



SECTION 4 Wildlife Management

Subjects:

*sociology,
reading skills,
public speaking*



Approximate lesson time:

1 hour



Materials:

*Wolf Time Line
cards,
costume props
(see cards)*

Wolf Time Line

Students act out key points in the gray wolf's political and social history.

STUDENT OBJECTIVES:

At the end of this lesson, students will be able to:

1. Summarize how wolf management has changed from 1492 to today.
2. Draw conclusions about the changing relationship between wolves and humans.

VOCABULARY:

bounty • Endangered Species Act • endangered species list • delisting

TEACHER BACKGROUND:

For students to understand the issues surrounding wolves and wolf recovery, they need to have a sense for the history of these issues. This activity, based on a hands-on time line, will help students understand some of the historical issues surrounding wolf management.

Because inflation has affected the value of money over the past 200 years, we have translated historical bounties into 2005 dollars for you. Assuming a compound inflation rate of 3.22 percent (which is the average from 1926 until 2005), a \$5 bounty in Wisconsin in 1965 would be worth about \$372.26 in 2005. A \$3 bounty in Minnesota in 1938 would be worth about \$525.57 in 2005.

But wolf bounties didn't keep pace with inflation. In 1965, when the Minnesota bounty program ended payments, the bounty was \$35 per wolf. If payments had kept pace with inflation, they would have been \$118.95 in 1965 (these estimates might be understated because the inflation rate may have been higher between 1838 and 1926).

Lynn and Donna Rogers /www.bearstudy.org



**National
Science
Education
Standards**

**Unifying Concepts
and Processes**

*Change, constancy,
and measurement*

Life Science (9–12)

*Interdependence of
organisms*

**Science in
Personal and
Social Perspectives
(5–8)**

Risks and benefits

**Science in
Personal and
Social Perspectives
(9–12)**

*Environmental
Quality*

ACTIVITIES:

1. Ask students what they know about the history of wolves in the United States. Make a list of their ideas on the board.
2. Ask for volunteers to create a “gray wolf time line.” Give students time line cards. Tell the student with card one to stand in front of the class and read his or her card, and move to the left side of the room.
3. The second student should read the second card, then stand next to the first student. Eventually students with cards will form a line.
4. When each student has read his or her card, let members of the class ask questions of these historical figures. Students should try to answer the question on behalf of the character. The teacher may help answer questions if the historical figures get stuck on a question.

DISCUSSION:

- Which event was the most important in the wolf’s history?
- What surprised you about this time line?
- How will wolf management look in the year 2100?

ASSESSMENT:

Give the students a written quiz:

1. Describe wolf management in the 1600s and 1700s.
2. How did wolf management change in the 1970s? Why did it change?
3. If you could choose how to manage wolves in the 21st century, what would you do?

EXTENSIONS:

Instruct students to research newspaper articles from 1974 to today. What do these articles tell you about the changing attitudes of people toward wolves and other wildlife?

Invite students to prepare costumes for the time line characters.

Add key events to the time line specific to the red wolf or Mexican gray wolf.

WOLF TIME LINE CARDS

1492 Christopher Columbus (flag of Spain)

 *"I claim this land in the name of Spain. We own it now is my claim."*


The arrival of Christopher Columbus in the Western Hemisphere brings news of the "new world" back to Europe. Other European explorers and settlers follow and eventually colonize the Americas. Many Europeans bring with them to the new country negative views of wolves and a mission to "tame" the wilderness.

1630 Bounty Hunter (bandanna around neck)

 *"Wolf fur is just like gold, \$3 a pelt is what I'm told."*

The first wolf bounty law in America is passed in Massachusetts Bay Colony in 1630. Most colonies—and eventually the states—pass laws that pay people a bounty, or reward, for trapping or shooting wolves and other fur-bearing animals. In 1838 Michigan bounty hunters are paid \$3 per wolf pelt. Adjusting for annual 3.22 percent inflation, \$3 in 1838 would be worth about \$525 today. In a good winter, a bounty hunter can catch up to a thousand wolves.

1805 Meriwether Lewis (paddle and/or compass)

 *"I see wolves there and there and there, they'll steal our food if we don't take care."*

Explorers Lewis and Clark lead the Corps of Discovery up the Missouri River and through Montana. Lewis and Clark keep journals of their observations along the journey, and throughout the Dakotas and Montana they make frequent references to the abundance of wolves. Lewis describes wolves as "shepherds of the buffalo" because the two species are frequently observed together. When the explorers catch extra game animals beyond what is immediately eaten by the men, they leave an overnight watchman to guard the meat from scavenging wolves.

1949 Aldo Leopold (notebook and pen or a copy of A Sand County Almanac)

 *"I have made a big mistake, I fear. Wolves are as important as trees and deer."*

Aldo Leopold becomes famous for writing essays about nature. In 1944 he publishes an essay titled "Thinking Like a Mountain" about an experience he had in his younger years seeing a pack of wolves. "In those days we had never heard of passing up a chance to kill a wolf," he writes. He and his companions shoot the wolves they see, then approach one. "We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes—something known only to her and to the mountain."


