

WILDEARTH GUARDIANS

Utah Prairie Dog (*Cynomys parvidens*) February 2008 Biological Status Update



Photo © Jess Alford

By: Nicole Rosmarino, Wildlife Program Director
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WildEarth Guardians conducted an analysis of Utah prairie dog spring count data to determine the status of this species, five years after we filed a petition – in 2003 – to reclassify the species from threatened to endangered under the Endangered Species Act. In 2007, the U.S. Fish and Wildlife Service (Service) decided that our petition did not contain substantial information to warrant further review. However, we believe the following analysis shows that the Utah prairie dog faces extinction and therefore warrants reclassification to endangered status.

All data were taken directly from Utah Division of Wildlife Resources (UDWR) open records responses and were not modified in any way.

1. Source for 1976-1992 counts: UDWR analysis of the Utah prairie dog recovery program, 1972-1992.
2. Source for 1993-2003 counts: spreadsheet provided by Teresa Bonzo of UDWR via email dated January 6, 2004.

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3. Source for 2004 count: spreadsheet provided by Teresa Bonzo of UDWR via email dated January 6, 2005.
4. Source for 2005-2007 counts: word document provided by Colleen Anderson of UDWR via email dated August 27, 2007.

A brief description of method is included in both parts of this analysis below.

I. Comparison of aggregate spring count data at the recovery area level

Method

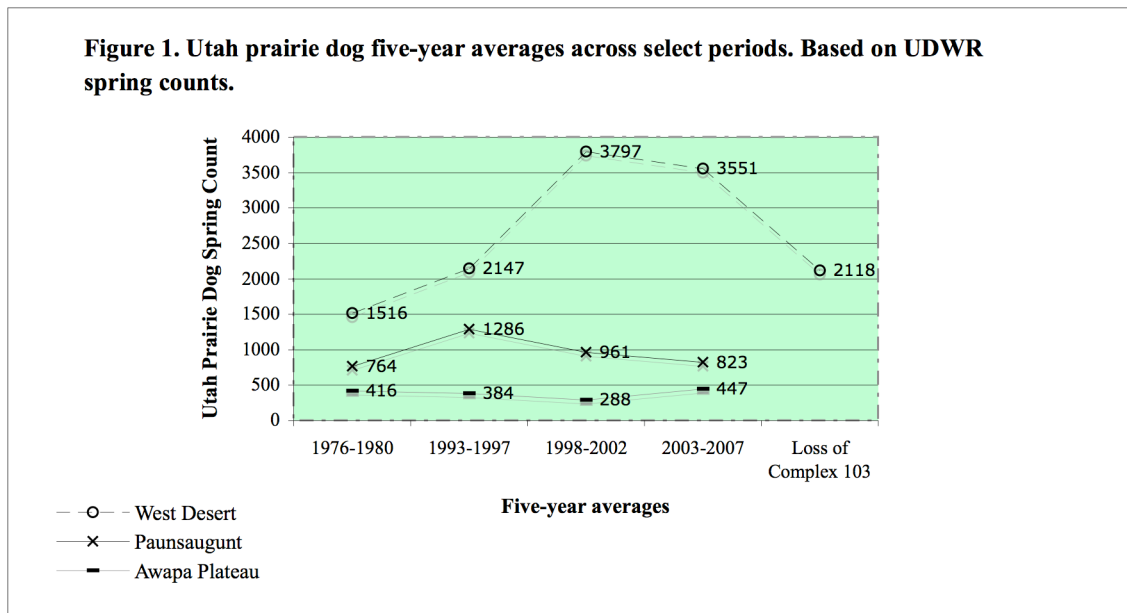
We averaged spring counts across the three recovery areas for the Utah prairie dog in the following five-year time periods: 1976-1980, 1993-1997, 1998-2002, and 2003-2007. We chose these time periods to obtain continuous five-year periods where visual observation was used. Another method, canine tease, was used from 1982-1990 and is believed to be incomparable to visual observation, due to differences in estimated proportion of the population that is counted.

We also included the scenario that Complex #103 in the West Desert will disappear. This is based on ongoing translocation of the Cedar Ridge golf course and Paiute tribal land colonies, which are part of #103 and are slated for total elimination. In 2007, the golf course and tribal land counts were 434, which was 27% of the 1,615 total count for #103. As part of the rationale for approving the plan for to eliminate the golf course and tribal land populations, the Service wrote that other prairie dog populations in proximity to the golf course and Paiute lands, or within Cedar City, are likely to be destroyed by development.¹ These other populations are also part of Complex #103. The future of this complex therefore appears to be severely threatened.

