

Finding Solutions

Subjects:

sociology, public speaking, mathematics



Approximate lesson time:

1 hour (plus survey time)



Materials:

list of questions, graph paper, calculators

Survey Says

Students survey community members about their opinions regarding wolves.

STUDENT OBJECTIVES:

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

- 1. Describe three opinions that community members hold about wolves.
- 2. Analyze why it is important to understand public attitudes when developing a wildlife management plan.
- 3. Evaluate how most people in their community feel about wolves and wolf management.

VOCABULARY:

management • recovery • value • endangered • threatened • opinion

TEACHER BACKGROUND:

In this activity, students will survey their neighbors to determine what they think about wolves. They will use the same survey that a professional researcher used and compare their results with his.

Survey Shows Minnesotans' Attitudes About Wolves

In a democracy, public attitudes help shape government policies, including those concerning wildlife conservation and management. Like public lands, state and federal highways, and other government infrastructure, wildlife is a public resource that is managed for the people by government agencies.

And like other public policy issues, people hold strong and divergent opinions on policies affecting wildlife, especially on the subject of wolves.

To better understand attitudes about wolves and their implications for Minnesota's evolving wolf management plan, the International Wolf Center contracted Yale University Professor Stephen Kellert, Ph.D., to survey Minnesotans' attitudes about wolves and wolf management. This survey was funded by the National Fish and Wildlife Foundation, the Turner Foundation, the Unity Avenue Foundation, the Sweatt Foundation and an anonymous donor.

The survey augments information gathered from public meetings and the citizens roundtable sponsored by the Minnesota Department of Natural Resources in the development of a wolf management plan. While the meetings and the roundtable included the public in the decision-making process, generally only people with a vested interested in wolf management were involved.

The survey results, however, provide a more comprehensive look at public opinion, reflecting both the opinions of the general public and people with strong views about wolves. The objective data in this survey can help develop a more



National Science Education Standards

Unifying Concepts and Processes

Evidence, models, and explanation

Science as Inquiry

Abilities necessary to do scientific inquiry

Understanding about scientific inquiry

Science in Personal and Social Perspectives (5-8)

Risks and benefits

Science in Personal and Social Perspectives (9-12)

> **Environmental** Quality

effective, equitable and efficient plan for managing the species.

General Feelings About Wolves

Minnesotans clearly value wolves, viewing the animal as ecologically important, scientifically fascinating, aesthetically attractive, recreationally appealing and significant for future generations. Only a small minority fear and dislike wolves or believe Minnesota would be a more desirable place without this predator.

While many recognize the harvest value of wolves, either for fur or sport, the majority of respondents regard these benefits as of secondary importance. Moreover, a substantial proportion (a majority of non-northern residents and nearly 50 percent of northern residents) remain ethically opposed to harvesting wolves for fur or sport and fear a legal harvest would result in excessive and unsustainable numbers of wolves being killed.

Population Expansion and Management Concerns

The majority of Minnesota residents are divided about the prospect of the wolf spreading much beyond the northern part of the state and do not think this animal should reside in urban areas. Moreover, most believe wolf numbers should remain around 2,000 and the animal should be removed from the federal endangered species list and returned to state management. On the other hand, most of the general public fear this change in management authority could result in high wolf mortality and believe the state should maintain a moderate to great deal of protection of this species.

Wolves and Human Activity

The majority of Minnesotans do not believe the wolf is an impediment to economic and social development and endorse the protection of needed wolf habitat. Still, most respondents do not want the wolf to interfere with private property rights or result in undue restrictions on private land use. Additionally, a majority of respondents favor protecting livestock from wolf depredation.

Most of the general public endorse, however, the use of nonlethal and humane control techniques and believe financial compensation to farmers should occur only if they engage in livestock practices that discourage wolf attacks and provide clear evidence that wolf depredation occurred. Farmers and, to a lesser extent, northern Minnesota residents express stronger support for wolf control in cases of livestock depredation. Farmers and northern residents tend to see the problem of wolf depredation on livestock and pets as a more extensive and serious problem.

Only a small proportion of Minnesotans report ever killing a wolf. On the other hand, a disturbingly large proportion of farmers, and especially northern residents, indicate knowing someone who they think killed a wolf.

