

# 2000 Sharp-tailed Grouse Harvest Report

A post-season harvest survey was conducted by phone.

A stratified random sample of 4000 sharp-tailed grouse hunters was drawn from among HIP participants. 2828 (71% response rate) hunters were contacted.

Of those surveyed, 88 or 3% reported they had hunted sharptails. The number of birds harvested ranged from 0 (42 respondents) to 20 (1 respondent), with 17 hunters reporting harvest of 2 birds.

77% reported being satisfied with their sharp-tailed grouse hunting experience and 83% reported no crowding.

***Statewide harvest was estimated at  $282 \pm 73$  (209 - 355).***

## **Comparison with 1999 survey results:**

Harvest was down from 1999 when an estimated  $328 \pm 4$  birds were harvested. Correspondingly hunter numbers decreased from  $304 \pm 106$  in 1999 to  $249 \pm 82$  in 2000 and days hunted dropped from an estimated  $721 \pm 12$  in 1999 to  $614 \pm 141$ . None of these decreases are statistically significant at the 95% confidence level.

Harvest results are provided by strata, county, and population.

## **Harvest by Strata, County and Population**

Summary tables provide estimates of hunter numbers, days in the field and sharp-tailed grouse harvest by county and population. Estimates are followed by the standard error of the estimate, and 95% upper (UCI) and lower (LCI) confidence intervals around the estimate. For example, the estimated number of sharp-tailed grouse hunters in Moffat County is 36 plus or minus 1.96(SE) or 1.96(8)=16. The range of the estimate is 20 to 52. Estimates of days in the field and harvest are interpreted the same way. State totals are given at the bottom of each column.

**(The output wraps around.)**

## Summary of Sample Data

The FREQ Procedure

stgstrata	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Will not hunt	168	5.96	168	5.96
Somewhat likely	1854	65.74	2022	71.70
Very likely	798	28.30	2820	100.00

### Hunted during Season?

hunt	Frequency	Percent	Cumulative Frequency	Cumulative Percent
yes	88	3.12	88	3.12
no	2732	96.88	2820	100.00

### Table of Sharp-tailed Grouse Strata by Hunt

stgstrata	hunt(Hunted during season?)			
Frequency				
Percent				
Row Pct				
Col Pct	yes	no		Total
Will not hunt	2	166		168
	0.07	5.89		5.96
	1.19	98.81		
	2.27	6.08		
Somewhat likely	29	1825		1854
	1.03	64.72		65.74
	1.56	98.44		
	32.95	66.80		
Very likely	57	741		798
	2.02	26.28		28.30
	7.14	92.86		
	64.77	27.12		
Total	88	2732		2820
	3.12	96.88		100.00

**Satisfied with Hunt?**

satisfy	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly Dis.	11	12.50	11	12.50
Somewhat Dis.	3	3.41	14	15.91
Slightly Dis.	3	3.41	17	19.32
Neutral	3	3.41	20	22.73
Slightly Sat.	7	7.95	27	30.68
Somewhat Sat.	21	23.86	48	54.55
Strongly Sat.	40	45.45	88	100.00

**Feel Crowded?**

crowded	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Not at all	73	82.95	73	82.95
Slightly	9	10.23	82	93.18
Moderately	5	5.68	87	98.86
Extremely	1	1.14	88	100.00

**Possibly Hunting Another Species**

other	Frequency	Percent	Cumulative Frequency	Cumulative Percent
No	1	100.00	1	100.00

**Total Harvest**

totharv	Frequency	Percent	Cumulative Frequency	Cumulative Percent
0	42	47.73	42	47.73
1	7	7.95	49	55.68
2	17	19.32	66	75.00
3	5	5.68	71	80.68
4	11	12.50	82	93.18
5	2	2.27	84	95.45
6	2	2.27	86	97.73
10	1	1.14	87	98.86
20	1	1.14	88	100.00

Counties hunted in sample -- some are closed!

