

Forest Guardians ♦ Prairie Preservation Alliance ♦ Defenders of Wildlife
Center for Native Ecosystems ♦ Sinapu

September 1, 2006

Colorado Wildlife Commission
Colorado Division of Wildlife
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VIA EMAIL & POSTAL MAIL

**RE: Comments on the Adoption of Final Regulations on
Prairie Dog Shooting Seasonal Closures**

Dear Members of the Wildlife Commission:

We appreciate this opportunity to comment on and provide additional information pertaining to the proposed changes to the regulations governing prairie dog shooting seasons in Colorado. Forest Guardians, Defenders of Wildlife, Prairie Preservation Alliance, Center for Native Ecosystems, and Sinapu, representing over 25,000 Colorado members, request that these comments be considered by the Wildlife Commission (the Commission) and be entered into the public record.

In its Rule-Making Notice of July 21, 2006 for the September 7-8, 2006 Wildlife Commission Meeting, the Colorado Division of Wildlife (CDOW) proposed changes to Chapter 3, the Small Game provisions, of Colorado's wildlife regulations.

Specifically, CDOW has recommended changes to Wildlife Commission Regulation #309.A.2, which will establish a standardized season for shooting all three Colorado prairie dog species from June 16 through February 28 on public land.

We commend CDOW for considering a seasonal closure for Gunnison's (*Cynomys gunnisoni*) and white-tailed (*Cynomys leucurus*) prairie dogs during the species' breeding period.

We respectfully request that you maintain the current year-round closure on shooting black-tailed prairie dogs (*Cynomys ludovicianus*) on the relatively few areas of public lands that they inhabit in eastern Colorado.

We also support Gene Byrne's thoughtful June letter to the Commission, value his important perspective, and encourage the Commission to consider his proposal to adopt bag limits. See attachment.

Recommendations

1. We Strongly Support Closure of White-tailed and Gunnison's Prairie Dog Shooting on Public Lands from March 1-June 15

Closing white-tailed and Gunnison's prairie dog shooting on public lands during the breeding and dependent young period makes sound biological sense, is consistent with the Division's management of other wildlife species, and signals that Colorado is able to use regulatory mechanisms to limit the take of prairie dogs. The decision to change the season from the original end date of June 1 to the current proposed end date of June 15 is well-founded. A June 15 closure brings Colorado in line with closures that have already been successfully adopted in Utah and Arizona, and research on prairie dog behavior confirms that white-tailed prairie dog pups are still nursing until at least the second week of June.

It is important to note that the June 15 closure end date is still a full month shorter than the Western Association of Fish and Wildlife Agencies' (WAFWA) recommended July 15 end date. WAFWA issued conservation assessments for both the white-tailed and Gunnison's prairie dog species in 2006 (Seglund 2006a; Seglund 2006b). Colorado is a member of WAFWA. Pam Schnurr of the Colorado Division of Wildlife served as a co-author on the White-tailed assessment, and Schnurr and Gary Skiba, also of CDOW, participated in the development of the Gunnison's report. State participation in such multi-state conservation strategizing and implementation of policies that help conserve these prairie dog species will be required to prevent them from becoming listed under the federal Endangered Species Act (ESA).¹ In its prairie dog conservation assessments, WAFWA recommended states adopt seasonal closures on shooting from April 1 to July 15. It is puzzling why the states would not adopt the recommendations they themselves drafted.

2. Black-tailed Prairie Dogs on Public Lands Still Need Year-round Protection from Recreational Shooting

The Wildlife Commission should maintain the current year-round closure on black-tailed prairie dog shooting on public lands in eastern Colorado. Because very little occupied black-tailed prairie dog habitat occurs on public land in Colorado, and because black-taileds do not hibernate and are vulnerable to shooting exploitation year-round, it is especially important to provide this additional protection in these small areas.

Public lands comprise a very small percentage of the black-tailed prairie dog's range in Colorado, and federal lands are largely limited to the Comanche and Pawnee National Grasslands, and scattered refuges like Rocky Mountain Arsenal. In fact, current prairie dog occupied acreage estimates for these three areas combined total less than 20,000 acres, primarily consisting of small, fragmented populations. The vast majority of black-tailed prairie dogs in Colorado exist on private land. Private landowners are able to

¹We believe all members of the prairie dog genus warrant federal ESA protection.

control prairie dogs at any time, and the relatively small percentage of black-tailed prairie dog habitat in public ownership represents the only area where they are relatively safe from exploitation.

