

## SEPTEMBER 2014 SURVEY OF THE ROCKY MOUNTAIN POPULATION OF GREATER SANDHILL CRANES

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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 2014. Migrants that had arrived at 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 RMP of Greater Sandhill Cranes and the U.S. Fish and Wildlife Service (FWS). The FWS, Division of Migratory Bird Management (DMBM), Denver, provided a Cessna 206 for a portion of the survey. Aerial and ground surveys were conducted by personnel from respective state agencies, FWS and volunteers (participants listed in Table 1).

A count of **19,663** RMP cranes (3.4% lower than the 2013 survey of 20,360) was tallied at 66 survey areas with 33.3% in Montana, 30.8% in Idaho, 15.3% in Wyoming, 14.2% in Utah, and 6.4% in Colorado (Figure 1; Tables 2). Camas Prairie, Carey Lake area, Kilgore, and Seedskaadee NWR were not surveyed in 2014. All areas except Camas Prairie traditionally have had low counts. Seedskaadee NWR is dropping out of the survey because of historically low counts. All but three areas in Montana were surveyed during the five day designated count period, 15-19 September (Table 1). The majority (67%) of the areas were surveyed during the 3-day core period (16-18 September).

Five premigration staging areas had concentrations exceeding 1,000 cranes: 1) Dillon-Twin Bridges/Beaverhead-Ruby Rivers, MT – 1,804; 2) the contiguous tri-state Upper Bear River Valley in ID, UT, and WY – 1,522; 3) Teton Basin, ID – 1,430; 4) Farson, WY – 1,295; and 5) Melville, MT – 1,039. Over 500 cranes were recorded at 5 other premigration sites: Grays Lake, ID – 839; Ashton-St. Anthony, ID – 654; Musselshell River, MT – 606; Blackfoot Reservoir, ID – 520; and Yampa River, CO – 519. The migration stopover near Jensen, UT on the Green River had 992 cranes (Table 1, Figure 1). These 11 areas accounted for 57% of all cranes recorded.

Sandhill cranes were also counted in Sheridan (430), Johnson (518), and Natrona (452) counties in Wyoming again this year, but they were not included in the overall estimate. Agreement by the Central and Pacific flyways whether to include them as RMP sandhill cranes is required before including these birds into the overall survey count. Given the timing of the observations, it is likely that these are RMP cranes that have expanded or shifted their range eastward. A monitoring program to confirm that these are RMP cranes should be in place before these birds are officially included in the survey totals.

A total of 102 sandhill cranes was counted in Millard (2), Piute (11), Sevier (42), and Wayne (47) counties in Utah. We are still awaiting a decision on whether to include these counties, traditionally thought of as within the range of the Lower Colorado River Valley (LCRV) sandhill crane population (Manes et al., 1988), into the overall survey estimate. A study involving both LCRV and

RMP cranes with satellite transmitters attached to them is ongoing and hopefully will shed some light on the amount of range overlap between these two management populations.

Several counts confirmed that some cranes were migrating during the survey period. At Jensen and Pelican Lake area, UT, primarily a migration stopover site on the Green River in Uintah County, 992 and 176 cranes were recorded and 440 migrants had arrived in the San Luis Valley, CO (Table 1). There were also 136 cranes observed at Harts Basin/Fruitgrowers Reservoir, CO. Otherwise, the count timing appeared good with few birds left on breeding areas and larger groups in premigrational staging areas.

Below normal precipitation and above normal temperatures in Montana, Idaho and Wyoming characterized the 2013-2014 winter. June had below-average temperatures and slightly above-average precipitation in Montana, Idaho and Wyoming. Temperatures were above average across the survey area from July to September. Precipitation varied during the rest of the summer with below-average amounts received in Montana and above-average precipitation in Idaho and Wyoming in July; below-average precipitation fell in Idaho and Wyoming in August and record setting amounts were received in Montana. September, across the survey area, was warmer and wetter than average. Weather conditions for the aerial survey in Idaho, Montana, and Wyoming were good, with calm winds and mostly sunny skies.

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 2014 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 12-20 September.

