

Utah Prairie Dog

(*Cynomys parvidens*)—Threatened

Description

Members of the squirrel family, Utah prairie dogs are colonial and most of their activity occurs during the day. They are not as gregarious as their cousins, the Black-tailed prairie dog. The Utah prairie dog may have colonies as small as 10 to 20 individuals. They have a short, white-tipped tail. Their cinnamon clay colored back distinguishes them from the white-tailed prairie dog's pinkish buff colored back. The Utah prairie dog has black eyebrows, brown patches on its cheeks resembling rouge, and a whitish mouth and chin. They have short legs with claws for burrowing. They are well adapted for digging, have short ears and torpedo shaped bodies. Adults are 11 to 15 inches long and weigh between 1.5 and 3 pounds.



Photo courtesy of Gar Workman.

Habitat

Utah prairie dogs live on south-central Utah's steppe and get most of their water from plant moisture and possibly from dew. In captivity, Utah prairie dogs drink very little free water and researchers propose they drink even less in the wild. Thus, water availability to plants is a more important element of the habitat than free water for drinking. Irrigation and wet meadows are positively associated with Utah prairie dog abundance and occur more often at lower elevations.

Some biologists believe that the precipitation pattern in south-central Utah has directed this prairie dog's vegetation preference to forbs and grasses. In this region, rainfall reaches its peak in the summer, after the Utah prairie dog reproduction in the spring. Water is probably most essential in the spring, so Utah prairie dogs have adapted and prefer forbs at this time. They especially like to eat alfalfa. Grasses hold most of their water in their stems and these prairie dogs will choose to only eat this part of the plant. Good habitat for the Utah prairie dog means low shrub density with a high grass and forb density.

Plant diversity is important to the survival of a Utah prairie dog town. Droughts have occurred in south-central Utah and prairie dog towns with a more diverse plant community seem to have survived better. With biodiversity some plants in the communities will be able to survive with severe aridity and continue to supply nutrition and water to the prairie dog.

Utah prairie dogs need deep and highly permeable soils for their burrows. The burrows protect them from extreme temperatures while they are dormant. High

permeability is essential to prevent prairie dogs from drowning. Burrows also protect them from some predators.

According to some researchers, Utah prairie dogs covered an 1846 square mile area in the 1920s. Since that time there has been an 87% decline in the area occupied by these rodents. They now occur in Wayne, Garfield, Iron, Piute, Sevier, Beaver, Sanpete, Millard, Kane, and possibly Washington counties. Their ranges are limited by dense vegetation, possible competition with Uintah ground squirrel, topography, and mild winter climate.

Life History

The mating season begins in the early spring. At higher elevations reproduction may occur 2 to 4 weeks later. Gestation lasts 30 days. Pups are usually born in the early summer, April and May. A female may have anywhere from three to six pups and the average litter size is five. Ninety-seven percent of one-year old females have the potential to reproduce every year.

Juveniles will emerge from their burrow six weeks after their birth. The burrow may have more than one entrance, depending on how old it is. The juveniles begin to forage with other adult prairie dogs. The adults, who begin their foraging as early as mid-March will enter dormancy from mid-July to mid-August. The juveniles, on the other hand, enter dormancy from early October to November.

Juveniles have very high mortality rates. One study showed only 17% survive the first year because of over-winter and dispersal casualties. Utah prairie dogs may live to a ripe old age of three.

Reasons for Decline

A study in 1971 showed that 63% of Utah prairie dog towns were found on private land, 30% on public and the remaining 7% on combinations of public and private land. Private land owners considered them pests to their cattle operations or farms. They treated grain with poison and scattered it around the prairie dog towns.

Concurrent with the poisoning, in 1971 and 1972 a drought was also responsible for the dramatic decrease in the population. Some researchers consider the drought more detrimental than the poisoning. Prairie dogs in higher elevations (8,800-9,300 feet) did not feel the effects of the drought as much because they received more rainfall there than on the lowlands. The prairie dog population dropped from about 8,500 to 4,300 between 1970 and 1972. Of the original 57, south-central Utah only had 39 Utah prairie dog towns left. The greatest reduction occurred on private lands.

Utah prairie dog numbers seem to be continuously fluctuating back and forth between relatively stable and dangerously small populations. Recent research suggests a delicate carrying capacity exists in each town. As members increase and boundaries remain the same there is not enough food to support all the dogs in the town. Thus, intraspecific competition for food reduces their numbers.

Other possible reasons for their decline are predators and disease. Predator-caused deaths become significant during juvenile transplantation or dispersal. Their major predator is the badger, but coyotes, birds of prey, and long-tailed weasels prey upon Utah prairie dogs, as well. Bubonic Plague is a suspected culprit for the decline that occurred in 1983.

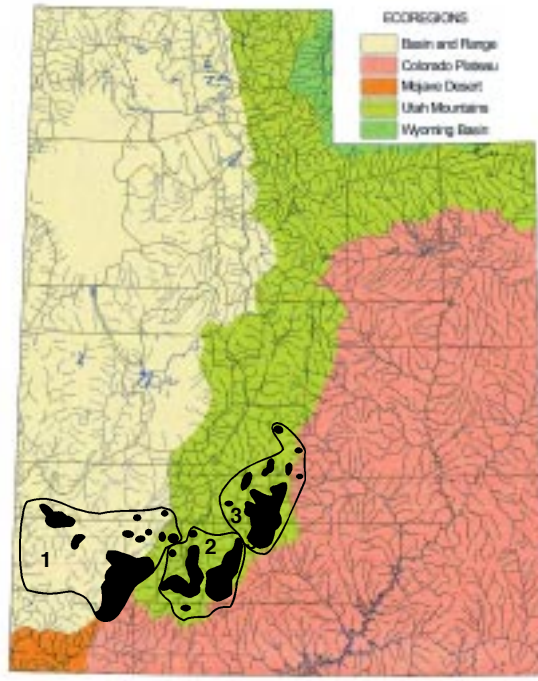
Recovery Efforts

Utah prairie dogs are classified as an endangered species by the U.S. Bureau of Sport Fisheries and Wildlife. They have full protection under Utah law. Recently, there has been significant increases in population numbers because of transplanting programs, when the prairie dogs are moved from private lands onto public lands proven to be good habitat. Protection from predators (i.e. badgers and hunters) makes the transition easier on the prairie dogs. Good habitats that provide a plant water source other than precipitation would help to insure survival even during drought.

Transplanting into already established colonies has not been as beneficial for the prairie dogs as attempting to reestablish extinct colonies with transplantation. Research funded by the Utah Division of Wildlife Resources suggests there is a need to switch the focus of conservation efforts from total population number to the number of colonies because increasing the number of individuals in a colony proves to drive it to extinction. Too many prairie dog individuals overwhelm the carrying capacity of the town.

What You Can Do

Understand that researchers have evidence showing that the white-tailed prairie dog is not conspecific with the Utah prairie dog. Some confusion with this argument has sometimes misled the public to think the Utah prairie dog does not need protection.



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Present and past distribution of the Utah prairie dog.

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