

MANAGEMENT OF BLACK-TAILED PRAIRIE DOGS ON FISH AND WILDLIFE SERVICE LANDS

November 24, 2003

The Service determined in February 2000 that the black-tailed prairie dog (*Cynomys ludovicianus*) was warranted for listing under the Endangered Species Act as threatened, but listing was precluded by other higher priority species. The black-tailed prairie dog is now a Candidate Species. Conservation and management of them on Service lands should serve as a role model for others to follow. These guidelines were assembled to help biologists and managers on Service lands, especially Refuges, with the often controversial management of prairie dogs.

Promoting Prairie Dogs

In the absence of plague, poisoning, habitat conversion (e.g. cultivated crops or subdivisions) or recreational shooting, prairie dogs usually have little trouble establishing or maintaining viable populations in appropriate habitats if source populations are present. Nonetheless, there are many situations and circumstances where promoting prairie dog establishment or expansion is a management goal. A variety of techniques are available and include, but are not limited to:

- Halting poisoning, shooting or habitat modifications.
- Grazing, burning or mowing when vegetation height is limiting.
- Translocation to establish prairie dogs in desired areas. Certain procedures greatly increase the success of such programs, and contacts listed below should be consulted.
- Control or prevention of plague. Currently, flea control with insecticides (e.g. dusting burrows with Delta Dust) is the only method available. Information and contacts below should be consulted for details.

Managing Plague

Plague is an exotic disease to which prairie dogs have little, if any resistance. It was introduced on the west coast and has migrated eastward over decades to approximately the 100th meridian. Currently, plague has not been observed in the eastern part of the black-tailed prairie dog range. Many mammals (e.g. mice, ground squirrels, badgers, coyotes, etc.) may contract plague and/or serve as hosts or vectors for spreading plague-harboring fleas. Humans can contract plague through exposure to an infected animal or the bite of infected fleas. Fleas may be encountered directly from contact with prairie dogs or their burrows or indirectly from other animals or a pet that has picked up plague-infected fleas. Plague should be suspected if there is a sudden drop in prairie dog activity on a colony. If plague is suspected:

- Keep employees and visitors away from the area.
- Don't poison the prairie dogs to treat the disease. They will probably already be dead.
- Dust all burrows of the infected colony and nearby colonies with an insecticide (e.g., Delta Dust) to kill plague-harboring fleas.
- Post signs to visitors
 - advising them of the presence of plague on the prairie dog colony;

- advising them that their risk of contracting the disease is very low and that the disease is treatable;
- advising them to stay away from area colonies (plague can spread quickly);
- requiring them to keep pets on a leash or otherwise restrained and to keep them off prairie dog colonies;
- advising them that if they become ill with flu-like symptoms, they should inform their doctor that they may have been exposed to plague. Plague is treatable with antibiotics once diagnosed.
- Inform adjacent landowners with prairie dogs of the problem.
- Report the outbreak to the Regional prairie dog biologist for Refuges.
- Confirmation of plague through testing of recovered prairie dog carcasses or through flea collections is recommended. Sample collection should only be done after consultation with the Center for Disease Control (Dr. Ken Gage 970-221-6450 or Leon Carter 970-221-6444) or one of the contacts listed below. Consult the Center for Disease Control web site for more information at <http://www.cdc.gov/ncidod/dvbid/plague/index.htm>

Deterring Prairie Dogs

Prairie dogs prefer a habitat of low, herbaceous vegetation, such as lawns and native grassland or rangeland, especially if disturbed. To deter prairie dogs from occupying areas where they are not desired:

- Do not mow, graze or burn the area.
- Plant or encourage the growth of taller and/or woody vegetation.
- Erect a visual barrier around the area you wish to protect. A visual barrier is a low, opaque fence that prairie dogs hesitate to cross because they cannot see through it. Information on erecting a visual barrier can be found at the City of Boulder, Colorado web site at http://www.ci.boulder.co.us/openspace/nature/pdogs_management.htm#fencing. Any material that withstands light and precipitation can be used for the barrier. Reef Industries is the manufacturer of Griffolyn, which they promote for use as prairie dog barriers at <http://www.reefindustries.com/grifflyn.html> or 800-231-6074.

Controlling Prairie Dogs

Per the April 9, 2002 Director's clarification Memorandum, there are two situations where take of prairie dogs may be allowed on Service lands:

1. The Service's Office of Safety and Occupational Health states in writing that human health or safety is a problem or has the potential to be a problem in the near future. Safety and Occupational Health will specify the problem and hazard area. Prairie dog take will be permitted only to remedy the identified problem(s). When prairie dog take is necessary, the objective will be to eliminate the health or safety problem while mitigating the loss by increasing occupied acres of prairie dogs elsewhere on Service or other lands in coordination with the State wildlife management agency. Those increases will be at least commensurate with the area of reduction.

2. Take, specifically live capture, is permitted to translocate prairie dogs for the purpose of increasing prairie dog abundance. Such take will be conducted at a level to have minimal impacts on the source population. No more than 30 percent of the source population can be translocated annually without approval of the Regional prairie dog biologist for Refuges. Translocations from Service lands to non-Service lands, or from non-Service lands to Service lands, will be coordinated with and authorized by the appropriate State wildlife management agency.

In both of these situations, live trapping for translocation is the primary method to increase prairie dog occupied areas or modify their distribution. There are numerous considerations in conducting translocations that should be evaluated in an Environmental Assessment (if appropriate), be considered in Service management planning documents and coordinated with State Wildlife Agencies, Tribes and/or other Federal land management agencies. Prairie dog translocation considerations are well summarized in Truett, et. al (2001).

A plan should be developed stating the purpose and objective of conducting prairie dog translocations, how the project will be accomplished and how results will be monitored. Some of the things to consider in the plan are listed below. Draft plans will be reviewed by the Regional Refuge prairie dog biologist prior to final management approval in the Regional Office.

1. Purpose, objectives and monitoring.
2. Permits and local/State management coordination.
3. Methods
 - Release site selection and preparation, soft-release techniques, source population (see references)
 - Animal capture, handling, transport and care (live trapping, vacuum truck, quarantine, feeding, etc.)
 - Prairie dog and predator management at release site (minimum number to translocate, prairie dog containment at release site, electric fence exclusion of predators, etc.)
 - Plague management/considerations (human and animal), flea management (burrow dusting with Delta Dust to reduce flea populations, dust prairie dogs with permethrin-based flea powder or carbaryl (Sevin) to kill fleas, personnel briefed on possible plague exposure - see the Center for Disease Control web site at <http://www.cdc.gov/ncidod/dvbid/plague/index.htm>).
4. Monitoring
 - Colony mapping (GPS), prairie dog density (Severson and Plumb, 1998), plague, fleas, measure of objective achievement, reporting, etc.

Those involved with prairie dog management are encouraged to contact the people listed below who have extensive experience with prairie dogs as well as the following references.

Information Sources

Refuge Contacts:

Randy Matchett, Charles M. Russell NWR, 406-538-8706 x-227, randy_matchett@fws.gov

JoAnn Dullum, Charles M. Russell NWR, 406-538-8706 x-225, joann_dullum@fws.gov

Web sites:

http://www.ci.boulder.co.us/openspace/nature/pdogs_management.htm#relocating

http://www.ci.boulder.co.us/openspace/nature/pdogs_management.htm#fencing

<http://www.cdc.gov/ncidod/dvbid/plague/index.htm>

<http://www.reefindustries.com/grifflyn.html>

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