

PRAIRIE DOG CONSERVATION TEAM

Representing the states of Arizona, Colorado, Kansas, Montana, New Mexico,
North Dakota, Oklahoma, South Dakota, Texas, Utah, and Wyoming

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30 March 2012

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Dear Michael,

I am writing the U.S. Fish and Wildlife Service (Service) to provide an update on the prairie dog conservation efforts associated with the Western Association of Fish and Wildlife Agencies (WAFWA) Memorandum of Understanding for the *Conservation and Management of Species of Conservation Concern Associated with Prairie Ecosystems* (MOU). This MOU was implemented by WAFWA in January 2006, and was unanimously voted to continue for another five years at the January 2011 mid-winter WAFWA meeting. The participating agencies agree that cooperation is necessary to collect and analyze data on grassland dependent species and their habitats, and to plan and implement actions necessary to establish and/or maintain viable populations of each species that are sufficient to preclude present or future endangerment, within the constraints of approved budgets and authorities. This letter summarizes prairie dog conservation activities for calendar year 2011.

PRAIRIE DOGS IN GENERAL

POPULATION MONITORING UPDATE

Since 1999, many States have developed State-specific management plans and strategies towards achieving prairie dog related conservation goals that include population monitoring. Prior to these efforts, prairie dogs had not received much attention with regard to population inventory and monitoring and no systematic or consistent methods for managers were in use. Consequently, several methods have been developed for monitoring prairie dog species found in each State, especially for black-tailed prairie dogs (BTPD). In 2007, all States within Gunnison's prairie dog (GPD) range agreed to use occupancy surveys and modeling and several states began using this approach for white-tailed prairie dogs (WTPD) as well. In addition to occupancy surveys and modeling, other current survey methodology ranges from aerial transects and ground surveys to use of satellite imagery. Not all methods provide repeatable, statistically valid estimates of the parameters of interest and are not comparable among States.

At the November 2008 the Prairie Dog Conservation Team (PDCT), decided to convene an evaluation board to review prairie dog survey methodologies and decide on the implementation

Mr. Michael Thabault
Re: 2011 Prairie dog conservation efforts
March 30, 2012
Page 2 of 16

of one consistent approved strategy. On January 25-28, 2010 a survey methodology workshop was held in Fort Collins, Colorado. The meeting was facilitated by Dr. Lee Lamb of *Negotiation Guidance Associates*. Dr. Michael Hutchins, Executive Director of *The Wildlife Society*, provided opening remarks. This workshop took an interactive approach where WAFWA partners and interested parties presented their survey methodology to an evaluation board (Board). The Board consisted of 6 members. They were the late Dr. Warren Ballard, Texas Tech University, Dr. John Koprowski, University of Arizona, Dr. Dave Otis, Iowa Cooperative Fish and Wildlife Research Unit at Iowa State University, Dr. Lyman McDonald, Western EcoSystems Technology, Inc., Dr. Thomas Stanley, U.S. Geological Survey, and Dr. Dean Biggins, U.S. Geological Survey. The intent was to have participants follow an agreed upon presentation and homework format, which was sent to the board prior to the workshop for review. After the presentation, a dialog occurred between the presenter and the evaluation board to answer any questions about the methodology. While all the states were able to send the informational homework, only 9 out of 12 states were able to directly participate in the workshop and present information on their survey methodologies.

In May 2011, the evaluation board, under the guidance of the USGS, produced a report entitled *Recommended methods for range-wide monitoring of prairie dogs in the United States*. While the Board recommended the survey method already being employed by nearly all the states within the range of the Gunnison's and white-tailed prairie dogs, the board made a new range-wide recommendation for a BTPD survey method. However, before being fully implemented by partners, the Board identified several action items to be completed before moving forward. These actions included:

1. Formally define a rigorous and biological meaningful definition of a BTPD colony.
2. Convene a panel of experts to prepare written guidelines or document to train map interpreters on detecting potential PD colonies from NAIP imagery.
3. Formalize guidelines on how to circumscribe features using NAIP Imagery.
4. Convene a panel of experts to prepare written guidelines or documents to guide aerial surveyors on the classification of features as null, occupied, or unoccupied.

