Grade 8 - Informational

Endangered Species in Nebraska

In 1973, the U.S. government passed the Federal Endangered Species Act, which focuses on identifying and protecting plant and animal species that are in danger of becoming extinct. These species are classified as either *endangered* (those on the brink of extinction now) or *threatened* (those likely to be on the brink of extinction in the near future). Loss of food, environmental hazards, human interaction, and habitat destruction are just a few of the reasons why some populations of species have diminished.

Loss of Food

Ferrets are small mammals with long bodies that live mostly in underground tunnels. The black-footed ferret is the only ferret species in North America. During the day, ferrets sleep in abandoned prairie dog burrows. At night, they hunt prey, which mainly consists of prairie dogs.

Prairie dogs are considered pests by many farmers, and in the early 1900s, their populations were reduced. With fewer prairie dogs, there was less food for black-footed ferrets. By the 1960s, there was only one known ferret colony left in South Dakota. When the last member of that colony died in 1979, black-footed ferrets were thought to be extinct. In 1981, ferrets were rediscovered in Wyoming. The ferrets were taken into captivity in an effort to save the species.

Since 1987, ferrets have been raised in captivity and reintroduced into the wild. This program has been successful. In May 2008, there were 750 black-footed ferrets in 15 locations across the West. In 1995, Nebraska passed legislation to protect prairie dogs on all private and public land. With landowner cooperation, Nebraska hopes that black-footed ferrets can be reintroduced safely to the plains.

Environmental Hazards

Bald eagles are large birds of prey. Their feathers are brown except on their tails and heads where white feathers give them the appearance of being bald. Bald eagles were once found in all states except Hawaii, and nesting pairs could be found in 45 states. In the late 1800s, pairs of eagles were a common sight along the Missouri River Valley in Nebraska. By the mid-1960s, there was a drastic decrease in the number of bald eagles. In many areas, the bald eagle population decreased by 50 percent, and it disappeared completely in other places. The few remaining breeding pairs struggled. The majority of their eggs did not hatch. Bald eagles were listed as endangered by the federal government and by the state of Nebraska in 1978.

The decrease in the number of bald eagles was caused by chemicals used by

farmers to control insect pests. The chemicals drained into the surrounding water where they were absorbed by fish. The chemicals became a hazard to the eagles that ate fish. Many eagles died as a result; for others, the chemicals created problems in proper egg development.

The eagle population has shown improvement with laws that have been passed. The use of DDT, a popular insecticide, was banned in the United States in 1972. In an added effort to help protect eagles, a Nebraska law now requires hunters to use nontoxic gunshot when hunting. This law has reduced the number of lead poisoning cases in bald eagles, which often fed on animals that had been shot with lead pellets.

Human Interaction

A plant that grows in the Sandhill region of Nebraska is Hayden's penstemon. It is about two feet high with a large clump of trumpet-shaped purple flowers at the top. This plant was abundant in the past, but it was listed as a state and federal endangered plant in 1987.

Hayden's penstemon grows in blowouts, or areas where other plant cover has been removed and winds have created craters or trenches in the sand. Historically, blowouts were produced by wildfires and nondomesticated grazing animals.

Human interaction caused changes that led to the reduction of places for Hayden's penstemon to grow. For example, farmers changed the grazing practices for their domesticated herds, and conservation groups reduced wildfires. These actions resulted in the growth of other plants and reduced the number of blowouts. With fewer blowouts, the Hayden's penstemon population decreased.

Seedlings were planted at the University of Nebraska and reintroduced to blowout regions in 2000. Plantings have yielded successful populations in the Bessey Ranger District. Additional efforts include banning off-road vehicles in penstemon areas, allowing livestock grazing, and reintroducing controlled wildfires.

Habitat Destruction

Sturgeon are ancient fish that gradually changed over many years. In the last 100 years, two of the three sturgeon species found in the Missouri River are on the brink of extinction. The pallid sturgeon was placed on the endangered species list in 1990.

The reason for the decline of the pallid sturgeon was destruction of habitat through human interaction. From 1934 to 1972, the Missouri River was altered for ship traffic and flood control. The river was shortened by more than 45 miles and lost about 50 percent of its surface water. These actions reduced the sturgeon's habitat for shelter, food, and breeding sites.

Efforts to save the sturgeon include raising them in captivity and reintroducing

them to the wild. Radio transmitters have been used to monitor sturgeon movements, and ways to improve sturgeon habitats have been studied. So far, scientists and engineers have not been able to find a way to successfully replace the habitats that were altered for human use.

Selected Nebraska Endangered and Threatened Species

	State and Federal Endangered	State and Federal Threatened	State Endangered	State Threatened
Birds	3	1		1
Mammals	2		1	2
Fish	2		2	3
Plants	1	3	1	2