

SEPTEMBER 2012 SURVEY OF THE ROCKY MOUNTAIN POPULATION OF GREATER SANDHILL CRANES

Philip P. Thorpe, US Fish & Wildlife Service, DMBM, P.O. Box 25486 DFC, Denver, CO 80225
Douglas S. Benning, 102 Deer Haven Dr., Bailey, CO 80421
Patrick Donnelly, US Fish and Wildlife Service, Intermountain West JV, P.O. Box 8419, Missoula, MT 59807

Greater sandhill cranes of the Rocky Mountain Population (RMP) were counted at fall premigration staging areas in Colorado, Idaho, Montana, Utah, and Wyoming during September 2012. Migrants that had arrived at the RMP migration stopover areas near Jensen, Utah and in the San Luis Valley, Colorado were also recorded. The cooperative survey was organized by the Pacific Flyway Subcommittee on the RMP of Greater Sandhill Cranes and the US Fish and Wildlife Service (FWS). The FWS, Division of Migratory Bird Management, Denver, provided a Cessna 206 for a portion of the survey. Aerial and ground surveys were conducted by personnel from the respective state agencies, FWS and volunteers (participants listed in Table 1). Patrick Donnelly, rear seat observer, was added to the FWS aerial survey crew this year.

A count of **15,417** RMP cranes (-13.5% lower than the 2011 survey of 17,494) was tallied at 71 survey areas with 38.1% in Montana, 23.3% in Wyoming, 22.3% in Idaho, 13.7% in Utah, and 2.7% in Colorado (Figure 1; Tables 1, 2). The 2012 survey was the lowest population count recorded since 1987 (Table 2). All states reported below average counts except Utah and Wyoming. Kilgore and Camas Prairie WMA, ID were the only locations not surveyed in 2012. Kilgore historically has had few cranes and they were typically found in wet meadows. Because of the drought this year, wet meadows were scarce and further limited the likelihood cranes would be found there. No cranes had been observed at Camas Prairie prior to the survey so the area was not surveyed during the core period (Pers. comm. R. Berkely, IDFG).

All but three areas were surveyed during the five day designated count period, 10-14 September. Blackfoot-Ovando Valley and Warm Springs, MT were delayed because of dense smoke (Table 1). The majority (92%) of the areas were surveyed during the 3-day core period (11-13 September).

In addition to the normally surveyed areas, 453 cranes were found at 4 new locations this year but were not added to the total. A plan by the Pacific Flyway/Central Flyway RMP crane subcommittees should be developed on the best method on how to add increased effort to the survey. The new areas included; Craig, CO, 124; Clarks Fork of the Yellowstone River, MT, 274; Piute County, UT, 29; and Wayne County UT, 26. Sandhill cranes found in Millard, Piute, Wayne, and possible Sevier Counties could belong to the Lower Colorado River Valley population (LCRV; Manes et al. 1988). A determination regarding the eligibility of these new counties in addition to Sevier and Millard counties should be made by managers because of the possibility of mixing migrating RMP and LCRV sandhill cranes.

Three premigration staging areas had concentrations exceeding 1,000 cranes: 1) Farson, WY – 1,665; 2) Dillon-Twin Bridges/Beaverhead-Ruby Rivers, MT - 1,587; and 3) the contiguous tri-state Upper Bear River Valley in ID, UT, and WY - 1,058. Over 500 cranes were recorded at 3 other premigration sites: Melville, MT – 929; Teton Basin, ID – 572; and Toston-Townsend, MT – 540. The migration stopover near Jensen, UT on the Green River had 995 cranes (Table 1, Figure 1). These 7 areas accounted for 48% of all cranes recorded.

Spring weather conditions were abnormally dry and this weather pattern continued into the summer and fall. By September, conditions across the region were characterized as being in a moderate to extreme drought according to the drought mitigation center. Temperatures were generally normal to 2-4° C above normal from May to September. Survey conditions during the week were ideal with sunny skies and calm winds. No aerial surveys were completed on 10 September in Wyoming and Idaho because of high winds. Dense smoke was persistent in western Montana and northern Idaho due to widespread wildfires across the northwestern states. Other than smoke delaying the survey at two areas in Montana, no survey related problems were reported by survey participants.

Idaho had a total of four areas that had record low counts; Teton Basin, Malad River, Camas NWR, and the Idaho stretch of the Bear River. The Idaho state total was the lowest recorded so far for the survey (Table 2). Colorado also had the lowest state count on record, not including the partial survey year in 2006 (Table 2). Montana, Wyoming, and Utah state totals were all above average (Table 2). Montana and Utah also had several areas with all time high counts.