There were 2 other objectives requiring actions but did not influence the survey method directly. The Board did not feel as though they had adequate information to conduct a robust cost analysis. Only a simplistic analysis was done tabulating costs provided by the states. In general, the average cost of imagery type surveys cost half as much as aerial transecting (\$49,500 vs. \$109,000). The Board recommended the states conduct their own cost analysis to determine which is better for their State. The other action was to better articulate objective 6 from the Multi-state conservation plan for the BTPD. This objective is:

Mr. Michael Thabault
Re: 2011 Prairie dog conservation efforts
March 30, 2012
Page 3 of 16

5) Maintain distribution over at least 75% of the counties in the historic range or at least 75% of the historic geographic distribution.

Finally, there were two optional recommendations made by the Board. One was to evaluate the probability of detection of burrows and scat and correct classification of scat (fresh or not) during ground surveys and retaining the services of a statistician to critique state specific methods being used as it relates to the multi-state plan for BTPDs.

At their annual meeting in July, the WAFWA Directors directed the WAFWA Grassland Coordinator (WGC) to address the four action items in the Board's recommendation. At the most recent PDCT meeting held in Fort Collins, Colorado on January 24, 2012, two work groups were formed to begin working on action items 1 and 2.

In addition, Montana is conducting additional survey efforts evaluating the use of NAIP Imagery. Digitization efforts of 2005 imagery identified 8,852 potential BTPD colonies that ranged in size from 2.5 acres to 2,945 acres; 2,598 (29%) of these had previous confirmation of prairie dog activity in the immediate area. Potential colonies were identified in 8 counties that do not have previously confirmed observations of prairie dogs. However, it is important to note that estimates of acreage for areas with recent evidence of prairie dog activity are biased high by an unknown magnitude because other ground features, such as ant mounds and Richardson's Ground Squirrel (*Spermophilus richardsonii*) burrows, have likely been misinterpreted as evidence of recent prairie dog activity. Similarly, only a portion of each individual grid cell had to show evidence of recent prairie dog activity to be coded as such. Ground truthing is needed to correct for these biases.

BLACK-TAILED PRAIRIE DOGS

I am pleased to report the states have met, or exceeded the first three objectives of the Multi-State Conservation Plan for the BTPD in the United States" (MSCP; Luce 2003) and are currently working on the three distributional goals identified in the plan. The current acreage estimate for BTPDs in the United States stands at 2,276,318 acres (Table 1). Notable additions include up to date information for Texas and New Mexico. For Texas, they noted a 9% decrease in their priority areas from 2005 to 2010. However, they also report having a complex that encompasses 25,000 acre. For New Mexico, they estimated a total of 41,000 acres using 2005 imagery. This includes 39,888 acres in eastern NM and 1,000-2000 in the Otero Mesa area. In 2011 Oklahoma began conducting a NAIP imagery based survey using the information from the 2010 workshop. However, they were only able to complete 15% of their ground-truthing in 2011, and with funding from the 2009 Competitive State Wildlife Grant received by WAFWA in 2009, anticipate completing the effort in 2012. In 2012, KS is also going to conduct their state-wide survey suing the recommendation from the workshop.

Mr. Michael Thabault
Re: 2011 Prairie dog conservation efforts
March 30, 2012
Page 4 of 16

Besides the United States, Canada and Mexico also continue to report on their BTPD populations. In 2011, Canada reported 2088 occupied acres in 18 colonies within 15 miles of the international border, which is down ~30% from the high in 2009. The loss is contributed to drought and plague outbreaks. Dusting, which began in 2010, appears to have mitigated continued losses. BTPD were recommended for up-listing to Threatened in Canada due to vulnerability of the species in Canada. The last acres reported by Mexico were in 2009 and were in association with their black-footed ferret project. At that time, the Janos-Casas Grandes Complex consisted of 91 BTPD towns, ranging in size from 5 to 15,518 acres (with the largest town being fragmented and sparsely populated). Overall, the prairie dogs colonies covered a surface of 36,561 acres. Also, a biosphere reserve was created in the area to protect this important ecosystem.

It should be noted that even though the survey methods used by the state wildlife agencies between 1999 and 2011 were not uniform across the species range, this is the best available estimate of occupied acreage. While PDCT recognizes that the difference in occupied acreage between 1961 and 2011 does not represent a true measurement of trend, but reflects better and more intense survey methods, the more recent trend (2002-2011) for the species appears to be stable to upward across the BTPD range. While decreases were observed and anticipated by some states (OK and TX), other states anticipate or have recorded increases. For example, results from Colorado's survey effort empirically documented a 29% increase since 2002 and SD has seen an increase from 412,122 acres in 2003, to 625,410 acres in 2006, to 630,849 acres in 2008.

