns, and black-footed ferrets. Beaver, muskrats, coyotes, raccoons, opossums, red foxes, mink, and other animals are often trapped to protect local habitats and personal property. Traps are the most efficient and practical tool that can be used to remove these animals.

 **Explain the three major issues related to furbearer management**

Three major issues affect the conservation and management of furbearers. These include:



USDA Photo

Predator trapping has helped the endangered California Least Tern recover from near extinction.



FWS Photo

Wildlife biologists face challenges:

Human population.

Public intolerance for furbearers in populated areas.

Opposition to sound management by animal rights groups.

The U.S. Department of Agriculture has a Wildlife Services Program to manage damage, minimize wildlife threats to public health, resolve conflicts with wildlife in urban areas, protect property, protect endangered species, and preserve natural resources. Trapping is an essential tool used by Wildlife Services employees.



FWS Photo

Activists oppose fishing, hunting, and trapping.



Excise taxes are collected on firearms, ammunition, and archery equipment to support wildlife management programs.

- Human population growth, which degrades and destroys habitat
- Public intolerance of furbearers
- Opposition to any use of wildlife by animal rights groups

Human population growth causes the loss of furbearer habitat. The range of some furbearer populations has already been reduced. Habitat destruction has eliminated the possibility of restoring some furbearing species to areas they once inhabited. Unlike habitat destruction, regulated trapping is a sustainable use of furbearers. Trapping does not threaten the continued existence of furbearer populations.

Public intolerance of furbearers is another issue. As wildlife habitat continues to be split up by development, biologists are faced with new challenges. Examples include coyotes killing pets, beavers cutting landscape trees or flooding roadways, raccoons invading homes, and human health threats from wildlife-borne diseases and parasites. These problems are highly publicized and they make some people want to lower or eliminate furbearer populations. As a result, nuisance animal trapping has become a growing industry. This concerns biologists because it shows increasing numbers of people view furbearers as problems that should be destroyed, instead of valued resources that should be conserved and used.

Animal rights activists reflect a different view, which goes against traditional values of using animals for food, clothing, and other purposes. Activists want to eliminate all trapping and stop managing furbearers. If animal rights activists are successful, people will have fewer options for solving furbearer problems. Additionally, people could not use furbearers the way they do now.



Identify two funding sources for furbearer management programs

Hunters and trappers provide most of the money for wildlife management programs. The two major sources of funding include:

- Hunting and trapping license revenues
- Federal excise taxes on firearms, ammunition, and archery equipment

Hunting and trapping licenses are sold by states and provide direct revenue for furbearer management. Excise taxes on equipment are distributed by the U.S. Fish and Wildlife Service under the Division of Federal Assistance in Wildlife Restoration Act. Wildlife Restoration dollars, sometimes more than \$200 million a year, are distributed to all 50 states, territories, and Puerto Rico for approved programs that involve wildlife research, management, land purchases, and education.

Chapter 4 – Furbearer Management

REVIEW

Content Standard - Students use knowledge of furbearer management principles, practices, and issues to explain current management programs in Michigan.

Identify the government agency with the authority to manage furbearer resources and regulate trapping in Michigan (page 30).

- Name the agency that regulates trapping in Michigan:

Explain the difference between a renewable and a non-renewable resource (page 31).

- Name two renewable resources: _____
- Name two non-renewable resources: _____

Identify the components of habitat and name three types of habitats used by furbearers (page 31).

- Name four components (parts) of habitat:

1. _____
2. _____
3. _____
4. _____

- Name three types of habitat used by furbearers:

1. _____
2. _____
3. _____

Identify two key concepts of sustainable management of wildlife resources (page 32).

- Name the two key concepts of sustainable furbearer management:

1. A focus on _____
2. A focus on _____

Name three principles that are applied in the harvest of wild animals in North America (page 32).

- Complete these statements:

1. The species is not _____
2. The harvest techniques are _____
3. The killing of the animals serves a _____

Identify the major factors that affect wildlife populations (page 33).

- Food supplies can be a limiting factor for wildlife. Name two more limiting factors:

1. _____
2. _____

Explain the difference between biological carrying capacity and social carrying capacity (page 33).

- The number of animals that the habitat can support is called the _____.
- The number of animals that society will accept is called the _____.

Identify regulated trapping as the most efficient and practical means available to accomplish regular furbearer population reductions (page 34).

- Regulated trapping is the most practical means available to reduce furbearer populations and it does so at _____ to the public.

Identify situations where trapping is used to directly manage wildlife (page 34).

- Regulated trapping is used to protect endangered species, wetland habitats, and personal property. Name three other uses for regulated trapping:

1. Localized disease _____
2. _____
3. _____

Explain the three major issues related to furbearer management (pages 34-35).

- Name the three major issues related to furbearer management:

1. Human _____ growth
2. Public _____ of furbearers
3. Opposition from _____ groups

Identify two funding sources for furbearer management programs (page 35).

- Name two major sources of funding for furbearer management:

1. _____ and _____ revenues
2. Excise taxes on firearms, _____, and _____ equipment.