Observers in Montana noted that cranes were in smaller groups compared to past years. There were reports of cranes leaving Grays Lake as early as 2 September. These birds would likely be encountered and counted at other premigration staging areas to the south.

The presence of grain in crane staging areas has a big influence on counts in those staging areas. Grain appeared to be mostly harvested across the survey area. Grain fields were limited on the Grays Lake NWR with only one grain field present during the survey, the remaining fields were in fallow or in the progress of being fallowed. The crane count at Grays Lake was the second lowest for the survey, the only count lower was from 2008 when the refuge didn't plant grain. Another area that typically has cranes when grain is present are the refuge lands at the confluence of the Bear River and the Thomas fork. No grain was seen during the survey this year and crane counts from that area were also down compared to past years when grain was present.

We thank all who participated in the survey and we especially appreciate the effort made to complete counts during the designated period.

Manes, S. S., R. C. Drewien, J. D. Huener, T. W. Aldrich, and W M. Brown. 1992. Distribution of color-marked greater sandhill cranes banded in Utah. Pages 55-60 in D. A. Wood, editor. Proceedings of the 1988 North American Crane Workshop. Florida Game and Fresh Water Fish Commission Nongame Wildlife Program Technical Report 12

Table 1. Counts in September 2012 of the Rocky Mountain Population of greater sandhill cranes at premigration staging and migration stopover areas in Colorado, Idaho, Montana, Utah, and Wyoming (Figure 1). Surveys were conducted by air (a) and ground (g) between 10-20 September.

Map No. & Location(a/g) Date	No. cranes	Source
<u>COLORADO</u>		
1 Yampa Valley (g) 9/11	202	J. Yost, L. Miller, M. Boatwright, S. Znamenacek, CDOW
Morgan Bottoms	(0)	
Yampa River	(151)	
Hayden area	(51)	
2 Lower Elk River (g) 9/11	97	M. Middleton, CDOW
3 Delta Co., Harts Basin (g) 9/13	20	E. Horn, Eckert
4 San Luis Valley (g) 9/11,13	<u>94</u>	S. Miller, FWS
Subtotal	413 (2.7%)	
<u>IDAHO</u>		
1 Amer. Falls Res. (a) 9/11	103	FWS survey ^a
2 Ashton-St. Anthony (a) 9/11	450	" "
3 Bear River Valley	559	
Bear Lake Valley (g) 9/12	(112)	A. de Knijf, T. Matthews, FWS
Border-Pegram (a) 9/13	(192)	FWS survey
Bennington-Soda Spr. (a) 9/13	(60)	" "
Grace-Thatcher (a) 9/11	(156)	" "
Thomas Fork (a) 9/13	(39)	" "
4 Blackfoot Res. (a) 9/13	434	" "
5 Camas NWR (a) 9/11	60	" "
6 Camas Prairie	no survey	
7 Carey Lake area (g) 9/13	0	R. Morris, IDFG
8 Chesterfield Res. (a) 9/11	40	FWS survey
9 Grays Lake NWR (a) 9/13	262	" "
10 Henrys Lake Flats (a) 9/12	72	" "
11 Island Park Res. (a) 9/12	65	" "
12 Kilgore	no survey	
13 Market Lake WMA (g) 9/12	6	J. Rydalch , IDFG
14 Marsh Valley (a) 9/11	193	FWS survey
15 Mud Lake WMA, (g) 9/11	103	C. Hendricks, IDFG
16 Oxford Slough-Swan Lake (a) 9/11	136	FWS survey
17 Silver Creek (g) 9/13	281	R. Morris, IDFG

Table 1 (continued)

