

SMALL MAMMALS

LESSON PLAN



WOLF RIDGESM
ENVIRONMENTAL LEARNING CENTER

SMALL MAMMALS



CLASS DESCRIPTION: An Animal Ecology Class

Students will learn characteristics of some of the small mammals in northern Minnesota. By traveling through various habitats searching for small mammal signs, they will learn about the role these small creatures play in the environment. Students then set out live traps overnight to observe the animals caught before releasing them back again into the wild.

Total time: 3 hours (two hours outdoors)

Audience: 6-20 students, 4th grade through adult

Activity level: moderate

Travel: 1/2 mile

Total uphill travel: 40 feet

GUIDING QUESTION

Why are there so many numbers and species of small mammals? What's their role in the ecosystem?

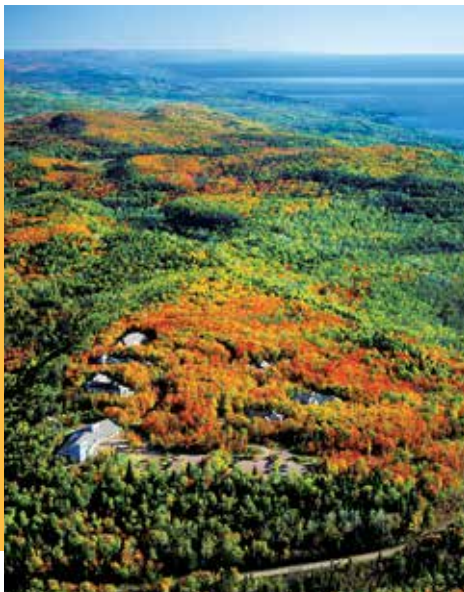
CONCEPTS

1. Small mammals, while united by relative size, are diverse in their niches (habitats and roles).
2. All living things have physical and behavioral adaptations which allow them to survive in their environment.
3. Energy flows from one organism to another in a complex food web.
4. Collecting data and making observations and comparisons are processes of knowing in science.

OUTCOMES

Upon completion of the Small Mammals class students will be able to:

1. List the four characteristics that distinguish mammals from other animals.
2. Define niche and describe which niche is occupied by each of the small mammals native to northeastern Minnesota.
3. Find and interpret signs left by small mammals.
4. Describe a predator/prey relationship including small mammals.
5. Prepare and set a live trap for small mammals while responsibly monitoring and caring for the trap and any animals caught.



Our mission is to develop a citizenry that has the knowledge, skills, motivation and commitment to act together for a quality environment.

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Wolf Ridge Environmental Learning Center and the USDA are equal opportunity providers and employers.



Equipment

Classroom Equipment

- 20 modified Sherman non-folding traps
- study skins of various small mammals
- rubber mice (rats)
- Deadly Links game
- 300 colored popsicle sticks
- 16 green tin cans
- 5 brown tin cans
- 3 white tin cans
- mammal cards
- bait for live trapping:
 - apples w/ butter knife
 - cat food
 - sunflower seeds
- trapping log book
- dry grass insulation for traps
- Wild America video
- posters:
 - food web poster
 - small mammal ID poster
- 2 observation buckets/cages
- live deer mouse in cage

Appendices

- Glossary
- Additional Information
- Optional Activities
- References
- Sources

Set-up (15 min.)

- Classroom/class prep description
- Safety Management

I. What is a small mammal? (15 min.)

- A. Observe a Live Small Mammal
- B. Mammal Definitions

II. How to deal with being small? (30 min.)

- A. Body Heat Retention
- B. Food Storage Activity

III. What are some examples of niches of local species? (15 min.)

- A. Rodents
- B. Insectivores
- C. Other Smallish Mammals

IV. What are small mammals doing here? How can we find evidence? (60 min.)

- A. Tracks and Trails
- B. Homes
- C. Eat Marks
- D. Scat
- E. Scents and Sounds

V. What role do small mammals play in their environment? (30 min.)

- A. Great Gull Island Story
- B. Deadly Links Game

VI. How can live trapping help us learn more? (30 min.)

- A. Setting Traps
- B. Checking Traps [Next Morning at 8:15 AM, later in the evening, or at end of class]

Clean-up (15 min.)