Frequently Asked Questions
Regarding the U.S. Fish and Wildlife Service's
12-Month Finding on a Petition to List the Gunnison's Prairie Dog (*Cynomys gunnisoni*)
as Threatened or Endangered under the Endangered Species Act

November 13, 2013

What is the Service's finding regarding the status of the Gunnison's prairie dog?

Following a thorough review of the best available scientific and commercial information, we find that listing *Cynomys gunnisoni gunnisoni* or *C. g. zuniensis*, two recognized subspecies of the Gunnison's prairie dog, as threatened or endangered subspecies under the Endangered Species Act (Act) is not warranted at this time.

How did the Service make this decision?

We identified and evaluated risks from the present or threatened destruction, modification, or curtailment of the habitat or range of the Gunnison's prairie dog subspecies, including agricultural land conversions, grazing, invasive plants, urbanization, and oil and gas development. While these factors may reduce or fragment habitats, they impact only small portions of the range, occur locally, and are not significant threats to either subspecies.

Sylvatic plague, an exotic disease caused by the bacterium responsible for the Black Death in medieval Europe, impacts Gunnison's prairie dog populations throughout the range of both subspecies. However, Gunnison's prairie dog colonies persist and populations are stable in their post-plague environments, which demonstrates a rangewide resiliency to the disease. The Gunnison's prairie dog has life history characteristics such as increased reproductive rates within small populations and an ability to recolonize, which allow the subspecies to persist following plague outbreaks. Climate change and management actions, such as dusting with insecticide and a plague vaccine, may decrease the frequency and intensity of plague outbreaks in the future. Therefore, plague is not a significant threat to either *Cynomys gunnisoni gunnisoni* or *C. g. zuniensis*.

Although recreational shooting and poisoning kill individuals and may reduce populations, especially in easily accessible colonies, they occur locally and do not significantly threaten *Cynomys gunnisoni gunnisoni* or *C. g. zuniensis*.

Additionally, ongoing conservation efforts by our partners, primarily the State Game and Fish Agencies, have contributed to the Gunnison's prairie dog's rangewide stability. Conservation efforts have effectively reduced population losses from plague and recreational shooting.

What prompted this 12-month finding and what does it do?

We initiated this review in response to a petition from WildEarth Guardians to list the Gunnison's prairie dog as a threatened or endangered species under the Act. This 12-month

finding evaluated the best available scientific and commercial information regarding the Gunnison's prairie dog, including information provided in the petition. Our review determined that the Gunnison's prairie dog should not be added to the Federal list of Threatened and Endangered species at this time. This action also removes the Gunnison's prairie dog from our candidate species list.

How does the Service determine whether a species is endangered or threatened?

Under the Act, the term "endangered species" means any species in danger of extinction throughout all or a significant portion of its range. The term "threatened species" means any species at risk of becoming an endangered species within the foreseeable future throughout all or a significant portion of its range.

We determine whether a species is endangered or threatened based on one or more of the following five factors:

A. The present or threatened destruction, modification, or curtailment of its habitat or range;
B. Over utilization for commercial, recreational, scientific, or education purposes;
C. Disease or predation;
D. The inadequacy of existing regulatory mechanisms; or
E. Other natural or manmade factors affecting its continued existence.

The assessment of these factors is required to be based on the best scientific and commercial data available.

What does the Gunnison's prairie dog look like?

Prairie dogs are ground-dwelling rodents unique to North America, so named for their doglike "barks" and distribution across the prairie from Canada to Mexico. The Gunnison's prairie dog is one of five prairie dog species in the Sciruidae family, which includes squirrels, chipmunks, marmots, and prairie dogs. The four other prairie dog species are the black-tailed, white-tailed, Utah, and Mexican prairie dogs. Gunnison's prairie dogs look very similar to the black-tailed and white-tailed prairie dogs.

Gunnison's prairie dog fur is yellow-buff colored intermixed with blackish hairs. Fur on the head, sides of the cheeks, and eyebrows are noticeably darker than the rest of the body (Figure 1). Adult Gunnison's prairie dogs vary in length from 12 to 15 inches and weigh between 1.4 to 2.6 pounds. Males are slightly larger than females. The Gunnison's prairie dog is slightly smaller than the black-tailed prairie dog, but larger than the Utah prairie dog, and distinguished by its darker body and shorter, grayish-white tail.

Figure 1. Gunnison's prairie dogs are yellow-buff colored and live in underground colonies. Photo credit: FWS/Craig Hansen.

Where and how does the Gunnison's prairie dog live?

The Gunnison's prairie dog occupies a variety of gently sloping, semi-desert grasslands and intermountain, shrub-steppe valleys in the southern Rocky Mountains of northern Arizona, southwestern and south-central Colorado, northwestern New Mexico, and southeastern Utah. Elevations where Gunnison's prairie dogs live range from 6,000 to 12,000 feet.

Gunnison's prairie dogs primarily eat grasses, but will occasionally eat forbs, sedges, and shrubs. Gunnison's prairie dogs dig their own underground burrows for resting, breeding, and hibernating. Gunnison's prairie dogs are very social animals and live in family groups called clans and adjacent clans form a colony. Members of the clan defend territories within the colony and make special calls, or "barks," to warn other members about incoming predators.

What are population sizes and trends of the Gunnison's prairie dog?