Other notable activities include Arizona continuing their reintroduction efforts for BTPD within the Las Cienegas National Conservation Area (LCNCA). In October 2011, for the first time, biologists released BTPDs from Mexico. The AGFD and Mexico's Comisión de Ecología y Desarrollo Sustentable del Estado de Sonora (CEDES) released 60 individuals to the three existing sites in the LCNCA to bring genetic diversity to existing colonies. The animals came from colonies in Sonora, Mexico that had first been studied to ensure the population numbers were adequate, and the population was stable. In addition to Arizona, Thunder Basin National Grasslands (TBNG), Wyoming, along with non-governmental organizations moved 899 BTPD that were potentially encroaching from TBNG boundaries. These animals now occupy 286 acres.

As a result of this trend information and proactive conservation actions, it is the view of the PDCT this factor still has not rose to the level of a threat. As before, the PDCT will continue range wide monitoring that will provide a population trend over time, and if necessary, allow managers to adjust management. Please see Table 1 and Figure 1 for the best available occupied acreage estimates as of December 2011.

Mr. Michael Thabault
Re: 2011 Prairie dog conservation efforts
March 30, 2012
Page 5 of 16

GUNNISON'S PRAIRIE DOGS

In January 2007, the PDCT agreed that the GPD states would implement an Occupancy Model methodology (Appendix B in the GPD conservation plan) developed and tested by Colorado Division of Wildlife (Now Colorado Parks and Wildlife (CPW)). All the states correctly implemented this monitoring strategy in 2010 and the data was analyzed and reported by CPW in 2011 (see attached report). They reported 921 plots were sampled to develop a baseline range-wide occupancy of 0.200 (Credible Intervals (CI) = 0.080 – 0.290) for the GPD. A total of 88,891 plots of the potential 444,451 in the range-wide sampling frame were estimated to be occupied (CI = 71,536-108,512). Estimated occupancy probabilities ranged from 0.048 in South Park of Colorado to 0.369 in Region 3 of Arizona. The estimated number of occupied plots varied from 1188 in Utah to 52,509 in New Mexico.

In addition to the occupancy monitoring, in 2011 Arizona mapped GPD colonies throughout Arizona similar to what was done in 2007. Arizona found 109,402 acres of GPD, which included more detailed mapping in Aubrey Valley and Espee Ranch in association with their black-footed ferret reintroduction efforts. This is up slightly from the mapping completed in 2007, which mapped 108,353 acres. This increase is encouraging despite documenting significant plague die-offs. At the Espee reintroduction site GPD occupancy decreased from about 8000 acres in 2009 to about 1200 acres in 2010. In 2011, only the northern part where ferrets have been released was mapped by Arizona. The total acreage in 2011 was 2278 acres. While, the area appears to be recovering from the recent plague event, GPD continue to be low. Arizona also mapped the Aubrey Valley GPD Complex using a density mapping method. In 2011, it was estimated to be 53,988 which is a slight increase over past estimates.

As reported last year, the Navajo and Hopi Nations completed a survey effort and in 2010 reported an estimate of 102,615 ha (253,566 acres) active areas by GPD on their reservations (see attached report). The tribes used standard interpretive techniques to survey 1,654 digital orthophoto quarter quads (DOQQs) for ground disturbance caused by GPD. The surveyed area covered 7,944,363 ha (1,963,027 acres).

As a result of this trend information and proactive conservation actions, it is the view of the PDCT this factor still has not rose to the level of a threat. As before, the PDCT will continue range wide monitoring that will provide a population trend over time, and if necessary, allow managers to adjust management.

WHITE-TAILED PRAIRIE DOGS

Since the original pilot study in 2003, Colorado has completed 3 years of occupancy surveys for WTPDs (2004, 2008, 2011). Results from the surveys found WTPDs occupying 24.1% (Standard

Mr. Michael Thabault
Re: 2011 Prairie dog conservation efforts
March 30, 2012
Page 6 of 16

Error [SE] = 12.8) in 2004, and 23.1% (SE = 2.1) in 2008, of 47,710 0.25-km² plots. The 2011 data has not been analyzed.

