



MAMMALS

Status: Re-introduced, Native Resident

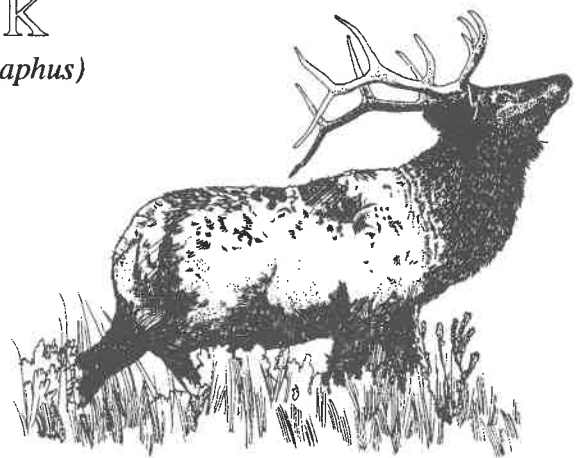
ELK

(*Cervus elaphus*)

Description

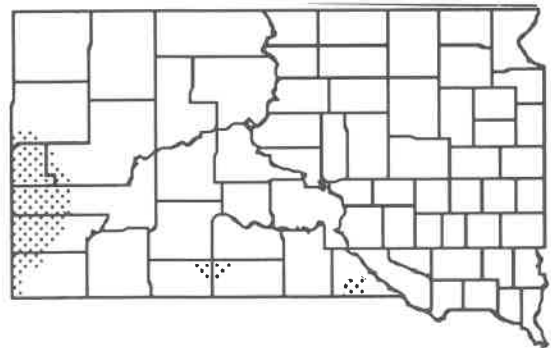
The North American elk or "wapiti," Shawnee for white rump, is the second largest animal in the deer family. These are large, long-legged, hoofed animals. At maturity adult males weigh from 584 to 1,100 pounds (265-500 kg) and the females range from 414 to 660 pounds (188-300 kg). In summer, elk can be distinguished by their dark brown face, belly, legs, and neck. The rump and buttocks are a paler brown. In winter, the head becomes a darker brown and the rest of the body becomes more pale. Males have a long, thick mane and heavy, wide *antlers* that can weigh up to 30 pounds (13.6 kg) and span 5 feet (1.5 m). Their *antlers* have one single beam with many *tines* branching upward. The number of *tines* on the *antlers* are a result of health and food supply and are not direct indications of years of age. *Antlers* are a sign of strength and dominance among males and are used to lure females during the breeding season. Four or 5 months after the *rut*, usually in late March, males will lose their *antlers* and grow a new set for the next breeding season.

Elk are very vocal animals. Bulls use their high-pitched bugle both to attract females and to ward off other bulls. The call can be heard for miles across open space and canyons. Female elk are also



vocal. The female elk will bleat to her young in order to signal danger.

Distribution



Elk, once abundant across North America, now are common only in the west and in mountainous regions. Today in South Dakota, more than 4500 elk live in the Black Hills and about 250 elk roam free elsewhere in western South

Dakota (see the map). Elk are gregarious animals that prefer to live in groups. Outside of the mating season, male and female elk travel in separate groups. Elk are found in woodlands, mountain meadows, foothills, plains, swamps, and coniferous forests. During the spring, elk live in higher elevations. They migrate to the lowlands during the fall to avoid deep snow.

Natural history

Elk are *herbivorous* animals that mainly eat a diet of grasses and herbs in the spring and woody plants and shrubs in summer. A hungry animal will even resort to eating the bark of trees in winter when the food supply is limited.

During the summer months, elk have rather wide ranges. Range distances are smaller during the winter months to conserve valuable energy. In the Black Hills, cow and calf herds are the largest in the winter, having between 40 and 160 animals. In September and October, the breeding season, females restrict their range and are joined by males.

Elk are *harem* breeders and evidence shows that the females actually choose the male. Male elk gather *harems*, but a female may leave the *harem* while the male is mating or *sparring*. Bull elk use urine and scent glands to mark territory and to attract females. Large bulls urinate on the ground to signify territorial boundaries. They also urinate in mud and roll in it, covering their entire body with the scent. This smell excites the younger bulls and cows. At age 2, the bull elk is sexually mature, but often must wait until age 4 or 5 to reach dominance. The cow elk is sexually mature at 2.5 years of age. One mature and dominant male will have a *harem* of around 20 cows, and will mate with as many of them as he can in a season. Female elk are pregnant for 249 to 262 days and generally have 1 offspring, usually born in June. The maximum life span for an elk is 14 to 26 years, though almost half of the population will die

before they are 1 year old. Natural enemies of elk in the Black Hills are mountain lions and humans. In other parts of their range, young elk are killed by grizzly bears, black bears, and wolves.

Significance

Elk help maintain forest habitat by eating small shrubs and saplings, thus preventing overcrowding of trees. The shed antlers of elk provide a supply of minerals and salts to squirrels and other rodents. Elk calves provide a food supply for large predators. Elk are important to the economics of South Dakota due to the revenue hunters bring into the Black Hills. Only South Dakota residents are allowed to hunt elk in the state. In eastern South Dakota, some ranchers raise and maintain small numbers of captive elk.

