

## Elk and How They Live

### Objectives

- To present the lifestyle of elk in Jackson Hole, Wyoming.
- To explore the behaviors and characteristics of elk.
- To illustrate the social structure of the elk community.
- To explain the mating instincts of elk.
- To illustrate the migration and movement of an elk herd.

### Synopsis

The Rocky Mountain Elk have occupied parts of Wyoming for several hundred years. Scientists believe that elk arrived in North America from Asia by crossing the Bering Strait during the Pleistocene Era, 25,000 to 30,000 years ago. Examined over a period of one year, the elk herd in this program is the largest in North America, numbering 5,000.

Spring migration instincts drive the elk herd to return to high mountain valleys, led by a wise and experienced cow. Spring birthing season finds the males and females separating; the females look for secluded areas of the forest to have their young and the males form bachelor herds.

Young calves are born, camouflaged by their speckled fur coloration and requiring both food and education from their parents for survival. The mild climate provides a hospitable opportunity for the growth of young calves through the summer. Sparring is a playful pastime that prepares the young elk for the more serious exercise of fighting for herd dominance when the mating season arrives.

Elk bulls prepare in summer for the fall rut — or mating season — by growing antlers, storing fat, resting and reserving energy. In autumn, cows enter estrus and, as the mating season begins, male elk battle with each other for dominance within the herd. Bugling, antler presentation, herding, stiff-legged gaits, false charging — all these are activities performed in order to intimidate the competition.

Additional information about the process of antler growth and renewal and the special significance of elk calls round out this detailed examination.

### Background for the Discussion Leader

- The elk is a member of the deer family. The Shawnee Indians called the American elk the wapiti. The animal was given the name of elk by early English settlers.
- Elk once roamed throughout most of the United States and southern Canada. But their numbers were dwindled considerably by hunters and they now survive only in the region west of the Rocky Mountains. Today, the largest herds live in Wyoming's Yellowstone National Park, Montana's Sun River, and in Washington's Olympic Mountains.

- Elk usually eat grasses, twigs, shrubs and needles of fir, juniper, and many hardwood trees, especially during the winter. Typically, the larger herds of the United States and Canada don't have enough winter range for feeding. Many elk die of starvation and disease.
- Wolves and cougars are among the natural enemies of elk. Bears and coyotes also have been known to prey on calves and sick adults.

### **Program Vocabulary**

**bone matrix** — cartilage tissue containing blood vessels that form antlers

**cow** — an adult female elk

**regurgitate** — to throw back out or vomit

**ruminant** — a mammal with a multi-chambered stomach

**rut** — the fall mating season

**spike** — adolescents of the elk herd

**velvet** — the fuzzy surface of antlers

### **Questions to Ask Before Viewing**

- What do you know about elk? Have anyone ever seen an elk? Where?
- What does migration mean? Why do some animals migrate? Can you name some animals that migrate?
- Have you ever been hiking in the woods and found an antler on the ground?

### **Questions to Ask After Viewing**

1. Where did elk come from originally? (Scientists believe that elk crossed the Bering Strait from Russia approximately 25,000 to 30,000 years ago.)
2. How do antlers grow? (Antlers are supplied nutrients by blood vessels stemming from bony growths protruding from the skull.)

What triggers antler growth in the summer? (The longer hours of daylight.)

Can the age of an elk be determined by the size of its antler? (The approximate age of an elk can be determined by counting the number of spikes and tines of a bull's antlers.)

What are antlers made of? (Cartilage tissue called bone matrix.)

What is the furry surface of the antlers called? (Velvet.)

What happens to the antlers in the fall? (They have finished growing; blood vessels supplying nutrients constrict; and the velvet dries up, shreds, and falls off.)

3. How does the herd find its way during the migratory period? (The herd is led by an experienced, wise cow.)
4. When are elk calves born? (In the spring.)

How are these newborns protected? (They are born with a protective coloring that looks like patterns of shade and light, and consequently are camouflaged from predators.)

How much does a newborn calf weigh? (From 30 to 40 pounds.)

5. How old must a cow be before it can reproduce? (One and one-half years old.)  
What is the average life span of an elk? (From 15 to 18 years.)
6. In what ways do elk communicate with one another? (Barking, certain gaits, antler presentation.)
7. What is special about an elk's stomach? (Elk are ruminants; the elk has four stomach chambers.)  
How does this help the elk? (An elk can eat some food quickly and move on, later regurgitating it to chew it.)
8. What events happen in the fall? (The fall brings rut, or the elk mating season. Cows enter estrus and become fertile. Bulls battle one another to establish rank and dominance within the herd.)

### **Length**

20 minutes

### **Subject Areas**

Life Science

### **Audience Levels**

Intermediate-Junior High

### **Annotation**

Breathtaking footage captures the beauty and majesty of the Rocky Mountain Elk. This program follows the annual migration of an elk herd and provides fascinating information about the physical and behavioral traits of these magnificent animals. The process of antler growth and renewal, care for the young, and the significance of elk calls are detailed. Produced by R.T. Eastman Productions.