

# Surviving as a Black-footed Ferret

(based on Project WILD's Oh Deer!)

## Background

A variety of factors affect the ability of wildlife to successfully reproduce and maintain their populations over time. Disease, predator/prey relationships, varying impacts of weather conditions from season to season (e.g., early freezing, heavy snows, flooding, drought), accidents, environmental pollution, and habitat destruction and degradation are among these factors.

Some naturally-caused (droughts) as well as culturally-induced limiting factors (legal hunting) serve to prevent wildlife populations from reproducing in numbers greater than their habitat can support. An excess of such limiting factors, however, leads to threatening, endangering, and possibly eliminating whole species of animals.

The most fundamental of life's necessities for any animal are food, water, shelter, and space in a suitable arrangement. Without these components, animals cannot survive. For many animals on the short grass prairie, these fundamentals of life center around the disappearing prairie dog communities.

This activity is designed for students to learn that:

- good habitat is the key to wildlife survival
- a population will continue to increase in size until some limiting factors are imposed
- limiting factors contribute to fluctuations in wildlife populations, and
- nature is never in "balance," but is constantly changing.

Wildlife populations are not static. They continuously fluctuate in response to a variety of stimulating and limiting factors. We tend to speak of limiting factors as applying to a single species, although one factor may affect many species. Natural limiting factors, or those modeled after factors in natural systems, tend to maintain populations of species at levels within predictable ranges.

This activity is intended to be a simple but powerful way for students to grasp some basic concepts: that everything on the short grass prairie, or any other natural system, is interrelated; that populations of organisms are continuously affected by elements of the environment; and that populations of animals do not stay at the same static number year after year in their environment, but rather are continuously changing in a process of maintaining dynamic equilibria in natural systems.

The major purpose of this activity is for students to understand the importance of suitable habitat as well as factors that may affect wildlife populations in constantly changing ecosystems.

Black footed ferret needs a large contiguous prairie dog town for both food and shelter

### **Student groups:**

**Black-footed Ferrets** - Ferret's need prairie dogs and the prairie dog town (which provide food, water, and shelter for the ferret) in order to survive.

**Food** - prairie dogs

**Water**

**Shelter**--tunnels in the prairie

Extension:

Introduce predators such as Coyote and Great-horned Owl.