Utah also uses the occupancy-model survey to monitor their WTPDs. Utah's first survey effort using this method was in 2008. WTPD's were detected on 76 of 164 plots with an observed occupancy rate of 46% and ψ of 0.465 (S.E. = 0.039). On 64 plots prairie dogs were detected on both visits and on 12 plots only during one visit. Probability of detection (p) was estimated at 0.913 (S.E. = 0.025). The estimated number of occupied plots in Utah was 12087 (S.E. = 1020). Inclusion of elevation resulted in little improvement to the model.

In 2011, WTPD's were detected on 89 of 163 plots with an observed occupancy rate of 55% and ψ of 0.55 (S.E. = 0.039). On 73 plots, prairie dogs were detected on both visits and on 16 plots only during one visit. Probability of detection (p) was estimated at 0.901 (S.E. = 0.025). The estimated number of occupied cells in Utah was 14,335 (S.E. = 1027). The statistics were generated from a model with 1 group and detection probabilities not time specific. The model with 1 group and detection probability time specific improved the AIC score from 334.61 to 332.43 (Δ AIC = -2.18). In the Southeastern Region WTPD's were observed on 32 of 69 (46%) of the plots, in the Northern Region 5 of 9 (56%), and in the Northeastern Region 52 of 85 (61%) of the plots.

The lowest elevation where WTPD's were detected was 1,264 m and the highest 2099 m. Of the plots, (32%) of the center points were classified as on private land and 116 (68%) were on federal or state-owned land. The model used to define the sample universe performed acceptably. Observers may not have used the criteria correctly but did report suitability status of all plots. They classified 119 (73%) as suitable, 30 (18%) as marginal and 14 (9%) as unsuitable.

WTPD's remain widely distributed and abundant within their range in Utah. The percentage of occupied plots increased in all 3 Regions. Since 2008, the estimated number of occupied cells increased from 12087 (S.E. = 1020) to 14335 (S.E. = 1027). The detection probability was invariant in 2011 compared to 2008, which suggests that the occupancy methodology will be very suitable for long-term monitoring.

The first estimate of prairie dog abundance in Wyoming and other states was completed in part due to a growing concern that prairie dogs were becoming rare due to the high success of poisoning campaigns (US Bureau of Sport Fisheries and Wildlife 1961). In 1961, only 15,410 acres (6,236 ha) of WTPD colonies were estimated to remain in Wyoming (US Bureau of Sport Fisheries and Wildlife 1961). A decade later, a second attempt was made to estimate abundance in Wyoming and 45,702 acres (18,494 ha) of WTPD colonies were recorded (Clark 1973). When strychnine was banned in 1972, federally subsidized poisoning campaigns were halted, and the WTPD escaped additional persecution. The WTPD occurs primarily on federal lands managed by the Bureau of Land Management. Consequently, these federal lands served as refuge for the

Mr. Michael Thabault
Re: 2011 Prairie dog conservation efforts
March 30, 2012
Page 7 of 16

WTPD during the next 15-20 years that followed the ban of strychnine. By the mid 1990s WGFD with the help of private consultants, University of Wyoming, had begun to inventory and map what was perceived as the "best available" habitat for the black-footed ferret in Wyoming. During this effort 385,988 acres were mapped from the ground and air. In 2004-2006 several small portions of the Shirley Basin/Medicine Bow WTPD complex were mapped for ferret management purposes. Overall the complex has increased by >18K acres in portions Wyoming has been monitoring and mapping since 1991. However, no other efforts were made to estimate abundance statewide until 2007-08.

In 2007, Wyoming began selecting survey quadrants with the objective of implementing the same survey method as Colorado and Utah. However, the survey protocol was costly and not compatible with aerial survey methods. As part of Wyoming's evaluation process, data on presence and status of colony was collected for analysis. This pilot study enabled Wyoming to develop an alternative approach using aerial photos and surveys to develop a robust estimate of occupied area with confidence intervals. The technique follows statistical measures developed by Cochran (1977), Skalski (1994) and Bowden et al. (2003). In 2008, Wyoming flew 600 quadrants (500m X 500m), estimated area occupied within each quadrant, and evaluated the status of each colony present. .