Map No. & Location(a/g) Date	No. cranes	Source
18 Teton Basin (a) 9/11	572	FWS survey
19 Malad River (a) 9/10	<u>96</u>	B. Stringham, UDWR
subtotal	3,432 (22.3%)	
<u>MONTANA</u>		
1 Blackfoot/Ovando Valley (a) 9/16	240	R. Vinkey, MFWP
2 Cascade-Ulm (a) 9/14	279	G. Taylor, MFWP
3 Centennial Valley (g) 9/14	8	A. Preston, FWS
4 Deadman's Basin (a) 9/11	293	J. Paugh, MFWP
5 Dillon-Twin Bridges (a) 9/12	1,587	FWS survey
6 Gallatin Valley (a) 9/11	184	J. Cunningham, MFWP
7 Helena Valley (a) 9/12	214	J. Sika, MFWP
8 Melville (a) 9/11	929	J. Paugh, MFWP
9 Musselshell River (a) 9/11	334	J. Paugh, MFWP
10 Otter Creek (a) 9/11	117	J. Paugh, MFWP
11 Teton River-Eureka Res. (a) 9/14	315	G. Taylor, MFWP
12 Toston-Townsend (a) 9/12	540	F. Jakubowski, MFWP
13 Upper Madison Valley (a) 9/12	312	FWS survey
14 Warm Springs (a) 9/20	36	R. Vinkey, MFWP
15 White Sulphur Spr. (a) 9/11	369	A. Grove, MFWP
16 Whitehall (a) 9/12	<u>119</u>	FWS survey
subtotal	5,876 (38.1%)	
<u>UTAH</u>		
1 Cache Co. (a) 9/11	256	B. Stringham, UDWR
<u>Great Salt Lake Basin</u>		
2 Box Elder Co. (a) 9/10	240	B. Stringham, UDWR
3 Davis Co. (a) 9/10	5	" "
4 Weber Co. (a) 9/10	15	" "
5 Morgan Co. (g) 9/11	82	A. Vande Voort, L. McFarlane, UDWR
<u>Rich Co.</u>		
6 Bear River Valley (a) 9/11	9	B. Stringham, UDWR
7 Round Valley (a) 9/11	95	" "
8 Summit Co. (a) 9/12	18	" "

Table 1 (continued)

Map No. & Location(a/g) Date	No. cranes	Source
<u>Uintah Co.</u>		
9 Jensen (a) 9/12	995	B. Stringham, UDWR
10 Pelican Lake area (a) 9/12	299	" "
11 Leland Bench (a) 9/12	55	" "
12 Millard Co. (g) 9/12	4	L. Zubeck
13 Sevier Co. (g) 9/12	7	V. Mumford
14 Wasatch (g) 9/13	<u>29</u>	D. Bunnell
subtotal	2,109 (13.7%)	
<u>WYOMING</u>		
1 Baggs (g) 9/11	0	L. Roberts, WGFD
2 Bear River Valley (a) 9/13	490	FWS survey
<u>Big Horn Basin</u>		
3 Greybull River/Otto (a) 9/11	166	T. Easterley, WGFD
4 Shoshone River/Ralston (a) 9/11	446	" "
5 Worland (a) 9/11	31	" "
<u>Green River Basin</u>		
6 Big Piney-Daniel (a) 9/13	117	FWS survey
7 Bridger Valley (g) 9/11-12	103	D. Kirsch, WGFD
8 Lonetree (g) 9/17	0	J. Short, WGFD
9 Farson (a) 9/13	1,665	FWS survey
10 Hams Fork (a) 9/13	15	" "
11 Pinedale-Cora-Boulder (a) 9/13	3	" "
12 Seedskaadee NWR (g) 9/11	0	B. Ahlers, K. Theule FWS
13 Saratoga (g) 9/11	69	L. Roberts, WGFD
<u>Snake River Basin</u>		
14 Jackson Hole		
Natl Elk (g) 9/12	23	E. Cole, T. Schoultz, B. Mulcahy, C. Mulcahy, FWS
15 Star Valley (a,g) 9/13	182	FWS survey, R. Drewien, J. Bohne
<u>Wind River Basin</u>		
16 Hidden Valley (a) 9/11	112	T. Easterley, WGFD
17 Ocean Lake (a) 9/11	67	" "
18 Riverview Valley (a) 9/11	<u>98</u>	" "
subtotal	3,587 (23.3%)	
TOTAL CRANES	15,417	

^a Fish & Wildlife Service aerial survey flown by P. Thorpe, D. Benning, and P. Donnelly.

Table 2. September premigration staging area counts by state of the Rocky Mountain Population of greater sandhill cranes during 1987, 1992, 1995-2005, 2007-2012.

Year	Colorado ^a	Idaho	Montana	Utah	Wyoming	Total
1987	1,443	10,686	1,447	1,578	2,327	17,481
1992	3,181	5,801	5,264	2,810	2,248	19,304
1995	2,284	6,864	3,681	1,528	1,671	16,028
1996	1,255	8,334	2,974	1,849	2,526	16,938
1997	1,604	8,132	3,595	2,450	2,255	18,036
1998	1,273	8,067	3,415	2,185	3,162	18,102
1999	1,102	8,761	3,141	2,292	4,205	19,501
2000	749	9,337	3,598	2,416	3,890	19,990
2001	666	7,160	4,585	1,522	2,626	16,559
2002	1,355	7,698	4,843	1,869	3,038	18,803
2003	745	7,822	4,964	2,546	3,446	19,523
2004	1,410	7,152	4,637	2,239	3,072	18,510
2005	1,052	7,668	5,588	2,646	3,911	20,865
2007	1,743	8,262	6,509	2,401	3,907	22,822
2008	1,080	6,123	6,419	3,708	3,826	21,156
2009	1,162	6,934	6,329	2,283	3,613	20,321
2010	985	5,776	7,335	3,242	3,726	21,064
2011	1,347	5,029	6,642	1,498	2,978	17,494
2012	413	3,432	5,876	2,109	3,587	15,417
Mean	1,308	7,318	4,781	2,272	3,159	18,838

^a Colorado counts include migrants that had arrived at the staging area in the San Luis Valley.