Results

Analysis of five-year averages from 1976-1980 contrasted with five-year averages from 1993-2007 indicate that one of the recovery areas, the Awapa Plateau, is near 1976-1980 levels: its average count in this early period was 416, while its most recent five-year average was 447. Another recovery area, the Paunsaugunt, is rapidly trending downward, having declined by 36% since 1993, from 1286 to 823. With its current level of 823 animals, it will quickly fall below its 1976-1980 level of 764 animals if trends continue. Finally, while the West Desert's numbers currently far exceed its 1976-1980 numbers, if Complex #103 disappears, the area would fall below its 1993-1997 count and start approaching its 1976-1980 count (Figure 1).

¹U.S. Fish and Wildlife Service. 2006. Biological opinion on the Cedar Ridge golf course and Paiute tribal lands habitat conservation plan, dated December 8, 2006, at p. 6.



II. Comparison of spring count data at the complex level

Method

UDWR conducts spring counts every year of known Utah prairie dog complexes, including those on public and private lands. Every complex included in spring counts was categorized according to the number of Utah prairie dogs counted, based on 2003-2007 spring counts. The categories were as follows:

1: Small populations: count of less than 30 UPDs in each of the past 5 years. Included under small populations were counts of zero UPDs, defined as sites receiving either 0, blank, or NC for the past 5 years.² The use of counts of less than 30 UPDs as a yardstick for a “small” categorization was a conservative choice, as the Service describes populations of less than 200 UPDs (presumably counts of 100) as small.³

2: Unstable: both increases and decreases in spring counts were recorded in the course of the past 5 years. Average number of UPDs was calculated to distinguish relatively large complexes, considered to be counts of 50 or more UPDs. Again, it was a conservative choice to describe counts of 50 (100 UPDs) as large.

3: Increasing: spring counts steadily increased across each of the past five years.

²Note that the Utah Division of Wildlife Resources states, “NC means ‘Not Counted.’ This could be due to an access issue related to private land, sites could be inaccessible due to weather, sites that have been devoid of animals for a period of five years are not counted every year, etc” (Pers. comm., UDWR, August 2007). However, based on our review of spring counts, we believe that if a complex has an entry of 0, blank, or “NC” for five years, it is likely that the complex is extirpated.

³72 Fed. Reg. 7848.

This analysis considered all 94 complexes for which spring counts are currently conducted. However, one complex, #332, did not appear to have a spring count in 2003, but was still included in this analysis.

Results

Rangewide analysis

Of the 94 complexes on which counts have been conducted from 2003-2007, they are primarily small populations. 53 complexes (56%) had fewer than 30 UPDs counted in each of the past five years. 39 complexes (41%) had unstable trends. Only 2 complexes (2%) have consistently increased across the last five years. Of the 39 complexes with unstable trends, 22 (23% of all complexes, 56% of unstable complexes) have had an average of less than 50 UPDs. A total of 66 complexes (70% of all complexes) have had either 30 UPDs counted in each of the last five years or have averaged a count of less than 30 UPDs over the past five years (Table 1).

Table 1. Rangewide Utah prairie dog complex sizes (bolded numbers are sums). Based on Utah Division of Wildlife Resources spring counts, 2003-2007.		
Rangewide	Number of complexes	
<i>Small populations (absolute counts)</i>		53
Count of 0	23	
Count of 0-9	11	
Count of 10-19	11	
Count of 20-29	8	
<i>Unstable trend (average counts)</i>		39
Count of 10-19	5	
Count of 20-29	8	
Count of 30-49	9	
Count <50	22	
Count of 50+	17	
<i>Increasing</i>		2
Count <50	1	
Count of 50+	1	
Total No. of Complexes		94

Across the three recovery areas, there are 18 complexes that have had an average count of more than 50 UPDs over the past five years (Tables 1 & 2). This represents 19% of the 94 complexes for which spring counts have been conducted from 2003-2007. Of the 18 complexes, 4 suffered declines of more than 50% between 2006-2007. On another complex, a massive translocation effort is currently underway. That leaves 13 complexes – or 14% of all known Utah prairie dog complexes – that are relatively secure. This is likely an overestimate, however, given that 5 of the 18 complexes are entirely on private land, and another 7 are at least partly on private land (Table 2).