In Wyoming, WTPD colonies were present on 272 (68 %) quadrants. There were 206 quadrants (76 %) that had colonies that extended beyond the quadrant. Of the 272 colonies overlapping quadrants, 228 (84 %) were classified as healthy. Additional WTPD colonies were recorded within 1,500 m of the 600 quadrants 64 % (256) of the time. The mean size of quadrants in the high stratum was 24.97 ha (61.71 ac) and the mean in the low was 24.86 ha (61.43 ac). Quadrants in the high stratum had a mean of 3.68 ha (9.1 ac) WTPD colony area while those in the low stratum had a mean WTPD colony area about half (mean = 1.68 ha [4.15 ac]). The habitat model used (Seglund et al. 2006), estimated potential habitat for the WTPD in Wyoming to be 27,822,847 ac (11,511,356 ha). For 2008, Wyoming estimated that there were 2,893,487 WTPD colony acres (95 % CI: 2,372,597 to 3,414,377 colony acres).

Montana is at the northern edge of WTPD distribution. Current known estimates of occupied acreage range from 118 acres (Knowles 2004) to 366 acres (Atkinson and Atkinson 2005) in 11 colonies. White-tailed prairie dog colonies in Montana have not been rigorously mapped since 2005 yet 8 of the 11 colonies remain active. One of the 8 colonies was re-established through translocation efforts. Analysis of 2005 NAIP imagery did not readily identify areas with evidence of recent WTPD colonies.

It has been indicated numerous activities are impacting WTPD habitat. Those activities include oil and gas development, agricultural conversion, and off road vehicle use. While many of these activities can impact WTPD at a local level, monitoring across the entire range does not indicate a major threat to the long-term persistence of the species and their habitat. It should be noted,

Mr. Michael Thabault
Re: 2011 Prairie dog conservation efforts
March 30, 2012
Page 8 of 16

more site-specific information on WTPD populations are collected in association with black-footed ferret (BFF) reintroduction efforts to monitor natural variation on a year to year basis.

BFF habitat evaluation data have been collected nearly every year since 2000 (and sporadically before that) using a transecting approach called the “Biggins Method”. Using this method, an area of prairie dog colonies is mapped/delineated, and within that area, some part of the colonies is surveyed/sampled with transects, and prairie dog activity status and densities (using inactive/active burrow counts) are evaluated (Biggins et al. 1993). This evaluation method was designed to determine, based on BFF energetics, the number of BFFs an area could support. With this WTPD information, agencies can address management issues at a local level as they arise and this information serves as an indicator on the status of the WTPD across a sample area. However, studies have shown prairie dog populations are dynamic on a year-to-year basis and determining population trends with the current measured variation is impossible.

Although different methods are being used by the states for monitoring, all survey methods indicate a robust or stable range-wide WTPD population. White-tailed prairie dogs continue to persist across the entire historical range despite numerous localized impacts. In general, WTPD populations continue to be wide spread.

As a result of this trend information and proactive conservation actions, it is the view of the PDCT this factor still has not rose to the level of a threat. As before, the PDCT will continue range wide monitoring that will provide a population trend over time, and if necessary, allow managers to adjust management.

UTAH PRAIRIE DOG

It should be noted the Utah prairie dog continues to be monitored on a regular basis as well. In 2011, it was reported 36,617 acres were occupied in 2009.

PLAGUE MONITORING

It is likely that plague is the most important factor that could adversely impact prairie dog species range wide. Plague continues to be documented in various areas across the west in all prairie dog species. However, impacts can occur over large landscapes as observed in Conata Basin, South Dakota and Espee Ranch in Arizona. It is also important to note, wildlife and land managers are monitoring for the presence of plague, and in the case of ferret reintroduction areas, try and mitigate for the impacts of plague. This mitigation includes dusting for fleas to reduce the impacts of plague outbreaks. In 2011, 5,209 acres were reported by partners being dusted for fleas to manage plague.

Mr. Michael Thabault
Re: 2011 Prairie dog conservation efforts
March 30, 2012
Page 9 of 16

The PDCT recognizes the need for further research into the dynamics of plague in prairie dogs. One of the exciting venues for future plague research is thought to be examining the use of vaccines. Currently, most of this research is being conducted by USGS in a laboratory setting. However, Colorado has coordinated with the USGS, National Wildlife Health Center to evaluate experimental bait consumption by following biomarkers to measure the rate of consumption and distribution amounts. Both of these research/conservation projects will continue in 2012 and will be expanded to include other colonies within the range. Colorado's efforts in 2011 in association with the vaccine included:

