

Past and Present Distributions of Black-Tailed Prairie Dogs

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We're going to talk a little bit about the black-tailed prairie dog (BTPD), on Thunder Basin. There are actually five living species of prairie dogs in North America. [Pointing to the map], the BTPD we're talking about is in this range right in here, the purple. But there is also the white-tailed prairie dog, which is the yellow here, and these two, from the literature anyway, suggests that they do not overlap, that they are discrete populations; and then the Gunnison prairie dog, which is this little dot down here.

This is a blow up of just the BTPF distribution, the blue being the historical range, the shaded area being what is now the range of the BTPD, not all of which is completely occupied. This is a map that was produced by the Western Working Group for the prairie dog (PD) conservation plan that shows Wyoming and the potential BTPD habitat. Areas of red are habitat that has been taken out; wetlands, timber types, or some of the other non-prairie dog type habitat conditions. [Tim then shows a map of the Thunder Basin area with the PD colonies.] This is the ownership pattern of the national grasslands. The grasslands are a very fractured ownership pattern, which means we must work more cooperatively with private landowners than does the Forest Service (FS) and other agencies that have solid blocks of ownership. The black area, right in here, is BTPD colonies that were mapped in 1998. We are to get a new map put together, but it's not quite ready yet. This is our Cheyenne River complex and we have about three towns here. This shows the growth of the BTPD on just the federal surface of the Thunder Basin National Grasslands since 1976. This represents the outside boundary of all the

active and inactive colonies. So while we've done things through management, this is just the acreage that has potential PD colonies on it.

In 1991 the first BTPD plan was put together by the Forest Service to direct the management of federal surface for the PD. This predates the FS Management Plan for the national grasslands, which was put together in 1995. So this plan was adopted during the planning process as part of our land management plan for the Medicine Bow National Forest / Thunder Basin National Grasslands in 1985. It was done through an environmental analysis that took into consideration a variety of alternatives, and the forest supervisor selected the alternative. It set objectives for PD management on our federal surface. Throughout all of this, it is important to note that this did not direct any management on private lands, but because of some of the management of federal surface, it does have an influence on the private lands. It also established a black-footed ferret (BFF) contingency plan. Ferrets were last sighted on Thunder Basin in the early 1970s. This was the last confirmed sighting. We've got numerous years since 1975, of BFF surveys on the grasslands, all of which came back negative. But it did set a contingency plan in place in case ferrets were found on the grasslands at some point in time. They also outlined the BFF survey protocols for doing the surveys that we talked about earlier. Probably one of the more important and noteworthy is the designation of the Rosecrans BFF potential habitat area. This was done in 1985, when at the time no one believed there were any free-roaming, existing wild ferrets, or ferrets in private captivity. But the FS had this area designated in case some were found. The area in black [map] is the Rosecrans potential reintroduction site. You can see specifically how these lands were excluded because we didn't want to influence private lands. This was purely a

development for federal surface. In talking about the Rosecrans reintroduction site, it's made up of portions of 58 sections. The plan established that we would retain at least 2240 acres of BTPD colonies within those sections and there would be a minimum of 8 PD towns scattered throughout that area with at least two of them being 100 acres or above. That was so we didn't have one big blob. We wanted to disperse colonies out across the landscape. Outside the Rosecrans, which is essentially the remainder of the national grasslands, the management plan also established that we would retain at least 3160 acres of PD towns across the rest of the grasslands as well, in order that we maintain the biodiversity for the grasslands in keeping PD's not just clustered in one area. Most of the towns would be retained at 80 to 100 acres. By 1998, we had met all of these objectives of the 1985 and 1981 plans, which is convenient since the grassland plan expired in 19--. Fifteen years are up this last year and we now have a new proposed plan in final review before we get a decision on it. As a part of the plan, we also allow for PD poisoning and control in places where we didn't necessarily want PDs. If you look on this graph, we had two large control processes. The rest of them were pretty much across the board, with a decline, as more concern started with the BTPD. But we did have two spikes out there where we poisoned, in one case, a little over five thousand acres, the other seven thousand acres, followed by four thousand acres. Ten years into the plan we had to do a review of the PD management plan to see if it was accomplishing the goals that we wanted. It was done through an interdisciplinary team of wildlife people, internal FS range management specialists and recreation management specialists. It was then coordinated with the WGFD and the USFWS and the local grazing associations.

The outcome was that there were some minor formatting and textual changes and in 1991, a final decision was made. Essentially these format changes were just to move the historical record of all our PD management since 1981 through 1988, to the back of the book because our book continually got larger with nothing more than appendix increases so it was moved to the back of the book.

In 1994, we first detected plague on the national grasslands and it was over in this eastern complex. This area is predominately private land and BLM ownership, with just a little FS land in here and in here, and down through here. It appeared that the plague moved north and south without any movement of plague to the east towards our major complex in the Rosecrans. It was suspected that plague was transmitted by coyotes, one vector for the plague, because the coyotes coming out of the Black Hills were moving north and south, according to the WGFD.