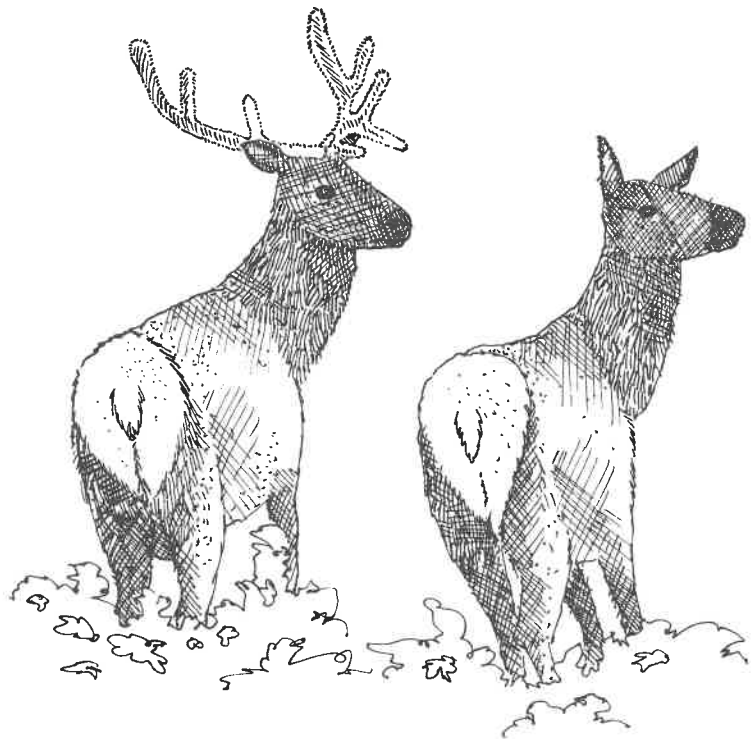


Figure 1. Male and Female Elk.

Management Considerations

During the early 1900's there were fewer than 50,000 elk in North America. Through increased conservation, elk numbers have increased to well over 500,000 animals. The last truly wild elk in South Dakota were killed in the late 1800's, when the species was completely eliminated from the Black Hills. In 1900, the species was re-introduced to Custer State Park in the Black Hills, from Wyoming and Montana populations. In 1913 and 1916 a total of 75 animals were added from Montana. In 1914, animals from Wyoming and Montana were released into Wind Cave National Park. Because of these introductions, all of the elk found in South Dakota today belong to the Rocky Mountain subspecies of elk (*C.e. nelsoni*). Through conservation and successful breeding these numbers have increased to several thousand animals

that today are carefully managed through regulated hunting.

Elk are of great economic value to South Dakota since each year sportsmen purchase licenses to hunt elk in the Black Hills. Hunting seasons and regulations are managed by the South Dakota Department of Game, Fish and Parks. The elk hunting seasons vary according to locality, but all occur sometime between September 1st and December 31st, and are for South Dakota hunters only. Hunting reduces herd numbers and lessens the pressure placed on the food supply. On the other hand, hunting forces the animals to move frequently, which places added pressure on the animals' depleted energy levels. Winter sports, such as cross country skiing and snowmobiling, also put pressure on the tiring herds. Parks and roadless areas provide secluded places where elk may flee for refuge.

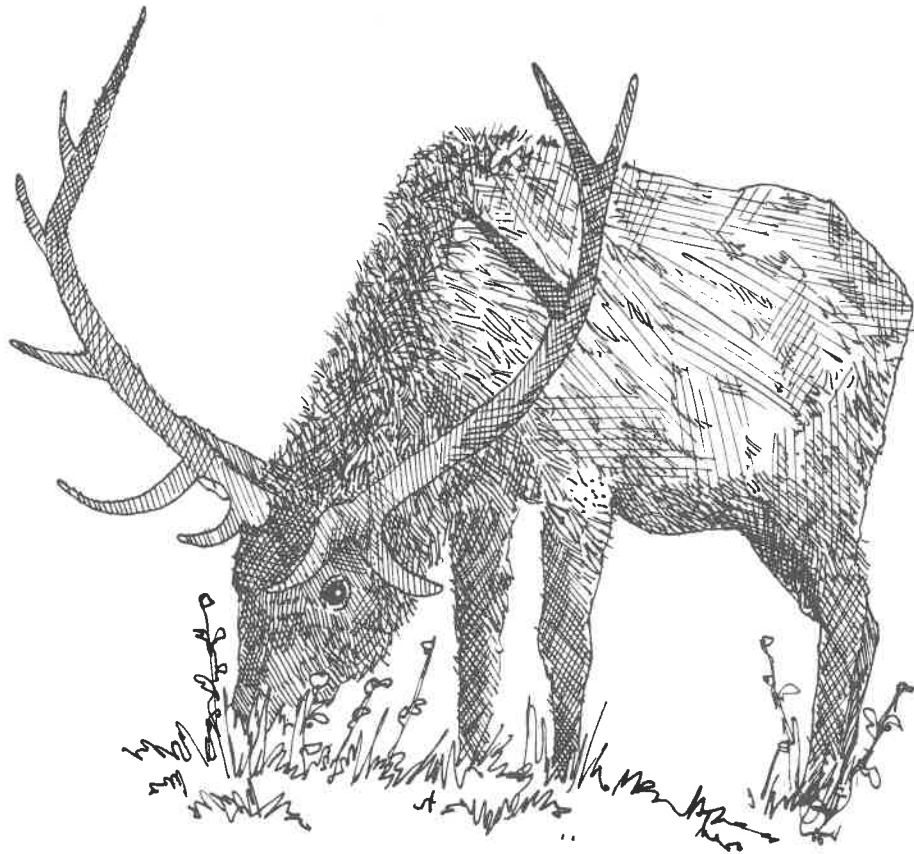


Figure 2. Grazing Bull Elk.

Glossary

Antlers - branched bony growths on the head of animals in the deer family. They are covered with velvet skin and are shed each year.

Gregarious - fond of the company of others; living in herds.

Harem - a group of females associated with one male.

Herbivorous - plant eating.

Rut - breeding season.

Sparring - fighting that generally does not harm either participant.

Tines - slender pointed parts of an antler.

References

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