Consumptive and **Nonconsumptive Values** Associated with Wolves

The public expressed strong support for the nonconsumptive value of wolves; most report having read or watched television programs and films about the animal. Most believe the presence of wolves contributes significantly to an outdoor experience and endorse tourism and other forms of nonconsumptive use as ways of increasing the wolf's economic importance.

Farmers expressed far stronger support for the utilization and control of wolves than did the general public, especially in comparison to non-northern Minnesota residents. The general public was characterized by stronger affection, moral concern, and scientific and outdoor recreational interest in wolves than farmers, although little difference occurred in levels of fear or dislike of the animal.

Moreover, farmers tended to be more knowledgeable about wolves than the general public, especially than non-northern residents. Rural, elderly and less educated respondents expressed stronger support for the utilization and control of wolves, and less affection, concern and interest in this species than better educated, younger, non-rural residents.

Changes in Public Attitudes Toward Wolves

Affection for and interest in wolves appear to have increased from 1985 to 1999, especially among farmers. Support also expanded for controlling wolf damage to livestock, although most respondents continued to favor

the use of nonlethal and humane techniques. Opposition to hunting wolves increased along with the perceived nonconsumptive value of this species. The proportion of nonnorthern residents who believe they know someone who killed a wolf ominously increased.

Implications

The results of this research should assist the state in assuming primary responsibility for managing the wolf. These results suggest that Minnesotans highly value the wolf and favor the protection of the species and its habitat. Most respondents recognize the importance of protecting legitimate human interests, such as livestock production, from damage inflicted by wolves, although in a humane and nonlethal manner.

The wolf is especially appreciated by Minnesota residents for its nonconsumptive value. By contrast, a majority of both northern and non-northern Minnesota residents remain skeptical about harvesting the animal for either fur or for sport and are concerned that these forms of consumptive use could result in excessive and unsustainable mortality. As Minnesota assumes management responsibility for the wolf, the opportunity exists to protect and conserve this animal in a manner that enhances the state agency's ability to manage wildlife in the public interest.

Editor's note: Portions of this article were compiled from "The Public and the Wolf in Minnesota," 1999, a report of the International Wolf Center, written by Dr. Stephen R. Kellert of Yale University.

www.wolf.org

ACTIVITY:

Discuss with students why researchers use surveys. Give each student a survey and ask them to complete it. Collect surveys for later.

Divide the class into teams of two. Each team should interview 10 classmates (not in the room) using a modified version of the Kellert survey. This is a good activity to do as homework.

Once each team has surveyed students, tell them to create a table like the survey results table below and determine how students responded to their team's survey. Direct each team to put their results on the board or on an overhead. Individually or as a class, average the survey results. Also average the results of the written surveys collected at the start of this activity. Do the students in this room have opinions similar to or different from the rest of their classmates? Brainstorm reasons why the results may be similar or different.

Was anyone surprised by what they found?

Compare the class results with results from the Kellert survey. Were student responses the same as or different from the adult responses in the Kellert survey? Individually or as a class, brainstorm reasons why student and adult responses would be the same (or different).

Discuss:

- Did you ever disagree with a response that you received from someone else?
- How do you respond to someone who voices an opinion you don't agree with? (e.g., argue, ignore, agree)

- Why is it important to know how people feel about wolves?
- Predict how the responses you received would be different if you surveyed people in Ely (northern Minnesota community), in Worthington (Minnesota farming community), or in Minneapolis (major metropolitan area).
- How could this information help the Department of Natural Resources develop a wolf management plan?

ASSESSMENT:

Using the survey results from your school, instruct each student to write a one-page summary of the survey responses and come up with three reasons why their results are similar to or different from the Kellert survey.

EXTENSION:

- 1. Have students survey 10 adults in their community and compare those results to the Kellert survey and their classmate survey.

 How is it similar? What are the differences?
- 2. Instruct the students to do the Values Barometer again but with a twist. After students have chosen a place on the barometer, divide the line in half. Have students find a partner on the opposite side of the barometer and spend one minute describing why they chose to place themselves where they did on the barometer. Make sure all students have the opportunity to speak. Students should not try to persuade one another to change their opinions; they must simply listen to each other. The teacher may challenge students to paraphrase what they have heard to confirm understanding.

Modified Kellert Survey



(Below are 10 of the questions that Dr. Stephen Kellert used in his survey.)