Leopold's essays challenge people to think more broadly about the environment and to develop what he calls a Land Ethic.

1960s Landowner (picture of wolf with big "X" over it)

 *"Wolves are dangerous, and so I plan to shoot any wolf I can."*

By the early 1960s most official policies for removing wolves are eliminated, but by this time wolves are already gone from most areas of the lower 48 states. Only about 600 wolves remain, in the far northeastern corner of Minnesota. Some people take wolf management into their own hands with the "3 Ss" of wolf control: "Shoot, Shovel, and Shut Up." These people illegally shoot a wolf, bury it, and don't tell anyone about it.


1973 U.S. Legislator ("Endangered Species Act" written in decorative type on a scroll)

 *"We're losing species, that's a fact, so I propose the Endangered Species Act."*

Although initial protections for wolves were installed by the federal government in 1967, when the 1973 Endangered Species Act (ESA) is enacted into law, it gives a higher level of protection for many species that are disappearing from the United States. The ESA is characterized as the most important piece of species protection legislation in the history of the world. Wolves are protected by the ESA starting in August 1974. Being listed as "endangered" means that even problem wolves (that kill livestock) cannot be killed; they can only be moved to a new location.


In 1978, the U.S. Fish and Wildlife Service (USFWS) publishes plans to recover the wolf in the lower 48 states, starting with the Eastern Timber Wolf Recovery Plan. They develop separate plans for wolves in the Midwest, the Northern Rockies, and the southwestern United States. Because wolf numbers in Minnesota are already high enough to be considered "recovered," the wolf in Minnesota is reclassified from "endangered" to "threatened." This change allows government trappers to kill problem wolves rather than move them.

1989 Livestock Owner (cowboy hat)

 *"I'm losing cows and that's not funny. Either shoot the wolves or give me money."*

If a wolf kills a cow or other livestock animal, the farmer can apply for reimbursement for that loss, but only if they can prove to a government agent that it was a wolf that caused the damage. In 1989, farmers in the state of Minnesota lose at least 1,733 animals such as cows, calves, sheep, turkeys and dogs to wolves.

1995 U.S. Fish and Wildlife Service Agent (binoculars)

 *"Returning wolves here might seem strange, but it's important to help expand their range."*

In 1995 and 1996 wolves are reintroduced to Yellowstone National Park and central Idaho in order to speed up wolf recovery in the Northern Rocky Mountains. The wolves are captured in Canada, fitted with radio collars, then released into their new homes. The wolves are classified as "experimental nonessential," allowing wolves that kill livestock to be removed, which helps livestock owners who oppose the introduction.

The Wyoming Farm Bureau and the Sierra Club both file lawsuits against the government reintroduction plans in U.S. District Court. The Farm Bureau opposes the return of wolves; the Sierra Club wants more protections for the reintroduced wolves. A federal judge joins the two cases and declares the reintroduction illegal in December 1997. The ruling is overturned by a higher court, allowing the wolves to stay.

2001 Wolf Research Technician (flannel shirt)

"The wolf packs are growing as we can see, so it's time to change the management in our country."

By 2001 there are 3,580 wolves in the lower 48 states, nearly 600 percent growth in population! Yellowstone National Park's hillsides and valleys are wide-open for viewing wolves from a distance. Now, more people can see wolves over longer periods of time in the wild. This way scientists can study wolf behavior and ecological impacts, vastly improving our understanding of the wolf's role in the ecosystem.

Because wolf numbers have grown, the U.S. Fish and Wildlife Service reorganizes wolf management in the lower 48 states. In 2003 they divide the country into three "Distinct Population Segments" (DPSs) and reclassify wolves from endangered to threatened in many areas of the United States. Wolves in the Southwestern DPS retain their endangered status.

2004 State Legislator (official-looking paper with "Wolf Bill" on it)

"We need a plan to deal with wolves right now. The question is what, when, where and how."

In order for the U.S. Fish and Wildlife Service to return management of wolves to the states, each state that has wolves must prove it's ready. The states must develop a wolf management plan that specifies how many wolves are enough, where they will be allowed to live, what they will do with the wolves if they leave the designated areas, and how they will handle wolf depredation.

Future All of Us (paper with big question marks)

"To live and prosper wolves need wild lands, how much is left for them is in our hands."

Eventually the U.S. Fish and Wildlife Service will remove federal protections from wolves, and the wolf's future will be determined by the states where wolves live. Humans will continue to build homes and "suburbanize" large tracts of undeveloped wild lands, and wolves will continue to expand their range and population. How will the states manage wolves to build peaceful coexistence with humans? What choices can individual citizens make that will help make coexistence possible?