Map No. & Location(a/g) Date	No. Cranes	Source
<b><u>COLORADO</u></b>		
1 Yampa River (g) 9/17	<b>519</b>	
Axial Basin (g) 9/17	0	B. Holmes, J. Goncalves, CPW
County Line grain fields (g) 9/17	57	E. Jones, CPW
Craig vicinity fields (g) 9/17	0	E. Jones, M. Grooms, CPW
Hayden airport/racetrack (g) 9/17	391	J.&P. Pollock, J. Yost, S. Dwinnel, CPW
Morgan Bottoms (g) 9/17	0	S. Znamenacek, CPW
Yampa River SWA (g) 9/17	71	L. Rossi, A. Reishus, CPW
2 Elk River	<b>17</b>	
Selby's grain fields (g) 9/17	17	S. Baumgartner, M. Middleton, CPW
3 White River	<b>140</b>	
East of Meeker (g) 9/17	4	B. Holmes, J. Goncalves, CPW
Little Beaver-Irish Mesa (g) 9/17	136	" "
4 Williams Fork River	<b>0</b>	
East of Hamilton (g) 9/17	0	E. Jones, CPW
5 Little Snake River (g) 9/17	<b>6</b>	
Slater (g) 9/17	0	M. Bauman, CPW
Two Bar Ranch (g) 9/17	6	M. Grooms, CPW
6 Delta Co., Harts Basin (g) 9/18	<b>136</b>	E. Horn, J. Wallace, D. Gulinet, Volunteer
7 San Luis Valley (g) 9/15-17	<b>440</b>	D. Lee, FWS
Subtotal	<b>1,258</b>	<b>6.4%</b>

## **IDAHO**

1 Amer. Falls Res. (a) 9/15	<b>155</b>	FWS survey <sup>a</sup>
2 Ashton-St. Anthony (a) 9/18	<b>654</b>	" "
3 Bear River Valley	<b>778</b>	
Bear Lake Valley (g) 9/17-18	356	T. Matthews, FWS
Border-Pegram (a) 9/16	34	FWS survey
Bennington-Soda Spr. (a) 9/16	42	" "
Grace-Thatcher (a) 9/15	197	" "
Thomas Fork (a) 9/16	149	" "
4 Blackfoot Res. (a) 9/15	<b>520</b>	" "
5 Camas NWR (a) 9/17	<b>375</b>	" "
6 Camas Prairie	no survey	IDFG
7 Carey Lake area	no survey	" "
8 Chesterfield Res. (a) 9/15	<b>49</b>	FWS survey
9 Grays Lake NWR (g) 9/16	<b>839</b>	R. Drewien
10 Henrys Lake Flats (a) 9/17	<b>2</b>	FWS survey

Table 1 (continued)

Map No. Location(a/g) Date	No. Cranes	Source
11 Island Park Res. (a) 9/17	<b>4</b>	FWS survey
12 Kilgore	no survey	" "
13 Market Lake WMA (g) 9/15	<b>6</b>	J. Maupin , IDFG
14 Marsh Valley (a) 9/15	<b>238</b>	FWS survey
15 Mud Lake WMA, (g) 9/16	<b>53</b>	C. Hendricks, IDFG
16 Oxford Slough-Swan Lake (a) 9/15	<b>205</b>	FWS survey
17 Silver Creek (g) 9/16	<b>431</b>	A. Hildreth, IDFG
18 Teton Basin (a) 9/19	<b>1,430</b>	FWS survey
19 Malad River (a) 9/16	<b>325</b>	B. Stringham, UDWR
subtotal	<b>6,064</b>	<b>30.8%</b>