If we had used the Service’s standard that populations of <200 Utah prairie dogs (counts of 100) are “small,” only 9 complexes would qualify as large, with average counts of more than 100 over the past five years. One of these is being removed through translocation, and five others are either partly or entirely on private land and therefore face increased risk of elimination from shooting, translocation, and habitat conservation plans. *Id.*

Table 2. Rangewide Utah prairie dog complexes with average counts of 50 or more from 2003-2007. Count and land ownership data based on Utah Division of Wildlife Resources spring counts, 2003-2007.

Complex	2003 count	2004 count	2005 count	2006 count	2007 count	5-year average count	Land ownership and threats
101 - Kanarraville	169	355	329	404	387	328.8	Private land
103 - Cedar City/Enoch	1075	1200	1531	1744	1615	1433	Private land, extensive translocation underway
105 - South Summit	38	97	110	138	101	96.8	Private land
107 - Mortenson's	404	512	599	534	773	564.4	Private land
109 - Paul Miller	50	60	129	87	126	90.4	Private land
110 - Buckskin	4	29	48	139	86	61.2	Private & BLM
113 - Buckhorn Flat	149	123	217	167	134	158	Private & BLM
116 - Horse Hollow	36	26	63	87	77	57.8	BLM
121 - West Lund	10	50	71	88	41	52	Private & BLM, complex not secure: population decline of more than 50% in from 2006-2007
122 - Minersville #3	195	152	217	163	110	167.4	BLM & SITLA
123 - West of Rush Lake	12	35	101	86	37	54.2	Private & BLM, complex not secure: population decline of more than 50% in from 2006-2007
125 - Wild Pea Hollow	196	216	278	417	7	222.8	BLM & Iron County, complex not secure: population crash in 2007 count
203 - John's Valley North	92	44	158	109	125	105.6	Private & SITLA

204 - John's Valley-W&E of hwy.	73	85	69	27	9	52.6	USFS, SITLA & Private, complex not secure: population decline of more than 50% in from 2006-2007
218 - BCNP - East Creek	25	86	29	116	277	106.6	USFS & NPS
219 - Panguitch	295	208	199	238	369	261.8	Private & BLM
312 - The Tanks	56	42	185	13	103	79.8	BLM & SITLA
316 - Big Hollow/Flat top	72	69	121	40	84	77.2	BLM & SITLA

Recovery area spring count analysis

West Desert Recovery Area

Of the 34 complexes in this recovery area:

- 15 (44%) had a count of less than 30 UPDs in each of the past five years.
- 4 (12%) had unstable trends with an average of less than 30 UPDs across the past five years.
- 7 (21%) had unstable trends with an average of less than 50 UPDs across the past five years.
- Of the 12 (35%) complexes with an average of more than 50 UPDs across the past five years, only one increased every year. One of these 12 complexes suffered a recent population crash, with only 7 UPDs counted in 2007; two additional complexes suffered more than 50% count declines between 2006-2007; and one complex is targeted for extensive translocation.

Therefore, only 8 (24%) of the 34 complexes in this recovery area are relatively secure (Tables 3 & 4).

Table 3. West Desert Utah prairie dog complex sizes (bolded numbers are sums). Based on Utah Division of Wildlife Resources spring counts, 2003-2007.		
West Desert	Number of complexes	
<i>Small populations (absolute counts)</i>		15
Count of 0	5	
Count of 0-9	6	
Count of 10-19	2	
Count of 20-29	2	
<i>Unstable trend (average counts)</i>		18
Count of 10-19	1	
Count of 20-29	3	

Count of 30-49	3	
Count <50	7	
Count of 50+	11	
<i>Increasing</i>	1	1
Total No. of Complexes	34	34

Table 4. West Desert large Utah prairie dog complexes. Threats to security noted in comment column. Based on Utah Division of Wildlife Resources spring counts, 2003-2007.