In contrast, substantial portions of the ranges of Gunnison's and white-tailed prairie dogs overlap public land. Seasonal shooting closures for white-tailed and Gunnison's prairie dogs on public lands would provide substantial conservation benefit. These two species hibernate, and protecting them on public lands during a significant portion of the active season would provide real relief from shooting pressure. This is not true for black-tails.

3. The Commission Should Consider Whether Daily Bag Limits Are Appropriate for Prairie Dog Shooting on Public Lands

Individual shooters can have significant impacts to local prairie dog populations, and shooting activities can eliminate whole colonies (see Appendix for details). In addition, the practice of shooting dozens or hundreds of prairie dogs a day for entertainment continues to give legitimate hunting a bad name to many citizens of this state. Gene Byrne's June 8th letter eloquently discussed the fundamental problems with sanctioning the use of wildlife as live targets, and we encourage the Commission to consider his proposal to extend the 5-dog bag limit to non-contest shooting.

Because of the biological and land ownership differences outlined above, we strongly discourage the Commission from opening up seasonal shooting of black-tailed prairie dogs on public lands. If, however, the Commission adopts that regulatory change, a daily bag limit should accompany the new regs. Opening black-taileds on public lands to seasonal shooting with no bag limits creates the real risk that colonies on public lands could be extirpated, which would place even more responsibility for black-tailed prairie dog conservation on individual private landowners.

Conclusion

Colorado has made great strides in recognizing the important roles that once-persecuted native wildlife play. Previously trapped and poisoned to disappearance, Colorado has returned the lynx to our forests so that those missing natural relationships can be restored. By adopting commonsense management actions for prairie dogs on public lands, the state will also contribute to the conservation of species of concern like the black-footed ferret, the ferruginous hawk, the mountain plover, and the burrowing owl by helping ensure that prairie dogs provide the habitat and prey source that these species depend upon. These measures will offer real protection for prairie dogs across the state without any change to private land management. This will also bring Colorado in line with other Western states in fulfilling its obligations to conserve prairie dog species and helping to prevent them from becoming federally listed.

Please contact myself, Jonathan Proctor, or Judy Enderle (see correspondence information below), if you have any questions or would like additional information.

Sincerely,



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Appendix

Individual shooters can seriously impact prairie dog colonies. Randall (1976) chronicled the activity of three individual shooters who traveled from Minnesota to shoot white-tailed prairie dogs in Wyoming. In one week they concentrated on seven towns and tallied 1023 kills. This was in 1976, and prairie dog shooters are much better equipped today. Jerry Godbey of the U.S. Geological Survey Biological Resources Discipline reported that when he surveyed white-tailed prairie dog towns in Colorado, Utah, and Wyoming in 1997-1998, he found spent shells or dead prairie dogs at “virtually every site” (Jerry Godbey, USGS, personal communication to Erin Robertson, 3 August 2001). Mr. Godbey said that he met one shooter near Delta, Colorado with three rifles who said that he shot white-tailed prairie dogs at least four times a week. This shooter estimated that he used 10,000 rounds per year, with an estimated 95% kill rate. Those figures translate to take of 9500 prairie dogs annually by a single person. Keffer et al. (2000) found that after they shot 22% of the black-tailed prairie dogs on one colony as part of a controlled shooting study, 69% (212 individuals) of the remaining prairie dogs left the colony. Small colonies may be particularly vulnerable to negative impacts from shooting (Knowles 2002, citing J. Capodice, pers. comm.). Entire colonies can potentially be eliminated from shooting pressure (Knowles 1988; Livieri 1999).

Shooting has Significant Negative Impacts on Prairie Dog Populations

Prairie dog shooting significantly reduces prairie dog populations and population densities (USFWS 1998a, b). Irby and Vosburgh (1994) found that prairie dog shooters prefer higher densities of prairie dogs. This causes shooters to spread the pressure of their activity depending on population density, causing uniformity in prairie dog populations across colonies. Biologically, such uniformity is destabilizing to prairie dog populations.

