

Utah Prairie Dog (*Cynomys parvidens*)**Species Status Statement.**Distribution

Utah prairie dog is endemic to southwestern Utah, ranging from Interstate 70 south to the northern border of Washington County, and from west of Capitol Reef National Park to almost the Nevada border. The majority of prairie dogs (68% in 2018) occur on private lands, and approximately 58% of the entire population lives in Iron County.

Table 1. Utah counties currently occupied by this species.

Utah Prairie Dog	
BEAVER	PIUTE
GARFIELD	SEVIER
IRON	WASHINGTON
KANE	WAYNE

Abundance and Trends

In the 1920's as many as 95,000 individuals, occupying at least 700 square miles, may have populated southwestern Utah (Collier 1975; Collier and Spillett 1973). Intensive control campaigns, disease (sylvatic plague), and loss of habitat likely contributed to extensive population declines by the 1960s. By 1972, researchers estimated that only 3,300 Utah prairie dogs remained in 37 separate colonies, and that the species would be extinct by the year 2000 (Collier and Spillett 1972, 1973; USFWS 2012). In 1972, the Utah Division of Wildlife Resources (UDWR) initiated a translocation program to move Utah prairie dogs from private lands to areas of historical occupancy on public lands. Managers believed that reestablishment of prairie dog populations on public lands, which afford greater certainty of protection than private lands, was crucial to the continued viability, eventual recovery, and local tolerance of the species.

Following federal Endangered Species Act protection and implementation of recovery actions beginning in the early 1970's, there was a gradual increase in prairie dog numbers on private lands over the next decade. Responding to the improved status of the species and large increases of prairie dog numbers on private lands, in 1984 the U.S. Fish and Wildlife Service (USFWS) down-listed the species from Endangered to Threatened. Utah prairie dog populations have continued to show the annual variability typical of the species, yet have maintained a stable to increasing trend since 1976, reaching an all-time high in 2015 and remaining high since then. Count totals have shown an average annual increase of 7% throughout the past 10 years. As of 2018, approximately 6,000 adult Utah prairie dogs occupied habitat on federal and protected non-federal lands, and approximately 12,000 adult Utah prairie dogs occupied habitat on non-protected lands.

Statement of Habitat Needs and Threats to the Species.

Habitat Needs

This species prefers topographical swales, where moist herbaceous vegetation is available even during drought periods. Grasses and forbs are preferred food items during all seasons, and prairie dogs appear to forage selectively rather than choosing foods in proportion to their availability. Vegetation quality and quantity are important in helping prairie dogs survive hibernation, lactation, and other high nutrient demand times. Plant species richness correlates with increased weight gain, higher juvenile to adult ratios, and higher animal densities.

Utah prairie dogs will avoid areas where brushy species dominate, and will eventually decline or disappear in areas invaded by brush. Open habitats are important for foraging, visual surveillance to escape predators, and intraspecific interactions. Prairie dogs need well-drained soils with depths over three feet, for burrowing. Burrows provide the prairie dog with protection from predators and insulation from environmental extremes. Soil color may aid in disguising prairie dogs from surface predators and thus may be an added survival factor.

Threats to the Species

Urban expansion across the range of the Utah prairie dog was one of the initial ESA listing factors and continues to be a threat to the species. Nearly 70% of all known Utah prairie dogs occur on private lands, many of which face residential or industrial development. The predominant effects of urban expansion are twofold: the permanent destruction of habitat, and the permanent fragmentation and isolation of remaining habitats.

Sylvatic plague occurs across the entire range of Utah prairie dog, and is a primary threat to the species' survival and conservation. The disease has the potential to cause complete colony collapses or severe reduction in colonies across the landscape (epizootics), and to create chronic problems that could limit growth rates of Utah prairie dog populations (enzootics). Management tools, including the development of a vaccine and dusting burrows with insecticides, continue to evolve to address plague.

The climate in southern Utah has become progressively drier over the last several thousand years, which has led to the gradual transition of grass-dominated ecosystems to those dominated by shrubs. Poor grazing systems can accelerate plant community succession from herbaceous to woody dominance, favoring shrubs by reducing fire frequency and competition from herbaceous plants. Continued vegetation shifts may result in reduced prairie dog habitat quantity and quality, and can reduce overall suitability for prairie dogs. Indirectly, drought and climate change may increase the expansion of invasive plants, particularly cheatgrass, affecting Utah prairie dog recovery. Impacts from drought also include loss of succulent vegetation that is necessary for Utah prairie dog abundance (Crocker-Bedford and Spillett 1981). Periods of drought have been a key factor in the historical loss and drastic decline of some Utah prairie dog colonies, particularly at lower elevations with consequently drier vegetation conditions

(Collier and Spillett 1975). Roughly three quarters of all Utah prairie dogs occur in the West Desert Recovery Unit, which is more susceptible to extended periods of drought. The majority of these animals rely heavily on irrigated private lands.

An ongoing population viability analysis may provide updated information as to the severity of the listed threats to Utah prairie dogs.

Table 2. Summary of a Utah threat assessment and prioritization completed in 2014. This assessment applies to the species' entire distribution within Utah. For species that also occur elsewhere, this assessment applies only to the portion of their distribution within Utah. The full threat assessment provides more information including lower-ranked threats, crucial data gaps, methods, and definitions (UDWR 2015; Salafsky et al. 2008).

Utah Prairie Dog
Very High
Disease – Alien Organisms
High
Commercial and Industrial Areas
Droughts
Habitat Shifting and Alteration
Housing and Urban Areas
Medium
Excessive Harvest – Unregulated / Illegal
Invasive Plant Species – Non-native
Loss of Genetic Exchange / Inbreeding

Rationale for Designation.

The Utah prairie dog remains a conservation-reliant species that is listed as Threatened under the ESA. Current management actions and regulations for Utah prairie dogs have reduced the severity of some threats, but recovery and delisting require ongoing conservation effort. The 2012 recovery plan lists recovery objectives, and the Utah Prairie Dog Oversight Group coordinates recovery activities for the species.

Economic Impacts of Sensitive Species Designation.

The ESA listing of Utah prairie dog has led to significant regulatory burdens for landowners in southwestern Utah. This has included restrictions on residential, commercial, and industrial development, dealing with agricultural damage, and preventing human health and safety concerns. As such, there is great animosity by many towards the Utah prairie dog and the ESA in general. To ease regulatory burden, the UDWR works with the USFWS to administer a 4(d) rule, which authorizes 1) lethal take of Utah prairie dogs where they cause conflicts with

agricultural uses or human health and safety, and 2) a General Conservation Plan to allow for incidental take associated with development while minimizing and/or mitigating threats to the species. Significant time and state funds are invested in administering those programs as well as working toward recovery and delisting of the species.

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