

Utah 2021 Chukar Partridge Update

Utah Division of Wildlife Resources

15 September 2021



Starting in 2019 the Utah Division of Wildlife Resources has implemented a chukar survey methodology to evaluate chukar numbers and production using game cameras set on water sources throughout the state. The camera survey allows data to be captured in a wide geographic area and provide data on the year's production and a year-to-year index of abundance. Helicopter surveys have been discontinued due to increasing cost and safety concerns related to low-level helicopter flight.

During the initial year, cameras were placed at 20 trend sites throughout the state. The project was expanded to 42 sites for 2020, and the DWR plans to expand to additional sites in 2022. Volunteers from the Utah Chukar and

Wildlife Foundation and the UT DWR Dedicated Hunter program were critical for processing photos and summarizing chukar visits to water sources. As we establish additional sites and accumulate multiple years of data, the information from the monitoring project will become more informative.

Although we had a mild winter, moisture has been lacking; impacting habitat conditions throughout the state, especially during critical nesting and early brooding periods. Summer monsoon rains did return this year, and will hopefully lead to improved conditions next spring. However, precipitation in the west desert is spotty and conditions can differ significantly from one range to another, or even between areas on the same mountain range.

Table 1. Chicks per Adult by Region

The average number of juvenile birds per adult birds in the four sampled DWR regions. The number of chicks per hen is an index of this year's production. This year production as indicated by camera surveys was very low.

	2019	2020	2021
Northern	2.5	1.3	0.1
Central	4.8	1.0	0.1
Southern	1.9	0.6	0.0
Southeastern	3.0	1.5	0.0

Even when chicks were present, they were outnumbered by adults indicating poor production.



Chukar production can be highly variable year to year. Here is an example from the 2021 camera survey of an all adult covey. It is normal to see some coveys without chicks, but when most coveys are all adults it is indicative of failed broods or nests.

Overall production was very poor this year, with few brood coveys visible at guzzlers and increased number of adult-only coveys. Chukar hunters can expect to see a below-average year in many areas, with a general south to north trend with better, although still relatively poor production in northern regions of the state.

Of the 20 cameras sites established in 2019, 14 were repeated in 2020, and of the 40 cameras active in 2020, 37 were repeated in 2021. These repeated measures are key to establishing a population index and understanding year-to-year variation.

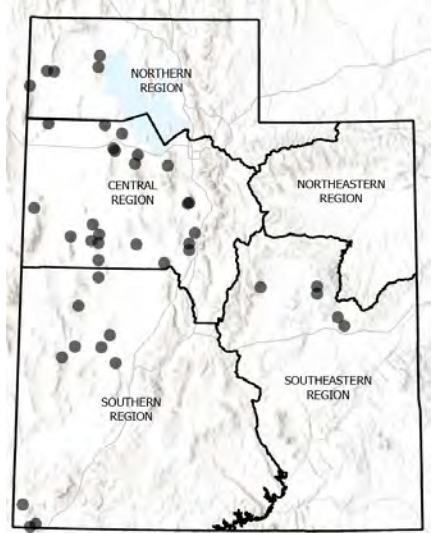
Northern Region:

There were 5 cameras deployed in the Northern Region on the Grouse Creek Mts., Pilot Mts., Hogup Mts., and Wildcat Hills. Overall, four out of five cameras were visited by chukar during the survey period, and two of those that were visited had

chicks. However, the number of chicks per adult was down substantially from prior years, with only 0.1 chicks per adult relative to 1.3 in 2020 and 2.5 in 2019. The number of adults visiting monitored guzzlers was actually up, possibly due to increased water needs and lower moisture content in food due to drought conditions.

Figure 1. Regional Boundaries and Monitored Locations

Regional boundaries referenced in this document with approximate locations of monitored water sources.



Central Region:

Much of Utah’s chukar habitat is within the Central Region, and the area also receives the majority of the camera monitoring effort with 20 active cameras in 2021 deployed on the Cedar, Deep Creek, Desert, Dugway, Grassy, Lake, Lakeside, Long Ridge, Oquirrh, Silver and Stansbury Mountains. Of those 20 cameras, eight were not visited at all by chukar. Of the 12 that were visited, six were only visited by adults, with the remaining six also having juvenile birds present. This proportion visited by juvenile chukars is down substantially from 2020 when 12 of 13 visited cameras had juvenile birds present. Following low numbers of juvenile chukars using monitored water sources are low chick to adult ratios, down substantially to only 0.1 chicks per adult relative to 1.0 chick per adult in 2020 and 4.8 chicks per adult in 2019. Overall hunting conditions likely will be relatively poor.

Southern Region:

The Southern Region contains much of the west desert ranges south of the Millard-Juab county line. Eleven cameras were placed on the Beaver, Crickets, Drum, Gray Hills, House, and Mineral Mountains. Of those 11, only four were visited by chukar during the survey period this year, and of the guzzlers visited by chukars only one had chicks present. Overall it looks to be a poor production year. Despite the one guzzler that had chicks visit, production is off the charts at the low end, with an average of 0.0 chicks per adult observed on guzzlers. There was a significant amount of monsoon moisture during the survey period which may have reduced visitation, however there were periods of hot dry weather, so we would have expected more visitation if there were birds in the area. Overall hunting conditions will likely be relatively poor.

Southeastern Region:

The Southeastern cameras are located along the Book Cliffs and Manti east slope. Of the five active cameras, one was stolen, so data was not available from one site. Of the four remaining cameras, two were visited by adult chukar, and none were visited by juvenile chukar this year. For the cameras that were visited by adult chukar, overall visitation rates were up, likely due to reduced water content in feed.

Summary:

Although production is generally poor throughout the state, there are still chukar on the landscape available to hunt. Hunters will likely have more miles between smaller coveys relative to last year. What is presented here are averages, so there are always areas doing considerably better (but also areas doing worse). Chukar are resilient, and tolerant of poor desert conditions so they will make it through this year, and populations will rebound if we get more favorable weather.

Table 2. Water Site Visitation by Region

The number of cameras set up on water in each DWR region. Note the Northeast Region does not have significant populations of chukar available to sample. The number of sites visited by juvenile chukar was down substantially from 2020.

	2020			2021		
	Active Cameras	Cameras with Visits	Cameras with Chicks	Active Cameras	Cameras with Visits	Cameras with Chicks
Northern	5	2	2	5	4	2
Central	20	13	12	20	12	6
Southern	10	7	7	11	4	1
Southeastern	5	2	2	4	2	0



There were pockets of production in an overall poor year. There are birds out there, time to burn some boot leather!