**MONTANA**

1 Blackfoot/Ovando Valley (a) 9/12	<b>311</b>	R. Vinkey, MFWP
2 Cascade-Ulm (a) 9/18	<b>157</b>	K. Smucker, MFWP
3 Centennial Valley (g) 9/13	<b>85</b>	J. Stadum, FWS
4 Clark Fork of the Yellowstone (a) 9/15	<b>427</b>	S. Stewart, MFWP
5 Deadman's Basin (a) 9/15	<b>306</b>	J. Paugh, MFWP
6 Dillon-Twin Bridges (a) 9/17	<b>1,804</b>	FWS survey
7 Gallatin Valley (a) 9/17	<b>182</b>	J. Cunningham, MFWP
8 Helena Valley (a) 9/16	<b>216</b>	J. Sika, MFWP
9 Melville (a) 9/15	<b>1,039</b>	J. Paugh, MFWP
10 Musselshell River (a) 9/15	<b>606</b>	" "
11 Otter Creek (a) 9/15	<b>4</b>	" "
12 Teton River-Eureka Res. (a) 9/20	<b>399</b>	K. Smucker, MFWP
13 Toston-Townsend (a) 9/19	<b>482</b>	A. Grove, MFWP
14 Upper Madison Valley (a) 9/17	<b>90</b>	FWS survey
15 Warm Springs (a) 9/15	<b>15</b>	R. Vinkey, MFWP
16 White Sulphur Spr. (a) 9/15	<b>349</b>	J. Kolbe, MFWP
17 Whitehall (a) 9/17	<b>83</b>	FWS survey
subtotal	<b>6,555</b>	<b>33.3%</b>

**UTAH**

1 Cache Co. (a) 9/15	<b>448</b>	B. Stringham, UDWR
<u>Great Salt Lake Basin</u>		
2 Box Elder Co. (a) 9/15	<b>341</b>	B. Stringham, UDWR
3 Davis Co. (a) 9/15	<b>6</b>	" "
4 Weber Co. (a) 9/15	<b>22</b>	" "
5 Morgan Co. (g) 9/16	<b>87</b>	" "
<u>Rich Co.</u>		
6 Bear River Valley (a) 9/16	<b>581</b>	B. Stringham, UDWR
7 Round Valley (a) 9/16	<b>72</b>	" "
8 Summit Co. (a) 9/16	<b>19</b>	" "

Table 1 (continued)

Map No.	Location(a/g) Date	No. Cranes	Source
<u>Uintah Co.</u>			
9	Jensen (a) 9/16	992	B. Stringham, UDWR
10	Pelican Lake area (a) 9/16	176	" "
11	Leland Bench (a) 9/16	11	" "
12	Wasatch Co. (g) 9/16	28	D. Bunnell
	subtotal	2,783	14.2%
<b><u>WYOMING</u></b>			
1	Baggs (g) 9/17	0	L. Roberts, WGFD
2	Bear River Valley (a) 9/16	163	FWS survey
<u>Big Horn Basin</u>			
3	Greybull River/Otto (a) 9/16	99	L. Roberts, WGFD
4	Shoshone River/Ralston (a) 9/16	384	" "
5	Worland (a) 9/16	174	" "
<u>Green River Basin</u>			
6	Big Piney-Daniel (a) 9/16	19	FWS survey
7	Bridger Valley (g) 9/16	18	A. Deru, WGFD
8	Lonetree (g) 9/16	4	" "
9	Farson (a) 9/16	1,295	FWS survey
10	Hams Fork (a) 9/16	0	" "
11	Pinedale-Cora-Boulder (a) 9/16	0	" "
12	Seedskadee NWR	no survey	
13	Saratoga (g) 9/17	0	L. Roberts, WGFD
<u>Snake River Basin</u>			
14	Jackson Hole		
	Natl Elk (g) 9/17	150	E. Cole, C. Mulcahy, B. Mulcahy
15	Star Valley (a,g) 9/16	467	FWS survey, R. Drewien, J. Bohne
<u>Wind River Basin</u>			
16	Hidden Valley (a) 9/16	122	L. Roberts, WGFD
17	Ocean Lake (a) 9/16	48	" "
18	Riverview Valley (a) 9/16	60	" "
	subtotal	3,003	15.3%
<b>TOTAL CRANES</b>		<b>19,663</b>	

<sup>a</sup> Fish & Wildlife Service aerial survey flown by P. Thorpe, P. Donnelly, and Dan Collins.

Table 2. September premigration staging area counts by state of the Rocky Mountain Population of greater sandhill cranes during 1987, 1992, 1995-2005, 2007-2014.

Year	Colorado <sup>a</sup>	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
2013	1,594	5,228	7,218	2,732	3,588	20,360
2014	1,258	6,064	6,555	2,783	3,003	19,663
Mean	1,319	7,159	4,982	2,318	3,172	18,950

<sup>a</sup> Colorado counts include migrants that had arrived at the staging area in the San Luis Valley.