One of the most recent studies of prairie dog shooting was conducted by Jonathan Pauli (Pauli 2005). Pauli systematically had 30% of the prairie dogs at five colonies shot, and then compared the results to five untreated colonies. Shot colonies showed a 50% reduction in pregnancy rates and a 76% decline in reproductive output. This study documented mechanisms for several additive impacts of shooting. In addition to direct mortality and the other effects documented in Pauli’s work, mass emigration is a potential result of shooting pressure.

Studies also report that shooting may decrease colony expansion rates (Miller et al. 1993; Reading et al. 1989). One study revealed that a colony in Montana had a 15% annual expansion rate when prairie dogs were not hunted, contrasted with a 3% expansion rate when they were (Miller et al. 1993). This dramatic decrease in rates of expansion represents decreased migration, which constitutes human interference with an integral population dynamic in prairie dogs: prairie dog dispersal.

Even without shooting pressure, there is a low survival rate of dispersing males (Garrett and Franklin 1981). In addition, prairie dog dispersal takes place in late spring (Knowles

1985; Garrett and Franklin 1981), which is one of the most popular times of the year for recreational prairie dog shooting. The negative impacts of shooting on prairie dog migration may therefore be considerable.

Shooting impacts may be unpredictable and colony-specific. Knowles and Vosburgh (2001: 7) compared black-tailed prairie dog shooting studies conducted in Montana, and concluded, "Shooting can impact prairie dog populations and ...it is just a matter of the number of hours of shooting effort expended on a colony in relation to the size of the colony that determines the level of impact

These studies, like all of the prairie dog shooting literature we are aware of, involved black-tailed prairie dogs. Effects on white-tailed and Gunnison's prairie dogs may be even more severe because they have such a limited activity period before hibernation begins. Changes in behavior may limit foraging opportunities and thus over-winter survival in these species.

Shooting has Significant Negative Impacts on Prairie Dog Behavior

Shooting also alters prairie dog behavior. For instance, Irby and Vosburgh (1994) found that even light shooting has a significant effect on prairie dog behavior, with 42% of prairie dogs retreating to the burrows on a lightly shot colony, contrasted with a 22% retreat rate on unshot colonies, and 55% retreat rate on heavily shot colonies. Pauli (2005) found that alert behavior was eight times higher on shot colonies after treatment, and above-ground activity declined by 66% on shot colonies after treatment. Surviving adults on shot colonies showed a 35% decrease in body condition, a 30% increase in flea loads (important to plague transmission), and an 80% increase in stress hormones.

Prairie Dog Shooting Poses Significant Risks to Non-Target Wildlife

In addition, the threat that shooting poses extends to prairie dog associated species. For example, prairie dog shooting causes a reduction in the prey base. This may affect a broad range of avian and mammalian predators that prey on prairie dogs. The danger here is apparent:

Viable populations of associated species cannot be expected at low prairie dog densities. Based on our observations of other prairie dog complexes in Montana, prairie dog complexes need to be broadly distributed and with relatively high occupancy to assure minimal viable populations of associated species (Knowles and Knowles 1994).

Low population densities result from shooting and will therefore work to the detriment of mammalian and avian prairie dog predators. In addition, there is no evidence to suggest that prairie dog shoots do not result in the harming or killing of non-target species, such as the burrowing owl, ferruginous hawk, and mountain plover. To the contrary, first-hand accounts indicate that these shoots do result in the harming and killing of a variety of wildlife species other than prairie dogs.

Lead Shot from Prairie Dog Ammunition Can Negatively Affect other Species

Relatedly, there is growing concern about the effects that spent shells may have on prairie dog predators. A preliminary study on the effects of prairie dog shooting on raptors (Wyoming Cooperative Fish and Wildlife Research Unit 2001) showed that black-tailed prairie dog towns on Thunder Basin National Grassland that were shot were visited by raptors an average of 2.42 times per hour, while towns that were not shot were visited an average of 0.5 times per hour. Blood samples taken from burrowing owls on a town where shooting occurred showed elevated lead levels. Knowles and Vosburgh (2001: 15-16) also raise this issue:

Fragments of lead ingested by raptors when scavenging shot prairie dog carcasses have the potential to kill or severely disable raptors. Burrowing owls are reported to scavenge poisoned prairie dogs (Butts 1973) and would also be expected to feed on prairie dogs killed by recreational shooting. Ferruginous hawks and golden eagles are 2 other raptors known to scavenge on dead prairie dogs. Shooting in some areas has been sufficiently intense during the past decade to literally put millions of pieces of lead on the ground. It is unknown if passerine birds are picking up pieces of this toxic heavy metal. Mortalities in morning [sic] doves have been noted with ingestion of only 2 lead pellets. Ingestion of lead is a known significant problem for birds (Lewis and Ledger 1968 and Wiemyer et al. 1988).

