

2017-18 CHUKAR FORECAST

The Nevada Department of Wildlife was able to conduct aerial chukar density surveys in all 13 transects established in northern Nevada (see Figure on opposite page) during the week of August 7-10, 2017. Funding for these surveys was made available through the Nevada Chukar Foundation. A series of thunderstorms occurred throughout the weekend prior to the survey which may have reduced the number of chukar observed. Overall, the results of the survey indicated a 27% decline in the number of birds observed per square mile from last year and was 8% below the long-term average.

There were only two transects that showed improvement this year (Sonoma and Pine Forest) while the Buffalo Hills transect remained relatively stable. All the other transects declined between 24% and 69% from last year. The Granites, Sheep Creek, Lava Beds, Selenite and Santa Rosa transects were all >60% below the prior year's results.

The broader distribution of water on the landscape and improved overall habitat conditions may have disturbed chukar more broadly, although an exceptionally strong winter might have taken a toll on chukar populations in terms winter mortality and may have contributed to the lower observed bird densities this year.

Nevada Aerial Chukar Density Survey Plots

Birds Observed per Square Mile

Year	Double H	Santa Rosa	Pine Forest	Jackson	Sonoma	Lava Beds	Selenite	Buffalo Hills	Granites	Argenta	Izzenhood	Rock Creek	Sheep Creek	Overall Average
90	62	76	57	168	64	47	8	35	17	69		115		65
91	23	51	59	134	3	26	7	46	23	33		56		42
92	26	40	90	76	2	14	7	41	41	25		36		36
93	6	6	51	42	7	16	6	4	0	20	23	27	17	17
94	21	13	80	66	18	37	11	22	6	20	23	86	28	33
95	32	17	41	55	19	57	11	23	9	62	16	68	29	34
96	18	20	61	54	34	52	5	62	32	26	15	97	18	38
97	32	11		109						26	11	54	42	41
98	18	45	44	140	37	61	11	31	53	46	13	39	58	46
99	77	102	59	258	125	125	25	67	51	48	6	74	112	87
00	39	59	81	156	49	44	17	46	41	37	11	92	53	56
01	81	85	130	109	31	41	31	32	100	35	23	56	58	62
08	32	61	61	15	112	60	33	70	49	9	25	39	3	44
09	49	41	195	82	104	70	21	58	35	28	32	21	7	57
10	62	87	109	56	66	46	31	76	66	40	37	46	17	57
11	59	37	108	130	167	129	103	77	54	62	59	48	37	82
12	49	33	89	47	150	77	25		57	33	59	87	38	62
13	36	44	136	18	58	49	49	29	33	17	19	17	23	41
14	59	61	83	75	71	80	66	71	58	28	35	28	36	51
15	47	76	107	59	62	48	35	74	62	24	47	47	21	55
16	77	26	74	69	48	90	46	88	57	54	35	43	39	57
17	37	8	145	38				90	22	41	20	19	15	44
% Change	-52%	-69%	96%	-45%	-100%	-100%	-100%	2%	-61%	-24%	-43%	-56%	-62%	-20%
Min	6	3	40	15	2	14	5	4	0	9	6	17	3	9
Max	105	102	195	258	167	129	103	90	100	95	59	127	112	87
Avg	43	41	82	96	58	55	27	47	39	38	27	60	35	45
% Diff/Avg.	-14%	-80%	76%	-61%	-100%	-100%	-100%	90%	-44%	7%	-25%	-68%	-57%	-3%



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Results from the online small game questionnaire indicated that harvest increased almost 29% from the 2015-2016 season, going from 58,988 to 75,850 birds in 2016-2017. Roughly the same number of hunters (n = 8,666 in 2016-2017 vs. 8,721 hunter in 2015-2016) pursued the species as in the prior season; however, the birds per hunter (n = 8.8) and birds per hunter day (n = 1.8) values were up by 29% and 26% respectively compared to the 2015-2016 season. These values were also up substantially from the 10-year averages as well. These results, coupled with a wet winter and greater availability of water suggested that the upcoming season was setting up to be a good one, but we may have misjudged the effects of an exceptionally wet winter with snow accumulations that had not been experienced for quite some time.

Some ground brood survey data was collected in Hunt Units 041-042 during the summer of 2017 which documented 480 birds of which 326 were young of the year for a young per adult ratio of 2.1. These results were below the long-term average of 3.3 young per adult for this region of the state. Hunters may expect to find fewer and smaller coveys throughout western Pershing County this season. Biologist reports from portions of Churchill County, such as the Sand Springs Range, indicate that numbers of birds and production here is better than what has been observed elsewhere in the state. Other reports suggested robust chukar numbers in Hunt Unit 012 in northern Washoe County.

Once again, and to everyone's frustration, wildfires ravaged the Rock Creek, Izzenhood and Sheep Creek transects north of Battle Mountain. The "Snowstorm Complex" and "Rooster's Comb" fires combined burned approximately 340,000 acres in this portion of the state during July 2017. This conflagration came on the heels of the 2016 "Hot Pot" fire which burned 122,000 acres in the Izzenhood Range. Chukar populations and other wildlife in the Izzenhood Range and along the Rock Creek Gorge were without much cover during the winter of 2016-2017 where much of the upper Humboldt Basin experienced upwards of 160% of average annual snowpack. The lack, or relative absence, of cover in the form of native shrubs, particularly sagebrush species, is likely having a negative impact on chukar populations during critical time periods such as heavy winter snow accumulations. Hunters are urged to avoid recently burned habitat (especially the Rooster's Comb Fire) to reduce disturbing already challenged wildlife populations and allow restoration efforts to establish. Hunters also should never travel off-road in burned habitats to avoid creating new and unnecessary roads.