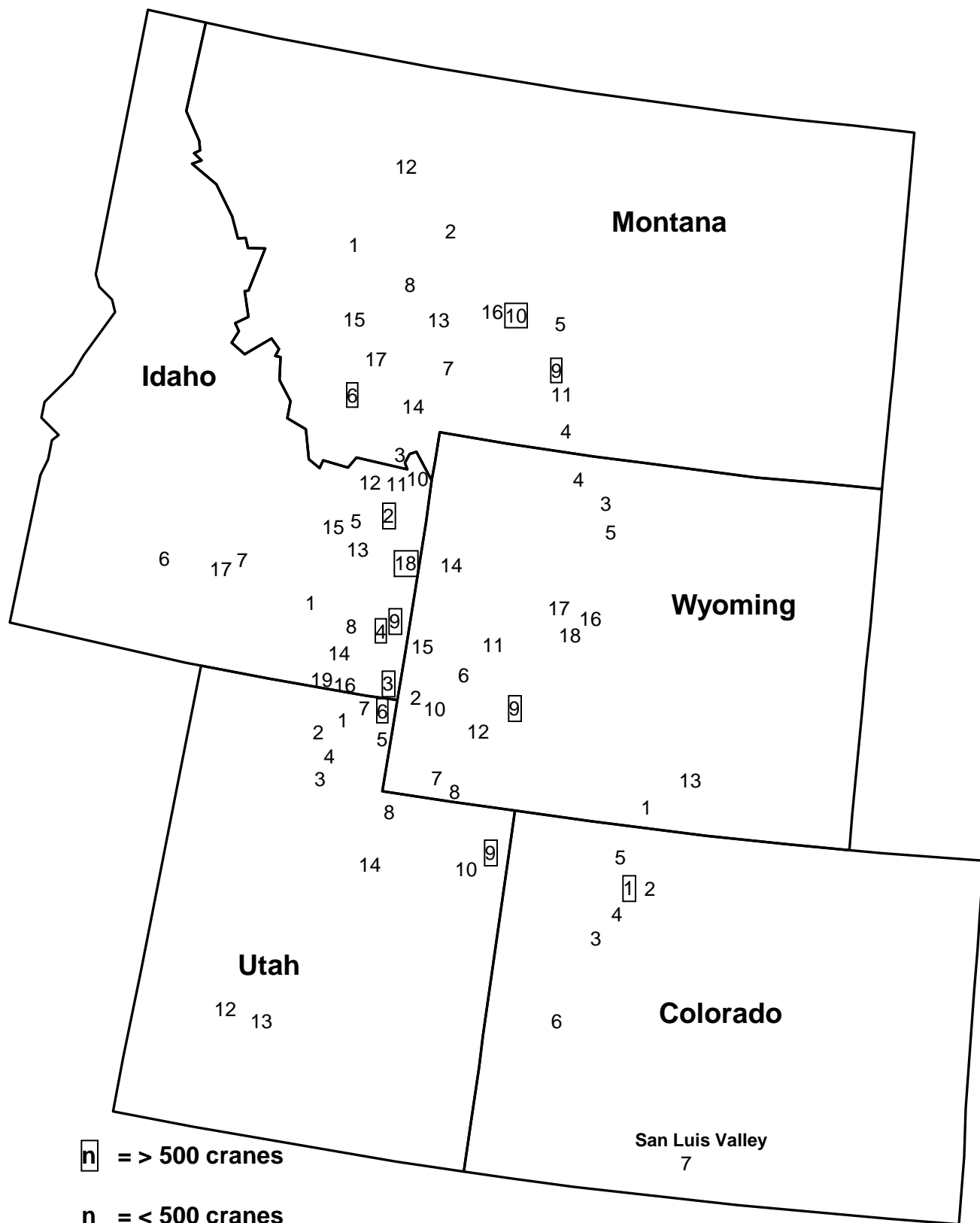


Figure 1. September survey locations for the Rocky Mountain Population of Greater Sandhill Cranes. See Table 1 for location names and numbers.