- Continued insecticide applications that were initiated in 2010 to control flea populations and prevent epidemic plague in select colonies of GPDs in South Park, Gunnison Basin, and Southeast Individual Population Areas (IPAs). A total of 651 acres (536 acres in Gunnison Basin, 97 acres in South Park, 18 acres in the Southeast) within 19 individual colonies (6 State Wildlife Areas, 2 private, 11 Bureau of Land Management (BLM), 1 State Park) were dusted in 2011. This was a collaborative management effort between CPW, the BLM and private landowners. The dusting efforts appear to be stabilizing colony occupancy.
- Field trials were continued to test palatability and uptake of the oral baits that will be used to deliver the Sylvatic Plague vaccine to prairie dogs and address uptake by non-target species. In 2011, this project was replicated in black-tailed prairie dogs (BTPDs) in Northeastern Colorado.
- A captive prairie dog holding facility was constructed at the CPW research facility in Fort Collins. These facilities are being used for controlled plague vaccine experiments on WTPDs in collaboration with the USGS Wildlife Health Center. The information gathered from these studies will supplement further field research on the efficacy and duration of immunity provided by the plague vaccine.
- Eighty GPDs were trapped and transported to the USGS Wildlife Health Center in Wisconsin as part of ongoing plague vaccine research. GPDs were trapped from colonies in Mancos and Buena Vista to represent the 2 putative subspecies populations. These prairie dogs are being used in trials to test the efficacy of the vaccine and susceptibility of GPDs to plague challenge.

Planned Efforts for 2012 includes:

- CPW will continue to proactively manage plague by dusting identified colonies in South Park, the Gunnison Basin and the Southeast IPAs. CPW will begin dusting colonies in the San Luis Valley (SLV) on BLM lands as soon as we get approval from the BLM and the US Forest Service (USFS).

Mr. Michael Thabault
Re: 2011 Prairie dog conservation efforts
March 30, 2012
Page 10 of 16

- Phase I of the plague vaccine safety trials will begin in the Gunnison Basin with GPDs and in Northeast Colorado with BTPDs.

Also, at the 2010 Black-footed Ferret Executive Committee meeting, a plague vaccine coordinator was identified and funded to track progress of registering this oral sylvatic plague vaccine.

Also in 2008, the AGFD contracted with Northern Arizona University to examine whether or not genetic diversity in the Major Histo-compatibility Complex (MHC), a set of genes important for mammalian immune systems, differed between Aubrey Valley populations of GPD and other populations in Arizona (see attached). Since many Arizona populations of GPDs have experienced declines related to plague, and no declines had been documented in Aubrey Valley, managers had hypothesized the Aubrey Valley population carried some genetic-based resistance to this disease and were genetically differentiated from other populations.

NAU investigated two immune system genes (*MHC-DRB* and *CCR5*) and thirteen microsatellites markers to compare genetic variation between Aubrey Valley prairie dogs and a neighboring population at Seligman, which last experienced a documented plague outbreak in 1996. MHC allelic diversity was moderate, with a total of four alleles that display sequence distances of 3-20%. In contrast, *CCR5* was identical in individuals from both populations. Neutral loci demonstrated moderate genetic differentiation between these neighboring populations ($F_{ST} = 0.065$) and the MHC locus demonstrated greater genetic differentiation ($F_{ST} = 0.169$). These findings provide evidence for genetic distinction between these two populations despite small geographic separation (<6km), and suggest the possibility of allele-specific resistance to plague. These results demonstrate the selection pressure of disease on wild populations and pave the way for more in-depth genetic investigations of plague resistance in the Gunnison's prairie dog, as this is important for long-term conservation goals. It has been hypothesized that higher diversity at MHC loci, both in the form of greater sequence diversity and a higher number of heterozygotes vs. homozygotes, may be associated with an increased ability to fight infectious diseases like plague.

In addition, WAFWA is continuing to work with a private company to develop a rapid field test for plague detection.

GENETIC SAMPLING IN GPD RANGE

Current results from the genetic data collected across the range of the GPD are equivocal. There is some evidence supporting genetic differentiation and some evidence supporting genetic variation due to distance and isolation. Additional analyses are being completed to try and provide a clearer picture of the status of the species. This additional information will include

Mr. Michael Thabault
Re: 2011 Prairie dog conservation efforts
March 30, 2012
Page 11 of 16

ecological analyses (evaluation of vocalization differences and occupied habitats) and simulations to determine divergence time.

