

## 2018 Sharp-tailed grouse Harvest Report

The 2018 sharp-tailed grouse report provides information on the estimated harvest of mountain sharp-tailed grouse. A stratified random sample of 3,500 sharp-tailed grouse hunters was drawn from among Harvest Information Program (HIP) participants. The sample was stratified as follows:

- 1 = Not likely to hunt
- 2 = Somewhat likely to hunt
- 3 = Very likely to hunt
- 4 = Very likely to hunt  $\geq$  3 years

The post-season survey, conducted by telephone and email, contacted 1,554 (44.4% response rate) hunters. In total, 22 respondents, or 1.4%, reported they had hunted sharp-tailed grouse in 2017 and 8 (36%) reported harvesting sharp-tailed grouse. Statewide harvest was estimated at **114  $\pm$  99 (13 – 214)**.

### **Comparison with 2017 survey results:**

Harvest was lower than 2017 when an estimated 529  $\pm$  331 (198 – 861) grouse were harvested. Hunter numbers in 2016, estimated at **247  $\pm$  121 (126 – 369)** were similar to 2017 when **249  $\pm$  108 (140 – 357)** reported hunting. Days hunted was somewhat lower, **705  $\pm$  384 (323 – 1,086)** in 2018, from 956  $\pm$  486 (461 – 1,452) in 2017.

### **Discussion**

According to survey data, sharp-tailed grouse harvest decreased by more than 78% between the 2017 and 2018 harvest estimates, while total hunter numbers and days hunted effectively doubled between years. Similar decreases are common in the historic harvest data set for Columbian sharp-tailed grouse.

As part of this analysis, CPW calculated an estimate of average birds harvested per hunter from 1999-2015. In 2018 hunters averaged 0.46 birds per hunter, suggesting that average hunting success was much lower than the long term average of 1.6 birds per hunter.

### **Hunter Statistics and Harvest Estimates by Strata and County**

The following summary tables provide estimates of hunter numbers, days in the field and sharp-tailed grouse harvest statewide and by county. Estimates are followed by the standard error of the estimate, and 95% upper (UCI) and lower (LCI) confidence intervals around the estimate. In 2015, Colorado Parks and Wildlife attempted to reduce erroneous harvest location responses by allowing answers that correspond to mountain sharp-tailed grouse occurrence and where legal hunting seasons occur. All other location responses – for instance if a hunter said he hunted sharp-tailed grouse in Yuma County, were cached into an “Unknown” category, and eliminated from the data set.

Summary tables provide estimates of hunter numbers, days in the field and sharp-tailed grouse harvest state and by county. Estimates are followed by the standard error of the estimate, and 95% upper (UCI) and lower (LCI) confidence intervals around the estimate.

**2018 Sharp-tailed grouse harvest,  
by strata**

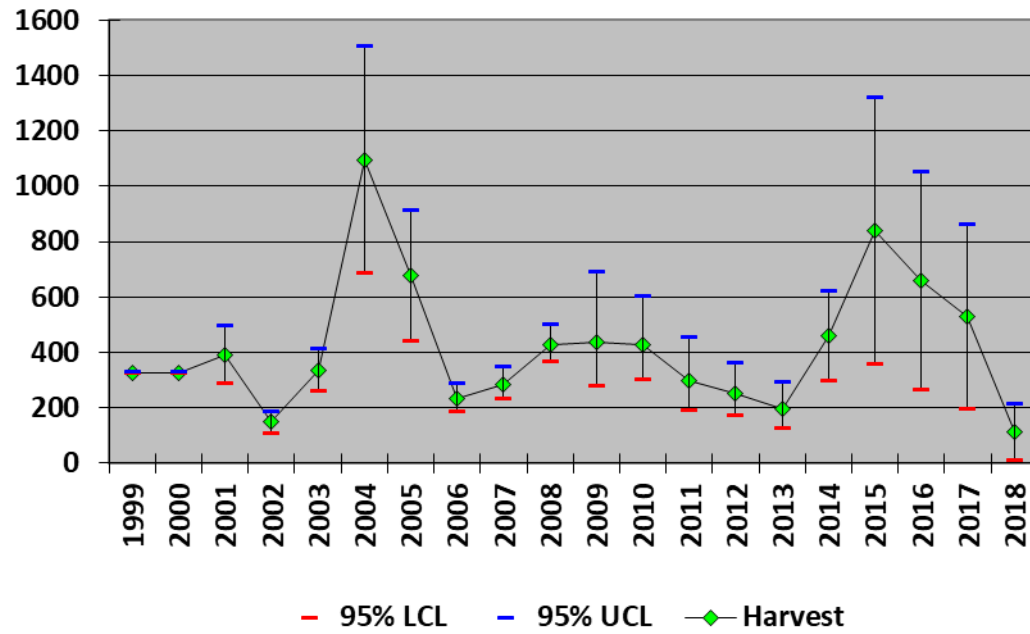
<b>Strata</b>	<b>Hunters</b>	<b>SE (Hunters)</b>	<b>LCL (Hunters)</b>	<b>UCL (Hunters)</b>	<b>Days Hunted</b>	<b>SE (Days Hunted)</b>	<b>LCL (Days Hunted)</b>	<b>UCL (Days Hunted)</b>	<b>Harvest</b>	<b>SE (Harvest)</b>	<b>LCL (Harvest)</b>	<b>UCL (Harvest)</b>
Not Likely	85	38	37	196	205	99	83	503	0	0	0	0
Somewhat Likely	47	27	17	135	110	72	34	354	0	0	0	0
Very Likely	82	40	34	203	247	143	86	708	62	46	17	226
Very Likely for >3 years	33	8	20	52	143	50	74	277	52	23	22	120
<b>Total</b>	<b>247</b>	<b>62</b>	<b>126</b>	<b>369</b>	<b>705</b>	<b>195</b>	<b>323</b>	<b>1086</b>	<b>114</b>	<b>51</b>	<b>13</b>	<b>214</b>