Complex	2003 count	2004 count	2005 count	2006 count	2007 count	5-year average count	Comment
101 - Kanarrville	169	355	329	404	387	328.8	
103 - Cedar City/Enoch	1075	1200	1531	1744	1615	1433	Complex not secure: extensive translocation underway
105 - South Summit	38	97	110	138	101	96.8	
107 - Mortenson's	404	512	599	534	773	564.4	
109 - Paul Miller	50	60	129	87	126	90.4	
110 - Buckskin	4	29	48	139	86	61.2	
113 - Buckhorn Flat	149	123	217	167	134	158	
116 - Horse Hollow	36	26	63	87	77	57.8	
121 - West Lund	10	50	71	88	41	52	Complex not secure: population decline of more than 50% in from 2006-2007
122 - Minersville #3	195	152	217	163	110	167.4	
123 - West of Rush Lake	12	35	101	86	37	54.2	Complex not secure: Population decline of more than 50% in from 2006-2007
125 - Wild Pea Hollow	196	216	278	417	7	222.8	Complex not secure: population crash in 2007 count

Paunsaugunt Recovery Area

Of the 27 complexes in this recovery area:

- 16 (59%) had counts of fewer than 30 UPDs in each of the past five years.
- 7 (26%) had unstable trends with an average of less than 50 UPDs across the past five years.
- No complexes had an increasing trend across the past five years.

- Of the 4 (15%) complexes with an average of more than 50 UPDs across the past five years, zero had a steadily increasing trend. One of these 4 complexes suffered more than a 50% count decline between 2006-2007.

Therefore, only 3 (11%) of the 27 complexes in this recovery area are relatively secure (Tables 5 & 6).

Table 5. Paunsaugunt Utah prairie dog complex sizes (bolded numbers are sums). Based on Utah Division of Wildlife Resources spring counts, 2003-2007.	
Paunsaugunt	Number of complexes
<i>Small populations (absolute counts)</i>	16
Count of 0	9
Count of 0-9	2
Count of 10-19	4
Count of 20-29	1
<i>Unstable trend (average counts)</i>	11
Count of 20-29	1
Count of 30-49	6
Count <50	7
Count of 50+	4
<i>Increasing</i>	0
Total No. of Complexes	27

Table 6. Paunsaugunt large Utah prairie dog complexes. Threats to security noted in comment column. Based on Utah Division of Wildlife Resources spring counts, 2003-2007.							
Complex	2003 count	2004 count	2005 count	2006 count	2007 count	5-year average	Comment
203 - John's Valley North	92	44	158	109	125	105.6	
204 - John's Valley-W&E of hwy.	73	85	69	27	9	52.6	Complex not secure: population decline of more than 50% in from 2006-2007
218 - East Creek	25	86	29	116	277	106.6	
219 - Panguitch	295	208	199	238	369	261.8	

Awapa Plateau Recovery Area

Of the 33 complexes in this recovery area:

- 22 (67%) had counts of fewer than 30 UPDs in each of the past five years.
- 8 (24%) had unstable trends with an average of less than 50 UPDs across the past five years.

- There were 2 (6%) complexes with an average of more than 50 UPDs across the past five years.
- One complex had a steadily increasing trend, but its average was less than 50 UPDs across the past five years.

Therefore, only 2 (6%) of the 33 complexes in this recovery area are relatively secure (Tables 7 & 8).

Table 7. Awapa Plateau Utah prairie dog complex sizes (bolded numbers are sums). Based on Utah Division of Wildlife Resources spring counts, 2003-2007.		
Awapa Plateau	Number of complexes	
<i>Small populations (absolute counts)</i>		22
Count of 0	9	
Count of 0-9	3	
Count of 10-19	5	
Count of 20-29	5	
<i>Unstable trend (average counts)</i>		10
Count of 10-19	4	
Count of 20-29	4	
Count <50	8	
Count of 50+	2	
<i>Increasing</i>	1	1
Total No. of Complexes	33	33

Table 8. Awapa Plateau large Utah prairie dog complexes. Threats to security noted in comment column. Based on Utah Division of Wildlife Resources spring counts, 2003-2007.							
Complex	2003 count	2004 count	2005 count	2006 count	2007 count	5-year average	Comment
312 - The Tanks	56	42	185	13	103	79.8	
316 - Big Hollow/Flat top	72	69	121	40	84	77.2	

Gunnison and Millard Counties

Spring counts were terminated in Gunnison and Millard counties as of 2005. While the highest count in Millard County was only 1 UPD (counted in 1996), Gunnison County had positive counts in four years between 1996-2002, ranging from 11-43. The UPD now appears to be extirpated from these counties.

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