Continued evaluation of the subspecies is warranted and a peer review evaluation of the data produced will occur prior to any decision being made on the designation of putative subspecies. Currently there is not an agreed upon definition for designation of a subspecies and even more difficulty can arise because subspecies can appear ecologically and/or genetically different. After completion of the entire analysis process, CPW and the CU researchers involved in this project will consider along with other experts whether there is enough genetic and ecological evidence to pursue separate subspecies designation for the GPD.

PRIVATE LANDOWNER INCENTIVE EFFORTS

A significant portion of the occupied prairie dog acreage in the U.S. is on private land where the Endangered Species Act (ESA) has less ability to influence land and species management, and where voluntary private landowner agreement is necessary for successful conservation on a landscape scale. Many private landowners are reluctant to partner to conserve a species if they believe they are risking ESA restrictions in the future. However, increasing occupied acreage and the level of active conservation on private land are necessary to meet acreage goals identified by the states in their management plans. Private landowners must be part of the solution, and that depends on their successful interaction with state wildlife agencies. We believe increased trust by private landowners and the greatest conservation success will be met by keeping PDs off of the Candidate species list and management remaining under state wildlife agency authority.

As part of their state management plans, numerous states (AZ, KS, OK, MT, SD, NM, WY, and TX) have, or are evaluating, incentive programs for prairie dogs or grassland species emphasis using federal funds through the Landowner Incentive Program (LIP). However, appropriations for the LIP once again are not in Senate/House or President's budget, which will hinder progress in this area. However, in 2011, states still report landowners enrolled in some form of incentive program involving prairie dog conservation. These efforts affect a minimum of 2,530 acres in South Dakota and 16,811 acres in Oklahoma of BTPD. The CPW has secured a perpetual conservation easement on 15,156 acre in Moffat County, Colorado encompassing a large WTPD complex.

Finally, through the leadership of the Black-footed Ferret Recovery Implementation Team, a proposed program to provide financial incentives, management support, and regulatory assurances to private landowners who manage their lands to benefit the endangered black-footed ferret and associated wildlife species, like prairie dogs is being work on by the states and their partners. The proposed program would provide benefits to several endangered and sensitive species while decreasing federal and state wildlife management expenses, reducing endangered species regulatory burdens, and increasing income and operational flexibility for landowners who choose to participate in this voluntary program for potential BFF reintroduction.

Mr. Michael Thabault
Re: 2011 Prairie dog conservation efforts
March 30, 2012
Page 12 of 16

CONTROL INFORMATION

Once again, one of the more controversial elements faced by the states this past year revolved around lethal control of prairie dogs. The EPA approved the use chlorophacinone (Rozol) in many of the prairie dog states despite protest by state agencies. The perceived advantage being that, unlike zinc phosphide (traditionally used), these two poisons do not require prebaiting.

While WAFWA recognizes and supports lethal control as one of many management tools for prairie dogs, we have concerns with anticoagulants and the potential impacts of secondary poisoning on other grassland dependant species. Mortality from secondary poisoning due to Rozol application in prairie dog towns has been documented in a badger collected in Kansas in 2006 and a bald eagle collected in Nebraska in 2007. Finding these two mortalities were by chance. Findings and verifying impacts to non-target species, which can travel long distances between the time of ingestion of the poison and death, is remote. It is likely many more non-targets than these two individuals documented have likely been impacted from control efforts using these two poisons. This concern was recently discussed in association with the Swift Fox Conservation Team and a briefing paper was prepared for the participating states to brief their Directors.

As WAFWA stated before it is our belief when the 1993 USFWS Biological Opinion was conducted on 16 vertebrate control agents including Rozol, Kaput, and zinc phosphide, Rozol and Kaput were not registered for prairie dog control at the time, and therefore, not reviewed for potential secondary impacts.

While lethal control using poison impacts local populations, wide-spread campaigns to eliminate the species no longer exist. States use poisoning as a means for control, not elimination. For example, South Dakota reports poisoning 30-40,000 acres a year from 2004-2006. Despite poisoning roughly 10% of their population, their overall statewide population expanded over 50% from 412,122 acres in 2003 to 625,410 acres in 2006.

STATE REGULATIONS

Many of the states have or have the ability to establish shooting dates or seasons for prairie dogs. However, in most cases, except Arizona, the closure only occurs on public lands or in association with black-footed ferret reintroduction sites. In most cases, shooting closures were put in place to allow pregnant females to whelp and raise their young to dispersal age. North Dakota did note an increase in nonresidential licenses in 2006 that allow for the shooting of prairie dogs and postulated the increase was possibly due to season closures in surrounding states.