Estimating populations of Gunnison's prairie dogs is notoriously difficult because prairie dogs spend time underground, are difficult to count, and populations fluctuate seasonally in response to a variety of factors, such as annual precipitation. Densities of Gunnison's prairie dogs also range widely, with anywhere from 2 to 23 individual prairie dogs per acre (5 to 57 per hectare).

In the past, Gunnison's prairie dog populations experienced significant historical declines. Between 1916 and 1961, poisoning campaigns and sylvatic plague, an exotic disease caused by the same bacterium responsible for the Black Death in medieval Europe, resulted in a 95 percent

decrease in habitats occupied by the Gunnison's prairie dog. However, historical declines do not necessarily mean that current populations are declining.

Today, the Gunnison's prairie dog does not occupy the same amount of habitat that it historically occupied before the arrival of sylvatic plague. Populations have increased in some areas or remained low or absent in others. Current mapping surveys estimate that the Gunnison's prairie dog occupies a minimum of 9,108 acres in New Mexico, approximately 40,000 acres in Utah, 182,237 acres in Colorado, and a minimum of 109,402 acres on non-Tribal lands in Arizona. The Navajo Nation and Reservation of the Hopi Tribe in Utah, Arizona, and New Mexico supports approximately 253,567 acres (102,615 hectares) of active Gunnison's prairie dog colonies.

New occupancy data reveal that the Gunnison's prairie dog occupies approximately 20 percent of its potential habitats rangewide, which provides enough population redundancy to recolonize or establish new colonies. The occupancy data indicate that Gunnison's prairie dog populations for both subspecies and within individual population areas are stable and are not declining.

Did the Service recognize and evaluate subspecies of the Gunnison's prairie dog?

Yes. New genetic data confirmed that there are two taxonomically distinct subspecies of Gunnison's prairie dog: (1) *Cynomys gunnisoni gunnnisoni* found in the northeastern part of the species' range in south-central Colorado and northeastern New Mexico; and (2) *C. g. zuniensis* found in the southwest part of the species' range in southeastern Utah, southwestern Colorado, northwestern New Mexico, and northeastern Arizona. The ranges of the subspecies correspond roughly to the "montane" and "prairie" ranges described in our previous 12-month review that we published in the **Federal Register** on February 5, 2008 (73 FR 6660). Based on this new genetic data, we recognized both subspecies of the Gunnison's prairie dog as listable entities and evaluated whether either subspecies warranted listing under the Act.

Is plague worse in any one area?

Plague occurs throughout the range of *Cynomys gunnisoni gunnisoni* and *C. g. zuniensis*. However, we found no evidence that plague impacts one subspecies more than the other or is more frequent or more intense within any portion of either subspecies' range. Plague historically reduced or eliminated large populations of both subspecies, but new occupancy trends for both subspecies indicate that populations are stable and not declining. Both subspecies have demonstrated resiliency to the disease.

Previously, we reasoned that plague affected *Cynomys gunnisoni gunnisoni* more than *C. g. zuniensis* due to its moister, higher-elevation habitats that supported more plague-transmitting fleas. However, new research reveals that fleas are not the sole instigators behind plague outbreaks, so an abundant flea population does not necessarily make plague worse or more frequent for *C. g. gunnisoni*. Although the mountainous topography of *C. g. gunnisoni's* higher elevation habitats may isolate colonies and worsen plague by hindering recolonization after a plague outbreak, isolation also protects colonies by reducing transmission rates. Additionally,

dusting *C. g. gunnisoni* colonies with insecticide has effectively reduced and prevented plague outbreaks. Therefore, plague does not impact *C. g. gunnisoni* more than *C. g. zuniensis*.

What is currently being done to conserve the Gunnison's prairie dog?

Our partners, especially the State Fish and Game Agencies in Colorado, New Mexico, Arizona, and Utah, have successfully implemented measures to conserve the Gunnison's prairie dog. All four States completed occupancy surveys and modeling, which reveal that population trends are stable. To prevent and reduce plague outbreaks, our partners dusted colonies with insecticide and are actively researching a plague vaccine, which may be an effective tool to reduce plague in the future. Additionally, shooting closures in Colorado, Utah, and Arizona have reduced population declines caused by recreational shooting. The Gunnison's prairie dog is stable across its range due largely to these ongoing conservation efforts.

Why should I care about the Gunnison's prairie dog?

Prairie dogs are essential to the health of the North American prairie. They are the primary food source for many prairie carnivores, such as the endangered black-footed ferret or ferruginous hawk. Additionally, up to 200 different prairie species, including the burrowing owl and the black-footed ferret, depend on prairie dog burrows for shelter to rest, hibernate, or raise their young. When prairie dogs dig their burrows, they also influence the structure and chemistry of dry, flat prairie soils, and may improve the condition of forage for other herbivores and livestock.

Where can I find more information?

A copy of our 12-month finding and other information about the Gunnison's prairie dog is available on the Internet at our websites:

http://www.fws.gov/mountain-prairie/species/mammals/gunnisonprairiedog/
http://ecos.fws.gov/speciesProfile/profile/speciesProfile.action?spcode=A0IB

You may also obtain more information by contacting the Colorado Field Office at P.O. Box 25486, Denver, Colorado 80225–0486 (telephone 303–236–4773; facsimile 303–236–4005). The 12-month finding is published in today's *Federal Register* and available online at https://federalregister.gov/a/2013-27196.