- A. Overall, how much do you care about wolves?
 - 1. Not at all
 - 2. Very little
 - 3. Some
 - 4. A fair amount
 - 5. A great deal
- B. How much have you heard or read about the issue of removing wolves in Minnesota from the federal list of threatened and endangered species and largely turning management authority for the wolf from the federal government over to the Minnesota Department of Natural Resources?
 - 1. Not at all
 - 2. Very little
 - 3. Some
 - 4. A fair amount
 - 5. A great deal
- C. In general, how much do you support or oppose removing the wolf from the federal list of threatened and endangered species, assuming that populations of wolves in Minnesota have met their recovery goal?
 - 1. Strongly support
 - 2. Moderately support
 - 3. Moderately oppose
 - 4. Strongly oppose
 - 5. Neither support nor oppose
- D. If I were alone in the woods and saw a wolf, I would be afraid that it might attack me.
 - 1. Strongly agree
 - 2. Moderately agree
 - 3. Moderately disagree
 - 4. Strongly disagree
 - 5. Neither agree nor disagree
 - 6. No opinion
- E. I think that wolves should be allowed throughout the entire state of Minnesota.
 - 1. Strongly agree
 - 2. Moderately agree
 - 3. Moderately disagree
 - 4. Strongly disagree
 - 5. Neither agree nor disagree
 - 6. No opinion



- F. When wolves kill cattle, they should be eliminated.
 - 1. Strongly agree
 - 2. Moderately agree
 - 3. Moderately disagree
 - 4. Strongly disagree
 - 5. Neither agree nor disagree
 - 6. No opinion
- G. Seeing or hearing a wolf in the wild would be one of the greatest outdoor experiences in my life.
 - 1. Strongly agree
 - 2. Moderately agree
 - 3. Moderately disagree
 - 4. Strongly disagree
 - 5. Neither agree nor disagree
 - 6. No opinion
- H. I am against the wolf expanding to new areas of Minnesota because I believe it will result in restrictions on what people can do on private land.
 - 1. Strongly agree
 - 2. Moderately agree
 - 3. Moderately disagree
 - 4. Strongly disagree
 - 5. Neither agree nor disagree
 - 6. No opinion
- I. Private landowners should be allowed to chase away and sometimes kill wolves that trespass on their property.
 - 1. Strongly agree
 - 2. Moderately agree
 - 3. Moderately disagree
 - 4. Strongly disagree
 - 5. Neither agree nor disagree
 - 6. No opinion
- J. Farmers whose livestock are killed by wolves should only be financially compensated (by the state) if they are following livestock farming practices that discourage wolf attacks.
 - 1. Strongly agree
 - 2. Moderately agree
 - 3. Moderately disagree
 - 4. Strongly disagree
 - 5. Neither agree nor disagree
 - 6. No opinion

MINNESOTANS' ATTITUDES ABOUT WOLVES

(averaged from 525 responses to the 1999 Kellert Survey)

Question		Not at all to Very little	Some to A great deal
A.	Overall, how much do you care about wolves?	11% 26%	26%
В.	How much have you heard or read about the issue of removing wolves in Minnesota from the federal list of threatened and endangered species and largely turning management authority for the wolf from the federal government over to the Minnesota Department of Natural Resources? 17% 22%		
C.	In general, how much do you support or oppose rem threatened and endangered species, assuming that po met their recovery goal?	0	
D.	If I were alone in the woods and saw a wolf, I would	be afraid that it mig	ght attack me. 28%
E.	I think that wolves should be allowed throughout the	entire state of Minr 22%	nesota. 24%
F.	When wolves kill cattle, they should be eliminated.	28%	17%
G.	Seeing or hearing a wolf in the wild would be one of life.	the greatest outdoor	r experiences in my
Н.	I am against the wolf expanding to new areas of Minr restrictions on what people can do on private land.	nesota because I bel	ieve it will result in 25%
I.	Private landowners should be allowed to chase away on their property.	and sometimes kill 28%	wolves that trespass 18%
J.	Farmers whose livestock are killed by wolves should only be financially compensated (by the state) if they are following livestock farming practices that discourage wolf attacks.		
	priceles	35%	12%

Source: Stephen R. Kellert. "The Public and the Wolf in Minnesota, 1999," International Wolf Center.