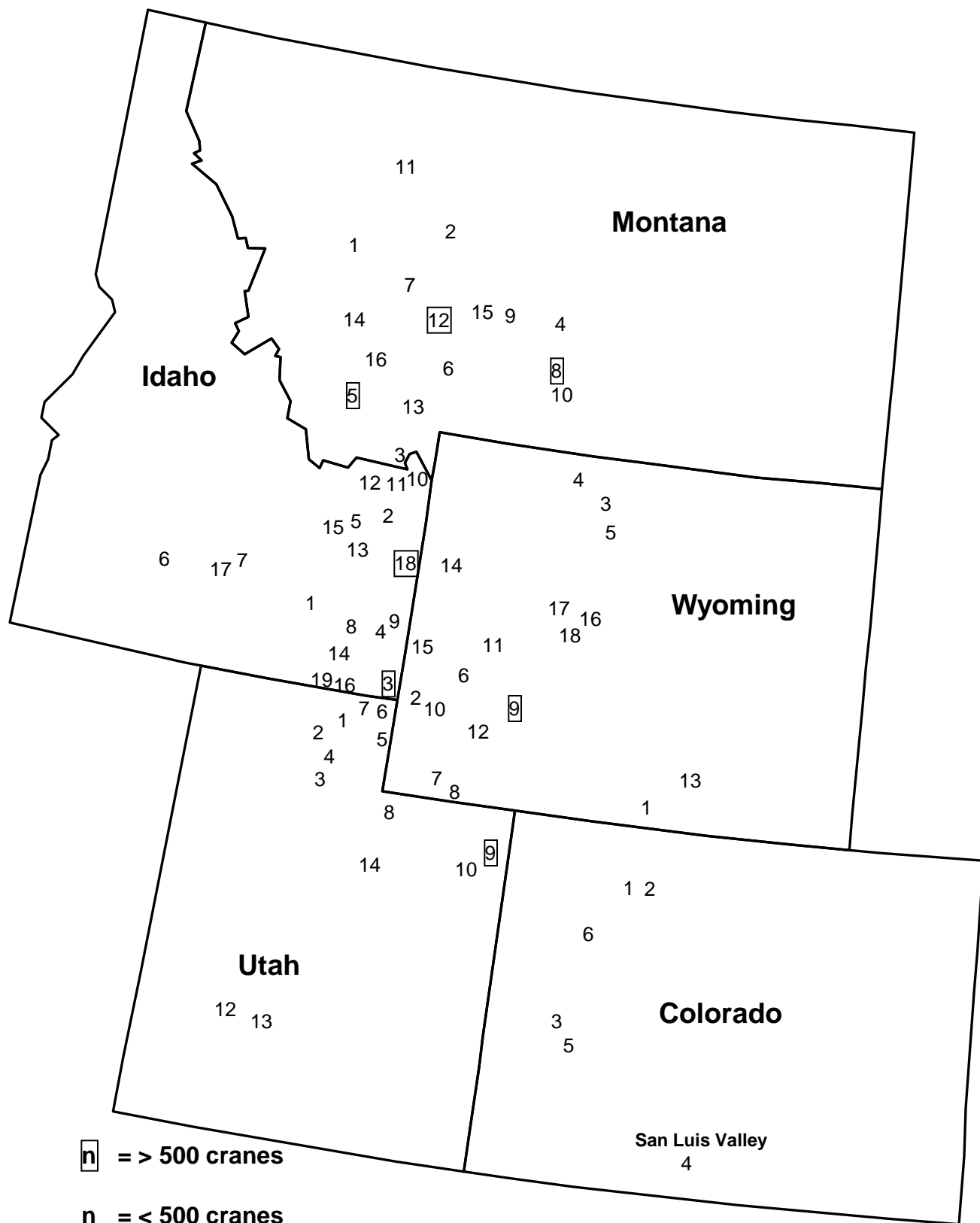


Figure 1. September survey locations for the Rocky Mountain Population of Greater Sandhill Cranes. See Table 1 for location names and numbers.