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SECTION 4
Wildlife Management

Subjects:
biology, geography, sociology

Approximate lesson time:
2 hours

Materials:
Imaginary Wolf Recovery Group Worksheet,
Imaginary Wolf Recovery Map

Imaginary Wolf Recovery

Students plan wolf recovery in a hypothetical nation.

STUDENT OBJECTIVES:

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

1. Explain the advantages and disadvantages of wolf reintroduction and recolonization.
2. Identify successful strategies for wolf restoration.
3. Predict the long-term impact of wolf restoration in a hypothetical situation.

VOCABULARY:

restoration • reintroduction • recolonization • Endangered Species Act • recovery • viable wolf population • livestock • translocate

TEACHER BACKGROUND:

When wolves were placed on the endangered species list, the U.S. Fish and Wildlife Service outlined specific objectives and strategies that would improve the wolf's situation so it could be taken off the list. The document they prepared is known as a "Recovery Plan." The wolf recovery planning team identified specific population goals that they believed would constitute viable wolf populations. Once the planning team knew what outcomes they would pursue, they had to decide what they would do to achieve the goals. There are two options for recovering wolves: recolonization and reintroduction.

Recolonization is essentially allowing nature to take its course through an existing core population of wolves. Since wolves have a high reproductive potential and are naturally highly mobile, wolves allowed to produce offspring and wander into new territory on their own can repopulate an area without human intervention. This recovery strategy was used in the western Great Lakes region, where wolves in northern Minnesota and Ontario expanded their range into central Minnesota, Wisconsin and Upper Michigan.

Reintroduction involves intense human effort to translocate wolves into a new, suitable habitat. The wolves may come from an existing healthy population or from captive breeding stock. It involves complex governmental processes and often receives a great deal of scrutiny from politicians, the public and the media. The reintroduction of wolves to Yellowstone National Park and central Idaho is a useful example of this strategy.

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National Science Education Standards

Unifying Concepts and Processes

Systems, order, and organization

Evidence, models, and explanation

Change, constancy, and measurement

Evolution and equilibrium

Science as Inquiry

Abilities necessary to do scientific inquiry

Understanding about scientific inquiry

Life Science (5–8)

Regulation and behavior

Population and ecosystems

Diversity and adaptations of organisms

For more correlations, please see Appendix IV.

Biology tells us that wolves can live anywhere they have enough food and human tolerance. Both methods of arriving at wolf "recovery" can be controversial and complicated, and both are expensive to prepare for and monitor. Public education and support are key to the success of wolf recovery, and there is usually a wide variety of opinion holders wanting to influence the process.

This activity challenges students to analyze a recovery situation and make strategic decisions.

On the Imaginary Wolf Recovery Map, you can assume that deer, moose and other wolf prey are found all across the map. Wild food sources decrease near urban areas. The land around Ranch City is western range land much like the Dakotas, Nebraska and Colorado. The land around Farm City supports crop and animal farming similar to Iowa. The parks and forests are heavily wooded and have abundant wildlife species. The mountains west of Central State are much like the Rocky Mountains. The Triton Ocean is much like Lake Superior. Students may assume that the closest viable wolf population is 1,000 miles to the north.

ACTIVITIES:

1. Divide the class into groups of three to four and give each group an Imaginary Wolf Recovery Map. Each group should look over their map. Since the wolf recovery plan requires that wolves be recovered in some way in this region, the students' job is to determine where and how to restore this wolf population to 300 wolves.
2. Each group should answer the following questions (see Imaginary Wolf Recovery Group Worksheet):
   - Will you choose reintroduction or recolonization to recover wolves?
   - If you choose reintroduction, how many wolves will be introduced? Where will the wolves come from (captive breeding or from other regions)?
   - If you choose recolonization, how long will you wait for wolves to come? What will you do to prepare for their arrival?
   - Where can the wolf population spread from the recovery area?
   - Do you anticipate problems with livestock? How will these be handled?
   - Will wolves be protected? How?
   - How will the rules of wolf management change once the population has reached the recovery goal?
   - Who will be allowed to shoot wolves? When and where can wolves be shot?
   - Where should wolves not be allowed to live? How will you keep them away?
   - How will we keep wolves out of conflicts with humans?
   - How will the presence of wolves affect the rest of the plants and animals here?

3. Once each group has developed a plan for recovering wolves, a spokesperson from each group will present their plan to the class. They will explain why they made the choices they made, and answer questions from the class.

   Optional: Tell each group to meet with another group to see if they can combine plans. Then have those groups meet with other groups, until the whole class agrees on one plan.

Discussion:

- Which questions were hardest to answer?
- What additional information did your group need?
- What are the benefits of reintroduction? Of recolonization?
- Was it hard to come up with a plan that everyone can agree with?
- How did you resolve conflict?

ASSESSMENT:

Ask students to write answers to the following questions:

1. What are three problems with recovering wolves in an area in which they are not currently living?
2. How can recovery plans address these problems?
3. Would you like wolves living in the woods around your house? Why or why not?

EXTENSIONS:

Instruct students to research the wolf reintroduction programs in the Northern Rocky Mountains and in Arizona and New Mexico. How are these programs similar to or different from the plans the class developed?

Nancy Gibson

Name _____

Imaginary Wolf Recovery
Group Worksheet

Each group should answer the following questions:

1. Will you choose reintroduction or recolonization to recover wolves?

2. If you choose reintroduction, how many wolves will be introduced? Where will the wolves come from (captive breeding or from other regions)?

3. If you choose recolonization, how long will you wait for wolves to come? What will you do to prepare for their arrival?

4. Where can the wolf population spread from the recovery area?

5. Do you anticipate problems with livestock? How will these be handled?

6. Will wolves be protected? How?

7. How will the rules of wolf management change once the population has reached the recovery goal?

8. Who will be allowed to shoot wolves? When and where can wolves be shot?

9. Where should wolves not be allowed to live? How will you keep them away?

10. How will you keep wolves out of conflicts with humans?

11. How will the presence of wolves affect the rest of the plants and animals here?

WOLF RECOVERY AREA