**2018 Sharp-tailed grouse harvest,  
by county**

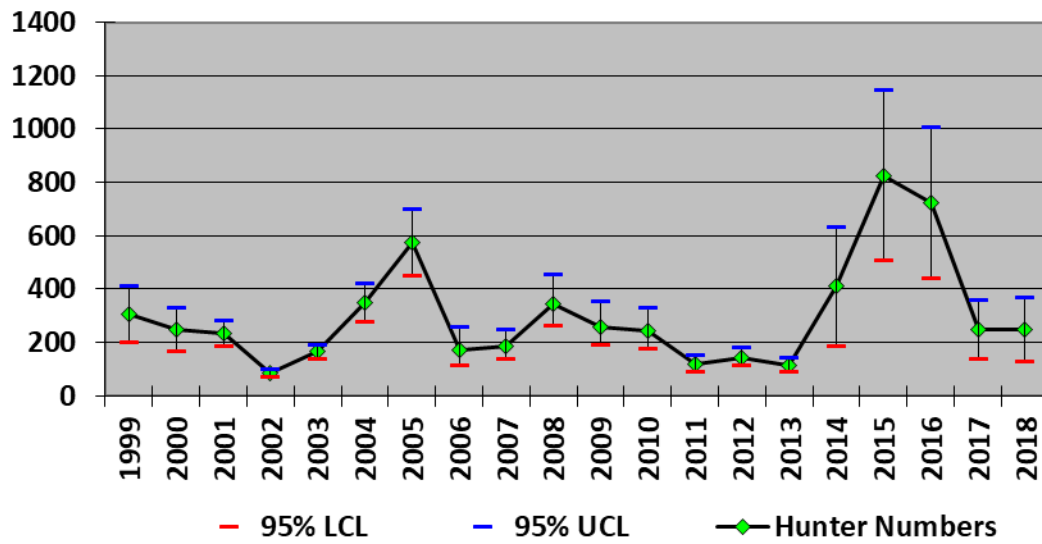
<b>County</b>	<b>Hunters</b>	<b>SE (Hunters)</b>	<b>LCL (Hunters)</b>	<b>UCL (Hunters)</b>	<b>Days Hunted</b>	<b>SE (Days Hunted)</b>	<b>LCL (Days Hunted)</b>	<b>UCL (Days Hunted)</b>	<b>Harvest</b>	<b>SE (Harvest)</b>	<b>LCL (Harvest)</b>	<b>UCL (Harvest)</b>
Moffat	98	37	48	200	185	83	80	427	10	6	3	28
Rio Blanco	41	35	10	173	20	17	5	87	3	3	1	17
Routt	475	150	260	868	425	159	209	864	101	51	40	256
Unknown	13	13	3	66	3	3	1	17	0	0	0	0
<b>Total</b>	<b>247</b>	<b>62</b>	<b>126</b>	<b>369</b>	<b>705</b>	<b>195</b>	<b>323</b>	<b>1086</b>	<b>114</b>	<b>51</b>	<b>13</b>	<b>214</b>

\*Hunters could provide up to 3 counties when asked “where did you harvest sharp-tailed grouse?”

### Sharp-tailed grouse Harvest Estimates, Colorado (1999-2018)



### Sharp-tailed grouse Hunter Numbers Colorado (1999-2018)



Sharp-tailed grouse Hunters and Harvest  
Colorado (1999-2018)