Another issue in Thunder Basin PD management is recreational shooting. We've traditionally had recreational shooting as a management tool. It provides an economic benefit to the public, as well as helping us control prairie dogs. It has been a very ineffective tool as far as controlling PDs on Thunder Basin. We've not been able to focus hunters in a way that causes control, but it did have some benefits to the recreating public. Early in the PD management plan we had minimum shooting on the national grasslands. This list shows folks that registered in our front office when they came in to get information on PD shooting. In 1997 there was an article in the Varmint magazine about PD shooting on Thunder Basin National Grasslands, and that's when we saw this almost doubling of the number of shooters coming to the national grasslands. Now these numbers do not represent the number of shooters we've had out on the grasslands. Those

numbers are much higher than this. This is just trend information of those folks that stopped in our office and were willing to sign in and let us know what they were doing.

The next thing that happened for the FS that had an impact of PDs was the proposed listing for BTPD under the Endangered Species Act. It was petitioned by the National Wildlife Federation, in 1998, for emergency listing. USFWS found that it didn't warrant listing under their emergency listing process. But in February 2000, they did find that it warranted listing, but was precluded by higher priority species. That triggered some changes in FS management of the BTPD. In 1999, the FS stopped its PD poisoning program with some exceptions. We were still allowed to poison PDs in the case of human benefit and safety concerns, or to help protect endangered species habitat, neither of which at this point in time have we ever had to use on the national grasslands since 1999. We've essentially been out of the poisoning program due to the concerns over the BTPD and its range.

The FS also joined with other agencies and private landowners in working on the BTPD conservation plans. We have members on the Western States Regional BTPD Conservation Planning team as well as on the state team developing a conservation plan for Wyoming. And as a part of the Wyoming plan, the Thunder Basin has been identified as one of the focus areas where BTPD management would try to keep them at fairly high numbers. This plan is currently being reviewed by the WGFC for adoption.

In 2001, it was determined, in coordination with the USFWS, that the recreational shooting of BTPD on Thunder Basin was challenging the potential recovery of the BFF and its reintroduction on Thunder Basin. And so, Mary Peterson, the Forest Supervisor for the Medicine Bow Routt National Forest and Thunder Basin, signed an order stopping

or prohibiting the discharge of firearms within the given area. This is the firearms closure area on Thunder Basin. The Rosecrans reintroduction site is essentially this area in here [map]. This area that's outside of it was a part of the new proposed plan where we would be doing some additional ferret reintroduction if that was the alternative chosen by the regional forester. So this area was closed to the discharge of firearms through the summer of 2000. This closure ended September 14th, this summer, so that it did not infringe on any of the big game harvest that goes on in the Thunder Basin National Grasslands. It was coordinated through the WGFD and with the USFWS, but it had a direct effect on this area in that we were now not allowing any discharge of firearms in here, which meant that if you were going to go out and hunt PDs, you were doing it with a bow and arrow, cross bows or something other than firearms. To tie in that, plague was again discovered on Thunder Basin. This time it was found in the Rosecrans community pasture, and in a number of PD towns associated with it. It also links directly to the picture I just showed you in that most of the die-off occurred within that closure area. So the shooting closure area, by default, also worked to prevent the public from being out in that area and being susceptible to the plague, other than a few ranchers who live here (some of whom happen to be sitting in the audience). In discussing the situation with the ranchers and some of our shooting public, it was determined that the plague apparently hit that area sometime in late summer, 2000. The shooters were noticing significant changes in the PD complexes and a number of ranchers had already seen die-offs occur on their private lands. FWS actually came out and collected fleas, with a couple of our local ranch owners (including Earl Reed here), to be sampled for plague. The FS, working with several of the ranching community submitted coyotes and prairie dogs to be

tested for plague. On May 23rd, simultaneously, we received confirmation from two different samples and from two different sites, one in Colorado and one from the Wyoming Vet Lab, that we had confirmed plague on the national grasslands. At that time we posted the area where plague occurred and the portals coming into the national grasslands, notifying the public that there was plague in the national grasslands, and particularly associated with the PD complexes. This is the area that the plague focused on [map], our highest concentration of PDs. This town right in here had a few prairie dogs remaining. These all died. There were no PDs left until you got back over in here. PD towns up in here appear to be unaffected.... so we ended up with a halo effect around this area right in here. Between 7-10,000 acres of active PD colonies were affected by the plague. The center appeared to be focused right on the Cheyenne River and Antelope Creek, which is the center of that complex I was just showing you. All summer, the FS has actively monitored the spread of plague through the PDs, to document additional die-offs. The plague apparently stopped moving mid-summer this year. After the middle to the end of July, my crews in the field were not determining that we had any more PD die-off moving either to the west past the Phillips road or dropping down. It did stop below the Cheyenne River, but it hadn't spread into some of those dog towns that were further south or west.

In summary of the situation this year, we mapped a total of a little over 21 thousand acres of either dead or active PD colonies on Thunder Basin. We're also seeing that several of our PD towns within the plague area are already starting to repopulate, and in talking with several of the ranchers out there, they're seeing this similar type of thing already occurring on their private lands. It means that we've got between 11 thousand to

14 thousand acres of currently active PDs still on Thunder Basin National Grasslands, and repopulation occurring, so I'll be interested to hear more about plague dynamics from some of the other speakers coming up. Plague dynamics in PDs is something new to us and we're still studying and learning in that arena. But, like I said before, it appears that we don't have any new die-offs in the Rosecrans area. I did get some information that over in the eastern complex another private landowner had a die-off happen in the last month or so. So something may be happening again over in the eastern complex. But as far as our major PD complex, it looks like we're seeing repopulation. It's still anybody's guess how fast before we'll see recovery.