On his Moreno Valley (NM) study site, Cully (1986: 2) noted that, "One of the major sources of recreation for the residents of the area is shooting prairie dogs, a practice that may contribute to the attraction of raptors to the valley." He suspected many of the area raptors were primarily subsisting on shot prairie dogs. To the extent shooters were using lead shot – which is extremely likely – those raptors were being exposed to lead poisoning.

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Attachment

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June 8, 2006

RE: Prairie Dog Hunting Seasons

Dear Bruce McCloskey and Members of the Wildlife Commission:

For those that do not know me and to better understand where I am coming from, I am a retired wildlife biologist with the Colorado Division of Wildlife. I worked for the DOW for over 30 years and retired in 2002. In the later part of my career, I was the DOW's lead person on the black-footed ferret recovery program. It was during this time period I gained a new appreciation and respect for the role of Colorado's three species of prairie dogs (PD) in our wildlife ecosystems. Also, I would like to point out that I have been a hunter all of my adult life. I bought my first big game license when I was 18 in 1964 and I have hunted big game in Colorado every year since, except when I was serving overseas in the Army. I have harvested over 50 big game animals and 7 different species in Colorado.

I would like to make the following comments about prairie dogs and their management:

- Prairie dogs are a keystone species, which means they are capable of modifying the habitat to benefit other wildlife species. It is estimated that PD's benefit over 100 species of wildlife. Black footed ferret are totally dependent on PD for their food, cover and water (from eating PD carcasses).
- Black footed ferrets have been termed the most endangered species of mammals in North America. While the status of PD is always debated, ask yourself, if PD are doing so well, why are black-footed ferrets so endangered?
- One of the guiding principles of sound game management is protection of dependent young. This was the main issue that precipitated the bear hunting ballot initiative in Colorado. By their vote, the public stated they are not opposed to hunting if it is done ethically and follows the principles of fair chase and good game management that protects the species.
- Another game management principle that has been confirmed in Colorado is recreational hunters must utilize what they harvest. It is no longer acceptable to the general public to use animals as "live targets" for pure recreational enjoyment. Bear and lion hunters are now required to preserve the carcass for human consumption. This has always been the case for all the other game species.

- A few years ago, the Wildlife Commission was faced with a difficult decision on how to handle the issue of PD hunting contests. They did the right thing and established a daily bag limit of 5 PD. This essentially ended this undesirable activity in Colorado.
- Removing the hunting closure for black-tailed prairie dogs but adding the closed season for dependant young in the 14 counties where they are now protected would probably have a negative effect on this species.
- Game damage control and recreational hunting are two totally different activities. During the Colorado trapping season debate, the DOW impaneled a stakeholder group to discuss the trapping issue. After months of discussion, they only agreed on two principles: 1) trapping should be conducted in a humane manner and 2) trapping is acceptable when severe damage is occurring or it is a matter of public health. Current state law CRS 33-6-107 (9) provides for the taking of PD on private lands when they are causing damage. This law is appropriate and reasonable.

Recommendations:

- All PD species should be protected on public lands.
- Recreational hunting seasons should be established similar to other game species that consider a closure during the young dependent period, reasonable daily bag limits, and reasonable methods of take including appropriate sized firearms.
- The daily bag limit of 5 prairie dogs per day should be extended for all sport hunting. I will stop short of recommending PD be preserved for human consumption.
- PD control, as defined in the various statutes, should continue to be allowed on private lands when it is a legitimate matter of damage control.

In a few years I hope to have the opportunity to teach my grandson to hunt. I can assure you, that we will not be shooting prairie dogs just to watch them die. We will use targets and/or tin cans for that exercise.

Sincerely,

Gene Byrne

Gene Byrne