**County Hunted**

county	Frequency	Percent	Cumulative Frequency	Cumulative Percent
--------	-----------	---------	-------------------------	-----------------------

Grand	1	1.12	1	1.12
Moffat	16	17.98	17	19.10
Rio Blanco	7	7.87	24	26.97
Routt	65	73.03	89	100.00

**Estimates by Hunt Strata**

<b>stgstrata</b>	<b>Estimated Hunters</b>	<b>SE(Hunters)</b>	<b>LCI (Hunters)</b>	<b>UCI (Hunters)</b>
Will not hunt	55	38	-20	130
Somewhat likely	109	17	75	143
Very likely	85	6	72	97
<b>Total</b>	<b>249</b>	<b>42</b>	<b>166</b>	<b>332</b>

<b>Estimated Days Hunted</b>	<b>SE(Days Hunted)</b>	<b>LCI(Days Hunted)</b>	<b>UCI(Days Hunted)</b>	<b>Estimated Harvest</b>	<b>SE(Harvest)</b>
55	38	-20	130	0	0
285	54	180	390	94	28
273	28	218	329	189	24
<b>614</b>	<b>72</b>	<b>473</b>	<b>754</b>	<b>282</b>	<b>37</b>

<b>LCI (Harvest)</b>	<b>UCI (Harvest)</b>	<b>Not Retrieved</b>	<b>SE(Not Ret.)</b>	<b>LCI(Not. Ret.)</b>	<b>UCI(Not. Ret.)</b>
0	0	0	0	0	0
39	149	11	7	-3	25
141	237	9	3	4	14
<b>209</b>	<b>356</b>	<b>20</b>	<b>8</b>	<b>5</b>	<b>35</b>

**Estimates of Hunter Number, Harvest, and Days Hunted by County**

<b>County</b>	<b>Estimated Hunters</b>	<b>SE(Hunters)</b>	<b>LCI (Hunters)</b>	<b>UCI (Hunters)</b>	<b>Estimated Days Hunted</b>
Grand	4	3	-3	10	11
Moffat	36	8	20	52	92
Rio Blanco	22	7	7	36	71
Routt	187	41	107	267	439
<b>State Total</b>	<b>249</b>	<b>42</b>	<b>166</b>	<b>332</b>	<b>614</b>

<b>SE(Days Hunted)</b>	<b>LCI(Days Hunted)</b>	<b>UCI(Days Hunted)</b>	<b>Estimated Harvest</b>	<b>SE(Harvest)</b>	<b>LCI (Harvest)</b>
10	-8	30	15	13	-10
25	42	142	35	11	13
25	22	121	43	20	4
61	319	560	189	27	137
<b>72</b>	<b>473</b>	<b>754</b>	<b>282</b>	<b>37</b>	<b>209</b>

<b>UCI (Harvest)</b>	<b>Not Retrieved</b>	<b>SE(Not Ret.)</b>	<b>LCI(Not. Ret.)</b>	<b>UCI(Not. Ret.)</b>
40	8	6	-5	20
57	3	2	-0	6
83	4	3	-3	10
241	6	2	2	10
<b>356</b>	<b>20</b>	<b>8</b>	<b>5</b>	<b>35</b>

**Estimates of Hunter Numbers, Harvest, and Days Hunted by Population**

11=North Routt 12=South Routt 13=Moffat 14=Rio Blanco

<b>Population</b>	<b>Estimated Hunters</b>	<b>SE(Hunters)</b>	<b>LCI (Hunters)</b>	<b>UCI (Hunters)</b>	<b>Estimated Days Hunted</b>
Unknown	4	3	-3	10	11
North Routt	116	29	59	172	317
South Routt	75	29	18	131	127
Moffat	31	8	15	47	84
Rio Blanco	23	7	9	38	74
<b>State Total</b>	<b>249</b>	<b>42</b>	<b>166</b>	<b>332</b>	<b>614</b>

<b>SE(Days Hunted)</b>	<b>LCI(Days Hunted)</b>	<b>UCI(Days Hunted)</b>	<b>Estimated Harvest</b>	<b>SE(Harvest)</b>	<b>LCI (Harvest)</b>
10	-8	30	15	13	-10
49	221	412	167	25	117

38	53	201	31	9	14
25	35	134	25	10	4
25	25	124	45	20	6
<b>72</b>	<b>473</b>	<b>754</b>	<b>282</b>	<b>37</b>	<b>209</b>

<u>UCI</u> <u>(Harvest)</u>	<u>Not</u> <u>Retrieved</u>	<u>SE(Not</u> <u>Ret.)</u>	<u>LCI(Not.</u> <u>Ret.)</u>	<u>UCI(Not.</u> <u>Ret.)</u>
40	8	6	-5	20
216	3	1	1	5
49	3	2	-0	6
45	3	2	-0	6
84	4	3	-3	10
<b>356</b>	<b>20</b>	<b>8</b>	<b>5</b>	<b>35</b>