In closing, the WAFWA grassland states remain committed to the multi-state conservation effort and sound management of prairie dogs and other grassland associated species, and their habitats.

Mr. Michael Thabault
Re: 2011 Prairie dog conservation efforts
March 30, 2012
Page 13 of 16

If you have any questions about information in this letter, please contact me or the appropriate states directly.

Sincerely,

Bill E. Van Pelt
WAFWA Grassland Coordinator

cc: WAFWA Prairie Ecosystem Directors
Pete Gober, USFWS
Dan Reinkensmeyer, USFWS

Mr. Michael Thabault
 Re: 2010 Prairie dog conservation efforts
 30 March 2012
 Page 14 of 16

**BLACK-TAILED PRAIRIE DOG STATUS
 31 DECEMBER 2011**

| <u>State</u> | <u>Year of last survey</u> | <u>Minimum 10-year Objective Acres^c</u> | <u>Minimum 10-year Objective Acres^c</u> | <u>Acreage Objective in State Management Plan</u> | <u>Current Occupied Habitat</u> |
|-----------------|----------------------------|--|--|---|---------------------------------|
| AZ | 2010 | 4,594 | 4,594 | 4,594 (Draft) | 24 |
| CO | 2006-07 | 255,773 | 255,773 | 255,773 | 788,673 |
| KS | 2009 | 148,596 | 148,596 | 148,596 | 148,000 |
| MT | 2008 | 240,367 | 240,367 | 104,000 ^d | 193,239 |
| NE | 2003 | 137,254 | 137,254 | 137,254 (Draft) | 136,991 |
| ND | 2006 | 100,551 | 100,551 | 33,000 ^e | 22,396 |
| NM | 2008 | 87,132 ^f | 87,132 ^f | 87,132 ^f | 41,000 ^f |
| OK ^g | 2002 | 68,657 | 68,657 | 68,657 | 42,000 |
| SD | 2008 | 199,472 | 199,472 | 166,958 | 630,849 |
| TX | 2010 | 293,129 | 293,129 | 293,129 | 43,539 ^h |
| WY | 2009 | 158,170 | 158,170 | 158,170 (Draft) | 229,607 |
| Total | | 1,693,695 | 1,693,695 | 1,457,263 | 2,276,318 |

^a Refers to total potential habitat encompassed within the range (Hall 1981), not occupied habitat.

^b Gross habitat = (total acreage of primary range x 1%) + (total acres of peripheral range x .1%)

^c Suitable habitat = gross habitat minus habitat with >10% slope, or other unsuitability factors

Acres of suitable habitat = Minimum 10-year objective.

^d The acreage objective in the State of Montana's 2001 Management Plan is 90,000-104,000 acres for non-tribal lands. The state's acreage objective will be subject to modification in response to a financial incentives program for landowners if an incentives

Mr. Michael Thabault

Re: 2011 Prairie dog conservation efforts

March 30, 2012

Page 15 of 16

program is funded. Separate objectives will be set by individual Native American tribes. The current occupied range is based upon a partial survey effort of the southeastern portion of the state.

^e The current acreage objective listed in the North Dakota Management Plan is 33,000 acres, including non-tribal and tribal lands. The state of North Dakota and the Standing Rock Indian Reservation will determine the target acreage for each jurisdiction. The state is willing to consider an objective of 100,551 acres on non-tribal lands if a financial incentives program for private landowners is funded. Tribal lands will have separate acreage objectives.

^f The New Mexico acreage objective is based on a percent increase per year, which would take approximately 10 years to achieve the current acreage objective. If future statewide survey efforts indicate a different acreage than the estimated minimum current acreage listed, the rate for achievement of the 10-year objective may be adjusted accordingly.

^g Oklahoma estimate is based upon 2003 DOQQs. More recent information is anticipated in 2012

^h Texas information is not a range wide survey but its 12 focal areas. In 2005, this area equaled 47,821 acres.

Note: Neither the current habitat estimate nor the state objectives include Native American lands in Montana and South Dakota.

Mr. Michael Thabault
Re: 2010 Prairie dog conservation efforts
30 March 2012
Page 16 of 16

Figure 1. Best available estimate of black-tailed prairie dog occupied acreage in the U.S. in 1961 (U.S. Fish and Wildlife Service), 2000 (U.S. Fish and Wildlife Service 2000), and 2004 (Prairie Dog Conservation Team).

